should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described in this document remains at the sole discretion of Oracle.

This document in any form, software or printed matter, contains proprietary information that is the exclusive property of Oracle. Your access to and use of this confidential material is subject to the terms and conditions of your Oracle Master Agreement, Oracle License and Services Agreement, Oracle PartnerNetwork Agreement, Oracle distribution agreement, or other license agreement which has been executed by you and Oracle and with which you agree to comply. This document and information contained herein may not be disclosed, copied, reproduced, or distributed to anyone outside Oracle without prior written consent of Oracle. This document is not part of your license agreement nor can it be incorporated into any contractual agreement with Oracle or its subsidiaries or affiliates.

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Sample Code

Oracle may provide sample code in SuiteAnswers, the Help Center, User Guides, or elsewhere through help links. All such sample code is provided “as is” and “as available”, for use only with an authorized NetSuite Service account, and is made available as a SuiteCloud Technology subject to the SuiteCloud Terms of Service at www.netsuite.com/tos.

Oracle may modify or remove sample code at any time without notice.

No Excessive Use of the Service

As the Service is a multi-tenant service offering on shared databases, Customer may not use the Service in excess of limits or thresholds that Oracle considers commercially reasonable for the Service. If Oracle reasonably concludes that a Customer's use is excessive and/or will cause immediate or ongoing performance issues for one or more of Oracle's other customers, Oracle may slow down or throttle Customer's excess use until such time that Customer's use stays within reasonable limits. If Customer's particular usage pattern requires a higher limit or threshold, then the Customer should procure a subscription to the Service that accommodates a higher limit and/or threshold that more effectively aligns with the Customer's actual usage pattern.

Beta Features

Oracle may make available to Customer certain features that are labeled “beta” that are not yet generally available. To use such features, Customer acknowledges and agrees that such beta features are subject to the terms and conditions accepted by Customer upon activation of the feature, or in the absence of such terms, subject to the limitations for the feature described in the User Guide and as follows: The beta feature is a prototype or beta version only and is not error or bug free and Customer agrees that it will use the beta feature carefully and will not use it in any way which might result in any loss, corruption or unauthorized access of or to its or any third party's property or information. Customer must promptly report to Oracle any defects, errors or other problems in beta features to support@netsuite.com or other designated contact for the specific beta feature. Oracle cannot guarantee the continued availability of such beta features and may substantially modify or cease providing such beta features without entitling Customer to any refund, credit, or other compensation. Oracle makes no representations or warranties regarding functionality or use of beta features and Oracle shall have no liability for any lost data, incomplete data, re-run time, inaccurate input, work delay, lost profits or adverse effect on the performance of the Service resulting from the use of beta features. Oracle's standard service levels, warranties and related commitments regarding the Service shall not apply to beta features and they may not be fully supported by Oracle's customer support. These limitations and exclusions shall apply until the date that Oracle at its sole option makes a beta feature generally available to its customers and partners as part of the Service without a “beta” label.
Send Us Your Feedback

We'd like to hear your feedback on this document.

Answering the following questions will help us improve our help content:

- Did you find the information you needed? If not, what was missing?
- Did you find any errors?
- Is the information clear?
- Are the examples correct?
- Do you need more examples?
- What did you like most about this document?

Click [here](#) to send us your comments. If possible, please provide a page number or section title to identify the content you're describing.

To report software issues, contact NetSuite Customer Support.
# Table of Contents

NetSuite Account Administration ........................................................................................................... 1
Guidelines for NetSuite Administrators ................................................................................................. 3
  Initial Implementation of NetSuite ........................................................................................................ 3
  NetSuite Application Maintenance ......................................................................................................... 8
  Management of NetSuite Releases ....................................................................................................... 9
NetSuite IP Addresses ........................................................................................................................... 11
Centers Overview ...................................................................................................................................... 13
NetSuite Standard Centers ....................................................................................................................... 13
  Pages Common to all Centers .................................................................................................................. 16
    The Home Page .................................................................................................................................. 16
    The Activities Page ............................................................................................................................ 17
    The Documents Page ......................................................................................................................... 18
    The Setup Page .................................................................................................................................. 18
    The NetSuite Account Center ......................................................................................................... 19
    The Classic Center ............................................................................................................................ 21
    The E-Commerce Management Center ............................................................................................ 22
    The Support Center ............................................................................................................................ 22
    The Sales Center ............................................................................................................................... 22
Enabling Features ...................................................................................................................................... 24
  General Company Features ................................................................................................................ 24
  Accounting Features ........................................................................................................................... 28
  Tax Features .......................................................................................................................................... 32
  Transaction-Related Features .............................................................................................................. 32
  Items and Inventory Features ............................................................................................................. 35
  Employee and Payroll Features ......................................................................................................... 38
  CRM and SFA Features ...................................................................................................................... 41
  Analytics Features ............................................................................................................................. 43
  Commerce Features .......................................................................................................................... 44
  SuiteCloud Features .......................................................................................................................... 46
NetSuite Company Settings ...................................................................................................................... 49
  Configuring Company Information .................................................................................................. 49
Set Company Preferences ......................................................................................................................... 55
  NetSuite Preference Levels Overview .............................................................................................. 55
  Setting General Account Preferences ............................................................................................. 56
  Overriding Company Preferences .................................................................................................... 63
  Configuring Multiple Languages ....................................................................................................... 64
  Center Logout Pages .......................................................................................................................... 65
  Custom Preferences ........................................................................................................................... 66
  Accounting Contexts .......................................................................................................................... 66
  Date Formats ........................................................................................................................................ 68
  Number Formats .................................................................................................................................. 70
Renaming Records and Transactions ....................................................................................................... 72
Set Auto-Generated Numbers .................................................................................................................. 74
  Records and Transactions Available for Auto-Numbering ................................................................ 80
  Transaction Numbering Audit Log ..................................................................................................... 86
Setting Up States, Provinces, and Counties ............................................................................................... 86
Supported Countries ................................................................................................................................ 88
Setting Printing and Fax Preferences .................................................................................................... 88
Setting Email Preferences ....................................................................................................................... 92
  Email Spam Guidelines ...................................................................................................................... 97
Setting Up Duplicate Detection .............................................................................................................. 98
NetSuite Account Information ................................................................................................................ 102
Antivirus Scanning on File Cabinet Files ............................................................................................... 103
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Information (PI) Removal</td>
<td>208</td>
</tr>
<tr>
<td>DMARC-Compliant Messaging in NetSuite</td>
<td>176</td>
</tr>
<tr>
<td>Scriptable Templates</td>
<td>163</td>
</tr>
<tr>
<td>Internal Controls in NetSuite</td>
<td>194</td>
</tr>
<tr>
<td>Tracking Changes in NetSuite</td>
<td>178</td>
</tr>
<tr>
<td>Auditing Master Data and Configuration Changes in NetSuite</td>
<td>178</td>
</tr>
<tr>
<td>System Notes v2 Workbook</td>
<td>186</td>
</tr>
<tr>
<td>System Notes v2 Dataset Template</td>
<td>190</td>
</tr>
<tr>
<td>System Notes v2 Workbook Template</td>
<td>190</td>
</tr>
<tr>
<td>Auditing Account Preferences</td>
<td>190</td>
</tr>
<tr>
<td>Documenting Changes</td>
<td>191</td>
</tr>
<tr>
<td>Audit Enablement</td>
<td>192</td>
</tr>
<tr>
<td>Internal Controls in NetSuite v2</td>
<td>194</td>
</tr>
<tr>
<td>Internal Controls that Require Basic Configuration</td>
<td>196</td>
</tr>
<tr>
<td>Managing Transactions</td>
<td>199</td>
</tr>
<tr>
<td>Recording a Reason for Deleting a Transaction</td>
<td>199</td>
</tr>
<tr>
<td>Reviewing Transaction History</td>
<td>200</td>
</tr>
<tr>
<td>Transaction System Information and Communication Subtabs</td>
<td>200</td>
</tr>
<tr>
<td>Granting User Access to Transaction History</td>
<td>201</td>
</tr>
<tr>
<td>Viewing Transaction System Notes</td>
<td>202</td>
</tr>
<tr>
<td>Using the Transaction Audit Trail</td>
<td>202</td>
</tr>
<tr>
<td>Tracking Financial Account Changes</td>
<td>204</td>
</tr>
<tr>
<td>Line-Level Audit Trail for Transactions</td>
<td>205</td>
</tr>
<tr>
<td>Transaction Line-Level History Window</td>
<td>206</td>
</tr>
<tr>
<td>Personal Information (PI) Removal</td>
<td>208</td>
</tr>
<tr>
<td>Enabling the Remove Personal Information Feature</td>
<td>209</td>
</tr>
<tr>
<td>Reviewing PI Removal Requests</td>
<td>209</td>
</tr>
<tr>
<td>Creating and Approving a New PI Removal Request</td>
<td>210</td>
</tr>
<tr>
<td>Checking PI Removal Results in the System Notes</td>
<td>212</td>
</tr>
<tr>
<td>Auditing Data Changes using Searches</td>
<td>213</td>
</tr>
<tr>
<td>Searching System Notes</td>
<td>213</td>
</tr>
<tr>
<td>Viewing an Audit Trail for a Record Type</td>
<td>215</td>
</tr>
<tr>
<td>Searching for Deleted Records</td>
<td>215</td>
</tr>
<tr>
<td>Understanding the Context for Changes</td>
<td>217</td>
</tr>
<tr>
<td>Avoiding Duplicates</td>
<td>221</td>
</tr>
<tr>
<td>Avoiding Duplicate Transaction Numbers</td>
<td>221</td>
</tr>
<tr>
<td>Duplicate Transaction Number Warnings</td>
<td>221</td>
</tr>
<tr>
<td>Using Auto-Generated Numbering for Transactions</td>
<td>222</td>
</tr>
<tr>
<td>Avoiding Duplicate Processing of Memorized Transactions</td>
<td>222</td>
</tr>
<tr>
<td>Oracle Database Update FAQ</td>
<td>224</td>
</tr>
<tr>
<td>Data Center Reference Documentation</td>
<td>225</td>
</tr>
<tr>
<td>NetSuite Accounts Are Hosted in the Cloud</td>
<td>225</td>
</tr>
<tr>
<td>Understanding NetSuite URLs</td>
<td>229</td>
</tr>
<tr>
<td>URLs for Account-Specific Domains</td>
<td>230</td>
</tr>
</tbody>
</table>
NetSuite Account Administration

Review the following subject areas in the NetSuite administrator documentation for guidance in administering your NetSuite account:

- **Account Setup**
  - Centers Overview
  - Enabling Features
  - NetSuite Company Settings
  - Classifications in NetSuite
  - REST Services Overview
  - Approval Routing

- **Managing Users and Roles**
  - NetSuite Access Overview
  - NetSuite Roles Overview
  - NetSuite Users Overview
  - NetSuite Permissions Overview
  - Advanced Employee Permissions

- **NetSuite OneWorld**
  - Introduction to NetSuite OneWorld
  - Subsidiaries in OneWorld
  - Subsidiary Setup
  - Set up NetSuite OneWorld
  - Associate Subsidiaries with Entities and Items
  - Automated Intercompany Management
  - Consolidated Reporting in OneWorld
  - Subsidiary Navigator
  - OneWorld ERP Accounting
  - OneWorld CRM
  - OneWorld and SuiteCommerce

- **Localization**
  - Internationalization Overview
  - Internationalization Glossaries
  - About Localization Features
  - Manage Translations (Beta)

- **Email for Administrators**
  - DomainKeys Identified Mail (DKIM)
  - Email Blacklists and Spamlists
  - Scriptable Templates
  - DMARC-Compliant Messaging in NetSuite

- **Authentication**
Authentication Overview
Password Requirements and Policies in NetSuite
Session Management in NetSuite
NetSuite Login Pages
Enabling and Creating IP Address Rules
Token-based Authentication (TBA)
Two-Factor Authentication (2FA)
Device ID Authentication
Outbound Single Sign-on (SuiteSignOn)
Inbound Single Sign-on
SAML Single Sign-on
OpenID Single Sign-on
Digital Signing
RESTlet Authentication

CSV Imports
CSV Imports Overview
Importing CSV Files with the Import Assistant
Guidelines for CSV Import Files
CSV Import Error Messages
Additional Import and Export Options

Auditing and Data Management
Tracking Changes in NetSuite
Internal Controls in NetSuite
Managing Transactions
Auditing Data Changes using Searches
Avoiding Duplicates

Data Storage
Oracle Database Update
NetSuite Data Centers

NetSuite Account Types
Understanding NetSuite Account Types
NetSuite Sandbox
NetSuite Development Accounts

Performance
Application Performance Management (APM)
Optimizing Performance for Users
Troubleshooting Performance Issues
Performance Best Practices
Guidelines for NetSuite Administrators

NetSuite account administrators are important contacts for NetSuite. For each account, users with the Administrator role:

- Oversee the initial implementation of the NetSuite application, including setup, security, user roles, and data migrations
- Configure and customize NetSuite, both for the initial NetSuite implementation and on an ongoing basis
- Manage the ongoing administration of the NetSuite application, including helping users and ensuring system health and performance
- Refresh sandbox accounts as required
- Manage NetSuite releases

Refer to the following sections for some of the key tasks performed by administrators:

- **Initial Implementation of NetSuite**
  - Account Setup
  - Security and Authentication Setup
  - Users, Roles, and Permissions Setup
  - System Integrations
  - Data Migrations
  - Customizations
  - Sandbox Management
- **NetSuite Application Maintenance**
  - Help Users and Maintain User Access
  - Ensure System Health
- **Management of NetSuite Releases**
  - Release Delivery
  - Release Preparation

For links to other NetSuite help topics for account administrators, see NetSuite Account Administration.

**Initial Implementation of NetSuite**

Users with the Administrator role oversee the initial implementation of the NetSuite application, working with the NetSuite team. Implementation tasks include:

- Account Setup
- Security and Authentication Setup
- Users, Roles, and Permissions Setup
- System Integrations
- Data Migrations
- Customizations
- Sandbox Management
Account Setup

Setup tasks for your NetSuite account are described in the following table.

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a login page to display your company’s branding on the NetSuite account login page.</td>
<td>Displaying Login Fields on Your Web Page</td>
</tr>
<tr>
<td>Ensure that your NetSuite account and related integrations are data center agnostic.</td>
<td>NetSuite Accounts Are Hosted in the Cloud</td>
</tr>
<tr>
<td>Determine the customizations required by your organization based on business needs.</td>
<td>SuiteCloud Platform Customization</td>
</tr>
<tr>
<td>Ensure that your global subscription status adheres to the regulations in the recipient’s jurisdiction. The email opt-in status in the Global Subscription Status field specifies whether customers can receive email messages sent through campaigns and email merge operations.</td>
<td>Subscription Management</td>
</tr>
</tbody>
</table>

Security and Authentication Setup

NetSuite administrators determine how users and client applications access NetSuite.

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set a strong password policy for users who access your account.</td>
<td>Password Settings That Can Be Modified</td>
</tr>
<tr>
<td>Set the appropriate password requirements for your organization.</td>
<td>Password Requirements and Policies in NetSuite</td>
</tr>
<tr>
<td>Set up two-factor authentication for users that handle confidential data.</td>
<td>Two-Factor Authentication (2FA)</td>
</tr>
<tr>
<td>Set up token-based authentication to allow client applications access to NetSuite through APIs.</td>
<td>Token-based Authentication (TBA)</td>
</tr>
<tr>
<td>Determine and implement the appropriate single sign-on option for your organization.</td>
<td>Authentication Overview</td>
</tr>
</tbody>
</table>

Users, Roles, and Permissions Setup

Employees, vendors, partners, and customers are users who may require access to your NetSuite account. Create custom roles for your organization, and add any permissions and restrictions required to the appropriate roles.

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give employees only the amount of access they need.</td>
<td>NetSuite Access Overview</td>
</tr>
<tr>
<td>Never assign standard roles to users. Customize standard roles and assign custom roles to users.</td>
<td>Showing Role Permission Differences</td>
</tr>
<tr>
<td>Create roles for each job function. You can assign multiple roles to users with multiple job functions.</td>
<td>Customizing or Creating NetSuite Roles</td>
</tr>
<tr>
<td>Carefully consider the permissions assigned to a role and use restrictions when necessary to further control access to a record.</td>
<td>Permissions and Restrictions</td>
</tr>
<tr>
<td>Task</td>
<td>More Information</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>Do not use the Full Access role.</td>
<td>Full Access Role</td>
</tr>
<tr>
<td>Assign Core Administration Permissions to roles as needed.</td>
<td>Core Administration Permissions</td>
</tr>
<tr>
<td>We highly recommend users not to use the Global Permissions Feature. Only use the Global Permissions Feature to assign permissions to employees if needed. Whenever possible, you should use permissions and restrictions instead of global permissions.</td>
<td>Using the Global Permissions Feature</td>
</tr>
</tbody>
</table>

**Note:** Global permissions apply to every role assigned to an employee.

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set preferences that tailor the NetSuite account to the needs of a particular role, if needed.</td>
<td>Setting Role-Based Preferences</td>
</tr>
<tr>
<td>Assign the Financial History permission to any role that requires access to customer or vendor transaction information.</td>
<td>Granting User Access to Transaction History</td>
</tr>
<tr>
<td>Understand how the Advanced Employee Permissions feature changes access to the employee record.</td>
<td>Before Enabling the Advanced Employee Permissions Feature</td>
</tr>
<tr>
<td>Assign each role being used to yourself and test the role. Verify that the role has all permissions and access to necessary data from beginning to end of a required process.</td>
<td>Permissions Documentation</td>
</tr>
<tr>
<td>Assign custom roles to users before they start accessing the account.</td>
<td>Assigning Roles to an Employee</td>
</tr>
<tr>
<td>Create user records.</td>
<td>NetSuite Users Overview</td>
</tr>
<tr>
<td></td>
<td>Working with Records</td>
</tr>
<tr>
<td>Give new users access.</td>
<td>Giving an Employee Access to NetSuite</td>
</tr>
<tr>
<td></td>
<td>Giving Customers Access</td>
</tr>
<tr>
<td>Ensure that users know how to find help.</td>
<td>Tips for Help Center and SuiteAnswers</td>
</tr>
<tr>
<td></td>
<td>Getting Help</td>
</tr>
<tr>
<td>Immediately remove employees' access to NetSuite when they leave.</td>
<td>Terminating an Employee</td>
</tr>
</tbody>
</table>

### System Integrations

To integrate NetSuite with information from other systems, you can use:

- CSV Import
- Web Services
- RESTlets

### CSV Import

Use the Import Assistant in CSV import for small- to medium-sized data imports. If you save the import mapping, you can reuse it for later import jobs and to programmatically import CSV file data. For more information, see Data Migrations.
Web Services

Use web services for large or ongoing data migration, and for migrating data for record types not currently supported for CSV import.

Use SOAP web services to regularly bring large amounts of data into NetSuite or send large amounts of data out of NetSuite. With SuiteTalk SOAP Web Services, you can develop your integration using the language of your choice.

REST web services provide a REST-based interface for interacting with NetSuite without coding.

RESTlets

A RESTlet is a SuiteScript that executes when called by an external application or by another SuiteScript. RESTlets offer ease of adoption for developers familiar with SuiteScript.

NetSuite requires authentication for RESTlets, which can retrieve, add, or manipulate data within NetSuite from an external source. The RESTful integration supports stateless communication between client and server.

Refer to the following table for more information about the system integration tools.

<table>
<thead>
<tr>
<th>Tool</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSV import for small to medium-sized data imports.</td>
<td>CSV Imports Overview</td>
</tr>
<tr>
<td>Web services for large or ongoing data migration projects.</td>
<td>SuiteTalk SOAP Web Services Platform Overview SuiteTalk REST Web Services Overview and Setup</td>
</tr>
<tr>
<td>RESTlets to create custom logic and make it available to external applications over HTTP.</td>
<td>SuiteScript 2.0 Getting Started with RESTlets</td>
</tr>
</tbody>
</table>

Data Migrations

You will need to migrate some company information from your other system into NetSuite. In addition to being used for system integrations, comma-separated value (CSV) import is the most commonly-used method for transferring small to medium-sized data sets from other applications into NetSuite. The CSV import process saves time and prevents errors because the import can add or update many records at one time, avoiding the need for manual data entry.

Use web services for large or ongoing data migration projects and for migrating data for record types not currently supported for CSV import. For information, see System Integrations.

Review the following tasks and the detailed information available to prepare for migrating your company's data.

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrub your data before importing it, and adjust CSV file data to conform to NetSuite file conventions and record types.</td>
<td>Guidelines for CSV Import Files</td>
</tr>
<tr>
<td>Save related data in separate CSV files, for example, save employee data in one file. There is one exception to this guideline: import customers, prospects, and leads with contacts.</td>
<td>Importing Entities and Contacts Together</td>
</tr>
<tr>
<td>Follow these best practices when performing CSV imports:</td>
<td></td>
</tr>
</tbody>
</table>
### Task
- Perform test imports with a sample set of data first, starting with two or three records.
- Break large jobs into smaller pieces to improve performance. The record limit per imported file is 25,000.
- Perform import tasks during off-peak hours.

When importing transactions:
- Do not import large volumes of historical transactions – your storage space may be limited. For information about the space allowed for your account, contact your account manager.
- Imported transactions behave as if they were created in the user interface. If you import an invoice or vendor bill with inventory items, that transaction affects the inventory.

When you import open accounts payable and accounts receivable transactions, make sure the amounts are not duplicated in the account balances you import later.

### Customizations

To support your organization's business processes, you may need to create customizations to add functionality to NetSuite prior to implementation. After your initial implementation of NetSuite, administrators are required to provide ongoing technical and system administration support to users. Additional configuration and integration may be necessary as the needs of the organization change over time.

Before customizing, identify what is unique to your business and what is needed to support your business practices. Then, assess whether the required functionality exists in NetSuite.

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan, review, and design before you create customizations to meet user needs. The SuiteCloud platform supports a number of tools you can use to adapt NetSuite for your organization:</td>
<td>SuiteCloud Platform Customization</td>
</tr>
<tr>
<td>- Customize the NetSuite UI and business logic through scripting or through point-and-click options in the UI.</td>
<td></td>
</tr>
<tr>
<td>- Search and report on NetSuite data.</td>
<td></td>
</tr>
<tr>
<td>- Create custom roles to ensure users access only the tasks and pages needed for their jobs.</td>
<td></td>
</tr>
<tr>
<td>- Share your customizations with other accounts.</td>
<td></td>
</tr>
<tr>
<td>- Integrate information from other systems into your NetSuite accounts.</td>
<td></td>
</tr>
<tr>
<td>Limit the number of users who can add customizations.</td>
<td>Permissions Documentation</td>
</tr>
</tbody>
</table>

Establish naming conventions for your customizations so that users can identify the correct object to use.

<table>
<thead>
<tr>
<th>Custom fields:</th>
<th>Custom Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Suggested naming convention: _abbreviation_description.</td>
<td></td>
</tr>
<tr>
<td>- Use the Description field to provide business reasons for the field, who asked for it, and any notes.</td>
<td></td>
</tr>
<tr>
<td>- Enter field level help in the Help field on the Display subtab to instruct users about what information to enter in the field.</td>
<td></td>
</tr>
</tbody>
</table>
Custom forms:

- Use the standard forms provided with your NetSuite account as templates for custom forms that will better suit your business needs. For example, you may want to reorganize subtabs or change field names to match your organization's workflow and terminology. After you create the custom forms, set them as your preferred forms.
- Specify on a particular custom form that the custom field is mandatory for that form only if a custom field is not always mandatory.

Custom records:

- Create and save your custom record first, and then add fields.
- Test incrementally as you work with custom records and objects.
- Use permissions only when the record is ready to be used.

Develop functional tests to test your organization's business processes in NetSuite.

Sandbox Management

A NetSuite sandbox is a safe and isolated test account in which you can develop and test new applications and customizations without affecting your production account. Your organization's sandbox account has the same configuration, data, and customizations as your production account.

The administrator requests the refresh the sandbox as required to ensure that developers are working in an up-to-date account.

NetSuite Application Maintenance

Your NetSuite application requires ongoing monitoring and maintenance. Tasks that administrators perform as part of routine maintenance include:

- **Help Users and Maintain User Access**
- **Ensure System Health**
Help Users and Maintain User Access

Administrators are the point of contact for users, providing ongoing technical and system administration support to users. Administrators assist users with tasks described in the following table.

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Act as the point of contact for end users, and provide users with resources to consult when they have questions about NetSuite.</td>
<td>Getting Help</td>
</tr>
<tr>
<td>Ensure system adoption by users and increase user satisfaction through training and support.</td>
<td>SuiteAnswers Overview</td>
</tr>
<tr>
<td></td>
<td>SuiteAnswers</td>
</tr>
<tr>
<td>Assist users with data extraction using searches and reports.</td>
<td>Saved Searches</td>
</tr>
<tr>
<td>Use NetSuite's business intelligence tools to help you and your users get the most out of your data.</td>
<td>Reporting Overview</td>
</tr>
<tr>
<td></td>
<td>Dashboards Overview</td>
</tr>
<tr>
<td></td>
<td>Key Performance Indicators Overview</td>
</tr>
<tr>
<td></td>
<td>SuiteAnalytics Workbook Overview</td>
</tr>
<tr>
<td></td>
<td>SuiteAnalytics Connect</td>
</tr>
<tr>
<td></td>
<td>Troubleshoot Undelivered Email</td>
</tr>
<tr>
<td>Regularly analyze logs for undelivered email messages.</td>
<td></td>
</tr>
<tr>
<td>Reset user passwords when requested</td>
<td>User Access Reset Tool</td>
</tr>
<tr>
<td>Work with NetSuite Customer Support to resolve issues. When you contact support, ensure that you know your account ID.</td>
<td>NetSuite Support</td>
</tr>
<tr>
<td></td>
<td>Finding Your NetSuite Account ID</td>
</tr>
</tbody>
</table>

Ensure System Health

Regularly monitor the NetSuite application to ensure the health of your system.

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure the quality of account data and monitor changes made to NetSuite data by performing regular data audits.</td>
<td>Auditing Data Changes using Searches</td>
</tr>
<tr>
<td>Resolve data integrity issues.</td>
<td>Avoiding Duplicates</td>
</tr>
<tr>
<td>Review the Login Audit Trail regularly, particularly the Security Challenge column, to determine if unauthorized people are trying to access the system.</td>
<td>Login Audit Trail Overview</td>
</tr>
<tr>
<td>Audit roles and permissions using saved searches.</td>
<td>Use Searches to Audit Roles and Permissions</td>
</tr>
<tr>
<td>Monitor SuiteScript usage with saved searches.</td>
<td>Defining a Saved Search</td>
</tr>
<tr>
<td>Monitor and optimize NetSuite performance.</td>
<td>Optimizing Performance for Users</td>
</tr>
</tbody>
</table>

Management of NetSuite Releases

NetSuite provides two major releases each year. Administrators play a key role in ensuring a successful upgrade for their organization.
Release Delivery

NetSuite delivers changes to customers in one of three ways:

- **Major release** – NetSuite features two major releases each year. For all major releases of NetSuite, customers are upgraded in phases over a period of a few months.
  
  Before the upgrade, customers can request access to a Release Preview account to test the new features using their data and business processes. For more information, see the help topic The New Release Process.

- **E-fix** – An e-fix is a scheduled maintenance release used to resolve customer–reported issues that do not require immediate attention but should be fixed prior to a major release. Each e-fix is rolled out to all customers at the same time. For more information, see e-Fix Release Notification.

- **Hot push** – A hot push is an update that occurs outside of the release schedule to fix critical customer–reported issues that cannot wait for the next scheduled e-fix. A hot push is typically rolled out to a specific customer or set of customers.

Release Preparation

Prepare your organization for the two major NetSuite releases each year.

<table>
<thead>
<tr>
<th>Task</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn the New Release process, review the release notes, and monitor the New Release portlet on your dashboard.</td>
<td>The New Release Process</td>
</tr>
<tr>
<td></td>
<td>Release Notes</td>
</tr>
<tr>
<td></td>
<td>About New Release Resources</td>
</tr>
<tr>
<td>Find the latest release news and training in SuiteAnswers.</td>
<td>SuiteAnswers Overview</td>
</tr>
<tr>
<td></td>
<td>SuiteAnswers</td>
</tr>
<tr>
<td>Develop tests, functional testing, and rollout of application releases.</td>
<td>Release Preview Test Plan</td>
</tr>
<tr>
<td>Log in to your Release Preview account several weeks before your upgrade date to prepare, preview, and manage your release upgrade. Access Release Preview to test the new features using your data and business processes. Use Release Preview to increase the chance of identifying any potential problems before you upgrade to the new release.</td>
<td>Release Preview Availability</td>
</tr>
<tr>
<td></td>
<td>Release Preview Notifications</td>
</tr>
<tr>
<td>Report issues that you find during testing from your Release Preview account.</td>
<td>How to Report Release Preview Issues</td>
</tr>
</tbody>
</table>
NetSuite IP Addresses

We do not support the use of NetSuite IP addresses to access or manage access to any NetSuite services. Using IP addresses to manage access to NetSuite is sometimes called whitelisting. Using IP addresses (either as part of a URL or in your Domain Name Server, or DNS) to access NetSuite services prevents dynamic DNS routing.

NetSuite Customer Support will not provide you with a list of services or IP addresses for outbound communication from NetSuite. You should not modify routing to NetSuite services by using IP addresses manually resolved from DNS.

**Note:** IP addresses for outbound communication from NetSuite are not documented in the NetSuite Help Center or in SuiteAnswers.

If, despite our recommendations, you choose to use IP addresses to access or manage access to NetSuite services in firewall or proxy configuration, it is your responsibility to update these settings when NetSuite IP address ranges change.

Ensure that you understand the following:

- The IP addresses of NetSuite services may change at any time without notice.
- Customer Support will not provide a list of NetSuite IP addresses.
- Customer Support will not be able to assist you when your integration breaks due to a change in NetSuite IP addresses.
- If you decide to deploy a firewall, ensure that you have the resources to make it work in cloud environment.
- Using IP addresses to directly access NetSuite services can result in unpredictable service outages or significant performance degradation.

Managing Access to NetSuite Services

You should not rely on methods that require explicit reference to any NetSuite IP address. Modifying the results of DNS translation prevents optimal resource allocation. This practice can cause unpredictable service outages or performance degradation. Rather than whitelisting, there are better, more secure, and less fragile methods to protect your account from unauthorized access.

See the following for more information about managing access to NetSuite services.

**Inbound**

- User access to NetSuite, see the help topic Two-Factor Authentication (2FA).
- SOAP web services, see the help topic Integration Record Overview. See also Token-based Authentication (TBA).
- RESTlets, see the help topic Token-based Authentication (TBA), and OAuth 2.0.
- REST web services, see the help topic Authentication for REST Web Services.
- Client application access to NetSuite, see the help topic Token-based Authentication (TBA).
- Access to NetSuite through SuiteAnalytics Connect (ODBC), see the help topic Authentication Using Server Certificates for ODBC.
- Websites and web stores, see the help topic Point your Domain Name at your Domain (DNS Settings).

**Outbound**
Outbound HTTPS calls from NetSuite using SuiteScript 2.0: Improve the security of integrations and customizations that use the N/https Module for outbound HTTPS calls from NetSuite to a third-party server. Your integrations and customizations should use client certificates for outbound HTTPS calls. Client certificates ensure authenticity of the traffic source. See the help topic N/https/clientCertificate Module.

Access to an external SFTP server from NetSuite, see the help topic SSH Keys for SFTP. See also SFTP Authentication.

Email services, see the help topic Email Best Practices.

To access a NetSuite service (routing), see Understanding NetSuite URLs. See also URLs for Account-Specific Domains and How to Transition from Data Center-Specific Domains. In cases where an application accesses more than one NetSuite account, you can use APIs for dynamic service discovery. See Dynamic Discovery of URLs for SOAP Web Services and RESTlet Clients.

Oracle NetSuite has enhanced our global distribution network by incorporating Content Delivery Networks, or CDNs. A CDN is a system of connected servers that improve application response times by caching and delivering data using the geographical proximity of a server to an end user.

**Warning:** NetSuite cannot predict the IP addresses CDN providers use to serve *.netsuite.com requests.

Due to our partnership with CDN providers, we cannot predict the IP addresses that are used to serve *.netsuite.com requests. If you are programming a firewall to accept outbound requests to NetSuite, please allow outbound requests to all *.netsuite.com entry points.

The authenticity of NetSuite services is ensured by PKI (Public Key Infrastructure) certificates.
Centers Overview

The flexible NetSuite user interface adjusts automatically to different users' business needs. For each user, NetSuite displays a variable set of tabbed pages, called a **center**, based on the user's assigned role. Each NetSuite center provides, for users with related roles, the pages and links they need to do their jobs.

Each tabbed page of each center displays a collection of real-time data called a **dashboard**. Dashboard data is displayed in a variety of dynamic data display windows called **portlets**. NetSuite allows individual users to personalize their own dashboards, and allows administrators to publish personalized dashboards to other users.

When a user logs in to NetSuite, the system determines the user's default assigned role and displays the associated center. If a user has multiple assigned roles, NetSuite provides a list of them under the dropdown arrow in the upper right corner, that can be used to change roles. When a user changes roles, the interface refreshes to display a different center as needed.

NetSuite includes several standard centers. Each standard center is designed to make the most-used links easy to find for the roles that use that center. For example, the Accounting Center's tabbed pages provide data and links that are relevant for Accountants, Bookkeepers, Payroll Managers, and Clerks.

- To review a list of standard centers and their related roles, see [NetSuite Standard Centers](#).
- To understand the special NetSuite Account Center and the special roles that can access it, see [The NetSuite Account Center](#).
- To understand the design of standard centers, see the following:
  - [The Classic Center](#)
  - [The Sales Center](#)

**Note:** If the standard Sales Center does not meet your needs, see the help topic [The Enhanced Sales Center SuiteApp](#).

- [The E-Commerce Management Center](#)
- [Pages Common to all Centers](#)

For users with business needs that do not match the setup of the standard centers, NetSuite supports customization of the user interface in the following ways:

- Create custom centers with custom tabs and links. See the help topic [Creating and Editing Custom Centers](#).
- Add custom tabs to standard or custom centers. See the help topic [Creating Center Tabs](#).
- Add custom links to standard or custom centers. See the help topic [Creating Center Links](#).
- Create custom roles that use custom centers. See the help topic [Customizing or Creating NetSuite Roles](#).

NetSuite Standard Centers

When you open NetSuite for the first time, a default set of tabbed pages, called a center, displays. The tabbed pages included in the center are based on your default assigned role.

The following table lists the NetSuite standard centers and the roles they support. Click on the links in the table links to review information specific to that center. Also, see [Pages Common to all Centers](#) for more information.
**Note:** If these centers do not meet your needs, you can modify them by adding custom tabs and links, or you can create custom centers and custom roles. For information, see the help topic Custom Centers.

<table>
<thead>
<tr>
<th>Center</th>
<th>Standard Roles in this Center</th>
<th>Pages (Tabs) Displayed</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Accounting Center</td>
<td>A/P Clerk</td>
<td>Activities</td>
</tr>
<tr>
<td></td>
<td>A/R Clerk</td>
<td>Customers</td>
</tr>
<tr>
<td></td>
<td>Accountant</td>
<td>Revenue</td>
</tr>
<tr>
<td></td>
<td>Accountant (Reviewer)</td>
<td>Vendors</td>
</tr>
<tr>
<td></td>
<td>Bookkeeper</td>
<td>Payroll and HR (Except for A/P Clerk role)</td>
</tr>
<tr>
<td></td>
<td>CFO</td>
<td>Financial</td>
</tr>
<tr>
<td></td>
<td>Payroll Manager</td>
<td>Reports</td>
</tr>
<tr>
<td></td>
<td>Revenue Accountant</td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td>Revenue Manager</td>
<td>Setup</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Payments (Payroll Manager role only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support</td>
</tr>
<tr>
<td>The Classic Center</td>
<td>Administrator</td>
<td>Activities</td>
</tr>
<tr>
<td></td>
<td>Payroll Setup</td>
<td>Payments (Payroll Setup role only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transactions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lists</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Setup</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support</td>
</tr>
<tr>
<td>The E-Commerce Management Center</td>
<td>Store Manager</td>
<td>Activities</td>
</tr>
<tr>
<td></td>
<td>Intranet Manager</td>
<td>Web Site</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sales</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contacts (Store Manager role only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Setup</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support</td>
</tr>
<tr>
<td>Engineering</td>
<td>Engineer</td>
<td>Activities</td>
</tr>
<tr>
<td></td>
<td>Engineering Manager</td>
<td>Issues</td>
</tr>
</tbody>
</table>

*Only available with the Issue Management feature.*
<table>
<thead>
<tr>
<th>Center</th>
<th>Standard Roles in this Center</th>
<th>Pages (Tabs) Displayed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support</td>
</tr>
<tr>
<td>▪ Issue Administrator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ QA Engineer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ QA Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Executive Center</td>
<td>▪ CEO</td>
<td>Activities</td>
</tr>
<tr>
<td></td>
<td>▪ CEO (Hands Off)</td>
<td>Sales</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contacts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Setup</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support</td>
</tr>
<tr>
<td>The Marketing Center</td>
<td>▪ Marketing Administrator</td>
<td>Activities</td>
</tr>
<tr>
<td></td>
<td>▪ Marketing Manager</td>
<td>Leads</td>
</tr>
<tr>
<td></td>
<td>▪ Marketing Assistant</td>
<td>Campaigns</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Setup</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support</td>
</tr>
<tr>
<td>The Project Center</td>
<td>Consultant</td>
<td>Activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time &amp; Expenses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support</td>
</tr>
<tr>
<td>The Sales Center</td>
<td>▪ Sales Administrator</td>
<td>Activities</td>
</tr>
<tr>
<td></td>
<td>▪ Sales Manager</td>
<td>Leads</td>
</tr>
<tr>
<td></td>
<td>▪ Sales Person</td>
<td>Opportunities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Forecast</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Setup</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support</td>
</tr>
<tr>
<td>Note:</td>
<td>If the standard Sales Center does not meet your needs, see the help topic The Enhanced Sales Center SuiteApp.</td>
<td></td>
</tr>
<tr>
<td>The Shipping Center</td>
<td>Warehouse Manager</td>
<td>Activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shipping</td>
</tr>
</tbody>
</table>

Administrator Guide
### Pages Common to all Centers

The following pages (or tabs) are included in all centers and are accessible to all roles:

- **The Home Page**
- **The Activities Page**

The following pages (or tabs) are not included in the Customer Center, Employee Center, Partner Center, or Vendor Center, but are included in all other centers and accessible to all other roles:

- **The Documents Page**
- **The Setup Page**

### The Home Page

The Home page displays every time you log in to NetSuite.

Some of the features the Home page are:

- A quick and easy search tool by type of record
- Key Performance Indicators that show the business statistics most important to you
- Shortcuts that link to the areas you use most
- Reminders that alert you to important things that need to be done
- Settings that include:
Adding information to your Home page
- Individual preferences for working throughout the entire NetSuite application
- A tool for synchronizing events, contacts, and tasks
- A link for changing your email and password

To set up your Home page, click Personalize. In the Add Content panel that appears, you can choose the other content items to include on your dashboard.

The Activities Page

The Activities page is used to display your calendar, events, tasks, and phone calls, and other activities. You can customize this page by adding individual portlets such as Phone Calls, Tasks, Activities Links, Calendars, Quick Add: New Events, and more. For information on personalizing your dashboard, see the help topic Adding a Portlet to a Dashboard.

For example, the Activities Links portlet provides links to quickly access various activity list pages. You can also create new records (for example: events, tasks, and phone calls) or search existing activity records.

On list pages, you can customize your view, filter the listed records, create new records, and perform other actions as appropriate for the record. Clicking Events, for example, displays a list page of your events. Your first day on the job, it might look like this:

You can view your calendar and scheduled events using the Calendar portlet. For more information, see the help topic Navigating Your Calendar.

In the Tasks and Phone Calls portlets, you can quickly create new tasks or phone calls or edit existing records.

To reorganize the portlets on the page, click and hold the upper right corner of the portlet and drag it to where you want it positioned on the page.

For more information about the various types of activities and records on this page, see:

- Working with Your Calendar and Activities
- Working with Events
- Working with CRM Tasks or Project Tasks
- Working with Phone Calls
Attaching Events, Tasks, and Calls to Records and Transactions

The Documents Page

The Documents page and navigation menu allow you to manage your documents and templates.

You can click the **Documents** tab or **Documents Overview** menu to access the NetSuite File Cabinet, where you can store and organize your business documents online and then associate them with company, customer, contact, vendor, other name, partner, task, event and case records.

In the File Cabinet, you can quickly search for, download, move, and delete existing files. You can use Add buttons to upload additional files to the File Cabinet. For more information, see the help topic **Working with the File Cabinet**.

Additional menu items on the Documents page include:

- **Files**
- **Templates** has the following menu items:
  - Email Templates: see the help topic **Working with Email Templates**.
  - Fax Templates: see the help topic **Using Fax Templates**.
  - Letter Templates: see the help topic **Using Letter Templates**.
  - PDF Templates: see the help topic **Advanced PDF/HTML Templates**
  - Select Template Files to access the template files in the File Cabinet.

For more information, see the help topic **Working with Email Templates**.

Available menu items vary based on the features you have enabled in your account. If Mail Merge is enabled in your account, see the help topic **Working with Mail Merge**.

The Setup Page

The Setup page is where NetSuite account administrators (and other users with a role granting permission) manage the details of your NetSuite account. The menu items available on the Setup page depends on your assigned role and permissions. If you are not an account administrator, many setup tasks are unavailable to you. Some menu items available on the Setup page are unique to a specific role or roles. See the following topics for information about Setup page menu items.

- **Company**: see **Set Company Preferences**.
- **Accounting**: see the help topic **General Accounting**.
- **Sales**: see the help topic **Setting Up SFA**.
- **Marketing**: see the help topic **Setting Up Marketing**.
- **Support**: see the help topic **Support Management**.
- **Issues**: see the help topic **Issue Management**. In particular, see the help topic **Setting Issue Management Preferences**.
- **Import/Export**: see the help topics **CSV Imports Overview** and **Additional Import and Export Options**.
- **Users/Roles**: See the help topic **NetSuite Users & Roles**.
- **Integration**: see the following topics:
  - Company-Wide Preferences
  - Using the SOAP Web Services Usage Log
  - SOAP Web Services Security
- Setting Up SuiteSignOn Integration (Outbound single sign-on)
- Setting Up Inbound Single Sign-on

You may also see the following menu items on the Setup page, depending on what features are enabled in your account.

- **Payroll**: depending on which payroll feature your company is using, see either NetSuite Payroll or Payroll Solutions.
- **Customization**: see the help topic Customization.
- **Site Builder**: see the help topic SuiteCommerce Site Builder. See also SuiteCommerce Overview.

### The NetSuite Account Center

The NetSuite Account Center portlet (located on the Support tab) is the access point to the NetSuite Account Center. The NetSuite Account Center enables certain employees from your company to access the customer center for your NetSuite account.

The only employees who can access the NetSuite Account Center are those assigned one of two special roles: the NetSuite Support Center role and the NetSuite Support Center (Basic) role. The account administrator must exercise good judgement when deciding which users should be assigned these roles. Access should be limited to only those employees in your company who are required to perform specific tasks related to your NetSuite account.

These special roles are not displayed in the results of a search for all roles in your account (Setup > Users/Roles > Manage Roles > Search). They are also not listed in the Standard Roles Permissions Table.

However, these roles are available in the dropdown list when assigning roles to a user. Be very sure you understand the implications of the role permissions before you assign either of these roles to users.

- NetSuite Support Center (Basic) role has no transaction permissions. Users in this role see only cases, issues, and contact Support links in the Customer Center - Home Links portlet.

- The NetSuite Support Center role has transaction permissions. Users in this role see links to make payments, review statements, transactions, and estimates, review support cases and issues, edit the user profile, and contact Support in the Customer Center - Home Links portlet.

See the following tables to compare role permissions.
Permissions: NetSuite Support Center

<table>
<thead>
<tr>
<th>View</th>
<th>Create</th>
<th>Edit</th>
<th>Full</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Deposit</td>
<td>Item Fulfillment</td>
<td>Return Authorization</td>
<td>Setup: Deleted Records</td>
</tr>
<tr>
<td>Deposit Application</td>
<td>Item Fulfillment</td>
<td>Return Authorization</td>
<td></td>
</tr>
<tr>
<td>Estimate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invoice</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lists:
- Accounts Receivable Register
- Non Posting Registers

Reports:
- Return Authorization Reports
- Sales Order Transaction Report

Permissions: NetSuite Support Center (Basic)

<table>
<thead>
<tr>
<th>View</th>
<th>Create</th>
<th>Edit</th>
<th>Full</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

The same permission comparison information is available through in the User Interface. See the help topic Showing Role Permission Differences.

To give an employee access to the NetSuite Account Center portlet:

1. Go to Lists > Employees > Employees.
2. Click Edit next to the name of the employee you want to give access.
3. On the Access subtab, select NetSuite Support Center or NetSuite Support Center (Basic) in the Role field.
4. Click Add.
5. Click Save.

The employee might need to log out and log back in again to see the NetSuite Account Center link.

The NetSuite Account Center displays the following portlets and tabs:

- The Customer Center - Home Links portlet – users with the NetSuite Support Center role may make payments, review statements, transactions, and estimates, review support cases and issues, edit the user profile, and contact Support. Users with the NetSuite Support Center (Basic) role can view support cases and issues and contact Support.

- The Multi Language Support tab – NetSuite provides online case support in English, Chinese (Simplified), French, German, Japanese, Latin American Spanish, and Portuguese (Brazil). To submit a case in one of these languages, click Cases and select the preferred language from the dropdown or click the country logo.

- The SuiteIdeas tab – Click the link to launch the SuiteIdeas site and review and vote for NetSuite product enhancements. For information, see the help topic Voting for Enhancements.

- On the Storage Info tab – see a summary of storage usage for your account, categorized by file, data and record type. The Storage Info data in the NetSuite Account Center is updated monthly,
on the first week of the following month. For example, the data showing as of February 1 is the storage information data for the month of January. For more current storage information, see the Total Storage Size (MB) entry on Billable Components tab of the Billing Information page at Setup > Company > NetSuite Account Information > View Billing Information. The Total Storage Size (MB) information on the Billing Information page is updated weekly, as can be seen on the Component Usage tab.

Exiting the NetSuite Account Center

Exiting the NetSuite Account Center is slightly different than the usual procedure for switching to another role. You are, in effect, leaving NetSuite's account and returning to the account of your company.

**To exit the NetSuite Account Center:**

1. From the Change roles icon, select View All Roles.
2. On the Choose Roles page, click the desired role.

The Classic Center

The Classic Center is the set of pages seen by the Administrator and Payroll Setup roles.

The Lists Page

If you log in with the Administrator role or if you use the classic interface, all lists can be found on the Lists page.

A list is a group of records of a specific type. List records include customers, vendors, items, employees, partners, and more.

NetSuite requires you to enter records before you fill out transactions. After you enter a record, it is included in lists. For example, if you want to pay a bill for a new vendor, you must first create a new vendor record. Then, when you go to the Enter Bills page, you can choose the vendor from the list.

The Search link at the upper right of most list pages brings you to a search page for the list record type, where you can enter filter criteria to search for a specific record, or set of records.

**To view a list:**

1. Click Lists Overview.
2. On the Lists page, click the link for the type of list you want to see.

Here are some procedures you can use with most lists:

- Click a column heading to sort the list by that column.
- Click View link or a name to drill down to the detail record.
- Check the **Show Inactives** box to see inactive records.
  - If the **Show Inactives** box is checked, you can inactivate records on many lists by checking the boxes in the Inactive column and clicking **Save**.
- Select a different View to show only specific information.
- Select a different alphabetical group if you have a long list and want to see records that aren't showing.
If you view the list in report format, all records are included without breaking long lists into smaller lists.

- Click **Refresh** after you select new list options.
- Click **Print** to print the list.
- Click **New** to create a new record.
- Click **Export** to export this list as a CSV file that can be opened in a spreadsheet program.
- Click **Customize View** to create a custom view for the list.

### The E-Commerce Management Center

The roles of Store Manager and Intranet Manager belong to the E-Commerce Management Center. Users with these roles can set up your website, configure your domain, and preview the site on the Setup tab.

For more information about the different options available for setting up and building a website, see the help topic **Commerce**.

The Web Site page also displays in this center. It contains portlets that can be configured to display various statistics to help you analyze the effectiveness of your website. The E-Commerce Management Center - Links portlet provides an alternative method of accessing the same items that are listed in menu on the Web Site page.

### The Support Center

#### The Setup Page

Set up the Support Center specifying preferences for how you want to use the Customer Service feature and create case issues, types, origins, rules, and territories.

For more information, see the help topic **Setting Up Case Management**. In particular, see the help topic **Setting Up Support Checklist**.

### The Sales Center

#### The Opportunities Page

You can use the Opportunities tab to access your important lead, prospect, and customer records. You can then create opportunities, estimates, and sales orders for your customers to drive up sales.

View items and promotion codes that can help you create opportunities, and report your success with the Open Opportunities by Sales Rep, Open Estimates, and Prospect Analysis Summary reports.

Click the name of a record or transaction to go to the corresponding list. Click New next to the link to create a new record or transaction. Click Search next to the link to set criteria for searching records or transactions of that type.

You can personalize the Opportunities page by choosing to display customized portlets of information. Click Personalize Dashboard, and in the Add Content panel that appears, you can choose to display
snapshots relevant to your opportunities and estimates, add reminders to display, and set up saved searches to display results, among other options.

The Prospects Page

From the Prospects page, you can access your calendar, view and create prospect and contact records, view reports on prospects, and create estimates or sales orders for prospects.

View your prospect and contact records under the Relationships heading. Records hold valuable communication information as well as CRM information such as events, tasks, and related documents.

Under the Transactions heading, create new Promotion Codes, prepare estimates, and enter sales orders.

Under the Other heading, conduct searches or conduct mass updates. Click CRM Lists to create new lead sources.

View reports on prospects under the Prospect Reports heading. You can print, email, or export reports or view them in separate applications like Microsoft® Excel.

You can personalize the Prospects page by choosing to display customized portlets of information. Click Personalize Dashboard, and in the Add Content panel that appears, you can choose to display snapshots relevant to your prospects, add reminders to display, and set up saved searches to display results, among other options.

The Leads Page

From the Leads page, you can access your calendar, view and create lead and contact records, view reports on leads, and create estimates or sales orders for leads.

View your lead and contact records under the Relationships heading. Records hold valuable communication information as well as CRM information such as events, tasks, and related documents.

Under the Transactions heading, create new Promotion Codes, prepare estimates, and enter sales orders.

Under the Other heading, conduct searches or conduct mass updates. Click CRM Lists to create new lead sources.

View reports on leads under the Lead Reports heading. You can print, email, or export reports or view them in separate applications like Microsoft® Excel.

You can personalize the Leads page by choosing to display customized portlets of information. Click Personalize Dashboard, and in the Add Content panel that appears, you can choose to display snapshots relevant to your leads, add reminders to display, and set up saved searches to display results, among other options.

The Forecast Page

You can set up the Forecast page to show snapshots and portlets to give you at-a-glance information on predicted future sales. In the Settings portlet, click Customize Page. Choose to display snapshots relevant to your sales probability, set up reminders and set up saved searches among other options.

In the Sales Center-Forecast portlet, you can prepare estimates, enter sales orders and enter cash sales under the Transactions heading. Under the Reports heading, view your Sales Forecast Summary Report, open estimates and sales orders and see which promotion codes and lead sources are bringing in the most business.
Enabling Features

The Enable Features page is where you turn on or off features in NetSuite.

Note: Changes made to feature settings are captured in system notes. For more information, see Searching System Notes.

To enable features:

1. Go to Setup > Company > Enable Features.
2. Check the boxes next to features you want to use.
3. Assign any permissions related to the newly enabled features to custom roles as necessary.

When you newly enable a feature in your account, you must consider permissions associated with the added feature. Customized roles that you have already assigned to users may need to be updated to reflect the proper permissions associated with the added feature. See the help topic Customizing or Creating NetSuite Roles.

Note: Depending on the product you subscribe to, some features may not be available for you to use. If you have questions about the availability of the features mentioned below, please contact your account representative.

The following topics describe the features available on each subtab of the Enable Features page:

- General Company Features
- Accounting Features
- Tax Features
- Transaction-Related Features
- Items and Inventory Features
- Employee and Payroll Features
- CRM and SFA Features
- Analytics Features
- Commerce Features
- SuiteCloud Features

Important: You can click Audit Trail in this page header to review a list of changes to enabled features, including the users who made the changes, dates of the changes, and whether the feature was enabled or disabled. See Auditing Account Preferences.

General Company Features

You can enable the following features on the Company subtab of the Enable Features page.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classifications</td>
<td>Track and classify your transactions by category. This adds a link to Departments on your Lists page.</td>
</tr>
<tr>
<td>Departments</td>
<td>Track activity by location. This adds a link to Locations on your Lists page.</td>
</tr>
<tr>
<td>Classes</td>
<td>Sort transactions in any way you find helpful. This adds a link to Classes on your Lists page.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Projects</strong></td>
<td>Track projects for customers. A project is a subrecord of a customer record that shows costs and revenues for a particular project.</td>
</tr>
<tr>
<td>Projects</td>
<td>Track additional information about projects and keep them separate from customers.</td>
</tr>
<tr>
<td>Planned Work</td>
<td>Track projects by creating a fixed project plan. Project plans are not adjusted when work is tracked outside the original fixed plan.</td>
</tr>
<tr>
<td>Job Costing and Project Budgeting</td>
<td>Calculate costs for project labor and account for those costs in your general ledger, and create project specific cost and billing budgets.</td>
</tr>
<tr>
<td>Advanced Project Profitability</td>
<td>Create a customized project profitability report based on accounts and items instead of transactions.</td>
</tr>
<tr>
<td>Activity Codes</td>
<td>Use activity codes to classify transactions across projects and customers when using Advanced Project Budgets.</td>
</tr>
<tr>
<td>Advanced Project Budgets</td>
<td>Advanced Project Budgets enables businesses to create a custom hierarchical structure for tracking project expenses and costs.</td>
</tr>
<tr>
<td>Related SuiteApps</td>
<td>Manage and edit project task assignments using a graphical interface that displays project resources and assigned tasks. For more information about installing the Project Task Manager SuiteApp, see the help topic Project Task Manager.</td>
</tr>
<tr>
<td>ERP General</td>
<td>Define various units used to stock, purchase, and sell inventory items, and track non-monetary accounts. The Statistical Accounts feature must be enabled. (Go to Setup &gt; Company &gt; Enable Features. On the Accounting subtab, Statistical Accounts is listed under Advanced Features.)</td>
</tr>
<tr>
<td>Multiple Units of Measure</td>
<td>Make it mandatory for users to provide a reason for deleting transaction records. All transactions listed at Setup &gt; Company &gt; Auto-Generated Numbers on the Transaction Numbers subtab are affected by this feature. This feature can be disabled after use.</td>
</tr>
<tr>
<td>Use Deletion Reason</td>
<td>In NetSuite OneWorld, assign one primary subsidiary and multiple secondary subsidiaries to a customer or subcustomer record at Lists &gt; Relationships &gt; Customers &gt; New. When you select a multi-subsidiary customer on a transaction, you can associate the transaction with any subsidiary assigned to the customer.</td>
</tr>
<tr>
<td>Multi-Subsidiary Customer</td>
<td>Allocate resources to projects, view and manage resource allocations, and monitor utilization rates.</td>
</tr>
<tr>
<td>Resource Allocations</td>
<td>Related SuiteApps</td>
</tr>
<tr>
<td>Resource Allocations Custom Approval Workflow</td>
<td>Resource Allocation Chart/Grid SuiteApp</td>
</tr>
<tr>
<td>Resource Skill Sets</td>
<td>Resource Skill Sets</td>
</tr>
<tr>
<td>Resource Allocations Custom Approval Workflow</td>
<td>Resource Allocations Custom Approval Workflow</td>
</tr>
</tbody>
</table>

**International**

| Multi-Language | Check this box to do the following: |
### General Company Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Allow users to choose the language of the NetSuite user interface. See the help topic <a href="#">Choosing a Language for Your NetSuite User Interface</a>.&lt;br&gt;■ Allow customers to see item names, descriptions, and expense categories in the language selected on the customer’s record on printed transaction forms.&lt;br&gt;■ Allow translation of website elements to display in each visitor’s language. These elements include website items, saved searches, tabs, categories, email forms, text, and images, and formatted website text. See the help topic <a href="#">Setting Up a Site for Multiple Languages</a>.&lt;br&gt;Note that only the system-supported languages available as user preferences are supported for printed transaction forms. Additional languages are supported for website translations.</td>
<td>&lt;br&gt;At Setup &gt; Company &gt; General Preferences, you need to specify the languages for which you want to provide translation strings for items on printed transaction forms and/or your website. See <a href="#">Configuring Multiple Languages</a>. After you have specified a language in General Preferences, you can translate item names and descriptions on item records or by going to Lists &gt; Mass Update &gt; Bulk Update Translation. See the help topic <a href="#">Multi-Language Names and Descriptions</a>.&lt;br&gt;Note: After qualifying revaluation transactions, the system generates the Realized Gain/Loss, Unrealized Gain/Loss, Unrealized Matching Gain/Loss, Rounding Gain/Loss accounts. Depending on the year in which your NetSuite account was established, you may also have the Exchange Rate Variance account.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Use foreign currencies for sales and purchase transactions and account for the fluctuations in exchange rates. This feature enables the creation of sales transactions in multiple currencies for individual customers and to track open balances in each transaction currency. This feature also enables you to enter purchase transactions in multiple currencies for individual vendors, and keep track of open balances in each transaction currency. When you create a vendor record, you set a primary currency and additional currencies available for transactions with that vendor. See the help topic <a href="#">Currency Management</a>.&lt;br&gt;When the Foreign Currency Management feature of Multi-Book Accounting is enabled, this feature is also required and cannot be disabled.</td>
<td>&lt;br&gt;Important: In a past release, the functionality associated with the Multiple Currencies, Multi-Currency Customers, and Multi-Currency Vendors features were combined in the Multiple Currencies feature. If you are new to NetSuite, already using all three features, or not using all three features, only the Multiple Currencies box will appear on the Company subtab of the Enable Features page. You can enable or disable this feature. When you enable this feature, you gain access to support for multiple currency customers and vendors. If you are already using Multiple Currencies and Multi-Currency Customers or Multi-Currency Vendors but not all three features, you will continue to see and maintain three boxes on the Company subtab. Regardless of the number of boxes visible in your account, the functionality associated with these three features remains the same.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Automatically update currency exchange rates by the specified provider one time each day. Agree to the Notice, as required. NetSuite stores the user ID and time and date stamp of account changes in system notes.</td>
<td>&lt;br&gt;Click <a href="#">Forex Data</a> provider to go to its website.</td>
</tr>
</tbody>
</table>
### General Company Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Note:</strong> To choose an exchange rate provider, method for obtaining exchange rates, and anchor currencies, go to Setup &gt; Accounting &gt; Preferences &gt; Accounting Preferences. On the General subtab, under Exchange Rate Integration, select a Rate Provider. For more information, see the help topic Exchange Rate Integration.</td>
<td></td>
</tr>
</tbody>
</table>

### Data Management

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inline Editing</strong></td>
<td>Edit records directly from their corresponding lists and from search results. <strong>Note:</strong> When this feature is enabled, inline editing is available by default for all search results in dashboard portlets. However, each Custom Search portlet has an Allow Inline Editing setup option that you can use to enable or disable inline editing for specific portlets. See the help topic Displaying Saved Search Results in Dashboard Portlets.</td>
</tr>
<tr>
<td><strong>File Cabinet</strong></td>
<td>Enable the ability to upload or link to documents and images, and then associate them with records your customers, vendors, and employees can view.</td>
</tr>
<tr>
<td><strong>Antivirus Scanning on File Cabinet Files (Beta)</strong></td>
<td>Have NetSuite perform an antivirus scan on each file before it is added to the File Cabinet. Files that are considered a security risk are blocked. <strong>Warning:</strong> File Cabinet Antivirus is a beta feature. The contents of this feature are preliminary and may be changed or discontinued without prior notice. See Antivirus Scanning on File Cabinet Files for more details.</td>
</tr>
<tr>
<td><strong>Duplicate Detection &amp; Merge</strong></td>
<td>Have NetSuite to compare customer and contact records and notify you of possible duplicates.</td>
</tr>
<tr>
<td><strong>Related SuiteApps</strong></td>
<td>Click this link to install the Box.NET SuiteApp. This SuiteApp enables you to upload documents to your Box.NET account and associate those documents with your NetSuite account. To install the SuiteApp, you must first have a Box.NET account. <strong>Note:</strong> This SuiteApp is maintained and supported directly by Box.</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td>Click this link to install SuiteSocial. This SuiteApp is a NetSuite social collaboration tool that enables you to more tightly connect social interactions to your NetSuite data and track important changes to that data. With the interactive news feed, you can see updates posted by your colleagues, and be notified when relevant NetSuite records are created or edited. You can post your own messages or status, and access the records you are following.</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>Create access rules for employees based on the IP address of the computer used to log in. For more information about this feature, see the help topic Enabling and Creating IP Address Rules.</td>
</tr>
<tr>
<td><strong>Core Administration Permission</strong></td>
<td>Gives a role access to a functionality that is currently only accessible to the standard Administrator role. For more information about this feature, see the help topic Core Administration Permissions.</td>
</tr>
</tbody>
</table>

### Mobile
General Company Features

### Feature Description

**Mobile Push Notification**
Enable users to receive push notifications on mobile devices.

---

### Accounting Features

You can enable the following features on the **Accounting** subtab of the Enable Features page. Many of these features create system-generated accounts when enabled. These accounts are included in the descriptions. For a complete listing of system-generated accounts, see the help topic **Feature-Specific, System-Generated Accounts**.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Features</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Accounting</strong></td>
<td>Use NetSuite for your business’s accounting.</td>
</tr>
<tr>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Undeposited Funds and Refunds Payable accounts. If you are using NetSuite Canadian Edition, you will also have Payable and Expenses accounts. If you are using NetSuite (U.S.), you will have the additional Sales Tax Payable account.</td>
<td></td>
</tr>
<tr>
<td><strong>A/R (Accounts Receivable)</strong></td>
<td>Maintain accounts receivables records and track invoices, receipts, cash sales, payments, and customer records.</td>
</tr>
<tr>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Accounts Receivable account.</td>
<td></td>
</tr>
<tr>
<td><strong>A/P (Accounts Payable)</strong></td>
<td>Maintain accounts payable records and track purchases, bills, vendors, and payee records.</td>
</tr>
<tr>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Accounts Payable account.</td>
<td></td>
</tr>
<tr>
<td><strong>Accounting Periods</strong></td>
<td>Group transactions as they occur during periods of time, and to allow management of financials by these defined time periods.</td>
</tr>
<tr>
<td><strong>GL Audit Numbering</strong></td>
<td>Apply gapless numbering sequences to all general ledger posting transactions. Gapless numbering sequences enables companies to meet international auditing requirements.</td>
</tr>
<tr>
<td>GL Audit Numbering is listed as a required task when you close the last month in an accounting period. You can set up and run numbering sequences as part of the required task. You can also perform a variety of GL Audit Numbering tasks on demand at Transactions &gt; Management &gt; GL Audit Numbering Sequences.</td>
<td></td>
</tr>
<tr>
<td>The Accounting Periods feature is a requirement for using the GL Audit Numbering feature. GL Audit Numbering is independent of other transaction numbering you have set up at Setup &gt; Company &gt; Auto-Generated Numbers.</td>
<td></td>
</tr>
</tbody>
</table>

---

### Advanced Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expense Allocation</strong></td>
<td>Account for fixed expenses without splitting them among individual departments, classes or locations in advance of incurring the expenses.</td>
</tr>
<tr>
<td><strong>Dynamic Allocation</strong></td>
<td>Dynamically calculate the weight of any statistical allocation, based on the balance of the statistical account through statistical journals, at the time the allocation journal is generated.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Accounting Features</td>
<td>This feature also enables you to run multiple dynamic allocation schedules in a specific sequence, or batch. This is an enhancement to the current fixed rate allocation where you must specify the fixed allocation weight for the entire life cycle of the allocation schedule. This feature cannot be disabled after it has been used.</td>
</tr>
<tr>
<td>Revenue Recognition</td>
<td>Amortize revenue from your sales.</td>
</tr>
<tr>
<td>Revenue Commitments</td>
<td>Enable recognition of revenue prior to billing customers. Revenue commitments appear and behave like invoices; both cause revenue recognition, based on sales orders and returns. However, an invoice creates a customer liability, whereas a revenue commitment does not trigger an invoice and customer liability. Enabling this feature creates the system-generated Unbilled Receivables account.</td>
</tr>
<tr>
<td>VSOE</td>
<td>Defer revenue on products with multiple elements using Vendor Specific Objective Evidence (VSOE) capabilities. VSOE revenue recognition includes support for the residual method, SOP 98-9, as well as SOP 97-2.</td>
</tr>
<tr>
<td>Sales Order Revenue Forecasting</td>
<td>Forecast revenue based on sales order amounts and return authorization amounts. A revenue forecast gives a more complete picture using sales orders because it includes all orders whether they are billed, unbilled, or use multiple invoices.</td>
</tr>
<tr>
<td>Amortization</td>
<td>Allocate an expense across a range of time and then recognize the expense in increments, only as goods or services are used. For example, defer a prepaid expense such as insurance and amortize the proper amount over the period the insurance is in effect. Enabling this feature creates the system-generated Deferred Expense and Accumulated Depreciation accounts.</td>
</tr>
<tr>
<td>Advanced Revenue Management</td>
<td>This feature automates revenue forecasting, allocation, recognition, reclassification, and auditing. It is compliant with the ASC 606 revenue standard. When you enable this feature, it cannot be disabled. Accounting Periods must also be checked. Enabling this feature creates the system-generated Deferred Revenue, Unbilled Receivables, and Revenue Arrangement (non-posting) accounts. If you currently use the classic Revenue Recognition features, contact your sales or account representative to find out how to get Advanced Revenue Management. The assistance of NetSuite Professional Services or a qualified NetSuite partner is required to move from classic Revenue Recognition to Advanced Revenue Management.</td>
</tr>
<tr>
<td>Rule-Based Recognition Treatment</td>
<td>This feature adds flexibility to Advanced Revenue Management by enabling you to define recognition attributes for revenue elements based on specified criteria. As a result, the same item can have different attribute values in different revenue elements. You cannot enable this feature unless you also enable Advanced Revenue Management.</td>
</tr>
<tr>
<td>Multiple Budgets</td>
<td>Create multiple budgets for the same combination of customer, item, class, location or department criteria.</td>
</tr>
<tr>
<td>Intercompany Time and Expense</td>
<td>Allow intercompany time entries and expense transactions, and the transfer of time and/or expense charges from one subsidiary to another in a OneWorld account. <strong>Warning:</strong> If this feature is disabled, users cannot enter intercompany time or expenses, meaning records that have different subsidiaries for employee and customer. When this feature is enabled, by default users can enter intercompany time and expenses. You can change related preferences to disallow either intercompany time or expenses, or to enable</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Accounting Features: Feature</td>
<td>Description</td>
</tr>
<tr>
<td>Automated Intercompany</td>
<td>Create intercompany sales orders from intercompany purchase orders, reconcile intercompany transactions, and generate intercompany elimination journal entries automatically using the Period Close Checklist.</td>
</tr>
<tr>
<td>Management</td>
<td>Note: Enabling this feature creates the system-generated CTA Elimination account after a qualifying transaction. For example, a user must first run the Elimination process so that an Elimination Journal Entry is created that uses this account.</td>
</tr>
<tr>
<td>Automated Intercompany Drop</td>
<td>Enable the cross-subsidiary order and fulfillment process for external orders.</td>
</tr>
<tr>
<td>Ship</td>
<td>Note: If you enabled this feature after April 2014, when you created a qualifying journal entry the system created a single Intercompany Clearing Account of the Type: Other Current Asset. The account was set to the Root Subsidiary and included all child subsidiaries. Adjustment journal entries correctly posted to this new account, and no other currency-locked Intercompany Clearing Accounts were created. If you enabled this feature prior to April 2014, when you created a new adjustment journal entry the system created a new Intercompany Clearing Account (no currency), which became the parent of all other existing clearing accounts. New adjustment journal entries use this parent account, and the existing currency-locked Intercompany Clearing Account remained intact. If you edit a transaction that originally posted to the existing currency-locked Intercompany Clearing Account, the GL Impact of that transaction affects that account.</td>
</tr>
<tr>
<td>Consolidated Payments</td>
<td>Enable this feature to apply payments, credits, and deposits either through the top-level customer or through individual subcustomers and to print consolidated customer statements. For more information, see the help topic Consolidated Payments.</td>
</tr>
<tr>
<td>In-Transit Payments</td>
<td>Use the In-Transit Payments feature to match and clear in-transit vendor payments. Match and confirm transactions on the Confirm Transaction Matches pages. When you confirm the matched in-transit transactions, NetSuite automatically generates the final-stage payments for the match and clears them. Reconcile the payments on the Reconcile Account Statement page. For more information, see the help topics Matching Bank Data and Submitting Transaction Matches.</td>
</tr>
<tr>
<td>Vendor Prepayments</td>
<td>Enable this feature to record and track deposit amounts paid to vendors before they accept a purchase order for a good or service. You can apply these prepayment amounts against open bills for the vendor. You can record and track multiple prepayments and prepayment applications for your vendors. For more information, see the help topic Vendor Prepayments.</td>
</tr>
<tr>
<td>Multiple Calendars</td>
<td>Use the Multiple Calendars feature to create different accounting period and tax period rollups for your subsidiaries. Create fiscal calendars to define accounting and tax period rollups.</td>
</tr>
<tr>
<td>Statistical Accounts</td>
<td>Track non-monetary data and then use this information on reports and income statements to view its relationship with the financial activity of your organization. If you check the Dynamic Allocation box, located under Advanced Features, you can run any allocation schedule weighted by the balance of a statistical account. Multiple Units of Measure must be enabled to use this feature.</td>
</tr>
</tbody>
</table>

For more information, see the help topics Matching Bank Data and Submitting Transaction Matches.
Accounting Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Currency Variance Mapping</td>
<td>Enable this feature to define posting rules that specify the accounts to which foreign currency variances post. For more information, see the help topic Foreign Currency Variance Mapping.</td>
</tr>
<tr>
<td>Balancing Segments</td>
<td>Enable this feature to balance transactions by segment through a process that creates balancing journals. For more information, see the help topic Balancing Segments and Journals.</td>
</tr>
<tr>
<td>Installments</td>
<td>Enable this feature to create installments for customers who pay for items over time using installment-based payments. For more information, see the help topic Creating Installments.</td>
</tr>
<tr>
<td>Period End Journal Entries</td>
<td>Enable this feature to process and post subsidiary consolidation and income statement closing using a transaction type called Period End Journal. Period end journals are generated automatically when you complete the Create Period End Journals task on the Period Close Checklist. When you enable this feature, you must also enable it for specific subsidiaries. For more information, see the help topic Period End Journal Entries.</td>
</tr>
</tbody>
</table>

Multi-Book Accounting Features

**Important:** Multi-Book Accounting is available only in NetSuite OneWorld accounts. Please contact your sales or account representative to find out how to get Multi-Book Accounting. The assistance of NetSuite Professional Services is required to implement this feature.

<table>
<thead>
<tr>
<th>Multi-Book Accounting</th>
<th>Check this box to use multiple accounting books to manage your business. For more information, see the help topic Multi-Book Accounting Overview.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chart of Accounts Mapping</td>
<td>Check this box to allow different account values to be used across accounting books. Multi-Book Accounting must also be checked. For more information, see the help topic Chart of Accounts Mapping.</td>
</tr>
<tr>
<td>Foreign Currency Management</td>
<td>Check this box to manage foreign currency transactions automatically across accounting books. Multi-Book Accounting must also be checked. The feature must be enabled on the Company tab. For more information, see the help topic Foreign Currency Management.</td>
</tr>
<tr>
<td>Revenue and Expense Management</td>
<td>Check this box to recognize revenue and amortize expenses per accounting book. Multi-Book Accounting must also be checked. For more information, see the help topic Revenue and Expense Management.</td>
</tr>
<tr>
<td>Extended Accounting Period Close Process</td>
<td>Check this box to use independent closure of accounting periods by accounting book. Multi-Book Accounting must also be checked. For more information, see the help topic Accounting Book Period Close Management.</td>
</tr>
</tbody>
</table>
Tax Features

On the **Tax** subtab of the Enable Features page, you can enable tax features, and access the installation pages of related SuiteApps:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Taxes</td>
<td>Use the Advanced Taxes feature. This feature enables you to use tax schedules to track taxes for each nexus in which your company is required to pay taxes.</td>
</tr>
<tr>
<td></td>
<td><strong>Warning:</strong> If you enable Advanced Taxes, then you cannot disable it in the future. For more information, see the help topic <a href="#">Advanced Taxes</a>.</td>
</tr>
<tr>
<td>EU Mini One Stop Shop</td>
<td>Check this box if your company is registered for the EU Mini One Stop Shop (MOSS) VAT scheme. The MOSS feature in NetSuite enables you to charge the appropriate tax on B2C sales of digital services based on the VAT rate of the customer’s EU member state. For more information, see the help topic <a href="#">EU Mini One Stop Shop (MOSS)</a>.</td>
</tr>
<tr>
<td>SuiteTax</td>
<td>Check this box to define different tax engines for different tax jurisdictions and visualize tax details on each transaction. For more information, see the help topic <a href="#">General SuiteTax Topics</a>.</td>
</tr>
<tr>
<td>Related SuiteApps</td>
<td>For more information about installing the tax SuiteApps, see the help topic <a href="#">Taxation Features Provided by SuiteApps from NetSuite</a>.</td>
</tr>
<tr>
<td></td>
<td>▪ International Tax Reports</td>
</tr>
<tr>
<td></td>
<td>▪ Tax Audit Files</td>
</tr>
<tr>
<td></td>
<td>▪ Withholding Tax</td>
</tr>
<tr>
<td></td>
<td>▪ Supplementary Tax Calculation</td>
</tr>
</tbody>
</table>

Transaction-Related Features

You can enable the following features on the **Transactions** subtab of the Enable Features page:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Features</td>
<td></td>
</tr>
<tr>
<td>Estimates</td>
<td>Provide estimates to your customers and then convert them into invoices.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Estimates account.</td>
</tr>
<tr>
<td>Sales Orders</td>
<td>Track customer orders and then convert them into invoices.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Sales Orders account.</td>
</tr>
<tr>
<td>Return Authorizations</td>
<td>Use return authorization numbers to track approved returns.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Purchase Orders</strong></td>
<td>Issue purchase orders, receive against those orders and create bills from those receipts.</td>
</tr>
<tr>
<td><strong>Vendor Return Authorizations</strong></td>
<td>Use return authorization numbers to track items you return to vendors.</td>
</tr>
<tr>
<td><strong>Request for Quote</strong></td>
<td>Send a request to one or more vendors asking them to provide specifics about their pricing, terms and conditions in regard to a purchase contract for a product they sell.</td>
</tr>
<tr>
<td><strong>Requisitions</strong></td>
<td>Use Requisition transactions to initiate the purchasing process when an employee or company representative needs something that must be purchased using company funds. The person requesting the purchase (requestor) specifies which items, services or expenses they need a buyer to purchase. Buyers can then use requisitions to create the purchase orders necessary to fulfill the requisition requests.</td>
</tr>
<tr>
<td><strong>Purchase Contracts</strong></td>
<td>Allows purchasing managers and buyers to use contracted terms, pricing, and delivery schedules when purchasing materials for a company. For example, instead of having terms and pricing based only on a specific purchase order being placed, buyers can automatically take advantage of quantity-based terms and discounts based on an annual volume of goods or services purchased.</td>
</tr>
<tr>
<td><strong>Blanket Purchase Orders</strong></td>
<td>Improve buyer efficiency and accuracy and potentially reduce procurement spending. Blanket purchase orders define a pre-determined price for a set quantity of items you will buy from a vendor during a time period. The blanket purchase order specifies the item, price, quantity, terms and effective time period.</td>
</tr>
</tbody>
</table>

**Related SuiteApps**

- Advanced Procurement Approvals
- Warranty and Repairs Management
- NetSuite Approvals Workflow

**Sales**

- **Multiple Prices**
  - Set at least four different price levels for each item.

- **Quantity Pricing**
  - Enable quantity pricing, which lets you automatically apply different sales prices to items that depend on the quantity being sold. This enables you to offer discounts to customers who buy in bulk.

- **Gross Profit**
  - Enable Gross Profit estimates and track gross profits at the item and transaction level.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transaction-Related Features</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Gross Profit = Sales – Costs)</td>
</tr>
<tr>
<td></td>
<td>Gross profit estimates are based on a complex interaction of prices, discounts, costs, and ultimately gross profits at several levels.</td>
</tr>
<tr>
<td></td>
<td>Gross profit estimates supply decision-making information to sales teams and executives throughout the sales process, from the opportunity stage early in the sales cycle on through to the issuance of an invoice.</td>
</tr>
<tr>
<td>Alternate Sales Amount</td>
<td>Calculate alternate sales amounts on sales orders, estimates, opportunities, and return authorizations.</td>
</tr>
<tr>
<td></td>
<td>Alternate sales amounts can be used to calculate commission and sales forecasts and can be used to measure quotas.</td>
</tr>
<tr>
<td>Promotion Codes</td>
<td>Create codes that can be used to associate customers and sales with partners and track campaign return on investment.</td>
</tr>
<tr>
<td></td>
<td>If you associate a discount item with a promotion code, the code can be used as a coupon code for any item or for specific items that you select when creating the code.</td>
</tr>
<tr>
<td>SuitePromotions</td>
<td>Leverage some of NetSuite’s multiple (stacked) promotions capabilities on your SuiteCommerce Advanced Site.</td>
</tr>
<tr>
<td></td>
<td>Promotion Codes and Auto-Apply Promotions must also be enabled.</td>
</tr>
<tr>
<td></td>
<td>For more information, see the help topic <a href="#">Promotions in Commerce Web Stores</a>.</td>
</tr>
<tr>
<td>Auto-Apply Promotions</td>
<td>Automatically apply multiple promotions to a transaction. For more information, see the help topic <a href="#">Promotions Overview</a>.</td>
</tr>
<tr>
<td>Related SuiteApps</td>
<td>For more information, see Advanced Promotions.</td>
</tr>
<tr>
<td>■ Advanced Promotions</td>
<td></td>
</tr>
<tr>
<td><strong>Shipping &amp; Receiving</strong></td>
<td></td>
</tr>
<tr>
<td>Advanced Shipping</td>
<td>Fulfill and bill your sales orders in separate steps.</td>
</tr>
<tr>
<td>Pick, Pack and Ship</td>
<td>Allow greater flexibility to process orders by using separate transactions to pick items from inventory, pack them to be shipped, and then ship the items to the customer.</td>
</tr>
<tr>
<td>Shipping Label Integration</td>
<td>Integrate your UPS or FedEx account with NetSuite, allowing you to receive tracking numbers and print bar code shipping labels.</td>
</tr>
<tr>
<td>Advanced Receiving</td>
<td>Receive orders separately from bills.</td>
</tr>
<tr>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Accrued Purchases account.</td>
<td></td>
</tr>
<tr>
<td>Multiple Shipping Routes</td>
<td>Enables shipment to several different addresses and use of different shipping methods on the same transaction.</td>
</tr>
<tr>
<td>Inbound Shipment Management</td>
<td>Provides tracking and management of incoming shipments.</td>
</tr>
<tr>
<td><strong>Billing</strong></td>
<td></td>
</tr>
<tr>
<td>Bill Costs to Customers</td>
<td>Purchase goods and services and sell them directly to your customers.</td>
</tr>
<tr>
<td>Advanced Billing</td>
<td>Create billing schedules to invoice sales over a range of time or a contract term, such as a one-year membership billed monthly. Billing schedules manage the billing process to track when to invoice customers and how much to bill.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Transaction-Related Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charged-based Billing</td>
<td>Enable Charge-Based Billing, so that you can create billable charges for projects. Charges are calculated according to charge rules. These charge rules can be based on fixed dates, project progress, milestones, or on time entries. Enabling this feature adds the Charge-Based billing type for projects and a Create Charges page to your account.</td>
</tr>
<tr>
<td>Billing Operations</td>
<td>Create and manage bill runs, bill run schedules, and billing groups. After clicking Save, new menu options are available from the Transactions &gt; Billing menu.</td>
</tr>
<tr>
<td>Payment Processing</td>
<td></td>
</tr>
<tr>
<td>Credit Card Payments</td>
<td>Accept credit card payments.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Enabling both this feature and Customer Access creates the system-generated Unapproved Customer Payments account.</td>
</tr>
<tr>
<td>Credit Card Soft Descriptors</td>
<td>If you sell products under varying brand or company names, check this box to create a list of the names used and associate those descriptors with the items you sell under each name. When customers receive credit card statements, the descriptor associated with the item purchased is shown.</td>
</tr>
<tr>
<td>Send Purchase Card Data</td>
<td>With the Purchase Card Data module, NetSuite identifies when payments are made with a purchase card so you can take advantage of potential lower card processing fees. Purchase cards, also called Level II and Level III cards, can bring cost savings to you, the merchant, and to your customers. When you enter a credit card payment for a customer, NetSuite determines, based on the card's bank identification number (BIN), whether or not it is a purchase card. It then passes the extended transaction data along with the payment authorization request for processing.</td>
</tr>
<tr>
<td>PayPal Integration</td>
<td>Allow customers to pay with PayPal. This enables you to set up PayPal as a payment method. Customers are taken to the PayPal site for checkout, and payment is deposited into your PayPal account.</td>
</tr>
<tr>
<td>Electronic Funds Transfer</td>
<td>Allow customers to pay electronically. You must set up this service before you can use it. To do this, go to Setup &gt; Set Up ACH Processing.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Failed ACH Transactions account.</td>
</tr>
<tr>
<td>Online Bill Pay</td>
<td>Allow customers to automatically pay bills online as they are entered.</td>
</tr>
<tr>
<td>ACH Vendor Payments</td>
<td>Pay vendors and pay employee expense report using ACH transactions.</td>
</tr>
</tbody>
</table>

## Items and Inventory Features

You can enable the following features on the **Items & Inventory** subtab of the Enable Features page.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td></td>
</tr>
</tbody>
</table>
### Items and Inventory Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop Shipments &amp; Special Orders</td>
<td>Ship items from your vendor directly to your customer.</td>
</tr>
<tr>
<td>Matrix Items</td>
<td>Track inventory and pricing of items separately based on item options, such as tracking shirts by color and size.</td>
</tr>
<tr>
<td>Multiple Vendors</td>
<td>Manage procurement of items you buy from more than one vendor. Identify and track each vendor’s name, item code, and purchase price.</td>
</tr>
<tr>
<td>Gift Certificates</td>
<td>Sell gift certificate items of set or variable amounts to customers. When customers purchase gift certificates, they enter recipient information, and the gift certificate message, amount, and code is emailed to the recipient. Gift certificates are applied toward the total order amount and can be reused if there is a remaining amount after a sale.</td>
</tr>
<tr>
<td>Sell Downloadable Files</td>
<td>Enable download item records and online forms with downloads included. You can attach files to download item records that customers can purchase and download in the Web store. The online forms with downloads allow you to offer free downloads when they provide their contact information. You can also use this feature to share files with customers free of charge. For example, you can attach the customer’s terms of service to the customer record, and the customer can access the file through the Customer Center.</td>
</tr>
<tr>
<td>Bar Coding and Item Labels</td>
<td>Generate bar codes to identify transactions and items. Then, you can print labels with the item’s bar code.</td>
</tr>
<tr>
<td>Merchandise Hierarchy</td>
<td>Create merchandise hierarchies that provide a customized organization of your company’s merchandise to help you analyze sales, purchase, and inventory data.</td>
</tr>
<tr>
<td>Advanced Item Location Configuration</td>
<td>Check this box to enable advanced management of the item attribute information that is associated with each location. Use this feature to filter and access only the data that you need for specific locations.</td>
</tr>
<tr>
<td>Personalized Catalog Views</td>
<td>Divide your web store customers into groups and provide each group with access to a tailored selection of catalog items.</td>
</tr>
</tbody>
</table>

### Inventory

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory</td>
<td>Track quantities and profit from buying and selling inventory.</td>
</tr>
<tr>
<td>Note: Enabling this feature creates the system-generated Inventory Asset and Cost Of Goods Sold accounts.</td>
<td></td>
</tr>
<tr>
<td>Multi-Location Inventory</td>
<td>Track inventory for multiple locations. You must also enable Locations, Inventory, Advanced Shipping and Advanced Receiving.</td>
</tr>
<tr>
<td>Note: After you have enabled the Multi-Location Inventory feature and distributed items, you cannot turn the feature off without contacting Customer Support.</td>
<td></td>
</tr>
<tr>
<td>Note: Enabling this feature creates the system-generated Transfer Orders and Inventory In Transit accounts.</td>
<td></td>
</tr>
<tr>
<td>Assembly Items</td>
<td>Use raw materials (inventory items) to build assembly items in NetSuite.</td>
</tr>
<tr>
<td>Advanced Bill of Materials</td>
<td>Check this box to enable the Advanced Bill of Materials feature.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Note:</strong> If you enable this feature, it can introduce changes to assembly, item revision, manufacturing routing, work order, assembly build, and assembly unbuild records. These changes can affect customization and integrations related to these records. For more information, see the help topic Advanced Bill of Materials.</td>
<td></td>
</tr>
<tr>
<td>Work Orders</td>
<td>Use assembly work orders to track the production of assembly items needed for stock or to fill orders. Work orders track the quantities of assemblies that need to be built and the quantities of components, or member items, needed to do so.</td>
</tr>
<tr>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Work Orders account.</td>
<td></td>
</tr>
<tr>
<td>Serialized Inventory</td>
<td>Track the purchase and sale of physical inventory items by assigning a serial number to each item.</td>
</tr>
<tr>
<td><strong>Note:</strong> After you have enabled the Serialized Inventory feature and serialized items have been created, the Serialized Inventory feature may not be turned off.</td>
<td></td>
</tr>
<tr>
<td>Lot Tracking</td>
<td>Assign lot numbers to groups of inventory items for tracking purposes.</td>
</tr>
<tr>
<td><strong>Note:</strong> After you have enabled the Lot Tracking feature and the lot tracking items have been created, the Lot Tracking feature may not be turned off.</td>
<td></td>
</tr>
<tr>
<td>Bin Management</td>
<td>Create bin records that identify the places you store inventory items within your warehouse and track on-hand quantities.</td>
</tr>
<tr>
<td>Tracking bins helps warehouse employees know exactly where to go to find items they need when picking and fulfilling orders. Bins also specify exactly where items need to be put away in stock when you receive them.</td>
<td></td>
</tr>
<tr>
<td>Advanced Bin/Numbered Inventory Management</td>
<td>Manage bins and use them with serial and lot numbered inventory.</td>
</tr>
<tr>
<td>Inventory Status</td>
<td>Check this box to assign statuses to inventory and drive internal processes. You can also choose to make items unavailable for allocation to orders based on the associated inventory status. For more information, see the help topic Inventory Status.</td>
</tr>
<tr>
<td>Warehouse Management</td>
<td>Extend the inbound, inventory, and outbound features by enabling processing of specific tasks on a mobile device, from receiving to shipping orders. Use wave transactions to release orders to the warehouse and generate item fulfillments. Waves also enable you to track picking and staging as pickers process released orders through their mobile device.</td>
</tr>
<tr>
<td><strong>Note:</strong> Use of the Warehouse Management feature requires the following SuiteApps: SCM Mobile and Oracle NetSuite WMS. See the help topic NetSuite WMS SuiteApps.</td>
<td></td>
</tr>
<tr>
<td>Warehouse Management</td>
<td></td>
</tr>
<tr>
<td>For more information, see the help topic NetSuite WMS Overview.</td>
<td></td>
</tr>
<tr>
<td>Advanced Inventory Management</td>
<td>Enable NetSuite to anticipate demand for items and adjust suggested item ordering. Purchases of new stock are based on previous purchases and sales of items.</td>
</tr>
<tr>
<td>Landed Cost</td>
<td>Track the costs associated with purchasing items apart from the material cost. For example, landed cost can include duty fees, insurance, and shipping cost.</td>
</tr>
</tbody>
</table>
# Items and Inventory Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Allocation</td>
<td>Enable the Supply Allocation feature to expand inventory commitment calculations to consider future inventory on supply orders in addition to current, on-hand inventory.</td>
</tr>
<tr>
<td>Demand Planning</td>
<td>Calculate future demand for items and use demand plans and supply plans to regulate inventory replenishment. You must enable the Advanced Inventory Management feature to use this feature. For more details, read the help topic Demand Planning.</td>
</tr>
<tr>
<td>Distribution Resource Planning</td>
<td>Use the Distribution Resource Planning feature to plan and optimize inventory across locations and, for OneWorld accounts, subsidiaries. Items can be transferred between locations to meet supply needs within a preset distribution network.</td>
</tr>
<tr>
<td>Available to Promise</td>
<td>Check item availability based on outstanding transfer orders, purchase orders, work orders, and sales orders. Read the help topic Available to Promise.</td>
</tr>
<tr>
<td>Standard Costing</td>
<td>Identify costing opportunities by maintaining standard costs across cost categories and perform variance analysis. Read the help topic Standard Costing.</td>
</tr>
<tr>
<td>Group Average Costing</td>
<td>Group average costing enables you to track one average cost for an item across multiple locations within a defined group. Group average costing is available only when you have enabled the Multi-Location Inventory feature. Group average costing is available for inventory items and assembly items.</td>
</tr>
<tr>
<td>Intercompany Cross-Subsidiary Fulfillment</td>
<td>In NetSuite OneWorld, check this box to use the Intercompany Cross-Subsidiary Fulfillment feature to fulfill orders and receive returns across multiple subsidiaries. For more information, see the help topic Intercompany Cross-Subsidiary Fulfillment.</td>
</tr>
<tr>
<td>Manufacturing Work In Process</td>
<td>Allows WIP tracking with work order issue and completion against a work order. Read the help topic Manufacturing Work In Process (WIP).</td>
</tr>
<tr>
<td>Inventory Count</td>
<td>Support improved tracking of inventory and tighter control over assets. When this feature is enabled, you can enter regular periodic counts of on-hand item quantities to maintain inventory accuracy. Keeping an accurate item count can help reduce required safety stock, which lowers your overhead costs.</td>
</tr>
<tr>
<td>Manufacturing Routing and Work Center</td>
<td>Record quantity completions, resource costs, and overheads against a list of work order operations.</td>
</tr>
<tr>
<td>Supply Chain Control Tower</td>
<td>Check this box to simulate inventory supply and demand across your supply chain. For more information, see the help topic Supply Chain Control Tower.</td>
</tr>
<tr>
<td>Related SuiteApps</td>
<td>For more information, see the following.</td>
</tr>
<tr>
<td></td>
<td>- Supply Chain Management Reports</td>
</tr>
<tr>
<td></td>
<td>- Grid Order Management</td>
</tr>
</tbody>
</table>

## Employee and Payroll Features

You can enable the following features on the Employees subtab of the Enable Features page.
Important: To use some of the listed features, you will need SuitePeople HR or SuitePeople U.S. Payroll provisioned on your account. For more information, see the help topic SuitePeople Overview.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HR Information System (SuitePeople HR)</strong></td>
<td></td>
</tr>
<tr>
<td>Compensation Tracking</td>
<td>Track basic wage and salary information for employees directly from the employee record.</td>
</tr>
<tr>
<td>Job Management</td>
<td>Create jobs with job descriptions and assign them to employees.</td>
</tr>
<tr>
<td>Job Requisitions</td>
<td>Create job requisitions for recruiting, associate requisitions with jobs, and track status through the hiring process.</td>
</tr>
<tr>
<td>Time-Off Management</td>
<td>Define and manage time-off plans according to company policies and assign them to employees based on location, department, class, or subsidiary.</td>
</tr>
<tr>
<td>Effective Dating</td>
<td>Make changes to the employee record that are back-dated or future-dated to a specific date.</td>
</tr>
<tr>
<td></td>
<td>View an employee’s timeline to see key employee milestones and career changes in chronological order. For details, see Employee Timeline.</td>
</tr>
<tr>
<td>Employee Change Requests</td>
<td>Manage change approvals for the employee record. Dd managers can create employee change requests for their direct reports and have it go through an approval process in the Employee Center.</td>
</tr>
<tr>
<td>Termination Reason Tracking</td>
<td>Specify various termination details on the employee record.</td>
</tr>
<tr>
<td></td>
<td>If the Workforce Analytics feature is also enabled, you can see a high level snapshot and synopsis of the employees who are leaving your company and the reasons why they are leaving on the Turnover Analysis page (Reports &gt; Employees/HR).</td>
</tr>
<tr>
<td>Basic Government-Issued ID Tracking</td>
<td>Track a variety of government-issued identification information about your employees. You can enable either Basic or Advanced Government-Issued ID Tracking features, but not both.</td>
</tr>
<tr>
<td>Advanced Government-Issued ID Tracking</td>
<td>Create, edit, and delete your own custom types of government-issued identification to match your company's employee identification policies. You can enable either Basic or Advanced Government-Issued ID Tracking features, but not both.</td>
</tr>
<tr>
<td>Workforce Analytics</td>
<td>Measure and analyze company headcount, hiring, and turnover trends. To access the Turnover Analysis page, from Reports &gt; Employees/HR the Termination Reason Tracking box must also be checked.</td>
</tr>
<tr>
<td>Employee Center Dashboard Publishing</td>
<td>Set up default dashboard portlets and layout for the Employee Center, including the addition of a manager dashboard, and publish defaults out to Employee Center users. Create news items that appear in Employee Center dashboards, and limit the audience of news items by location of by managers.</td>
</tr>
<tr>
<td>Performance Management (SuitePeople HR)</td>
<td></td>
</tr>
<tr>
<td>Kudos</td>
<td>Enable your employees to give social-based recognition to each other for accomplishments, achievements, and milestones.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Payroll (SuitePeople U.S. Payroll)</strong></td>
<td>Pay your employees through SuitePeople U.S. Payroll. Calculate wages, deductions, and liabilities, and always have the latest tax data. This feature supports U.S. payroll only.</td>
</tr>
<tr>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Payroll Adjustments account.</td>
<td></td>
</tr>
<tr>
<td><strong>Service Printed Check and Stubs</strong></td>
<td>Use your payroll service provider to print check stubs.</td>
</tr>
<tr>
<td><strong>Paycheck Journal</strong></td>
<td>Allow SOAP web services integrations with external payroll systems and building of custom payroll solutions with SuiteScript. This feature supports payroll solutions in any country, and for non-U.S. subsidiaries in OneWorld accounts.</td>
</tr>
<tr>
<td><strong>Time &amp; Expenses</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Expense Reports</strong></td>
<td>Track employee expenses and turn them into bills.</td>
</tr>
<tr>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Unapproved Expense Reports, Advances Paid, and Accounts Payable accounts.</td>
<td></td>
</tr>
<tr>
<td><strong>Approval Routing</strong></td>
<td>Set up an approval hierarchy required to process expense reports and purchase requests. If this feature is not enabled, each expense report or purchase request is automatically routed to the employee’s immediate supervisor and then to accounting. When this feature is enabled, after an employee enters an expense report or purchase request, additional processing of the transaction depends on the employee’s expense limit or purchase limit, the employee’s designated supervisor or approver, and the approval limit of the supervisor or approver.</td>
</tr>
<tr>
<td><strong>Per-Employee Billing Rates</strong></td>
<td>Check this box to create billing classes that set billable time rates when different employees charge different rates for the same service. If you associate a billing class with an employee and set rates for the billing class on a service item, the proper rate defaults to bill the customer on time tracking transactions.</td>
</tr>
<tr>
<td><strong>Billing Rate Cards</strong></td>
<td>Define different rates for groups of billing classes.</td>
</tr>
<tr>
<td><strong>Purchase Requests</strong></td>
<td>Allow employees to enter purchase requests online.</td>
</tr>
<tr>
<td><strong>Time Tracking</strong></td>
<td>Let employees record the hours they work.</td>
</tr>
<tr>
<td><strong>Warning:</strong> The following capabilities are not available to NetSuite CRM+ users. Other users may be able to:</td>
<td></td>
</tr>
<tr>
<td>■ Record billable hours and invoice customers for them.</td>
<td></td>
</tr>
<tr>
<td>■ Record time for payroll items.</td>
<td></td>
</tr>
<tr>
<td><strong>Weekly Timesheets</strong></td>
<td>Track employee time with a customizable weekly timesheet.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Employee and Payroll Features</strong></td>
<td></td>
</tr>
<tr>
<td><strong>New Weekly Timesheets Interface</strong></td>
<td>Enable an updated user interface for your company's weekly timesheet. The updated interface includes column headings, fixed time entry columns, and a memo popup window for each entry.</td>
</tr>
<tr>
<td><strong>Important:</strong> Time Tracking is required to use Weekly Timesheets.</td>
<td></td>
</tr>
<tr>
<td><strong>Important:</strong> Time Tracking and Weekly Timesheets are required to use the New Weekly Timesheets Interface.</td>
<td></td>
</tr>
<tr>
<td><strong>Time Tracking for CRM</strong></td>
<td>Track time associated with cases, tasks, and events. When this option is enabled, a Time subtab is available on case, task, and event records.</td>
</tr>
<tr>
<td><strong>Commissions</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Employee Commissions</strong></td>
<td>Create schedules that calculate commissions for sales representatives and their managers and pay commissions when they are earned.</td>
</tr>
<tr>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Commissions Payable account.</td>
<td></td>
</tr>
<tr>
<td><strong>Commission on Custom Fields</strong></td>
<td>Create custom transaction column fields for use as the commission basis on commission schedules. Custom transaction column fields must be of currency type and can be based on any standard or custom currency amount field.</td>
</tr>
<tr>
<td><strong>Permissions</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Global Permissions</strong></td>
<td>Enable the assigning of permissions directly to employees as well as to roles. When this feature is enabled, a Global Permissions subtab is available on the Access tab of each employee record.</td>
</tr>
<tr>
<td><strong>Advanced Employee Permissions</strong></td>
<td>Check this box to use the additional employee permissions that come with this feature. These permissions give administrators more flexibility and control over which fields and sublists on the employee record are available to the role, based on the assigned employee permissions. These changes extend to most parts of NetSuite. Before enabling this feature, review Before Enabling the Advanced Employee Permissions Feature.</td>
</tr>
</tbody>
</table>

**CRM and SFA Features**

You can enable the following features on the CRM subtab of the Enable Features page.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Features</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Customer Relationship Management</strong></td>
<td>Manage all your business relationships with lists of contacts, companies, events, and tasks.</td>
</tr>
<tr>
<td><strong>Sales Force Automation</strong></td>
<td>Use SFA to manage your sales process.</td>
</tr>
<tr>
<td><strong>Customer Support and Service</strong></td>
<td>Track, route, and manage customer support request.</td>
</tr>
<tr>
<td><strong>Marketing Automation</strong></td>
<td>Create targeted marketing campaigns and customize your email communications.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>You must agree to the NetSuite Marketing Application Terms of Service before you can enable this feature. To agree to the terms, click Terms of Service. Read the terms, check the box at the bottom of the page and click Close Window.</td>
<td></td>
</tr>
<tr>
<td>Related SuiteApps</td>
<td>For more information, see the help topic Creating Email Campaigns Using the Campaign Assistant.</td>
</tr>
<tr>
<td>CRM and SFA Features</td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Create opportunity records you can use to track sales opportunities.</td>
</tr>
<tr>
<td>Note: Enabling this feature creates the system-generated Opportunities account.</td>
<td></td>
</tr>
<tr>
<td>Lead Conversion</td>
<td>Convert leads to prospects, contacts, opportunities, and tasks.</td>
</tr>
<tr>
<td>Before you begin using the Lead Conversion feature, you should do the following:</td>
<td></td>
</tr>
<tr>
<td>● Set the Default Lead Type preference to Individual at Setup &gt; Company &gt; General Preferences.</td>
<td></td>
</tr>
<tr>
<td>● Set the Preferred Lead Form preference to Standard Lead Form at Setup &gt; Sales &gt; Sales Preferences.</td>
<td></td>
</tr>
<tr>
<td>Advanced Forecasting</td>
<td>Manage your sales forecast as three different amounts—worst case, most likely, and upside.</td>
</tr>
<tr>
<td>Team Selling</td>
<td>Assign sales teams to transactions and customers.</td>
</tr>
<tr>
<td>Team Selling lets you calculate split commission for multiple sales representatives on a transaction.</td>
<td></td>
</tr>
<tr>
<td>Historical Metrics</td>
<td>Track historical pipeline and forecast KPIs for the company and for each representative.</td>
</tr>
<tr>
<td>Historical forecast and pipeline amounts can be used for comparison KPIs.</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td></td>
</tr>
<tr>
<td>Email Case Capture</td>
<td>Forward your support email to NetSuite. Then, when a message is received by NetSuite, a case is automatically created using information from the email message.</td>
</tr>
<tr>
<td>Automated Case Escalation</td>
<td>Set up rules and assignments that determine when a case is escalated.</td>
</tr>
<tr>
<td>Issue Management</td>
<td>Use issue records to track problems with products that need resolution outside of the support team.</td>
</tr>
<tr>
<td>Knowledge Base</td>
<td>Create a searchable database for FAQs, support cases and more.</td>
</tr>
<tr>
<td>Help Desk</td>
<td>Track internal support cases submitted by employees separately from support cases submitted by customers.</td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
</tr>
<tr>
<td>Online Forms</td>
<td>Add forms to your existing Web store or site to provide new leads and customer service.</td>
</tr>
<tr>
<td>Mail Merge</td>
<td>Create and manage fax, email, letter, and PDF documents you create for those you do business with.</td>
</tr>
</tbody>
</table>
### CRM and SFA Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>You must agree to the NetSuite Marketing Application Terms of Service before you can enable this feature. To agree to the terms, click Terms of Service. Read the terms, check the box at the bottom of the page and click Close Window.</td>
<td></td>
</tr>
<tr>
<td>CRM Template Categories</td>
<td>Categorize your email and campaign templates.</td>
</tr>
<tr>
<td></td>
<td>You can create new categories at Documents &gt; Templates &gt; Template Categories &gt; New.</td>
</tr>
<tr>
<td>Capture Email Replies</td>
<td>Track all replies to email that was originally sent from NetSuite. For example, if a support representative responds to a case record by email and the customer replies to the email, the response is automatically saved on the case record as well.</td>
</tr>
<tr>
<td>Subscription Categories</td>
<td>Categorize campaigns into different subscriptions. This allows message recipients to subscribe to some kinds of campaigns and unsubscribe from others.</td>
</tr>
<tr>
<td>Upsell Manager</td>
<td>Use the search capabilities to match customers with items they are likely to buy.</td>
</tr>
<tr>
<td>Sales Campaigns</td>
<td>Sales campaigns allow sales representatives to send email campaigns to their customers and track their responses.</td>
</tr>
<tr>
<td>Partners</td>
<td></td>
</tr>
<tr>
<td>Partner Relationship Management</td>
<td>Use records to manage your partners. Track the sales your partners bring in by associating partners with promotion codes or including partner codes in links to online forms.</td>
</tr>
<tr>
<td></td>
<td>You must enable this feature to enable the Partner Access and Advanced Partner Access features.</td>
</tr>
<tr>
<td>Partner Commissions/Royalties</td>
<td>Create schedules that calculate commission for partners and pay commission when it is earned.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Enabling this feature creates the system-generated Commissions Payable account.</td>
</tr>
<tr>
<td>Multi-Partner Management</td>
<td>Associate more than one partner with each sales transaction.</td>
</tr>
</tbody>
</table>

### Analytics Features

You can enable the following features on the Analytics subtab of the Enable Features page.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dashboards</td>
<td></td>
</tr>
<tr>
<td>KPI Scorecards</td>
<td>Add the ability to display a portlet on your dashboard that shows the results of multiple KPIs for multiple date or period ranges. For more information, see the help topic KPI Scorecards Overview.</td>
</tr>
<tr>
<td>Connectivity</td>
<td></td>
</tr>
<tr>
<td>SuiteAnalytics Connect</td>
<td>Enable the SuiteAnalytics Connect feature to access and query your NetSuite data using SQL through database standards such as ODBC, JDBC, and ADO.NET. For more information, see the help topic SuiteAnalytics Connect.</td>
</tr>
<tr>
<td>Third-party Analytics Integration</td>
<td></td>
</tr>
</tbody>
</table>
### Analytics Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export to Tableau® Workbook</td>
<td>Enable users to export saved search and report results as Tableau® workbooks. For more information, see the help topic Exporting Reports, Searches, and Lists.</td>
</tr>
<tr>
<td>SuiteAnalytics Workbook</td>
<td>Enable the SuiteAnalytics Workbook beta feature in your account. After it is enabled, click the Analytics tab in the NetSuite navigation menu to begin using the tool. For more information, see the help topic SuiteAnalytics Workbook Overview.</td>
</tr>
</tbody>
</table>

### Commerce Features

You can enable the following features on the **Web Presence** subtab of the Enable Features page.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Site</td>
<td></td>
</tr>
<tr>
<td>Web Site</td>
<td>Create a website that provides your customers with information about your company and its goods and services.</td>
</tr>
<tr>
<td>Web Store</td>
<td>Run a store that seamlessly integrates with NetSuite accounting. If you check this, you must also check Allow Online Ordering, Operate a Web site and Use Sales Orders.</td>
</tr>
<tr>
<td>Advanced Site Customization</td>
<td>Use HTML templates to customize the appearance of your website.</td>
</tr>
<tr>
<td>Multiple Web Sites</td>
<td>Create more than one website in your NetSuite account, each with its own branding, look, and feel. Each site can have a separate URL, separate items, and separate shopping carts. In addition, each site can have a different source.</td>
</tr>
<tr>
<td>Advanced Web Reports</td>
<td>Gain access to detailed page hits and hosted page reports, customer page reports, keyword, referrer, and new visitor reports.</td>
</tr>
<tr>
<td>Advanced Web Search</td>
<td>Use an advanced search form in your website.</td>
</tr>
<tr>
<td>Descriptive URLs</td>
<td>Allow tab, category and item pages of your website to use descriptive URL components of your choosing for search engine optimization.</td>
</tr>
<tr>
<td>Note:</td>
<td>You can only enable the Descriptive URLs feature if you have set up a domain. For Site Builder: Setup &gt; Site Builder &gt; Setup Tasks &gt; Set Up Web Site. For SuiteCommerce and SuiteCommerce Advanced: Setup &gt; SuiteCommerce Advanced &gt; Set Up Web Site. Click <strong>Edit</strong> next to a website, then click <strong>Domains</strong>.</td>
</tr>
<tr>
<td>URL Component Aliases</td>
<td>Manage URL components used for facets in your SuiteCommerce or SuiteCommerce Advanced website. Also, track multiple URL component aliases on item and category records. For more information, read the help topic Enable URL Components Alias.</td>
</tr>
<tr>
<td>Site Management Tools</td>
<td>When this feature is enabled, the Site Management Tools administrator interface is enabled on your SuiteCommerce or SuiteCommerce Advanced site. This feature lets you manage content, add landing pages, and enhance existing pages on your SCA site.</td>
</tr>
<tr>
<td></td>
<td>To enable this feature, either the SuiteCommerce or SuiteCommerce Advanced feature must also be enabled. For more information on Site Management Tools, see the help topic SMT Overview.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>Customizable Checkout Subdomains</td>
<td>Create a customizable checkout subdomain for your site.</td>
</tr>
<tr>
<td>SuiteCommerce</td>
<td>Create shopping sites that include the full shopping, checkout, and My Account experiences for B2C and B2B businesses. Use themes and extensions to create a unique stylistic look or provide additional functionality for any domains associated with your site. For more information, see the help topic <a href="#">Store Front</a>.</td>
</tr>
<tr>
<td>SuiteCommerce Advanced</td>
<td>Create shopping sites that have all of the functionality of a SuiteCommerce implementation but also have complete control for advanced customization using configurable templates (HTML/CSS/JS), product search API (REST/JSON), and cart and checkout services. For more information, see the help topic <a href="#">Store Front</a>.</td>
</tr>
<tr>
<td>SuiteCommerce In-Store</td>
<td>Operate a web-based point-of-sale application that has an intuitive user interface designed for touch tablet screens. For more information, see the help topic <a href="#">SuiteCommerce InStore</a>.</td>
</tr>
<tr>
<td>Asynchronous afterSubmit Sales Order Processing</td>
<td>When this feature is enabled, afterSubmit user events are triggered asynchronously when a sales order is created during web store checkout. When an afterSubmit user event runs in asynchronous mode, the next page is loaded during the period of time the afterSubmit user event is still processing. Web store Sales Orders process afterSubmit scripts in the background. This is a global setting. This setting causes all afterSubmit user events and workflows triggered by web store checkout to run asynchronously.</td>
</tr>
<tr>
<td>Asynchronous afterSubmit Customer Processing</td>
<td>Check this box if you want afterSubmit user events to be triggered asynchronously when a sales order is created during web store checkout.</td>
</tr>
<tr>
<td>Web Site Duplicate Email Management</td>
<td>Check this box if you want to prevent shoppers from creating new customer accounts when they have already signed up for an account on your website.</td>
</tr>
<tr>
<td>Commerce Categories</td>
<td>Enable commerce categories. Commerce categories let you create a hierarchical structure of categories and subcategories for organizing your items. For more information on commerce categories, see the help topic <a href="#">Commerce Categories</a>.</td>
</tr>
<tr>
<td>Commerce Search Analytics</td>
<td>When this feature is enabled, Commerce Search Analytics generates two standard workbooks to show the top searches in your website and top searches that returned zero items in the search results. For more information, see the help topic <a href="#">Search Analytics</a>.</td>
</tr>
<tr>
<td>Publishing</td>
<td></td>
</tr>
<tr>
<td>Host HTML Files</td>
<td>Upload your HTML website to your NetSuite File Cabinet. You can then publish your website as a tab as your Home page or in conjunction with the NetSuite Shopping cart and Checkout tabs. Use NetSuite smart tags in the HTML of your website to pull information directly from your account to display in your website.</td>
</tr>
<tr>
<td>External Catalog Site (WSDK)</td>
<td>Use the shopping cart and checkout pages with your Web catalog or Web store. If you check this, you must also check Allow Online Ordering, Use Sales Orders, Operate a Web Site and Operate a Web Store.</td>
</tr>
<tr>
<td>Document Publishing</td>
<td>Publish links to your Microsoft® Word, PowerPoint, and other document files in your File Cabinet to your intranet or website. When you click this link from your site, the document opens in a separate window for viewing. Enabling Document Publishing adds a Publishing subtab to the records of all files in your File Cabinet.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Intranet</td>
<td>Create an internal website to publish information for your company.</td>
</tr>
<tr>
<td>Access</td>
<td></td>
</tr>
<tr>
<td>Customer Access</td>
<td>Give customers online access to their invoice and payment information.</td>
</tr>
<tr>
<td>Online Ordering</td>
<td>Give customers limited access to your account so they can place orders online. If you check this, you must also check Allow Customer Access.</td>
</tr>
<tr>
<td>Vendor Access</td>
<td>Give vendors online access to their transaction history and purchase orders.</td>
</tr>
<tr>
<td>Partner Access</td>
<td>Give partners online access to view reports, promotions codes and their partner records.</td>
</tr>
<tr>
<td>Advanced Partner Access</td>
<td>Assign an Advanced Partner Center role to partners that gives access to more records and transactions than the Standard Partner Center.</td>
</tr>
<tr>
<td>SuiteCommerce Real User Monitoring</td>
<td>Enable real user monitoring data collection.</td>
</tr>
</tbody>
</table>

**SuiteCloud Features**

You can enable the following features on the **SuiteCloud** subtab of the Enable Features page.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SuiteBuilder</td>
<td></td>
</tr>
<tr>
<td>Item Options</td>
<td>Create and use item-specific options on purchase and sales transactions.</td>
</tr>
<tr>
<td>Custom Records</td>
<td>Use custom records to create a database of information specific to your business. This feature is also required for center and tab customization.</td>
</tr>
<tr>
<td>Advanced PDF/HTML Templates</td>
<td>Enable powerful, template-based rendering of selected transactions.</td>
</tr>
<tr>
<td></td>
<td>The Advanced PDF/HTML Templates feature provides a template-based model for print customization of transaction and entry forms.</td>
</tr>
<tr>
<td></td>
<td>These HTML-based templates provide greatly expanded customization capabilities over the previously supported transaction form layouts, now known as basic layouts.</td>
</tr>
<tr>
<td>SuiteScript</td>
<td></td>
</tr>
<tr>
<td>Client SuiteScript</td>
<td>Add advanced functionality to your account with industry-standard JavaScript.</td>
</tr>
<tr>
<td>Server SuiteScript</td>
<td>Use server-side scripting to customize your business workflows and processes.</td>
</tr>
<tr>
<td>SuiteScript Server Pages</td>
<td>Support the creation of SSP applications to use website and other customizations.</td>
</tr>
<tr>
<td>SuiteScript 2 Server Pages</td>
<td>Utilize both SuiteScript 1.0 and SuiteScript 2.0 in web applications.</td>
</tr>
<tr>
<td>SuiteFlow</td>
<td>Enable automation of business processes without custom code.</td>
</tr>
<tr>
<td>SuiteGL</td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Custom GL Lines</td>
<td>Support plug-ins that allow for GL impact customization.</td>
</tr>
<tr>
<td>Custom Transactions</td>
<td>Allow creation of custom transaction types for your business.</td>
</tr>
<tr>
<td>Custom Segments</td>
<td>Allow creation of custom segments for your business.</td>
</tr>
<tr>
<td>SuiteBundler</td>
<td>Enable the packaging together of groups of customization objects so they can be shared between NetSuite accounts.</td>
</tr>
<tr>
<td>SuiteTalk (Web Services)</td>
<td>Enable the NetSuite SOAP web services API. This feature lets you integrate external systems and to migrate data using a standards-based interface.</td>
</tr>
<tr>
<td>REST Web Services</td>
<td>Enable the NetSuite REST web services API. This feature lets you integrate external systems and to migrate data using a standards-based interface.</td>
</tr>
<tr>
<td>Manage Authentication</td>
<td>Enable single sign-on integration in your account. This feature permits you to bypass the authentication step when accessing an integrated third-party application from the NetSuite user interface. For more information, see the help topic Outbound Single Sign-on (SuiteSignOn).</td>
</tr>
<tr>
<td>SuiteSignOn</td>
<td>Enable single sign-on access from external applications to NetSuite. User credentials and policies are managed by an OIDC provider (OP). This feature allows users to access NetSuite from their OP, without logging in to NetSuite separately. Form more information, see the help topic OpenID Connect (OIDC) Single Sign-on (SuiteSignOn).</td>
</tr>
<tr>
<td>OpenID Single Sign-on</td>
<td>Enable authentication with a Google Account. This feature allows users to link directly to NetSuite from a variety of Google applications, without logging in to NetSuite separately. Important: This feature is targeted for deprecation. Consider implementing a different solution for single sign-on access to NetSuite. See the help topic OpenID Connect (OIDC) Single Sign-on or SAML Single Sign-on.</td>
</tr>
<tr>
<td>OpenID Connect (OIDC) Single Sign-on</td>
<td>Enable single sign-on access from external applications to NetSuite. User credentials and policies are managed by an OIDC provider (OP). This feature allows users to access NetSuite from their OP, without logging in to NetSuite separately. Form more information, see the help topic OpenID Connect (OIDC) Single Sign-on.</td>
</tr>
<tr>
<td>SAML Single Sign-on</td>
<td>Enable single sign-on access from external applications to NetSuite, using authentication from a third-party identity provider compliant with SAML v2.0. For more information, see the help topic SAML Single Sign-on.</td>
</tr>
<tr>
<td>Token-based Authentication</td>
<td>Enable NetSuite's token-based authentication feature. For more information, see the help topic Token-based Authentication (TBA). Note: The features Client SuiteScript and Server SuiteScript must also be enabled to use token-based authentication with RESTlets.</td>
</tr>
</tbody>
</table>

Integration Add-ons

- Telephony Integration: Dial using any TAPI-enabled telephone hardware from any phone number field in the application.

Related SuiteApps

- Outlook Integration

SuiteCloud Development Framework
<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SuiteCloud Development Framework</td>
<td>Enable SuiteCloud Development Framework (SDF). For more information, see the help topic <a href="#">SuiteCloud Development Framework</a>.</td>
</tr>
<tr>
<td>Copy to Account (Beta)</td>
<td>Copy customizations from other accounts into your account. For more information, see the help topic <a href="#">Copy to Account</a>.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> The features SuiteCloud Framework (SDF) and SuiteTalk (Web Services) must also be enabled to use Copy to Account.</td>
</tr>
<tr>
<td>SuiteApp Control Center (Beta)</td>
<td>Enable distribution of SDF SuiteApps to customers. <strong>Warning:</strong> SuiteApp Control Center is a beta feature. The contents of this feature are preliminary and may be changed or discontinued without prior notice. For more information, see the help topic <a href="#">SuiteApp Control Center</a>.</td>
</tr>
</tbody>
</table>
NetSuite Company Settings

For information about the various company settings you need to define to set up your NetSuite account, see the following:

- Configuring Company Information
- Set Company Preferences
- Configuring Multiple Languages
- Enabling and Creating IP Address Rules
- Renaming Records and Transactions
- Set Auto-Generated Numbers
- Setting Up States, Provinces, and Counties
- Supported Countries
- Setting Printing and Fax Preferences
- Setting Email Preferences
- Setting Up Duplicate Detection
- Using System Alerts
- Searching Bulk Processing Jobs
- Configuring Administrative Notifications
- Managing Plug-ins
- NetSuite Tiers of Service
- SuiteCloud Plus Settings

If you are using NetSuite CRM+, see the following:

- Setting Up Transactions for NetSuite CRM+
- The Setup Page for NetSuite CRM+ Users
- Using Telephony Integration

Configuring Company Information

The Company Information page is where an administrator, or another user with Set Up Company permission, can enter basic identifying information for an account. See the following sections for more information:

- Enter Basic Company Information
- Enter Company Address Information
- View Company URLs for Services in This NetSuite Account

Setting up company information requires View permission, and changes made to company information are captured in system notes. For more information, see Searching System Notes.
### Important:
If you plan to set up a OneWorld account with multiple subsidiaries, the data that you enter on the Company Information page provide the values that NetSuite uses to create your root (top-level) subsidiary. After defining your root subsidiary, you can create additional child subsidiaries at lower levels in an organizational hierarchy. For more information, see the help topic Set up NetSuite OneWorld.

### Note:
You can add custom fields and user event scripts to the Company record in both single instance and OneWorld accounts. Customizing the company record enables you to add fields and business logic that are specific to the country or region in which your business operates. Go to Customization > Lists, Records, & Fields > Other Custom Fields. In single instance accounts, select Company as the Record Type. In OneWorld accounts, select Subsidiary as the Record Type. Complete the fields as required and then save the custom field. For more information, see the help topic Creating a Custom Field.

## Enter Basic Company Information

Enter the information about your company to be used for this NetSuite account.

### To enter basic company information:

1. Go to Setup > Company > Company Information.
2. On the Set Up Company page, enter your company information:
   - **Company Name** – Enter your company’s name in the format that you want it to appear in on all forms except checks.
   - **Legal Name** – Enter the legal name of your company.
   - **Taxonomy Reference** – Select the taxonomy reference used by your company. Taxonomy reference is specifically used for Portugal Standard Audit File for Tax (SAF-T) which refers to the new classification for the natural accounts of the SNC. This identifies the use of the relative tax reporting type on the legal entity tax registration.
   - **E-Document Country for Free Use** – Select the country where you want to send e-documents to. If the Electronic Invoicing SuiteApp is installed on your account, you can use this SuiteApp to send e-documents to one country for free. To send e-documents to multiple countries, you must purchase a license for Electronic Invoicing. After you send an e-document, you cannot edit this field.
   - **E-Document Sender** – Select the employee whose name and email address you want to appear as the sender of e-documents sent by your company. If you do not select an employee, the name and email address of the user who sent the e-document will be shown as the sender.
   - **Recipient of E-Document Notifications** – Enter the email address of the recipient of email notifications when bulk processes have finished or encountered errors. If you do not enter an email address, the notifications will be sent to account administrators.
   - **Ship to Attention** – Enter the name of the designated contact person for your company as recorded on your UPS account.
     - **Note:** This field is required for UPS Integration.
   - **Company Logo (Forms)** – Select your company logo to show on printed and emailed transaction forms.

To upload a logo, go to Documents > Files > Images > New. Be sure to check the Available Without Login box. Logo files must be in GIF or JPG format, and the file size should be less than 10 KB.
If you have uploaded a logo, but do not see it in the list, make sure that the correct folder is selected in the Company Logo Folder list on the Setup > Company > General Preferences page.

**Note:** To print your logo on standard forms, the logo must be no more than 200 pixels wide and 60 pixels high. Image resolution may change how your logo appears on a standard form. If your logo doesn’t display correctly, change the image resolution.

- **Company Logo (Pages)** – Select a company logo to show on the pages of your Customer, Partner, and Vendor Centers.
- **Display Logo Internally** – Check this box to show the logo selected in the Company Logo (Pages) field on all pages of your NetSuite account next to the Oracle | NetSuite logo.
- **Web Site** – Enter the URL of your website.
- **County/State/Province** – Set up counties, states, and provinces. For information, see Setting Up States, Provinces, and Counties.
- **Country** – This field shows the country set for the company. For information, see Supported Countries.
- **Return Email Address** – Enter the return email address used to send email forms and reports from NetSuite.
- **Fax** – Enter an optional fax number for your company.
- **Currency** – (Available when the Multiple Currencies feature is enabled.) Choose a base currency for the company. Choose carefully because after transactions have been entered with the selected base currency, you can no longer edit this field. To add a currency, go to Lists > Accounting > Currencies > New. For information about working with multiple currencies, see the help topic Currency Management. You can format the currency on the currency record.
- **Currency fields** – (Available when the Multiple Currencies feature is not enabled.) Use these fields to select a currency and format how currency amounts appear on reports and printed transactions.
  - **Currency Locale** – Select a country to determine the currency for your account. The currency locale specifies the symbol, symbol placement, and thousands separator for currency values.
  - **Name** – Enter a unique name for the currency.
  - **ISO Code** – Enter the three-letter International Standards Organization (ISO) code for the currency.
  - **Default Exchange Rate** – Enter an exchange rate for this currency against the base currency of the company, or if you use OneWorld, for this currency against the base currency of the root parent subsidiary.
  - **Automatic Update** – Check the box to update currency exchange rates daily.
  - **Currency Precision** – Displays the precision of the currency, which designates the number of digits to the right of the decimal point used in currency transaction. Precision can be zero or two.
  - **Inactive** – Check the box to make the currency record inactive, or clear it to make the record active.
  - **Format Sample** – This field displays the default currency format for the currency. The currency format is the combination of the symbol, thousands separator, and level of decimal precision to display amounts on transactions.
  - **Override Currency Format** – Check this box to override the default currency format for this currency. If you check the Override Currency Format box, the Currency Local field...
disappears, and the Currency Symbol and Symbol Placement (Before Number or After Number) fields appear.

Customized currency formats apply to currency fields displayed on the screen including viewing forms, editing and creating new forms, list pages, search results, and printed documents. Customized currency formats are not reflected in reports or CSV import and export results.

- **Symbol** – Enter the currency symbol and text that you want to use for this currency. Include spaces if you want to separate the symbol from the currency value. For example, $ USD or $USD.
- **Symbol Placement** – Select to place the currency symbol before or after the number.

The Format Sample field shows how currency amounts will display using the customized currency format.

See the help topic Customizing Currency Formats for more information about currency formats.

- **National business identification number** – (This number varies from country to country. It is usually assigned by a national tax agency.)
  - **Australia - ABN** – Enter your ABN (Australian Business Number), which is required if your company is required to be registered for the goods and services tax (GST). If you do not have an ABN, and you need one, please visit the Australian Taxation Office website at [http://www.ato.gov.au](http://www.ato.gov.au).
  - **Canada - Business Number** – Enter the 15-digit registration number that identifies your company to the Canada Revenue Agency (CRA). If you do not have a Business Number, visit the CRA website at [http://www.cra-arc.gc.ca/menu-eng.html](http://www.cra-arc.gc.ca/menu-eng.html).
  - **UK – VAT Registration No.** – Enter your company's VAT registration number. If you do not have a VAT registration number, please visit the HMRC website at [http://www.hmrc.gov.uk](http://www.hmrc.gov.uk).

- **SSN or TIN (Social Security Number, Tax ID Number)** – If your business is a proprietorship or you do not have an EIN, enter your SSN or TIN.

    If your account has the EU Mini One Stop Shop feature enabled:
- **MOSS Applies** – Check this box if the Mini One Stop Shop (MOSS) VAT scheme applies to this company.
- **MOSS Nexus** – Select the EU member state (tax nexus) where you are registered for MOSS VAT returns.

- **UPS 3rd Party Billing Account Number** – Available when Third Party Billing is enabled on the Preferences subtab at Setup > Accounting > Shipping. Enter the UPS account number that should be used by default when Third Party Billing is selected on a UPS-integrated item.
fulfillment. This can be your company's master account number that should be used regardless of location. You can override this account number on item fulfillments to enter another 3rd party account. To set a default for customers when billing recipients, enter the customer's UPS or FedEx account number on the customer record.

- **FedEx 3rd Party Billing Account Number** – Available when Third Party Billing is enabled on the Preferences subtab at Setup > Accounting > Shipping. Enter the FedEx account number that should be used by default when Bill Third Party is selected on FedEx-integrated item fulfillments.
- **3rd Party Billing Zip** – Available when Third Party Billing is enabled on the Preferences subtab at Setup > Accounting > Shipping. Enter the zip code or postal code associated with the 3rd party accounts.
- **3rd Party Billing Country** – Available when Third Party Billing is enabled on the Preferences subtab at Setup > Accounting > Shipping. Select the country associated with the 3rd party account numbers.
- **First Fiscal Month** – Select the first month of your fiscal year.
- **Time Zone** – Select the time zone where your company is located. Individuals can set their personal time zones at Home > Set Preferences.
- **Allowed IP Addresses** – Available when the IP Address Rules feature is enabled. Enter the IP addresses from which you want to allow access to your NetSuite account. For more information, see the help topic Enabling and Creating IP Address Rules.
- **Account ID** – This field shows the NetSuite account ID for your company, which is required when you submit a support case.
- **Check the GL Impact Locking box to permit NetSuite to automatically generate journal entries (copy and adjustment) when changes are made to a transaction that posted to the general ledger. When this box is checked, transactions that post to the general ledger display the GL Impact subtab. This subtab records the general ledger impact of this transaction and any modifications. You can check and clear this box, as required.**

**Note:** This option is visible in implementations that are not OneWorld and only when the GL Audit Numbering feature is enabled. For more information, see the help topics GL Audit Numbering and GL Impact Locking.

3. Set up address information.

**Enter Company Address Information**

You can define separate shipping and return addresses, in addition to the main address defined for your company. If you do not define a separate shipping or return address, it defaults to be the same as the main address. You do not need to define a billing address at the company level. Billing addresses can be defined on transactions as needed.

**To set up address information:**

**Note:** The following steps list the address fields included in the default address form. The address form shown may vary according to the country where the company is located, and depends on the custom address forms defined in your account. For more information, see the help topic Customizing Address Forms.

1. Click the **Addresses** subtab.
2. You can enter address information for your main business, shipping (used for receiving shipments), or receiving returns (used on return forms). To enter address information, click **Edit** next to the **Address** field and complete the following:
   - **Country** – Select your company's country.
   - **Attention** – Enter the person at this address who should be notified of receipt of documents or goods.
   - **Addressee** – Enter the company name that will appear on the shipping label.
   - **Phone** – Enter your company's phone number.
   - **Address 1** – Enter your company's address in the format that you want it to appear in on all forms except checks.
   - **Address 2** – Enter an optional second address line in the format that you want it to appear on all forms except checks.
   - **City** – Enter your company's city in the format that you want it to appear in on all forms except checks.
   - **State** – Enter your company's state in the format that you want it to appear in on all forms except checks.
   - **Zip** – Enter your company's postal code in the format that you want it to appear in on all forms except checks.
   - **Address** – The address information that you enter in the above fields will automatically appear in this field. Here, you can see how your address will appear on all forms except checks. You can check the **Override** box to edit this formatting.
   - **Override** – Check the box to disable the free-form address text field. When this field is disabled, text entered in the other address fields does not display in the Address text field.

3. To view the address location in Google Maps, click **Map** next to the **Address** field.
4. Click **Save**.

To update this information at any time, return to Setup > Company > Company Information, make changes, and save your changes.

### View Company URLs for Services in This NetSuite Account

You can view the URLs for all NetSuite services for this account on the Company URLs subtab. The information on this subtab is not editable, it is provided for your convenience. Developers and other users in your account may need to know the account-specific URLs for a particular service. The URLs are unique to each account, so the URLs for your sandbox accounts and your Release Preview account are different from the URLs for your production account. Log in to a specific account to view the unique URLs for that account.

For more information about the **Company URLs** subtab, see [URLs for Account-Specific Domains](#).

**To view the URLs for services in this account:**

1. Click the **Company URLs** subtab to view the URLs following services:
   - **Customer Center Login**
   - **NetSuite UI**
   - **SuiteTalk (SOAP and REST) web services**
   - **RESTlets**
   - **External Forms**
   - **External Catalog Site (WSDK)**
2. Provide these URLs as necessary to users who do not have access to view the Company Information page.

Set Company Preferences

An administrator, or another user with the Set Up Company permission, can set company preferences for how information is input and processed in NetSuite, on the General Preferences page.

This page is available at Setup > Company > General Preferences. These preferences apply to all users in the account.

Some of the preferences available here also can be set at the subsidiary (OneWorld only), role, or individual user level. See NetSuite Preference Levels Overview. You can prohibit these types of overrides on the Overriding Preferences subtab of this page. See Overriding Company Preferences.

For information about the General Preferences page, see:

- Setting General Account Preferences
- Overriding Company Preferences
- NetSuite Password Requirements
- Configuring Multiple Languages
- Center Logout Pages
- Custom Preferences
- Accounting Contexts
- Date Formats
- Number Formats

Important: You can click Audit Trail in this page header to review a list of changes to general company preferences, including the users who made the changes, dates of the changes, and preference values before and after changes. This list includes preferences that have been reset through scripting. See Auditing Account Preferences.

Other company preferences pages are available from the Setup > Accounting, Setup > Sales, and Setup > Marketing menus.

NetSuite Preference Levels Overview

NetSuite offers a variety of preferences that you can set to tailor NetSuite accounts to your individual needs. These preferences are available at the levels shown in the following table:

<table>
<thead>
<tr>
<th>Preference Type</th>
<th>Applies To</th>
<th>Set By</th>
<th>Set On</th>
<th>For details, see</th>
</tr>
</thead>
<tbody>
<tr>
<td>User</td>
<td>Current user only</td>
<td>User</td>
<td>Home &gt; Set Preferences page</td>
<td>Setting Personal Preferences</td>
</tr>
<tr>
<td>Role</td>
<td>Users logging in with the role</td>
<td>Account Administrator</td>
<td>Role record, Preferences subtab</td>
<td>Setting Role-Based Preferences</td>
</tr>
<tr>
<td>Subsidiary (OneWorld only)</td>
<td>Users assigned to the subsidiary</td>
<td>Account Administrator</td>
<td>Subsidiary record, Preferences subtab</td>
<td>Editing Subsidiary Records</td>
</tr>
<tr>
<td>Company</td>
<td>All users in the account</td>
<td>Account Administrator</td>
<td>Setup &gt; Company &gt; Preferences &gt; General</td>
<td>Set Company Preferences</td>
</tr>
</tbody>
</table>
The preferences that you can set at each level vary according to the edition of NetSuite you are using and the features enabled in your account.

The same preferences are available at the user and role levels. Some of these preferences are also available at the company and subsidiary levels.

If a company-level preference is set not to allow overrides, you cannot set this preference at the subsidiary, role, or user levels. See Overriding Company Preferences.

If the same preference is set at multiple levels, these conflicting preferences are processed in the following order:
- An individual user preference takes precedence over role, subsidiary, and company preferences.
- A role-based preference takes precedence over subsidiary and company preferences.
- A subsidiary-based preference takes precedence over a company preference.
- A company preference takes precedence over the system default.

Setting General Account Preferences

To set up general preferences:

1. Go to Setup > Company > General Preferences.
2. Enter values and select text in preferences fields.
3. Click Save when done.

To update or make changes to these preferences at any time, return to Setup > Company > General Preferences, make changes, and click Save.

Note: Changes made to general preferences are captured in system notes. For more information, see Searching System Notes.

General Preferences:

<table>
<thead>
<tr>
<th>Preference</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Format</td>
<td>Select the format for abbreviated dates. By default, users can override this preference at Home &gt; Set Preferences. To prevent this, clear the Allow Overrides box for this preference on the Overriding Preferences subtab. For more information, see Date Formats.</td>
</tr>
<tr>
<td>Long Date Format</td>
<td>Select the format for formal dates. By default, users can override this preference at Home &gt; Set Preferences. To prevent this, clear the Allow Overrides box for this preference on the Overriding Preferences subtab. For more information, see Date Formats.</td>
</tr>
<tr>
<td>Time Format</td>
<td>Select the format for time entries to display online and in printed forms. By default, users can override this preference at Home &gt; Set Preferences. To prevent this, clear the Allow Overrides box for this preference on the Overriding Preferences subtab.</td>
</tr>
<tr>
<td>Preference</td>
<td>Setting</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Number Format</td>
<td>Select the format to display numbers entered on transaction forms and entity forms online. Users can override this preference at Home &gt; Set Preferences. For more information, see Number Formats.</td>
</tr>
<tr>
<td>Negative Number Format</td>
<td>Select the format to display negative numbers entered on transaction forms and entity forms online. User can override this preference at Home &gt; Set Preferences. For more information, see Number Formats.</td>
</tr>
<tr>
<td>Phone Number Format</td>
<td>Select a default phone number format. When users enter phone numbers, they automatically change to this format. The format that you specify here is used on all online forms. By default, users can override this preference at Home &gt; Set Preferences. To prevent this, clear the Allow Overrides box for this preference on the Overriding Preferences subtab.</td>
</tr>
<tr>
<td>First Day of Week</td>
<td>Select the day to begin each calendar week.</td>
</tr>
<tr>
<td>Search Sorting</td>
<td>Select the alphabetical order to use when displaying search results. Select Language Specific to use the alphabetical order specific to your NetSuite language settings. Select English (U.S.) to use the U.S. English alphabetical order. By default, users can override this preference at Home &gt; Set Preferences. To prevent overrides, clear the Allow Override box for this preference on the Overriding Preferences subtab.</td>
</tr>
<tr>
<td>Add Primary Contact to</td>
<td>Check this box to add the primary contact for each entity to its Bill To address.</td>
</tr>
<tr>
<td>Bill To Address</td>
<td></td>
</tr>
<tr>
<td>Use Last Name First for</td>
<td>Check this box to list employees by last name first for tax and payroll purposes.</td>
</tr>
<tr>
<td>Employees</td>
<td></td>
</tr>
<tr>
<td>Use Last Name First for</td>
<td>Check this box to list all entities (including contacts, customers, partners, and vendors) by last name first for tax and payroll purposes.</td>
</tr>
<tr>
<td>Entities</td>
<td></td>
</tr>
<tr>
<td>Pre-Populate Contact</td>
<td>Check this box to automatically fill address fields with customer addresses for contacts created from customer record.</td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td>Show Employees as</td>
<td>Check this box to create a contact record for each employee record.</td>
</tr>
<tr>
<td>Contacts</td>
<td></td>
</tr>
<tr>
<td>Show Display Name with</td>
<td>Check this box to display both item name and display code when an item is selected on transactions and records.</td>
</tr>
<tr>
<td>Item Codes</td>
<td></td>
</tr>
<tr>
<td>Password Policy</td>
<td>Built-in password policies support three levels of password validation for NetSuite users. These policies enforce the following requirements for password length and content:</td>
</tr>
<tr>
<td>Preference</td>
<td>Setting</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>■ Strong: minimum length of 10 characters, at least 3 of these four character types — uppercase letters, lowercase letters, numbers, non-alphanumeric ASCII characters</td>
<td></td>
</tr>
<tr>
<td>■ Medium: minimum length of 8 characters, at least 2 of these four character types — uppercase letters, lowercase letters, numbers, non-alphanumeric ASCII characters</td>
<td></td>
</tr>
<tr>
<td>■ Weak (Not Recommended): minimum length of 6 characters</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The selected password policy determines the minimum acceptable value for the Minimum Password Length field. The policy does not affect the Password Expiration in Days field value.

All NetSuite accounts are set to a Strong policy by default. For more information, see the help topic NetSuite Password Requirements.

<table>
<thead>
<tr>
<th>Minimum Password Length</th>
<th>The Minimum Password Length is the minimum number of characters required for user passwords. The default value for this field is determined by the selected password policy. Because the default password policy is Strong, the default Minimum Password Length is 10 characters. You can, if desired, make the minimum password length value longer than the minimum required by the policy. You cannot make this value shorter. If any users in your account have the View Unencrypted Credit Cards permission, a Strong policy is required. In these cases, you cannot change the default Password Policy value. Passwords for new users logging in with the Customer Center role, and for website shoppers, require a minimum of 6 characters. Passwords for Customer Center users and website shoppers who existed before that release were not affected by this change. For more information, see the help topic NetSuite Password Requirements.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password Expiration in Days</td>
<td>Enter the number of days that users can continue to log in to your NetSuite account before they are prompted to change their password.</td>
</tr>
</tbody>
</table>

**Note:** As of December 10, 2015, valid values are 1-365. Values entered before that date are not affected by this limit. However, if any data on the General Preferences page is changed, only valid values within this range will be accepted for the Password Expiration in Days field. For accounts provisioned after this date, the value for Password Expiration in Days is set to 180 days by default.

Days are calculated from the date that each user last changed their password, not from the date that the company preference is changed. Dates of the previous password change and current password expiration are displayed in the user’s My login audit portal.

**Important:** It is strongly recommended that you set a value for Password Expiration in Days to ensure that the Password Policy is applied to existing users.

- Employees using a role with the View Unencrypted Credit Card permission are prompted to update passwords at least every 90 days, unless the value set here is less than 90 days.
- You can enable the Require Password Change on Next Login option on employee records; or you can use CSV import to update this option on many employee records at one time.

**Note:** The value set in the Password Expiration in Days field is not applied to Customer Center users’ passwords.

For more information, see the help topic NetSuite Password Requirements.

<p>| User Registration Link Expiration In Hours | The number of hours before the URL for new user access provisioning will expire. The default value is 24 hours. Valid values range from one (1) hour to 72 hours.                                                                                                                                            |</p>
<table>
<thead>
<tr>
<th>Preference</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preference</strong></td>
<td><strong>Setting</strong></td>
</tr>
<tr>
<td>Set Company Preferences</td>
<td>The default value, 24 hours, is hard-coded in the following standard user access email templates:</td>
</tr>
</tbody>
</table>
|                                    | ▪ Customer Center Access Email  
▪ Partner Center Access Email  
▪ User Access Email                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                    | If you change the default value in General Preferences, you must also update the value in the user access email templates.                                                                                                                                                                                                                                                                                                                                                                           |
| Idle Session Timeout In Minutes    | The number of minutes that a user’s NetSuite user interface session can be idle before locking the user’s session. The default value is 180 minutes (3 hours). Valid values range from 15 minutes to 720 minutes (12 hours).                                                                                                                                                                                                                                                                                                                                 |
| Internal Web Site                  | Select the site from which tabs can be published to the internal centers.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Allow Free-Form States in Addresses| Check this box to allow the entry of free-form text in State/Province fields.                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                    | ▪ When this preference is enabled, the State/Province field is a free-form text field. You can type any text into the field, and it is not converted to standard state or province identifiers. The text you enter is stored on the record or transaction.  
▪ When this preference is disabled, the State/Province field is a list where you can choose from standard U.S. States and Canadian Provinces. Any text you enter is converted to standard state or province identifiers.                                                                                                                                                                                                 |
<p>|                                    | <strong>Note:</strong> If you enable this preference, you must enter the two-letter abbreviation for the state or province for the system to properly determine the transaction nexus. If you use the full name of the state or province, the system will not be able to determine the correct transaction nexus.                                                                                             |
|                                    | This preference affects the State/Province field on entity records, location records and transactions. It also affects the search fields on entity, location, and transaction searches. This preference does not affect Web store address entries or UPS and FedEx shipping. UPS and FedEx look exclusively at the Zip Code and Country fields to determine shipping rates.                                                                 |
| Use State Abbreviations in Addresses| Check this box to use the standard abbreviations for states in address fields and labels. If you clear this box, the full name of the state is used.                                                                                                                                                                                                                                                                                               |
| Company Logo Folder                | Select the File Cabinet folder where your company (and for OneWorld accounts, subsidiary) logo is or will be stored. This selection determines the files that are listed in the Company Logo (Forms) and Company Logo (Pages) on the Setup &gt; Company &gt; General Preferences page. In OneWorld accounts, these files are also listed in the Subsidiary Logo (Forms) on the Setup &gt; Company &gt; Subsidiaries &gt; Subsidiary page. The logo selected on the Setup Company Information page is used for the main subsidiary. Logos for other subsidiaries can be set on their Subsidiary pages. |
| Customer Center Login Page         | If you have a custom login page for users with Customer Center roles, select the HTML file for that login page here. For more information, see the help topic Creating Custom Pages for Login to Your NetSuite Account.                                                                                                                                                                                                                       |
| Default Role for New Customers     | Select the role assigned by default to customers granted NetSuite access. This role displays on the Access tab when Customer records are edited.                                                                                                                                                                                                                                                                                                                     |</p>
<table>
<thead>
<tr>
<th>Preference</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Center Welcome Message</td>
<td>Enter the message to display to users of the Customer Center. When a customer is logged in, this message is followed by the customer's name. When no customer is logged in, it is followed by “Guest”.</td>
</tr>
<tr>
<td>Show Help Link in Customer Center</td>
<td>Clear this check box to remove the online help link so it is not visible to Customer Center users. By default, this box is checked and the help link is available. This preference does not affect any other centers.</td>
</tr>
<tr>
<td>Horizontal Labels</td>
<td>Check this box to display labels to the left of fields on record pages. By default labels appear above fields.</td>
</tr>
<tr>
<td>Delay Loading of Sublists</td>
<td>Check this box to delay loading of information on subtabs until they are clicked. Enabling this preference decreases page-load times. By default, users can override this preference at Home &gt; Set Preferences. To prevent this, clear the Allow Override box for this preference on the Overriding Preferences subtab.</td>
</tr>
<tr>
<td>Screen Font</td>
<td>By default, the font is Open Sans. Select the default font for text displayed in online pages. By default, users can override this preference on the Appearance subtab at Home &gt; Set Preferences. To prevent this, clear the Allow Overrides box for this preference on the Overriding Preferences subtab.</td>
</tr>
<tr>
<td>Landing Page</td>
<td>Select a tab created by a custom Suitelet deployment to be the first page displayed when users log into this NetSuite account. This preference overrides any user-defined landing page preferences for a standard or custom center tab set at Home &gt; Set Preferences. If both this preference and the user landing page preference are unset, the user’s Home page is the initial landing page. The list of available landing pages includes all deployed Suitelets, by their deployment IDs. This list does not include Suitelets that do not have at least one deployment. This preference is intended for use in cases where an initial account setup assistant is displayed for account setup and configuration.</td>
</tr>
<tr>
<td>Number of Rows in List Segments</td>
<td>When users look at a long list in NetSuite, the list is divided into segments. Enter the maximum number of records for each segment. For example, if you have 200 customers and you would like them to be displayed in groups of 25 per page, then set the segment size to 25. To see the next set of 25, users can click the Next icon. Click the Previous icon to return to previous segments of the list. By default, users can override this preference at Home &gt; Set Preferences. To prevent this, clear the Allow Override box for this preference on the Overriding Preferences subtab.</td>
</tr>
<tr>
<td>Maximum Entries in Dropdowns</td>
<td>Enter the maximum number of records to display in lists. After a list has reached the limit you set here, the list will pop up in a window of its own. The highest number you can enter is 500. If you always want lists to pop up, set the maximum to zero. If you always want lists to be lists, set the maximum to 500. By default, users can override this preference at Home &gt; Set Preferences. To prevent this, clear the Allow Override box for this preference on the Overriding Preferences subtab.</td>
</tr>
<tr>
<td>Preference</td>
<td>Setting</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Note:</strong> The Case/Task/Event field for</td>
<td>The Case/Task/Event field for time transactions is displayed as a list only if the sum of all company-wide case, task, and event records is less than 5000 and less than the number entered here. Roles that can enter time transactions on behalf of other employees will always have a pop-up field displayed.</td>
</tr>
<tr>
<td>time transactions is displayed as a</td>
<td></td>
</tr>
<tr>
<td>list only if the sum of all company-</td>
<td></td>
</tr>
<tr>
<td>wide case, task, and event records is</td>
<td></td>
</tr>
<tr>
<td>less than 5000 and less than the</td>
<td></td>
</tr>
<tr>
<td>number entered here. Roles that can</td>
<td></td>
</tr>
<tr>
<td>enter time transactions on behalf of</td>
<td></td>
</tr>
<tr>
<td>other employees will always have a</td>
<td></td>
</tr>
<tr>
<td>pop-up field displayed.</td>
<td></td>
</tr>
<tr>
<td><strong>Log System Notes on Update Only</strong></td>
<td>When this preference is enabled, system notes are generated only when records are updated, not when they are created. Record creation system notes are not needed because data is available in the newly created record itself.</td>
</tr>
<tr>
<td><strong>Note:</strong> This preference was added</td>
<td>This preference was added in 2012.2. By default, it is enabled in all accounts as of that release or later, and disabled in all accounts that existed before that release.</td>
</tr>
<tr>
<td>in 2012.2. By default, it is enabled</td>
<td>NetSuite recommends that this option be enabled in all accounts, to provide storage savings and performance improvements.</td>
</tr>
<tr>
<td>in all accounts as of that release or</td>
<td>Before you enable this option, you should first review any saved searches containing system notes fields, as these searches may use data from record creation system notes. If your account includes searches that rely on record creation system notes, you can either revise the searches before enabling the Log System Notes on Update Only option, or you can leave this option disabled.</td>
</tr>
<tr>
<td>later, and disabled in all accounts</td>
<td></td>
</tr>
<tr>
<td>that existed before that release.</td>
<td></td>
</tr>
<tr>
<td><strong>Show Quick Add Row on Lists</strong></td>
<td>Check this box to allow quick add on direct editable lists. Quick add allows users to create new records from lists and only add basic information. Users can turn this preference off on individual lists.</td>
</tr>
<tr>
<td><strong>Note:</strong> By default, users can</td>
<td>By default, users can override this preference at Home &gt; Set Preferences. To prevent this, clear the Allow Override box for this preference on the Overriding Preferences subtab.</td>
</tr>
<tr>
<td>override this preference at Home &gt;</td>
<td></td>
</tr>
<tr>
<td>Set Preferences. To prevent this,</td>
<td></td>
</tr>
<tr>
<td>clear the Allow Override box for this</td>
<td></td>
</tr>
<tr>
<td>preference on the Overriding</td>
<td></td>
</tr>
<tr>
<td>Preferences subtab.</td>
<td></td>
</tr>
<tr>
<td><strong>Show List When Only One Result</strong></td>
<td>Check this box to return search results as a list when there is only one record in results. By default, NetSuite opens the individual record when there is only one record in search results.</td>
</tr>
<tr>
<td><strong>Note:</strong> When this preference is</td>
<td>By default, users can override this preference at Home &gt; Set Preferences. To prevent this, clear the Allow Override box for this preference on the Overriding Preferences subtab.</td>
</tr>
<tr>
<td>enabled, NetSuite no longer</td>
<td></td>
</tr>
<tr>
<td>automatically selects a single result</td>
<td></td>
</tr>
<tr>
<td>from the suggestion list.</td>
<td></td>
</tr>
<tr>
<td><strong>Default Customer Type</strong></td>
<td>Choose whether new customers are classified as individuals or companies by default. For companies, company names are used. For individuals, first and last names are used.</td>
</tr>
<tr>
<td><strong>Default Lead Type</strong></td>
<td>Choose whether new Leads are classified as individuals or companies by default. For companies, company names are used. For individuals, first and last names are used.</td>
</tr>
<tr>
<td><strong>Default Vendor Type</strong></td>
<td>Choose whether new vendors are classified as individuals or companies by default. For companies, company names are used. For individuals, first and last names are used.</td>
</tr>
<tr>
<td><strong>Default Partner Type</strong></td>
<td>Choose whether new partners are classified as individuals or companies by default. For companies, company names are used. For individuals, first and last names are used.</td>
</tr>
<tr>
<td><strong>Auto Name Customers</strong></td>
<td>Check this box to cause the Auto box on customer records to be checked by default, so that the customer ID is copied from the customer name. When the Auto box is not checked, users can enter the ID rather than have it copied from the name.</td>
</tr>
<tr>
<td>**Auto Inactivate Contacts with</td>
<td>When a customer is made inactivate, automatically inactivate the customer’s contacts.</td>
</tr>
<tr>
<td>Customers**</td>
<td></td>
</tr>
<tr>
<td><strong>Preference</strong></td>
<td><strong>Setting</strong></td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Show Individuals as Contacts</td>
<td>Check this box to create a contact record for every individual-type customer record.</td>
</tr>
</tbody>
</table>
| Hide Attachment Folders                            | Check this box if you want the default attachment folders to only show in the File Cabinet for administrators. All roles will still have access to files that are attached to customers and other records.  
  The following folders are affected:  
  - Attachments Received  
  - Attachments Sent  
  - Mail Merge  
  For more information, read the help topic **Hiding Attachment Folders**.                                                                                                                                                                                                                                                                  |
| Assign Tasks to Partners                            | Check this box to make it possible for tasks to be assigned to partners.                                                                                                                                                                                                                                                                                                                                 |
|                                                    | **Note:** Before a task can be assigned to a partner, the Assign Tasks box on the Info subtab of the partner's record must be checked.                                                                                                                                                                                                                                                                               |
| Email Employee on Approvals                        | Check this box to automatically send email messages to employees when their supervisors approve their purchase requests, expense reports, and time transactions.                                                                                                                                                                                                                                                                                        |
| Maintenance Complete Email Notification             | Check this box to cause email messages to be sent automatically to all active account administrators when scheduled account maintenance is complete.                                                                                                                                                                                                                                                                   |
| Show Reports in Grid                                | Check this box to display reports in a grid format by default.  
  By default, users can override this preference at Home > Set Preferences. To prevent this, clear the Allow Overrides box for this preference on the Overriding Preferences subtab.                                                                                                                                                                                                                           |
| Collapse VSOE Column by Default on Sales Transactions | Check this box to collapse the VSOE column for sales transactions such as sales orders, invoices, and cash sales.                                                                                                                                                                                                                                                                                                         |
| Time Selectors Use Fiscal Calendars Based on First Month | When this box is checked, date range selectors for fiscal elements (for example, this fiscal year) account for the First Fiscal Month setting in Setup > Company > Company Information.  
  When this box is not checked, time selectors strictly reflect definitions for accounting years, quarters, and periods, as defined in the custom Fiscal Calendar.  
  For example, a company has a custom Fiscal Calendar for 2014 aligned with business weeks. The calendar starts on the first Monday of March, which falls on March 3, 2014 and ends on March 1, 2015. The First Fiscal Month is set to March. If the **Time Selectors Use Calendars Based on First Month** box is checked, the **this fiscal year** selector returns a date range from March 1, 2014 to February 28, 2015. If the box is not checked, this selector returns a date range of March 3, 2014 to March 1, 2015. |
| Web Site Hosting Files Always Available             | This box is checked by default. It affects how files in the Web Site Hosting Files Folder are made available online. This is a global setting that can override the Available Without Login check box setting on individual file records.  
  - When the box is checked, your settings for the Available Without Login check box on individual files are ignored. Files stored in the Web Site Hosting Files Folder are accessible on any URL listed on the file.  
  - When the box is cleared, your settings for the Available Without Login check box on individual files are recognized. You can clear the Available Without Login box on individual files stored in the Web Site Hosting Files folder to make them unavailable on a shopping domain.  
  For more information, see the help topic **Making Web Site Hosting Files Always Available**.                                                                                                    |
### Preference

| Setting | 
|---|---|
| **Show Transaction Numbering Setup** | Check this box to display the Transaction Numbers subtab at Setup > Company > Auto-Generated Numbers.  
Auto-generated numbers for transaction records are internal numbers that cannot be overwritten. These are unique, gapless numbers that are generated when transaction records are created.  
This box also affects Global search results. When checked, searching for a number will return results for both that document number and transaction number. When cleared, Global searches only search by Document numbers.  
Setup of internal transaction numbers requires that this box be checked. By default, this box is not checked.  
For more information about transaction numbers, see Auto-Generated Transaction Numbers. For details about auto-generated numbering, see Set Auto-Generated Numbers. |
| **Website Duplicate Email Management** | Select whether website duplicate email detection feature is enabled.  
Website Duplicate Email Detection feature prevents web store shoppers from creating duplicate customer accounts on your website. For details, see the help topic Detect Duplicate Customer Email. |
| **Asynchronous Job Plan Recalculation** | Check this box to enable your project plans to recalculate in the background when time is tracked against that project.  
When project plans recalculate asynchronously, you maintain access to NetSuite and your project plans during recalculation.  
**Note:** Because recalculations are asynchronous, project plan data may be out of date when accessed before the recalculations are complete.  
When the recalculation is complete, the updated project plan is displayed the next time it is opened. If the recalculation fails for any reason, a warning appears at the top of the project the next time it is opened. |
| **Allow Subsidiary Hierarchy To Be Modified [Max: 30 Days]** | Specify a period during which authorized users can modify the subsidiary hierarchy. The maximum number of days is 30. |
| **Enable Legacy Subsidiary Restrictions (OneWorld Only)** | Check this box to revert the role behavior of active and inactive subsidiaries to the 2018.2 state.  
Only Administrators or users with the Set Up Company permission can check this box.  
**Note:** The Enable Legacy Subsidiary Restrictions is a temporary preference that will be removed in a future release. As such, you should only use the preference as a temporary solution.  
For more information, see the help topic Customizing or Creating NetSuite Roles. |
| **Preferred Subcustomer Form** | Select the form to use by default when subcustomers are created. |

### Overriding Company Preferences

Some company preferences can be overridden by subsidiary-level preferences (OneWorld only), role-level preferences, and user preferences set by individual employees. You can disallow individual overrides of company preferences on the Overriding Preferences subtab of Setup > Company > General Preferences.
To prohibit individual overrides of company preferences:

1. Go to Setup > Company > General Preferences.
2. On the Overriding Preferences subtab, clear the Allow Override box next to the preferences you do not want to be overridden by individual user preferences.
3. Click Save.

After you have prohibited an override, individuals cannot set their own preferences. Note that it is not possible to prohibit overrides of company preferences by subsidiary-level or role-level preferences.

A company preference may have been set on one of the preferences pages available from the Setup menu by an administrator or by other users with setup permissions, or may be system-generated.

Configuring Multiple Languages

If the Multi-Language feature has been enabled in your account:

System-Supported Languages

- Users can choose from the following system-supported languages to be used for their NetSuite user interface:

<table>
<thead>
<tr>
<th>Chinese (Simplified)</th>
<th>Indonesian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese (Traditional)</td>
<td>Italian</td>
</tr>
<tr>
<td>Czech</td>
<td>Japanese</td>
</tr>
<tr>
<td>Danish</td>
<td>Korean</td>
</tr>
<tr>
<td>Dutch</td>
<td>Norwegian</td>
</tr>
<tr>
<td>English (AU)</td>
<td>Portuguese (Brazilian)</td>
</tr>
<tr>
<td>English (CA)</td>
<td>Russian</td>
</tr>
<tr>
<td>English (International)</td>
<td>Spanish</td>
</tr>
<tr>
<td>English (UK)</td>
<td>Spanish (Latin America)</td>
</tr>
<tr>
<td>English (U.S.)</td>
<td>Swedish</td>
</tr>
<tr>
<td>Finnish</td>
<td>Thai</td>
</tr>
<tr>
<td>French</td>
<td>Turkish</td>
</tr>
<tr>
<td>French (Canada)</td>
<td>Vietnamese</td>
</tr>
<tr>
<td>German</td>
<td></td>
</tr>
</tbody>
</table>

These choices are available in user preferences as soon as the Multi-Language feature is enabled. See the help topic Choosing a Language for Your NetSuite User Interface.

- Customers can be allowed to see item names, descriptions, and expense categories in the language selected on the customer's record on printed transaction forms.
- Only these system-supported languages are supported on printed transaction forms, because NetSuite provides pre-translated strings for general terms.
- To enable the entry of item translation strings in a specific language, you need to specify that language on the Languages subtab of the General Preferences page, as described in Enabling the Entry of Translation Strings for a Specific Language.
- Website elements can be translated to display in each visitor's language. These elements include website items, saved searches, tabs, categories, email forms, text, and images, and formatted website text.
The system-supported languages are supported for website translations. The following languages also are supported for website translations:

- Afrikaans
- Albanian
- Arabic
- Armenian
- Bahasa Malay
- Bengali
- Bosnian
- Bulgarian
- Chinese (Simplified)
- Chinese (Traditional)
- Croatian
- Czech
- Danish
- Dutch
- English (AU)
- English (CA)
- English (International)
- English (UK)
- Estonian
- Filipino
- Finnish
- French (Canada)
- German
- Greek
- Gujarati
- Hebrew
- Hindi
- Hungarian
- Icelandic
- Indonesian
- Italian
- Japanese
- Kannada
- Korean
- Latin American Spanish
- Latvian
- Lithuanian
- Luxembourgish
- Marathi
- Norwegian
- Persian (Iran)
- Polish
- Portuguese (Brazil)
- Portuguese (Portugal)
- Punjabi
- Romanian
- Russian
- Serbian (Cyrillic)
- Serbian (Latin)
- Slovak
- Slovenian
- Spanish
- Swedish
- Tamil
- Telugu
- Thai
- Turkish
- Ukrainian
- Vietnamese

To enable the entry of website translation strings in a specific language, you need to specify that language on the Languages subtab of the General Preferences page, as described in Enabling the Entry of Translation Strings for a Specific Language.

Enabling the Entry of Translation Strings for a Specific Language

To enable the entry of translation strings for a specific language:

1. Go to Setup > Company > General Preferences.
2. Click the Languages subtab.
3. Select a language that you want to be able to use for translating.
   
   **Note:** Your “base language” does not appear in the list. That is, the language determined by your country when your account was established is not available as a language for translation. For example, if your language base language is Spanish, then you will not see it in the list, but you can see Spanish (Latin America).

4. Click Add.
5. Repeat steps 3 and 4 for each language you want available.
6. Click Save.

You can now go to Lists > Mass Update > Bulk Update Translation to enter items translations for each of these languages. For more information, see the help topics Multi-Language Names and Descriptions and Setting Up a Site for Multiple Languages.

Center Logout Pages

The Centers subtab on the General Preferences page, available at Setup > Company > General Preferences, lists all custom and standard centers available in your account. Each center can have a unique log out landing page instead of using the default.
Specify the URL of the **Log Out Landing Page** to use for each center, as required.

## Custom Preferences

The Custom Preferences subtab on the General Preferences page, available at Setup > Company > Preferences > General Preferences, includes preferences that can be applied as parameters for SuiteScript and SuiteBundler code. If you are not using these features, this subtab may not be available.

For information about how to set up these preferences and how they are used, see the help topic [Creating Script Parameters](#).

## Accounting Contexts

The Accounting Contexts subtab on the General Preferences page at Setup > Company > General Preferences is visible by default in OneWorld accounts. If you do not have a OneWorld account, this subtab is not visible.

An accounting context can be a one-to-one relationship between a country's local GAAP (Generally Accepted Accounting Principles) reporting requirements and a statutory chart of accounts (COA). It can also be a unique relationship that meets your company's specific needs. Accounting contexts are useful when users prefer to work in a local GAAP context, rather than in the consolidated context with one centralized COA. Accounting contexts are also useful if you have Multi-Book Accounting provisioned in your account. You can set an accounting context specific for your secondary book and use it for your secondary book reports.

When one accounting context exists in your system, users can select their preferred accounting context at Home > Set Preferences. When users select an accounting context, all transactions including system-generated transactions post to the defined COA account name and number. For information about user preferences, see the help topic [General Personal Preferences](#).

An administrator or a user with the Set Up Company permission can set up accounting contexts. To set up an accounting context, enter the name and then optionally, select the language in which the account name and number should be translated. Click Add after each defined accounting context. Click Save.

**Note:** The available languages are based on the values defined on the Languages subtab. For information about the Languages subtab, see [Configuring Multiple Languages](#).

When an accounting context exists in your system, the Localization subtab on the account record enables you to enter different account names, languages, and numbers for a single account.

The account name that displays is based on the order of the following conditions:

1. If any line on the Localization subtab represents both the accounting context language and the user's preferred language, the account name displays in this language.
2. If there is a line only for the user's preferred language, the account name displays in this language.
3. If there is a line only for the accounting context language, the account name displays in this language.
4. If none of these conditions exist, the account name displays as defined on the account record.

The account number that displays is based on the order of the following conditions:
1. If any line on the Localization subtab represents both the accounting context language and the user’s preferred language, the account number displays in this language.

2. If this condition does not exist, the account number displays as defined on the account record.

When viewing the detail report associated with a specific summary report, the accounting context defaults to the selection on the summary report and cannot be changed.

On transactions that display the account field, users see the name and number defined in their selected accounting context.

For information about creating an account, see the help topic Creating Accounts. For information about entering account names, languages, and numbers for a single account, see the help topic Editing an Account.

**Use Accounting Contexts in Account Saved Searches**

If accounting contexts are defined in your system, you can use the following five columns in the Account saved search, and any saved search where the Account field (Account Fields list) is joined to the saved search:

- Accounting Context
- Language
- Localized Name
- Localized Number
- Localized Legal Name

It is important to note that these five columns contain values for all combinations of accounting context and language including combinations where the localized name and localized number are the same for different combinations of accounting contexts and languages. Therefore, if the Multi-Language feature is enabled, best practice is to always specify the combination of both accounting context and language in the search criteria to avoid duplicated results.

**Example**

You have the following accounting contexts and languages defined in your system:

- Accounting Contexts: Czech Republic, Germany, and None (None represents the header account name and account number value.)
- Languages: Czech, German, and the system language (The system language is the same as None, which represents the header account name value.)

A user with permission to modify the 1110 Advances Paid account record defines the following rules on the Localization subtab:

- Header Account Name and Number: 1110 Advances Paid
- Legal Name: Legal Name for Advances Paid account
- Accounting Context: Czech Republic, Number: 314, Name: Zalohy
- Language: German, Name: German Name

The following table displays several applicable combinations of searchable data based on these rules for this account:
Search Criteria 1

Your search criteria is Number set to 1110. The results you want to retrieve are Localized Number and Localized Name. This saved search returns several lines and some of them are duplicated because the Accounting Context and Language were not specified.

Search Criteria 2

Your search criteria is Accounting Context set to Czech Republic, Language set to null, and Localized Number set to 314. The results you want to retrieve are Localized Name and Localized Number. This saved search returns only one line with Localized Name and Localized Number because the Accounting Context and Language is clearly specified.

Note: Users can create saved searches that are not dependent on the values set in User Preferences. For example, if a user creates a saved search where the criterion Name is set to Advances Paid, the search results will return the Advances Paid account if the user's preferences are Language set to English and Accounting Context set to null. If the user's preferences are Language set to English and Accounting Context set to Czech Republic, this saved search will not return anything because the account Name is Zalohy.

In contrast, if this user creates a saved search where the criteria Accounting Context is set to null, Language is set to null, Localized Name is set to Advances Paid, the search results will return the Advances Paid account even if the user's preference is Accounting Context set to Czech Republic. This criteria is useful when a controller wants to create a saved search that works for all accountants in local subsidiaries no matter if they have any localization in their NetSuite account.

Date Formats

You can change the company, subsidiary, and user settings to use a different date format than the default setting. You can select the formats to use when displaying abbreviated and full dates. The abbreviated date format appears on reports, forms, and data-entry pages. The long date format is used when forms or templates require a non-abbreviated date format. You can choose between U.S. or international formats for dates, but some date formats are only available in specific locales.

Regardless of which date formats you choose, when you click the Pick icon or link next to a date field, a calendar opens that you can use to select a date.

To change the date format, do one of the following:
To change the company date settings, go to Setup > Company > General Preferences. To change the abbreviated date format, in the Date Format dropdown list, select a date format. To change the long date format, in the Long Date Format dropdown list, select a date format. Click Save.

To change the user date settings, go to Home > Set Preferences. Under Formatting, in the Date Format dropdown list and Long Date Format dropdown list, select date formats. Click Save. For more information about user preferences, see the help topic General Personal Preferences.

To change the date settings for subsidiaries, go to Setup > Company > Classifications > Subsidiaries. Next to the subsidiary that you want to change the date format for, click Edit. Click the Preferences subtab. On the General subtab, in the Date Format dropdown list and Long Date Format dropdown list, select date formats. Click Save. For more information about subsidiary settings, see the help topic Editing Subsidiary Records.

If you enter a date in the DD/MM/YYYY format or the MM/DD/YYYY format, but the month or day only consists of a single numeral, a zero will be added in front of the single numeral automatically.

For example, 1/1/2000 will be changed to 01/01/2000.

Note: By default, users can override the date formats you select. To prevent this, go to Setup > Company > General Preferences. On the Overriding Preferences subtab, next to Date Format or Long Date Format, clear the Allow Override box.

### Setting date formats

By default, the format M/D/YYYY is used to display dates.

The following table shows the available date formats and examples of how March 5, 2018 would appear when the different formats are applied.

<table>
<thead>
<tr>
<th>Date Format</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>M/D/YYYY</td>
<td>3/5/2018</td>
</tr>
<tr>
<td>D/M/YYYY</td>
<td>5/3/2018</td>
</tr>
<tr>
<td>D-Mon-YYYY</td>
<td>5-Mar-2018</td>
</tr>
<tr>
<td>D.M.YYYY</td>
<td>5.3.2018</td>
</tr>
<tr>
<td>D-MONTH-YYYY</td>
<td>5-March-2018</td>
</tr>
<tr>
<td>D MONTH, YYYY</td>
<td>5 March, 2018</td>
</tr>
<tr>
<td>YYYY/M/D</td>
<td>2018/3/5</td>
</tr>
<tr>
<td>YYYY-M-D</td>
<td>2018-3-5</td>
</tr>
<tr>
<td>DD/MM/YYYY</td>
<td>05/03/2018</td>
</tr>
<tr>
<td>DD-Mon-YYYY</td>
<td>05-Mar-2018</td>
</tr>
<tr>
<td>DD.MM.YYYY</td>
<td>05.03.2018</td>
</tr>
<tr>
<td>DD-MONTH-YYYY</td>
<td>05-March-2018</td>
</tr>
<tr>
<td>DD MONTH, YYYY</td>
<td>05 March, 2018</td>
</tr>
<tr>
<td>MM/DD/YYYY</td>
<td>03/05/2018</td>
</tr>
<tr>
<td>YYYY/MM/DD</td>
<td>2018/03/05</td>
</tr>
</tbody>
</table>
Set Company Preferences

Date Format

<table>
<thead>
<tr>
<th>Date Format</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>YYYY-MM-DD</td>
<td>2018-03-05</td>
</tr>
</tbody>
</table>

Note: Not all date formats are available in all locations. Depending on your location, some of the format options may not be available.

Important: If you omit the punctuation (slash marks, hyphens, and periods) when you enter dates into fields, you must enter all of the digits, including leading zeroes. For example, if you want to enter the date March 5, 2018 into a field but you do not want to include any of the punctuation included in the date format, you need to enter the date as 03052018.

Setting long date formats

On the General Preferences page, you can select the date format that you want to use when forms or templates use a non-abbreviated date format.

The following table shows the available date formats and examples of how March 5, 2018 would appear when the different formats are applied.

<table>
<thead>
<tr>
<th>Long Date Format</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month D, YYYY</td>
<td>March 5, 2018</td>
</tr>
<tr>
<td>D Month YYYY</td>
<td>5 March 2018</td>
</tr>
<tr>
<td>YYYY Month D</td>
<td>2018 March 5</td>
</tr>
<tr>
<td>Month DD, YYYY</td>
<td>March 05, 2018</td>
</tr>
<tr>
<td>DD Month YYYY</td>
<td>05 March 2018</td>
</tr>
<tr>
<td>YYYY Month DD</td>
<td>2018 March 05</td>
</tr>
</tbody>
</table>

Note: Not all date formats are available in all locations. Depending on your location, some of the format options may not be available.

Number Formats

Set the Number Format and Negative Number Format preferences to determine how numbers display on the screen for transaction forms, entity forms, and search results. These formats also apply to the list pages associated with these forms and fields that can be edited inline.

You can set the number format preferences at the company, subsidiary, and user levels. This enables users to work in NetSuite with familiar number formats customary for their region and prevents errors that result from incorrectly interpreting numbers on the screen.

The Number Format preference provides the following format options for thousands separators and decimal places:

- thousands separator: comma, period, space, reverse comma
- decimal places: comma, period
Users do not have to key in numbers with separators. Numbers are formatted according to the selected preferences upon tabbing out of a field.

The Negative Number Format preference provides two options to display negative numbers:

- minus sign: -100
- parentheses: (100)

You can set the Number Format and Negative Number Format preferences at the following levels. The default formats are 1,000,000.00 and -100.

- Company - go to Setup > Company > Preferences > General Preferences (Administrator). For instructions, see Setting General Account Preferences.
- Subsidiary - go to Setup > Company > Classifications > Subsidiaries > New (Administrator) For instructions, see the help topic Editing Subsidiary Records.
- User - go to Home > Set Preferences. Setting the preferences at the user level affects all roles associated with that user. For instructions, see the help topic General Personal Preferences.

**Key Points for Number Format Preferences**

- Number format preferences do not apply to exports, SOAP web services, SuiteScript, and CSV imports.
- Currency format settings apply to amounts on reports and printed transactions.
- Values with a currency symbol, such as €123.45 or $123.45, render according to the currency format, not the number format preference.
- On the screen, foreign currency amounts render in the format for the currency. Base currency amounts displayed in columns on transactions forms and subtabs follow the number format preferences.
- The user preference setting for number format overrides the subsidiary and company format settings.
- Number format preferences do not apply to custom fields created before 2012.1, unless you explicitly enable the Apply Formatting preference. This preference also enables you to prevent custom fields...
Renaming Records and Transactions

You can change the names of your records and transactions from the NetSuite default names to names that fit the terminology of your company on the Rename Records/Transactions page. On this page, you can also change the names of account types used in NetSuite. For screenshots of the different areas of this page, see Sections of the Rename Records/Transactions Page.

By changing the names of your records and transactions, your employees do not have to change their terms to fit NetSuite terms. Instead, NetSuite changes to fit the terms your employees are accustomed to using.

When you change the names of records or transactions, those names change in most places they appear in NetSuite to your preferred term. You can always return to the Rename Records/Transactions page to change them to the default name or to another term.

**Note:** You may see internal tags in translated record and transaction names in the user interface. For example, instead of Record you may see {#Record#}. If you find such tags displayed in the user interface, please contact NetSuite Customer Support so that we can make a correction in a future release.

**Tip:** In the Help Center, if you search for the name of a record or transaction that you renamed, the search results include an option to use the default transaction or record name as a search term. For example, you rename “estimate” to “quote” and search the Help Center for “quote.” If there are fewer than 10 search results, you are asked if you meant to search for “estimate.” You can then click the link in the search results and search for “estimate” instead.

Notes on the Rename Records/Transaction Page

Keep the following important details in mind when renaming records or transactions on this page.

- Name changes made in the Rename Records/Transactions page apply to the Language preference you currently have set at Home > Set Preferences only, not to every language. You need to reset your Language preference to each language that your account uses and repeat the renaming process. If you do not rename records and transactions with a language set as the preference, users in your account will continue to see the original Record/Transaction names when they set that language as their preference.

- Field labels for records and transactions on previously created custom forms do not change when you make changes on the Rename Records/Transactions page. You will need to manually edit field labels on custom forms.

- Name changes are applied to standard NetSuite element names (standard records, transactions, and page names), but not to elements you have customized. In the example in step 3 of the following procedure, the standard entity record named “Customer” is renamed “Client.” In this account, you could also have a custom center tab named “Customer.” The name change will not be applied to this custom element.

**To change the names of records or transactions:**

1. Go to Setup > Company > Rename Records/Transactions.
2. On the Rename Records/Transactions page, the default names for records are autofilled in the fields.

3. In the fields at the top half of the page, edit the names of relationship records to better suit your company. For example, in the Name for Customer field, you can change Customer to Client.

4. Click the Transaction Names subtab.
   - In the Name column, you can rename your transactions. For example, in the Name column of the Cash Sale row, you can change Cash Sale to Sales Receipt.
   - In the Abbreviation column, change the abbreviation of these transactions to match the new name. For example, in the Cash Sale row, change RCPT to SALERCPT.

Transaction abbreviations often show in lists of transactions, such as the Transactions subtab on relationship records, in the audit trail and on registers.

5. Click the Account Type Names subtab.
   - In the Name column, you can change the names of your accounts in NetSuite.

6. When you have finished renaming records, transactions, and accounts, click Save.

7. If different languages are used in your account, go to Home > Set Preferences, change your Language preference to another language used in your account, and repeat steps 1-6.

8. Continue this process for each language used in your account, until you have completed renaming in each language.

Your record, transaction, and account names are now renamed everywhere in NetSuite to your new name. Return to Setup > Company > Rename Records/Transactions to edit these names.

Sections of the Rename Records/Transactions Page

The Setup > Company > Rename Records/Transactions page includes the following sections:

- Body (Record Names)
- Transaction Names Subtab
- Account Type Names

Body (Record Names)

In the body of the Rename Records/Transactions page, you can change the names of standard NetSuite non-transactional record types.
Transaction Names Subtab

On the Transaction Names subtab of the Rename Records/Transactions page, you can change the names and abbreviations of standard NetSuite transaction types.

<table>
<thead>
<tr>
<th>Transaction Names</th>
<th>Account Type Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly Build</td>
<td>Assembly Build</td>
</tr>
<tr>
<td>Assembly Unpaid</td>
<td>Assembly Unpaid</td>
</tr>
<tr>
<td>Bill</td>
<td>Bill</td>
</tr>
<tr>
<td>Bill Credit</td>
<td>Bill Credit</td>
</tr>
<tr>
<td>Bill Payment</td>
<td>Bill Payment</td>
</tr>
<tr>
<td>Bin Packed Worksheet</td>
<td>Bin Packed Worksheet</td>
</tr>
<tr>
<td>Bin Transfer</td>
<td>Bin Transfer</td>
</tr>
<tr>
<td>Blanket Purchase Order</td>
<td>Blanket Purchase Order</td>
</tr>
<tr>
<td>Credit Advance</td>
<td>Credit Advance</td>
</tr>
<tr>
<td>Credit Refund</td>
<td>Credit Refund</td>
</tr>
<tr>
<td>Cash Inset</td>
<td>Cash Inset</td>
</tr>
<tr>
<td>Check</td>
<td>Check</td>
</tr>
</tbody>
</table>

Account Type Names

On the Account Type Names subtab of the Rename Records/Transactions page, you can change the names of standard NetSuite account types.

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td>MyBank</td>
</tr>
<tr>
<td>Other Current Asset</td>
<td>Other Current Asset</td>
</tr>
<tr>
<td>Fixed Asset</td>
<td>Fixed Asset</td>
</tr>
<tr>
<td>Other Asset</td>
<td>Other Asset</td>
</tr>
<tr>
<td>Accounts Payable</td>
<td>Accounts Payable</td>
</tr>
<tr>
<td>Credit Card</td>
<td>Credit Card</td>
</tr>
<tr>
<td>Other Current Liability</td>
<td>Other Current Liability</td>
</tr>
<tr>
<td>Long Term Liability</td>
<td>Long Term Liability</td>
</tr>
<tr>
<td>Equity</td>
<td>Equity</td>
</tr>
<tr>
<td>Income</td>
<td>Income</td>
</tr>
</tbody>
</table>

To manage the list, you can change the order of the account type names by selecting a line and clicking Move To Top or Move To Bottom. However, the order of the list on this subtab has no effect on account type lists seen by users.

Set Auto-Generated Numbers

The Set Up Auto-Generated Numbers page enables you to choose the record types that should be automatically numbered in the order in which they are created. On this page you can also add prefixes and suffixes to auto-generated numbers. Prefixes and suffixes are useful in determining a record, transaction, or document's type and estimated age at a glance.

For example, you may choose to enable auto-generated numbering for the customer record type in your account and prefix the number with CUST. Each time you add a new customer record, the record number increases sequentially by one. When you view your customer list, you can quickly see that CUST0025 is a newer customer than CUST0004.

When you set a record type to have auto-generated numbers, the number replaces the name that was stored in the Company Name field. Record numbers cannot be reverted back to names after auto-generated numbering has been enabled and the records have been updated.
Auto-generated numbers are always enabled for transaction record types and document types.

**Important:** Internal IDs are assigned to records to assist with parallel processing. This means that an internal ID assigned to a new record can be significantly higher in value than the second highest number.

Internal IDs do not indicate when a record was created even though assignment of internal IDs to new records is sequential.

- Overwrite Entity and CRM Record Type Numbers
- Auto-Generated Document Numbers
- Auto-Generated Transaction Numbers
- Reset Initial Transaction and Document Numbering Sequences
- Reporting
- Setting Up Auto-Generated Numbering

**Overwrite Entity and CRM Record Type Numbers**

For some entity and CRM record types, you can enable the Allow Override option to permit users to manually enter numbers other than the auto-generated numbers. Be aware that overwriting these record type numbers permits users to create duplicate numbers or numbering gaps. Use this feature with caution.

After a manual override in a number sequence, the next auto-generated number follows the higher number in the series.

- For example, the most recently created record has an auto-generated number of 53. Someone creates a record and manually assigns it number 05. The next record created is automatically assigned number 54.
- For example, if customer record number 101 is overwritten and set to 1001, auto-generated numbers begins at 1002.

Additionally, when a record number is manually overwritten with a higher value, auto-generated numbers begins at the next sequential number. Use this feature with caution.

**Auto-Generated Document Numbers**

Auto-generated numbers for document types are external numbers such as the number for a vendor bill, or account based numbers such as a check number. Document numbers can also be type based, which store a document number for type based transactions. Type based numbers are available as custom columns in searches and lists.

When a document type has the Allow Override option enabled, users can unintentionally introduce duplicated document numbers and numbering gaps into your account. To prevent duplicated document type numbers and numbering gaps, you can customize transaction type records to display the Generate TranID on Save box. When this box is checked, NetSuite records the document number when the user saves the transaction record, rather than when the user opens the transaction record. This ensures that the document number is unique for the document type, as if the Allow Override option was not enabled. To display the Generate TranID on Save box on transaction type records and on standard reports, go to Customization > Forms > Transaction Forms. Locate the transaction type to be customized and then click Customize next to the transaction name. Click the Screen Fields subtab. In the Label column, locate Generate TranID on Save, check the Show box and then save the record.
If the Allow Override option is enabled for a specific document type and the Generate TranID on Save box is not visible in the user interface, NetSuite records the document number when the user opens the transaction record. This permits multiple instances of the same transaction record being assigned the same TranID value. For example, User One opens a transaction record assigned TranID 100. Before User One saves the transaction record, User Two opens a second instance of the same transaction record, which is assigned the same TranID 100.

**Note:** If you attempt to save a record that has a duplicate TranID, NetSuite presents an error message. You can cancel the message and save the duplicated number.

**Important:** For external numbering sequences such as vendor bill, the document number is unique for each vendor, which permits the same document number being assigned to more than one vendor. NetSuite prevents a vendor from having a duplicated document number on the same transaction type. This applies to all four external transaction types whether recorded through the user interface or through a CSV import: Bill (Vendor Bill), Bill Credit (Vendor Credit), Credit Card Charge (Customer Credit Card), and Credit Card Refund (CCard Refund).

**Warning:** Updating document numbers irreversibly modifies all of the document numbers on historical transactions.

### Auto-Generated Transaction Numbers

Auto-generated numbers for transaction records are internal, gapless numbers that cannot be overwritten and are generated when the record is saved. These internal numbers are generated for each transaction type.

The Transaction Numbers subtab, formerly named Transactions subtab, at Setup > Company > Auto-Generated Numbers is not visible by default. If you must configure transaction type options, you can display the Transaction Numbers subtab. Go to Setup > Company > General Preferences and check the Show Transaction Numbering Setup box.

**Important:** If your account is new to NetSuite as of 2016.1, default prefixes are automatically assigned to each transaction type. The default prefix is the internal system name for the transaction type. For example, the default prefix for the Bill transaction type is VENDBILL. You can modify the default prefix to suit your unique requirements. You can also delete the default prefix.

Some of the configuration options specified on the former Transactions subtab now appear on the new Transaction Numbers subtab. This occurs for account-based and externally generated numbered transactions because these configuration options modified both document number and transaction number sequences. Account-based and externally generated transactions include the following:

- Bill (Vendor Bill), Externally generated
- Bill Credit (Vendor Credit), Externally generated
- Bill Payment (Vendor Payment), Account-based
- Check, Account-based
- Credit Card Charge (Customer Credit Card), Externally generated
- Credit Card Refund (CCard Refund), Externally generated
- Customer Refund, Account-based
- Paycheck, Account-based
- Paycheck Journal, Regular
- Payroll Liability Check, Account-based
Set Auto-Generated Numbers

- Sales Tax Payment (Tax Payment), Account-based
- Tax Liability Cheque (Tax Liability), Account-based

Configuration options specified for transaction types other than account-based or externally generated numbers were copied to the Document Numbers subtab. You can reconfigure options on the Document Numbers subtab, as required.

If you do not have auto-generated numbering set up in your account, document type numbers are configured for the beginning number, which is set to 1.

By default, internal transaction numbers do not display on transaction type records or standard reports, but you can customize any transaction type record to display this number. To display internal transaction numbers on transaction records, go to Customization > Forms > Transaction Forms. Locate the transaction type to be customized and then click Customize next to the transaction name. Click the Screen Fields subtab. In the Label column, locate Transaction Number, check the Show box and then save the record. For information about customizing transaction forms, see the help topic Custom Forms.

Internal transaction numbers are searchable when the number is hidden or visible on the user interface.

Successful CSV transaction imports are numbered according to the internal transaction numbering sequence at the time of the import.

Copied transactions are numbered according to the internal transaction numbering sequence at the time of the import.

⚠️ **Important:** In the former Transactions subtab, NetSuite permitted overwriting the internal number of transaction records where the Allow Override option was enabled for the transaction type. In these historical transactions, there may be duplicate internal numbering. In the new Transaction Numbers subtab, NetSuite prohibits overwriting transaction type numbering sequences, instead permitting the overwriting of document numbers. NetSuite does not renumber historical internal transaction numbers.

### Reset Initial Transaction and Document Numbering Sequences

In some countries, resetting an initial transaction number each fiscal year is a legal requirement. Users with the Administrator role can reset the initial record number for both transaction type numbers and document type numbers.

Be aware that resetting the initial number permits duplicate numbering in your account. In addition, if you reset the initial document number during the update of an existing transaction type record, the document number on that transaction record is not updated. Use this feature with caution. Ensure that you understand the risks associated with resetting transaction type and document type numbering sequences.

### Reporting

Auto-generated numbering is tracked by the Transaction Numbering Audit Log. For more information, see Transaction Numbering Audit Log.

By default, transaction lists display only the **Document Number** field in searches and reporting. If you plan to include the **Transaction Number** field, be aware that this value is different from the value in the **Document Number** field for the following transaction types.

* Bill (Vendor Bill), Externally generated
* Bill Credit (Vendor Credit), Externally generated
* Bill Payment (Vendor Payment), Account-based
* Check, Account-based
* Credit Card Charge (Customer Credit Card), Externally generated
* Credit Card Refund (CCard Refund), Externally generated
* Customer Refund, Account-based
* Paycheck, Account-based
* Paycheck Journal, Regular
* Payroll Liability Check, Account-based
* Sales Tax Payment (Tax Payment), Account-based
* Tax Liability Cheque (Tax Liability), Account-based

For all other transaction types these two values are the same.

Setting Up Auto-Generated Numbering

Use the steps below to set up auto-generated numbering for Entities, CRM records, and Schedules. These steps also help you configure transaction type numbers and document type numbers.

**Note:** Multi-Book Accounting has no impact on transaction numbering.

### To set up auto-generated numbering:

1. Go to Setup > Company > Auto-Generated Numbers.
2. On the **Entities**, **CRM**, and **Schedules** subtabs, check the **Enable** box for each record type you want automatically numbered from least recent to most recent.
3. For subrecords, check the **Within Parent Group** box to attach the subrecord number to the parent record number.
4. In the **Prefix** column, enter any letters or numbers that you want to appear in front of every record number of this type.
   
   For example, you may want to have every customer record begin with `CUST` for quick identifying in a list.

   **Note:** Oracle recommends not using prefixes or suffixes which contain only numbers. In addition, you should use a separator, such as a dash (-) or underscore (_), at the end of prefixes or beginning of suffixes.

5. In the **Suffix** column, enter any letters or numbers you want to appear after every record number of that type.
6. In the **Minimum Digits** column, enter the lowest number of digits you want in your auto-generated numbering code. Valid values for this field range from 0–20.
   
   For example, if you enter `4`, your first record is `0001`. 
7. In the Initial Number column, enter the number you want your first numbered record to be.

**Note:** Changing the initial number for an entity record type, CRM record type, or schedule record type sets the next number in the series of auto-generated numbered records. It does not change the numbering scheme.

On document type numbers and transaction type numbers, users with the Administrator role can reset the initial number. Check the Update Initial Number box to enable the Initial Number field for editing, then enter the new initial number.

**Warning:** Resetting the initial number permits duplicate numbering in your account. In addition, if you reset the initial document number during the update of an existing transaction type record, the document number on that transaction record is not updated.

8. For document type numbers, check the Use Subsidiary box to use the document prefix for numbering that is specified on the subsidiary record.

For transaction type numbers, check the Use Subsidiary box to use the transaction prefix for numbering that is specified on the subsidiary record.

Edit or create prefixes for each subsidiary at Setup > Company > Subsidiaries > New > List or Setup > Company > Subsidiaries > New.

**Note:** NetSuite uses the document or transaction prefix for numbering only if it is specified on the subsidiary record.

9. For document type numbers, check the Use Location box to use the document prefix for numbering that is specified on the location record.

For transaction type numbers, check the Use Location box to use the transaction prefix for numbering that is specified on the location record.

Edit or create prefixes for each location at Setup > Company > Locations > New > List or Setup > Company > Locations > New.

**Note:** NetSuite uses the document or transaction prefix for numbering ONLY if it is specified on the location record.

10. On the Entities, Document Numbers, and CRM subtabs, check the Allow Override box to be able to enter your own name or number on records.

Checking this box clears the Auto box on records.

If you do not check this box, you cannot edit the numbers on records that serve as the record name.

The following document number types cannot be overwritten:

- Bill (Vendor Bill), Externally referenced
- Bill Credit (Vendor Credit), Externally referenced
- Bill Payment (Vendor Payment), Account-based
- Check, Account-based
- Credit Card Charge (Customer Credit Card), Externally referenced
- Credit Card Refund (CCard Refund), Externally referenced
- Customer Refund, Account-based
- Paycheck, Account-based
- Payroll Liability Check, Account-based
- Sales Tax Payment (Tax Payment), Account-based
- Tax Liability Cheque (Tax Liability), Account-based

11. Check the **Update** box to assign a number to all existing records of that type, starting with the next available number or the number you enter in the **Initial Number** column, whichever is higher. When your existing records are numbered, the former name moves to the **Company Name** field on that record. If the **Company Name** field is already filled, the former name displays next to the new number.

**Warning:** Updating document numbers irreversibly modifies all of the document numbers on historical transactions.

**Important:** The **Update** column is used to auto-generate numbers for records that have not been previously numbered. If you change the initial number for a record type and then check the **Update** box, auto-generated numbering assigns the new number to the next record created but does not renumber existing records.

**Note:** On existing employee records that are numbered, the former name moves to the **First Name**, **Middle Initial**, and **Last Name** fields.

**Note:** On document type numbers and transaction type numbers, the **Update** box is disabled if you have checked the **Use Location** box or the **Use Subsidiary** box.

12. Click **Save**.

**Important:** The **Reset** button clears unsaved data entered on the form or record in the current browser window. It does not reset auto-generated numbers and it does not impact data that has been saved to the database. The **Reset** button does not refresh the record to display data saved on the record since you first loaded the page. For more information, see the help topic Using Buttons in NetSuite.

### Records and Transactions Available for Auto-Numbering

All record, document type, and transaction type numbers are tracked in the Transaction Numbering Audit Log.

**Note:** Multi-Book Accounting has no impact on transaction numbering.

### Entities

On the Entities subtab, you can replace the names of the following record types with numbers:

| Customer | Subcustomer |
Document Numbers

Important: For existing customers, configuration options specified on the Transactions subtab prior to 2015.2 were copied to the new Document Numbers subtab. You can reconfigure options on the Document Numbers subtab, as required. If the Transaction Numbers subtab is visible, you can configure options there, as required. To make the Transaction Numbers subtab visible, go to Setup > Company > General Preferences. Check the Show Transaction Numbering Setup box and then save your change.

For new customers, document type numbers are not configured, except for the beginning number, which is set to 1.

Some document types listed on the Document Numbers subtab may not be available if the related features are not enabled in your account.

Auto-generated numbers for document types are external numbers such as the number for a vendor bill, or account based numbers such as a check number. Document numbers can also be type based, which store a document number for type based transactions. Type based numbers are available as custom columns in searches and lists.

When a document type has the Allow Override option enabled, users can unintentionally introduce duplicated document numbers and numbering gaps into your account. To prevent duplicated document type numbers and numbering gaps, you can customize transaction type records to display the Generate TranID on Save check box. When this box is checked, NetSuite records the document number when the user saves the transaction record, rather than when the user opens the transaction record. This ensures that the document number is unique for the document type, as if the Allow Override option was not enabled. To display the Generate TranID on Save box on transaction type records and on standard reports, go to Customization > Forms > Transaction Forms. Locate the transaction type to be customized and then click Customize next to the transaction name. Click the Screen Fields subtab. In the Label column, locate Generate TranID on Save, check the Show box and then save the record.

If the Allow Override option is enabled for a specific document type and the Generate TranID on Save box is not visible in the user interface, NetSuite records the document number when the user opens the transaction record. This permits multiple instances of the same transaction record being assigned the same TranID value. For example, User One opens a transaction record assigned TranID 100. Before User One saves the transaction record, User Two opens a second instance of the same transaction record, which is assigned the same TranID 100.

Important: For external numbering sequences such as vendor bill, the document number is unique for each vendor, which permits the same document number being assigned to more than one vendor. NetSuite prevents a vendor from having a duplicated document number on the same transaction type. This applies to all four external transaction types whether recorded through the user interface or through a CSV import: Bill (Vendor Bill), Bill Credit (Vendor Credit), Credit Card Charge (Customer Credit Card), and Credit Card Refund (CCard Refund).

Warning: Updating document numbers irreversibly modifies all of the document numbers on historical transactions.

You can place letters in front of or after the numbers of the following document types:
<table>
<thead>
<tr>
<th>Transaction</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly Build</td>
<td>Assembly Unbuild</td>
</tr>
<tr>
<td>Bin Putaway Worksheet</td>
<td>Bin Transfer</td>
</tr>
<tr>
<td>Blanket Purchase Order</td>
<td>Cash Refund</td>
</tr>
<tr>
<td>Cash Sale</td>
<td>Commission</td>
</tr>
<tr>
<td>Credit Memo</td>
<td>Currency Revaluation</td>
</tr>
<tr>
<td>Custom</td>
<td>Customer Deposit</td>
</tr>
<tr>
<td>Deposit</td>
<td>Deposit Application</td>
</tr>
<tr>
<td>Estimate</td>
<td>Expense Report</td>
</tr>
<tr>
<td>Finance Charge</td>
<td>Inventory Adjustment</td>
</tr>
<tr>
<td>Inventory Cost Revaluation</td>
<td>Inventory Count</td>
</tr>
<tr>
<td>Inventory Distribution</td>
<td>Inventory Transfer</td>
</tr>
<tr>
<td>Inventory Worksheet</td>
<td>Invoice</td>
</tr>
<tr>
<td>Note:</td>
<td>This numbering sequence is shared with Invoice.</td>
</tr>
<tr>
<td>Item Fulfillment</td>
<td>Item Receipt</td>
</tr>
<tr>
<td>Journal</td>
<td>Opportunity</td>
</tr>
<tr>
<td>Paycheck Journal</td>
<td>Payment (Customer)</td>
</tr>
<tr>
<td>Payroll Adjustment</td>
<td>Purchase Contract</td>
</tr>
<tr>
<td>(Year-to-Date)</td>
<td></td>
</tr>
<tr>
<td>Purchase Order</td>
<td>Request For Quote</td>
</tr>
<tr>
<td>Requisition</td>
<td>Return Authorization</td>
</tr>
<tr>
<td>Revenue Commitment</td>
<td>Revenue Commitment Reversal</td>
</tr>
<tr>
<td>Revenue Contract</td>
<td>Sales Order</td>
</tr>
<tr>
<td>Statement Charge</td>
<td>Store Pickup Fulfillment</td>
</tr>
<tr>
<td>Tegata Payable</td>
<td>Tegata Receivable</td>
</tr>
<tr>
<td>Transfer</td>
<td>Transfer Order</td>
</tr>
<tr>
<td>Vendor Request For Quote</td>
<td>Vendor Return Authorization</td>
</tr>
<tr>
<td>Work Order</td>
<td>Work Order Close</td>
</tr>
<tr>
<td>Work Order Completion</td>
<td>Work Order Issue</td>
</tr>
</tbody>
</table>

Note: This numbering sequence is shared with Finance Charge.
Transaction Numbers

Some transaction types listed on the Transaction Numbers subtab may not be available if the related features are not enabled in your account.

Auto-generated numbers for transaction records are internal, gapless numbers that cannot be overwritten and are generated when the record is saved. These internal numbers are generated for each transaction type.

The Transaction Numbers subtab, formerly named Transactions subtab, at Setup > Company > Auto-Generated Numbers is invisible by default. If you must configure transaction type options, you can display the Transaction Numbers subtab. Go to Setup > Company > General Preferences and check the Show Transaction Numbering Setup box.

Some of the configuration options specified on the former Transactions subtab now appear on the new Transaction Numbers subtab. This occurs for account-based and externally generated numbered transactions because these configuration options modified both document number and transaction number sequences. Account-based and externally generated transactions include the following:

- Bill (Vendor Bill), Externally generated
- Bill Credit (Vendor Credit), Externally generated
- Bill Payment (Vendor Payment), Account-based
- Check, Account-based
- Credit Card Charge (Customer Credit Card), Externally generated
- Credit Card Refund (CCard Refund), Externally generated
- Customer Refund, Account-based
- Paycheck, Account-based
- Paycheck Journal, Regular
- Payroll Liability Check, Account-based
- Sales Tax Payment (Tax Payment), Account-based
- Tax Liability Cheque (Tax Liability), Account-based

Configuration options specified for transaction types other than account-based or externally generated numbers were copied to the Document Numbers subtab. You can reconfigure options on the Document Numbers subtab, as required.

If you do not have auto-generated numbering set up in your account, document type numbers are configured for the beginning number, which is set to 1.

By default, internal transaction numbers do not display on transaction type records or standard reports, but you can customize any transaction type record to display this number. To display internal transaction numbers on transaction records, go to Customization > Forms > Transaction Forms. Locate the transaction type to be customized and then click Customize next to the transaction name. Click the Screen Fields subtab. In the Label column, locate Transaction Number, check the Show box and then save the record. For information about customizing transaction forms, see the help topic Custom Forms.

Internal transaction numbers are searchable when the number is hidden or visible on the user interface.

Successful CSV transaction imports are numbered according to the internal transaction numbering sequence at the time the import.

Copied transactions are numbered according to the internal transaction numbering sequence at the time of the import.
Important: In the former Transactions subtab, NetSuite permitted overwriting the internal number of transaction records where the Allow Override option was enabled for the transaction type. In these historical transactions, there may be duplicate internal numbering. In the new Transaction Numbers subtab, NetSuite prohibits overwriting transaction type numbering sequences, instead permitting the overwriting of document numbers. NetSuite does not renumber historical internal transaction numbers.

If the Use Deletion Reason feature is enabled in your account, users must provide a reason for deleting transaction type records. For more information about the feature, see Recording a Reason for Deleting a Transaction.

You can place letters in front of or after the numbers of the following transaction types:

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly Build</td>
<td>Assembly Unbuild</td>
</tr>
<tr>
<td>Bill (Vendor Bill)</td>
<td>Bill Credit (Vendor Credit)</td>
</tr>
<tr>
<td>Bill Payment (Vendor Payment)</td>
<td>Bin Putaway Worksheet</td>
</tr>
<tr>
<td>Bin Transfer</td>
<td>Blanket Purchase Order</td>
</tr>
<tr>
<td>CCard Refund (Credit Card Refund)</td>
<td>Cash Refund</td>
</tr>
<tr>
<td>Cash Sale</td>
<td>Check</td>
</tr>
<tr>
<td>Commission</td>
<td>Credit Card (Customer Credit Card Charge)</td>
</tr>
<tr>
<td>Credit Memo</td>
<td>Currency Revaluation</td>
</tr>
<tr>
<td>Custom</td>
<td>Customer Deposit</td>
</tr>
<tr>
<td>Customer Refund</td>
<td>Deposit</td>
</tr>
<tr>
<td>Deposit Application</td>
<td>Estimate</td>
</tr>
<tr>
<td>Expense Report</td>
<td>Finance Charge</td>
</tr>
</tbody>
</table>

Note: This numbering sequence is shared with Invoice.

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Asset Accrual</td>
<td>Inventory Adjustment</td>
</tr>
<tr>
<td>Inventory Cost Revaluation</td>
<td>Inventory Count</td>
</tr>
<tr>
<td>Inventory Distribution</td>
<td>Inventory Transfer</td>
</tr>
<tr>
<td>Inventory Worksheet</td>
<td>Invoice</td>
</tr>
</tbody>
</table>

Note: This numbering sequence is shared with Finance Charge.

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item Fulfillment</td>
<td>Item Receipt</td>
</tr>
<tr>
<td>Journal</td>
<td>Opportunity</td>
</tr>
<tr>
<td>Paycheck</td>
<td>Paycheck Journal</td>
</tr>
<tr>
<td>Payment (Customer)</td>
<td>Payroll Adjustment (Year-to-Date)</td>
</tr>
<tr>
<td>Payroll Liability Check</td>
<td>Purchase Contract</td>
</tr>
<tr>
<td>Transaction Type</td>
<td>Transaction Type</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Purchase Order</td>
<td>Request For Quote</td>
</tr>
<tr>
<td>Requisition</td>
<td>Return Authorization</td>
</tr>
<tr>
<td>Revenue Commitment</td>
<td>Revenue Commitment Reversal</td>
</tr>
<tr>
<td>Revenue Contract</td>
<td>Sales Order</td>
</tr>
<tr>
<td>Sales Tax Payment (Tax Payment)</td>
<td>Statement Charge</td>
</tr>
<tr>
<td>Store Pickup Fulfillment</td>
<td>Tax Liability Cheque (Tax Liability)</td>
</tr>
<tr>
<td>Tegata Payable</td>
<td>Tegata Receivable</td>
</tr>
<tr>
<td>Transfer</td>
<td>Transfer Order</td>
</tr>
<tr>
<td>Vendor Request For Quote</td>
<td>Vendor Return Authorization</td>
</tr>
<tr>
<td>Work Order</td>
<td>Work Order Close</td>
</tr>
<tr>
<td>Work Order Completion</td>
<td>Work Order Issue</td>
</tr>
</tbody>
</table>

Account-based transaction types such as Check, where the numbering sequence is dependent upon a particular account, and transaction types where the numbers are used for external reference such as Vendor Bill, display an additional read-only, auto-generated number in the Transaction Number field.

The following list provides the transaction types where the numbering sequences are either account-based or externally referenced:

- Bill (Vendor Bill), Externally referenced
- Bill Credit (Vendor Credit), Externally referenced
- Bill Payment (Vendor Payment), Account-based
- Check, Account-based
- Credit Card Charge (Customer Credit Card), Externally referenced
- Credit Card Refund (CCard Refund), Externally referenced
- Customer Refund, Account-based
- Paycheck, Account-based
- Payroll Liability Check, Account-based
- Sales Tax Payment (Tax Payment), Account-based
- Tax Liability Cheque (Tax Liability), Account-based
Note: The **Transaction Number** field is visible by default on standard NetSuite forms and not visible by default on customized forms. You can, however, customize a form to display this field.

By default, transaction lists display only the **Number** field in searches and reporting. If you plan to include the new **Transaction Number** field, be aware that this value is different from the value in the **Number** field for the account-based and externally referenced transaction types listed above. For all other transaction types, these two values will be the same.

Important: If you copy an externally referenced transaction such as Vendor Bill, the reference number is not copied. This is to avoid duplicate numbers in the system.

Warning: You cannot auto-generate numbers for journals if you enable the Always Allow Per-line Classifications on Journals preference.

CRM

On the CRM subtab, you can replace the names of the following records with numbers:

- Campaign
- Issue
- Solution
- Support Case

Schedules

On the Schedules subtab, you can replace the names of the following records with numbers:

- Amortization Schedule
- Revenue Recognition Schedule

Transaction Numbering Audit Log

The Transaction Numbering Audit Log provides a complete list of every internal transaction number including the numbers that were assigned to transactions that have been deleted or failed to be created. Transactions such as these include cash sales that fail due to problems with credit card processing. For more information about internal transaction numbers, see [Auto-Generated Transaction Numbers](#).

Administrators and other users with the Lists type permission **Access to transaction numbering audit log** can view this audit log at Transactions > Management > Transaction Numbering Audit Log.

This audit log includes the transaction type, number, date and time the transaction number was assigned, and the creator of the transaction. The subsidiary and location for the transactions display if you base your auto-generated numbering on those criteria.

If a transaction is deleted, the date and time it was deleted and the person who deleted it are listed. If a transaction failed to be created, the reason displays in the Message column.

If the Use Deletion Reason feature is enabled in your account, the log also provides the reason a user deleted a transaction record, and any related memo. For more information about the feature, see [Recording a Reason for Deleting a Transaction](#).

Setting Up States, Provinces, and Counties

At Setup > Company > States/Provinces/Counties, you can:
- View lists of system-provided states and provinces for supported countries
- Add and edit custom states, provinces, and counties
- Set up lists of custom states, provinces, and counties for supported countries
- Print lists of states, provinces, and counties available for use in NetSuite records

To view a list of available states, provinces, and counties, expand the Filters and select a country from the Country list. Only countries with lists of system-provided or custom (or both) states, provinces, or counties are available for selection.

System names do not have Edit, because system states and provinces are not editable. Custom states, provinces, and counties that you have added do have an Edit link. You can click Edit to make changes.

To add a state, province, or county to be used on NetSuite records, click the New button. On the New State/Province/County page, select a country from the list, enter a full name and a short name (abbreviation) for the state, province, or county you want to add, and click Save.

To print a list of states, provinces, and counties for a country, select the country from the list and click the Print button.

You can set up lists for supported countries that do not have system-provided states, provinces, and counties.

**Note:** For information about working with state values in SOAP web services, see the help topic Setting State Values in SOAP web services.

**To set up a list of states, provinces, and counties for a supported country:**

1. Go to Setup > Company > States/Provinces/Counties > New.
2. On the New State/Province/County page, select the country, and enter a full name and a short name (abbreviation) for the state, province, or county you want to add.
3. Click Save. The States/Provinces/Counties refreshes with the new list you created.
   You can now select the country and view its list. Click Edit next to the state, province, or county to make changes.
4. Repeat Steps 2–3 to add more custom states, provinces, and counties.
Supported Countries

At Setup > Company > Countries, you can:

- View a list of countries available for use in NetSuite records
- Click the Print button to print the list of supported countries
- Click country name to review its address template and the script used to start mapping programs when users click Map links next to addresses on NetSuite pages.
- Click Edit for a country to modify its address template or mapping program script. (if you have associated permissions)

If you are referencing countries in your customizations and integrations built on the SuiteCloud Platform, be aware of the following:

- SOAP web services integrations reference countries using country enumerations that are specific to SOAP web services. For a list of these enumerations, see the help topic Country Enumerations.
- CSV imports reference countries using country names, or labels, as listed in Country Names for CSV Import.
- SuiteScripts generally reference countries using ISO country codes, which are not maintained by NetSuite. Some SuiteScript APIs may also reference country names.
- SuiteAnalytics Connect integrations reference countries using ISO country codes.

Setting Printing and Fax Preferences

The Printing & Fax Preferences page is where you set up preferences for printing forms, and set up the fax service. Preferences set on these pages affect all users in your NetSuite account.

**Note:** Use the Web Site Setup page to set preferences for sending email from your website. For more information, see the help topic Set Website Email Preferences.

Printing and Fax Preferences

You must register with eFax® or Faxaway® to use NetSuite for faxing. Visit www.efax.com or www.faxaway.com to register before setting your fax preferences.

**To set your printing and faxing preferences:**

1. Go to Setup > Company > Printing & Fax Preferences.
2. Click the name of each subtab to view instructions for setting printing and fax preferences.
   - **Printing**
   - **Fax**

Printing

**General**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save Toner When Printing</td>
<td>Check the Save Toner When Printing box to choose a form style that saves ink or toner.</td>
</tr>
</tbody>
</table>
## Transactions

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers Default to Print Transactions</td>
<td>Check the Customers Default to Transactions box as appropriate on the Print subtab. Default to deliver customer transactions by printing, by email, by fax, or by a combination of the three. The delivery preferences you define will default on all new customer records you create. Later, you can change the settings on individual customer records as needed by checking or clearing the appropriate boxes.</td>
</tr>
<tr>
<td>Vendors Default to Print Transactions</td>
<td>Check the Vendors Default to Transactions box as appropriate on the Print subtab. Default to deliver vendor transactions by printing, by email, by fax, or by a combination of the three. The delivery preferences you define will default on all new vendor records you create. Later, you can change the settings on individual vendor records as needed by checking or clearing the appropriate boxes.</td>
</tr>
<tr>
<td>Print Return Form with Packing Slip</td>
<td>Check the Print Return Form with Packing Slip box to print a return form every time you print a packing slip.</td>
</tr>
<tr>
<td>Print Remittance Form With Invoices &amp; Statements</td>
<td>Check the Print Remittance Form With Invoices &amp; Statements box to include a remittance form on invoices and statements. The remittance form details payment information the customer needs to make a payment, including the invoice number and statement amount due, the name to make checks payable to and the address to mail the payment to.</td>
</tr>
<tr>
<td>Print Transaction Forms Landscape</td>
<td>Check the Print Transaction Forms Landscape box to print transaction forms in landscape format.</td>
</tr>
<tr>
<td>Print Separate Voucher for Bill Payments</td>
<td>Remittance information for payments against many bills may not fit on a single check voucher. In such a case, you can print a separate voucher page that includes all of the remittance advice. Then, you can send this expanded voucher page to the vendor along with the check. When you print a separate voucher, no bills are listed on the voucher part of the check. The actual check voucher indicates that the remittance advice is on a separate page.</td>
</tr>
<tr>
<td>Print Accounts on Vouchers</td>
<td>Check the Print Accounts on Vouchers box to print the name of the account used on checks.</td>
</tr>
<tr>
<td>Print Discount and Shipping Lines in Columns</td>
<td>Check the Print Discount and Shipping Lines in Columns box to show discount and shipping items with descriptions as line-items in transaction columns. If you clear this box, the footer of the transaction shows only a shipping-item name and the total shipping and handling cost.</td>
</tr>
<tr>
<td>Print Business Number on Forms</td>
<td>Check the Print Business Number on Forms box if you want your Federal ID or EIN printed in the header of your transaction forms.</td>
</tr>
<tr>
<td>Use Location Address on Forms</td>
<td>Check the Use Location Address on Forms box if you want to print the address and logo of the location identified in the body of a transaction.</td>
</tr>
<tr>
<td>Note:</td>
<td>To utilize this preference, you must use a standard transaction PDF layout. Use either a standard transaction form with a standard transaction PDF layout or use a custom transaction form associated with a standard PDF layout.</td>
</tr>
<tr>
<td>Note:</td>
<td>This does not apply to locations identified by line-items on transactions. The address and logo for each location is identified on the location record. This preference does not apply to printing statements.</td>
</tr>
</tbody>
</table>
Advanced PDF/HTML Printing

By default the preferred transaction PDF basic layout or transaction HTML basic layout is used to format printed item detail statements, item labels, and mailing labels. If the Advanced PDF/HTML Templates feature is enabled in your account, you can use an advanced template instead. For information about advanced printing, see the help topic Advanced PDF/HTML Templates. For information about transaction layouts, see the help topic Customizing Transaction Form PDF Layouts.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use for Item Detail Statements</td>
<td>Check to use the preferred advanced template to format printed item detail statements.</td>
</tr>
<tr>
<td>Use for Item Labels</td>
<td>Check to use the preferred advanced template to format printed item labels.</td>
</tr>
<tr>
<td>Use for Mailing Labels</td>
<td>Check to use the preferred advanced template to format printed mailing labels.</td>
</tr>
</tbody>
</table>

Check Printing

**Note:** These preferences do not affect the position of layout elements on the check form.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Check Type</td>
<td>In the Default Check Type field, select the type of checks you use:</td>
</tr>
<tr>
<td></td>
<td>■ Select <strong>Standard</strong> for checks printed without a voucher, three to an 8.5 by 11-inch sheet.</td>
</tr>
<tr>
<td></td>
<td>■ Select <strong>Voucher</strong> for checks printed at the top of an 8.5 by 11-inch sheet, with voucher information printed on a bottom stub.</td>
</tr>
<tr>
<td></td>
<td>One check prints per sheet.</td>
</tr>
<tr>
<td>Font</td>
<td>In the Font field, select the type font to use when printing checks.</td>
</tr>
<tr>
<td></td>
<td>Print checks at Transactions &gt; Management &gt; Print Checks and Forms.</td>
</tr>
<tr>
<td>Font Size</td>
<td>In the Font Size field, enter the font size to use when printing checks.</td>
</tr>
</tbody>
</table>

PDFs

**Note:** To set preferences on reports (such as fonts and format) to generate PDFs, see the help topic Reporting Preferences on the Set Preferences Page.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Logo Image DPI When Printing</td>
<td>Check the Use Logo Image DPI When Printing box to print logos in PDFs at a higher resolution for clarity.</td>
</tr>
<tr>
<td>Logo Scaling Factor</td>
<td>In the Logo Scaling Factor field, enter a number to control the size of a logo when printing a PDF. For example, enter 1 to size it at 100% and 0.8 to size it at 80%.</td>
</tr>
<tr>
<td>Add Extra Space Between Items</td>
<td>Check the Add Extra Space Between Items box if you want to add space between line items on PDF transactions. This space is added only to line items and is in addition to your selected line spacing settings.</td>
</tr>
<tr>
<td>Line Spacing</td>
<td>In the Line Spacing field, select how you want the lines on your PDF forms to be spaced.</td>
</tr>
</tbody>
</table>
Setting Printing and Fax Preferences

### Field  Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>This does not affect HTML forms.</td>
<td></td>
</tr>
</tbody>
</table>

**Extend Columns to Bottom of Page**

Check the Extend Columns to Bottom of Page box if you want columns on PDF forms to extend to the bottom of the page, whether or not there is an entire page of data within the column. Totals are shown directly beneath the last line of data.

If you do not turn on this preference, data on the form is totaled at the bottom of the page.

**Form Size Measurements**

Select whether you want to enter measurements for PDF layout elements in Imperial (English) or metric units.

### Template Folders

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter</td>
<td>In the Letter field, select the File Cabinet folder you want to store your letter templates in by default. This field appears only if you have enabled the Mail Merge feature.</td>
</tr>
<tr>
<td>PDF</td>
<td>In the PDF field, select the File Cabinet folder you want to store your PDF templates in by default. This field appears only if you have enabled the Mail Merge feature.</td>
</tr>
</tbody>
</table>

### Messages

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales Form Disclaimer</td>
<td>Enter a disclaimer to appear at the bottom of your sales forms. Some examples of sales forms include invoices, sales orders and credit memos.</td>
</tr>
<tr>
<td>Purchase Form Disclaimer</td>
<td>Enter a disclaimer to appear at the bottom of your purchase orders.</td>
</tr>
<tr>
<td>Statement Disclaimer</td>
<td>Enter a disclaimer to appear at the bottom of your customer statements.</td>
</tr>
<tr>
<td>Payment Receipt Disclaimer</td>
<td>Enter a disclaimer to appear at the bottom of payment receipts.</td>
</tr>
<tr>
<td>Packing Slip Message</td>
<td>Enter a message to appear at the bottom of your packing slips.</td>
</tr>
<tr>
<td>Return Policy</td>
<td>Enter your return policy to appear on return forms.</td>
</tr>
<tr>
<td>Remittance Slip Message</td>
<td>Enter a message to appear at the bottom of your remittance slips.</td>
</tr>
</tbody>
</table>

### Fax

You must register with eFax® or Faxaway® to use NetSuite for faxing. Visit www.efax.com or www.faxaway.com to register before setting your fax preferences.

**Note:** Free eFax accounts do not function with NetSuite. To use eFax with NetSuite, you must set up a pay account with eFax.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers Default to Fax Transactions</td>
<td>Check the Customers Default to Transactions box as appropriate on the Fax subtab.</td>
</tr>
</tbody>
</table>
Setting Printing and Fax Preferences

### Default to deliver customer transactions by printing, by email, by fax, or by a combination of the three. The delivery preferences you define will default on all new customer records you create. Later, you can change the settings on individual customer records as needed by checking or clearing the appropriate boxes.

### Vendors Default to Fax Transactions

- **Field:** Vendors Default to Fax Transactions
- **Description:** Check the Vendors Default to Transactions box as appropriate on the Fax subtab.
- **Description:** Default to deliver vendor transactions by printing, by email, by fax, or by a combination of the three. The delivery preferences you define will default on all new vendor records you create. Later, you can change the settings on individual vendor records as needed by checking or clearing the appropriate boxes.

### Send Faxes Using

- **Field:** Send Faxes Using
- **Description:** After you have registered for a fax service, select the fax service you have registered with.

### Registered Email Address

- **Field:** Registered Email Address
- **Description:** Enter the email address you used to set up your fax service.

### Mode

- **Field:** Mode
- **Description:** Select standard or fine as the quality of your fax.
- **Description:** This only applies if you registered with eFax.

### Send Cover Page

- **Field:** Send Cover Page
- **Description:** Check this box to send a cover page with your fax.
- **Description:** This only applies if you registered with eFax.

### Send Confirmation Email

- **Field:** Send Confirmation Email
- **Description:** Check this box to receive an e-mail message containing a copy of the fax you sent.

### Fax Template Folder

- **Field:** Fax Template Folder
- **Description:** Select the File Cabinet folder you want to store your fax templates in by default.

### Prepend a '1' to Number When Sending a Fax

- **Field:** Prepend a '1' to Number When Sending a Fax
- **Description:** To add a 1 to the beginning of a fax number when dialing, check this box.

## Setting Email Preferences

The Email Preferences page is where you set up global email preferences for your company. Preferences set on these pages affect all users in your NetSuite account.

### Note:

Use the Set Up Web Site page to set preferences for sending email from your website. For more information, see the help topic Set Website Email Preferences.

### To set your email preferences:

1. Go to Setup > Company > Email > Email Preferences.
2. Complete the required fields as detailed in the following sections.
3. Click Save.

### General

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global BCC List (Separate Addresses with Commas)</td>
<td>In this field, list email addresses to which you want to send blind copies of outbound email messages, including emailed transaction forms, individually sent email, email merges, campaign email, and system response email. Separate multiple addresses with commas. To enter BCC email addresses intended for outbound messages from the Web store, see the help topic Set Website Email Preferences.</td>
</tr>
</tbody>
</table>
### Field | Description
--- | ---
Global Footer | In this field, enter text to be included at the bottom of each outbound email message, other than transactions, including emailed transaction forms, individually sent email, email merges, campaign email, and system response email. This text can meet legal requirements and serve as a disclaimer.

**Note:** This email uses HTML based on your setting in the Email Using HTML field at Home > Set Preferences on the Transactions subtab under Printing.

To enter content intended for outbound messages from the Web store, see the help topic Set Website Email Preferences.

Default Mail Merge Domain | Select the campaign email domain you want selected by default on your email and templates.

A campaign domain is required if you send more than 10,000 bulk email per month.

You can create new campaign email domains. For Site Builder, go to Setup > Site Builder > Setup Tasks > Set Up Web Site or for SuiteCommerce Advanced, go to Setup > SuiteCommerce Advanced> Set Up Web Site. Click the Domains subtab.

Enable Email Alerts for WS and CSV Imports | To improve performance and avoid unnecessary email, by default, saved search email alerts are not sent for updates made by CSV imports or SOAP web services integrations. Check this box to cause email alerts to be sent for CSV imports and SOAP web services integrations.

Remove Email Addresses From Bounced Email Address list After | Select the number of days delay before email addresses that returned a bounce message are removed from the Bounced Email Address list. Email addresses on this list are not sent email from NetSuite during this period. This includes all types of email, including individual and bulk email messages through mail merge or marketing campaigns.

### Transactions

Click the Transactions subtab to set email preferences for your transactions.

| Field | Description |
--- | --- |
Customers Default to Email Transactions | Check this box to deliver customer transactions by printing, by email, by fax, or by a combination of the three. The delivery preferences you define default on all new customer records you create. Later, you can change the settings on individual customer records as needed by checking or clearing the appropriate boxes.

Vendors Default to Email Transactions | Check this box to deliver vendor transactions by printing, by email, by fax, or by a combination of the three. The delivery preferences you define default on all new vendor records you create. Later, you can change the settings on individual vendor records as needed by checking or clearing the appropriate boxes.

Send to all Administrators | Check this box to send every employee with the Administrator role a copy of each transaction form emailed to customers or vendors.

Security-sensitive email is always sent to the actual owner of the email address. For example, password reset email does not obey preferences that override routing rules (such as the Send to all Administrators preference).

Examples of security-sensitive email include:

- Reset Password
- Change Password
- Change Email Address
- Security Questions (Setup or Update)
### Setting Email Preferences

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CC (Separate Addresses with Commas)</strong></td>
<td>In this field, list email addresses to which you want to send copies of emailed transaction forms. Separate multiple addresses with commas or semicolons. You can email copies of forms to all Administrators, all Administrators and those you specify in the CC field, or only those you specify in the CC field.</td>
</tr>
</tbody>
</table>
| From Address for Emailed Forms             | In this field, select the email address to show in the From field of email you send with NetSuite:  

- **Company Return Email Address** – Email is sent from the address you enter in the Return Email Address field at Setup > Company > Company Information  
- **Subsidiary Return Email Address** – Email forms generated in NetSuite are sent using the company email address: Setup > Company > Classifications > Subsidiaries > New.  
- **User Email Address** – Email is sent from the address you enter in the From Email Address field at Home > Set Preferences. If you do not enter an email address here, email is sent from your login email address. |
| Use Popup for Main Transaction Email Button | Check this box if you want to view and modify the email you send when you click the Email button from a transaction. With this preference enabled, when you click the Email button on a transaction, an email form opens, allowing you to modify the recipients and email text. If this preference is disabled, when you click the Email button on a transaction, the transaction email is sent immediately. |
| CC Customer on All Emails Related to Orders Placed by Contacts | Check this box if you want to send all web store order email messages to:  

- the contact who placed the order, AND  
- the email address defined for the customer  

If this box is not checked, all web store order email is sent only to the contact who placed the order. No email is sent to the main customer email address. |
| Default Email Template                      | Select an email template to use as the default template for standard transactions. NetSuite’s Standard Transaction Email Template is selected by default. |

### Templates

Click the **Templates** subtab to set preferences for your email templates.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
</table>
| Template Folder            | In this field, select the File Cabinet folder you want to store your mail templates in by default.  

To create additional templates to go in this dropdown list, go to Setup > Company > Email > Email System Templates, then click **New Template**. |
| User Access Email Template | In this field, select the template to use when notifying an employee that they have been given access to your account.  

To create additional templates to go in this dropdown list, go to Setup > Company > Email > System Email Templates and click **New Template**. |

| Customer Center Email Template | In this field, select the template to use when notifying customers that they have been given access to the Customer Center.  

To create additional templates to go in this dropdown list, go to Setup > Company > Email > System Email Templates and click **New Template**. |
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Center Email</td>
<td>In this field, select the template to use when notifying partners that they have been given access to the Partner Center or Advanced Partner Center. To create additional templates to go in this dropdown list, go to Setup &gt; Company &gt; Email &gt; System Email Templates, then click New Template.</td>
</tr>
<tr>
<td>Webstore Template Folder</td>
<td>Select which File Cabinet folder to store templates used by the Web store for outbound email messages.</td>
</tr>
</tbody>
</table>

### Domain Keys

By setting up your domain keys, DKIM headers are applied to outgoing email messages sent from your NetSuite account. This code header contains domain key information to authenticate the email with the receiving server but does not add any text to your messages.

For information on Domain Keys, see [DomainKeys Identified Mail (DKIM)](https://www.netsuite.com/developer/dkim).

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email Address to Receive Test Response</td>
<td>In this field, enter the email address where you want the results of the Send Test Email to DKIM Reflector to be sent. By default, the field contains the return email address found on the Company Information page.</td>
</tr>
<tr>
<td>Domain Selector</td>
<td>In this field, enter where the public key is located in the DNS entry of the domain. Do not include the _domainkey suffix that you include when setting up your domain with your domain provider. This is the same domain selector you enter when setting up the domain with your domain provider. For example, if you are using GoDaddy.com for your domain hosting, enter the TXT name you entered as the Host in the TXT (Text) section of the Total DNS Control Panel.</td>
</tr>
<tr>
<td>Domain Name</td>
<td>In this field, enter the domain name where the public key is stored.</td>
</tr>
<tr>
<td>Active</td>
<td>Check this box if the selected domain key is active. Inactive keys are ignored by NetSuite when sending email.</td>
</tr>
</tbody>
</table>
| Private Key                  | In this field, enter the private domain keys used for signing in one of the following ways:  
  - Enter them manually.  
  - Click the Generate Key Pair button to have NetSuite generate it for you.                                                                                                                                                                                                                                                                                                                                                               |
| Public Key                   | In this field, enter the public domain keys used for signing in one of the following ways:  
  - Enter them manually.  
  - Click the Generate Key Pair button to have NetSuite generate it for you.                                                                                                                                                                                                                                                                                                                                                               |
| Generate Key Pair            | Click this button to generate your domain keys. After you click this button, the Private Key and Public Key fields display your generated keys.                                                                                                                                                                                                                                                                                                      |
| Generated DNS Entry          | After generating or entering your domain keys, click this button to display the complete DNS entry for your domain. You can paste this DNS entry into the domain settings with your domain provider.                                                                                                                                                                                                                                               |
| Verify DNS Entry             | Click this button to verify the presence of your public key in DNS. The results are shown in a popup window. For information, see [DKIM Setup Verification](https://www.netsuite.com/developer/dkim).                                                                                                                                                                                                                                                                                                                   |
| Send Test Email to DKIM Reflector | Click this button for a more extensive test of your DKIM setup. NetSuite generates and email using your domain, and sends it to the DKIM reflector. A report is sent to the address shown in the Email Address to Receive Test Response field.                                                                                                                                                                                                                   |
Setting Email Preferences

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>For information, see DKIM Setup Verification.</td>
<td></td>
</tr>
</tbody>
</table>

Sandbox and Release Preview Email Preferences

Click the Sandbox and Release Preview Email Preferences tab to set preferences for the routing of email messages from your sandbox and release preview accounts.

**Important:** NetSuite recommends choosing the **Send Email To** option for both the Sandbox and Release Preview accounts.

There are exceptions to the email routing rules you specify. Security-sensitive email will be always sent to the actual owner of the email address. For example, password reset email does not obey preferences that override routing rules.

Examples of security-sensitive email include:

- Reset Password
- Change Password
- Change Email Address
- Security Questions (Setup or Update)
- Two-Factor Authentication Setup (one-time password)

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| Send Email To (NetSuite recommends this option.) | Choose this option to ensure email messages are delivered to specific addresses.  
  - Enter the email address or email addresses to which to deliver email messages. Separate each email address entered with a comma.  
  - Choose this option when testing your web store in your Sandbox or in your Release Preview accounts. This option ensures web store generated email messages are routed to the desired recipient. |

| Send Email to Logged In User | Choose this option to route email messages to the user logged in to the NetSuite UI. If you select this option, be aware of the following behaviors:  
  - Email messages initiated by an error in a scheduled script follow the notification settings in the script record. |
Setting Email Preferences

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>▪ Email messages generated from web stores will not be sent to the user logged in to the NetSuite UI. For example, an order notification email message would be sent to the shopper's email address, not the logged in user's email address. To prevent this, choose the Send Email To option instead.</td>
</tr>
</tbody>
</table>

Do Not Send Emails
Choose this option if you do not want any email messages sent.

Email Spam Guidelines

Email campaigns can only be successful if the intended recipients receive the email. There are several best practices that can help you ensure that email is not marked as spam. For more information, see the following:

▪ Email Best Practices
▪ Optimizing Email Campaigns
▪ DomainKeys Identified Mail (DKIM)

You can also improve your domain’s reputation as a non-spammer by preventing spam on both incoming and outgoing mail. Some sources of spam messages going out are a result of spam messages coming in. Therefore, preventing bad email from coming in will also prevent you from sending out spam.

Consider the case capture address that you have set up. If you have a dedicated custom case capture address, you can perform some spam filtering using an external spam filter service. Bots can get case capture email addresses and send spam messages to those email addresses.

These spam messages can result in your domain being blacklisted by major mail providers because of the volume of email being sent out. For more information about case capture email addresses, see the help topic Using Email Case Capture.

For example, set up a branded case capture address such as support@cases.example.com. Modify your MX DNS record for cases.example.com to redirect all email traffic for this domain to your spam filter service provider. Filtered, clean traffic is sent to your SMTP server as configured on the spam filter side. Your server then redirects the branded capture case email address to the NetSuite case capture address.

Another best practice that can help prevent receiving spam is to keep your group email addresses private as much as possible (that is, your xxx@cases.netsuite.com and xxx@messages.netsuite.com email addresses). Minimize the number of attached users, and include only the users that should be involved in the communication. Leakage of group email addresses to a spammer can result in opening a spam distribution channel.

Note: For a spam distribution channel attack, NetSuite has protection for the reply-to-case scenario only. For more information, see the help topic Receiving Customer Responses to Cases. Other communications (transactions and messages) cannot be protected the same way, so circulating email addresses privately is essential.

Email Sent from NetSuite

Email sent from NetSuite are different, depending on where they are sent from, due to the templates and mechanism of sending. For example, standard email footers and the sending domain are specified in a
different way on a campaign email vs. a saved search email alert. Consequently, email sent from different sources might behave differently against a specified spam filter.

To optimize email delivery, ensure DMARC compliance by using DKIM keys for every email domain that your organization uses.

Setting Up Duplicate Detection

After you enable the Duplicate Detection feature at Setup > Company > Enable Features, you need to set criteria to use when searching for duplicates before records can be flagged. By default, NetSuite searches for duplicates by email address.

Note: Merging records also merges the records’ transaction histories. The original data, such as entity name, is retained to preserve a transaction’s history. You should restrict the ability to perform merges to specific roles or to the NetSuite administrator. This is particularly important where audit requirements discourage merging transaction records.

Duplicate Detection Preferences

You can change how NetSuite searches for duplicates on the Duplicate Detection page. You can have NetSuite search for duplicates among customer, contact, partner, or vendor records and search for matching information in certain fields.

To prevent you from merging records that are not duplicates, you can only merge records if they have the same tax registration number or if both records do not have tax registration numbers entered. If you use NetSuite OneWorld, records with different subsidiaries cannot be merged.

To set up Duplicate Detection:

1. Go to Setup > Company > Company Management > Duplicate Detection.
   
   Note: You may have to scroll the Company menu to see the Company Management section.

2. Check the Detect Duplicates Across Subsidiaries (Customers and Vendors Only) box to search for duplicate customers and vendors, even if they are within different subsidiaries.

3. Check the box next to each type of record you would like use duplicate detection with.
   
   For example, check the Detect Customer Duplicates box to be alerted of possible duplicate customer records.

   There are four types of records you can detect duplicates for:
   
   - Customer
   - Vendor
   - Partner
   - Contact
4. For each type of record, in the **Fields to Match On** box, select the fields from respective record type you want to use when searching for similar information.

Depending on your settings in Home > Set Preferences, you may see all fields listed in the form or you may have to click the Select Multiple icon and select your fields from there.

For a record of type Customer, selecting the field **Company Name**, makes the system search for duplicate matches in the **Company Name** field in the Customer Form.

Records must have matching information in all of the fields you select to be returned as possible duplicates.

For example, if you check the **Detect Customer Duplicated** box and then select phone and email in the **Fields to Match On** field, customers must have a matching phone number and a matching email address to be considered duplicates.
You can base duplicate detection criteria on custom fields. On the Set Up Duplicate Detection page, the list of fields for each entity type includes To create or modify custom entity fields: you have created for those record types. Check the Store Value box when creating a custom entity field to make it available as criteria in duplicate detection.

5. If you want to exclude specific email domains from Email (domain only) duplicate detection, click the Exclude Domains subtab, and enter the domains you want to exclude. Press Enter after each domain. Enter these excluded domains without the top-level domain (.com, .net, etc.). For example, to exclude Gmail email addresses, you would enter gmail.
Click anywhere on the list, press **Enter** and type the domain to be included without the dot com or dot net ending.

6. On the **Other Preferences** tab, check the **Show Duplicate Warning Popup on Records** if you want to present a popup warning when a user clicks **Save** when the cursor is in a duplicate criteria field.

   Normally, users are warned of possible duplicates when they click from a duplicate criteria field on a record to another field. Sometimes the cursor is still in a duplicate criteria field when the user clicks **Save**, and this standard warning is not presented. Enabling this preference allows users to still be notified.

7. Choose how you would like to resolve duplicate records that have conflicting login access.

   If two duplicate records each have login access, but the records have different email addresses, they are considered to have conflicting login access. The following options are available:

   - **Manually** - Duplicate records with conflicting login access are not merged. You must manually remove the login access of one of the records before they can be merged.
   - **By deleting the duplicates' access** - When merging records, the login access of duplicate records is deleted when it is merged into the master record.

8. Click **Save**.

   When you click **Save**, NetSuite begins searching for duplicate records based on your criteria.
Note: The initial search can take a significant amount of time based on the number of customer and contact records you have in your account. You will not see duplicate alerts or be able to merge records until this initial search is complete.

After the search is complete, possible duplicate records are flagged with a notice and a link to a page where you can decide how to manage the duplicates. For more information, see the help topic Merging or Deleting Duplicate Records.

You can also go to Lists > Mass Update > Mass Duplicate Record Merge to search for all possible duplicate contact and customer records based on the criteria you have set.

**Duplicate Entity Management Permission**

Access to the Manage Duplicates page is controlled by the Duplicate Entity Management permission.

To limit a role’s ability to perform merges:

1. Go to Setup > Users/Roles > Manage Roles.
2. Click Customize or Edit for a role.
3. On the Permissions tab, click Lists.
4. Add the Duplicate Entity Management permission to the role.
5. Select View to hide the Merge button from users with this role.

**Duplicate Record Notification**

Users are notified of potential duplicates in three ways:

- When you open a record that has potential duplicates, a notice is shown at the top of the page with a link to potential duplicates.
- When you are creating a new record and enter matching data in fields that are set up as duplicate criteria, a warning is shown at the top of the page with a link to the potential duplicates. If you have permission to view those records, you can click a link to open those matching records.
- When you add a record from a list by using Quick Add or you use the Inline Editing feature to make changes to a record that would make it a duplicate, you also receive a popup warning.

These notifications can help reduce the number of duplicate records created in your NetSuite account.

Note: For OneWorld accounts, cross subsidiary records are not treated as duplicates. For example, two entities belonging to different subsidiaries will not be listed as duplicates on the Manage Duplicates Page.

Certain words or phrases are skipped over when NetSuite searches for duplicates. For a list of these words, see the help topic Words Excluded from Duplicate Detection Matching.

**NetSuite Account Information**

The Setup > Company > NetSuite Account Information menu can assist you with maintaining your account.
Billing Questions – Opens the Contact Support Online page. You are encouraged to search the help center and review the FAQs before filling in the fields required to contact support. For more information, see the help topic NetSuite Support.

View Billing Terms — Opens the Billing Terms page, which describes the billing process and procedures for your NetSuite account.

View Billing Information — Opens a Billing Information page, which shows installed components, add-on modules, add on bundles, provisioning history, and component usage.

NetSuite Support Login — Opens the Allow NetSuite Support Login. Select the duration to allow NetSuite to access your data for investigating your cases.

Close Account – Opens the Contact Support Online page.

Outlook Sync Configurations — Change the Outlook sync configuration, if required. For more information, see the help topic NetSuite for Outlook.

Antivirus Scanning on File Cabinet Files

⚠️ Important: This is a mandatory feature. Administrators cannot request the service is switched off. No setup is required.

All files stored in the File Cabinet are screened for malicious content. This is done automatically when attempting to upload a file either through the user interface, SuiteScript or Web Services. Files that are determined to be malicious are rejected. In such cases you will receive the following error message either in the UI or through the console: “The file '{1:filename} was not saved to the File Cabinet. An Unexpected error has occurred.”

If you believe a rejected file is safe, please contact Customer Support for help resolving the issue.

Files received in NetSuite from email attachments are also scanned for viruses. These may include attachments in support cases, or through the use of the email capture plug-in feature. If a file attachment is determined to be malicious, it is automatically blocked without sending an error message.

Using System Alerts

A System Alert notifies administrators of problems NetSuite encounters when processing a transaction and advises how to correct the problem. Only Administrators have access to system alerts.

System alerts appear in the Reminders portlet on the Home tab after you have activated the reminder.

To activate the System Alerts reminder:

1. Click Personalize Dashboard in the Settings portlet or Personalize in the top right corner of the Home page.
2. In the Add Content panel, click or drag and drop the Reminders item.
3. In the Reminders portlet, click Set Up.
4. Check the NetSuite System Alerts to Acknowledge box.
5. Click Save.

To view a system alert, click the reminder in the Reminders portlet on the Home page. System alerts also can be accessed at Setup > Company > System Alerts.
The AMT system alert notifies you that an automatic memorized transaction has failed to post because it does not have a location reference. AMT alerts appear as a system alert in the Reminders portlet of the Home page.

**To view a system alert:**

   The System Alerts page opens. The type, date, and name of each alert is shown.
   To also show system alerts that have been acknowledged, click the **Show acknowledged alerts** box.
2. On the System Alerts page, click the name of the system alert in the **Name** column. The system alert record opens and shows these fields:
   - **Type** – the type of alert
   - **Date/Time** – the date and time of the alert
   - **Name** – the name of the alert
   - **Acknowledged** – if the alert has been acknowledged
   - **Description** – a description of the alert
   - **User email** – the user email address
   - **Document** – the document type and number
   - **Resolution** – the suggestion resolution for the error
3. Read the resolution to determine what steps to take to correct the transaction error.
4. Check the **Acknowledged** box to mark the alert acknowledged.
   After an alert is marked acknowledged, the related reminder no longer appears in the **Reminders** portlet.
5. Click **Save**.

A list of system alert records can be accessed at Setup > Company > System Alerts.

### Searching Bulk Processing Jobs

If you have an Administrator role, you can view the status and history of all the bulk processing jobs in your account.

Go to Setup > Company > Company Management > Bulk Processing Status List to view a list of bulk processing jobs. The columns that appear on this list include submission ID, submission status, percent complete, result, message, date created, and created by. Many of these columns are also filters so that you can narrow the list display to those processing jobs you want to view.

Available filters include the bulk processing type, submission status, result, and who created the bulk processing job. You can choose from a list of selectors to narrow the date the bulk processing job was created. You can also choose the style in which to display the list.

### Configuring Administrative Notifications

NetSuite uses administrative notifications, displayed when you log in, to provide you with important information about changes to your account such as infrastructure maintenance, service upgrades, or any potentially high impacting change that may affect your business.
It is important to configure the appropriate recipients to receive these notifications so that you can plan for these maintenances appropriately. Some examples include:

- NetSuite Administrators and IT personnel who should be aware of changes to the service.
- Accounting or Billing department heads who need to see billing or renewal notices.
- Legal department heads may need to see legal notifications.
- Operations decision makers may need to see scheduled maintenance notifications that may affect access to your account.

You can configure administrative notification recipients by going to Setup > Company > Company Management > Administrative Notifications to add the users you want to receive the notifications, and to view information about when and by whom notifications have been confirmed.

**Note:** This page is only available to users with the Setup Company permission.

By default, all administrative notifications are presented to all account administrators, and each administrator must acknowledge the notification to access the NetSuite account.

You can define configuration settings separately for each of the notification types listed below to make sure all notifications are going to the most appropriate recipients:

- **Administrative Notifications** - Announce upcoming changes to feature availability in your account.
- **Billing and Renewal Notices** - Alert you to payment requirements when you purchase new features and notify you when it is time to renew your contract with NetSuite.
- **Legal Notifications** - Notify you of changes that require administrator acceptance, such as a modification to the Terms of Service (TOS).
- **Scheduled Maintenance** - Provide the date and time when scheduled maintenance tasks may affect access to your account.
- **Service Release Notifications** - Occur prior to the release of a new version of NetSuite. These notifications provide information about access to the Release Preview account, and the time-frame when your account will be upgraded.

### Setting Administrative Notification Options

The Administrative Notifications page is available to account administrators, and to other users with the Setup Company permission.

On the Options subtab, you can:

- Designate multiple users, in addition to administrators, as notification recipients.

  **Important:** You may be able to set users that do not have login access to NetSuite as notification recipients, but users without login access will not receive notification email.

- Elect to send notifications by email, in addition to displaying them in the user interface.
On the Confirmed subtab, you can:
- View the date and time when a recipient has confirmed that they read a notification.
- View the name of the recipient who confirmed they read the notification.
For more information, see Review Notification Confirmations.

On the Pending Confirmation subtab, you can:
- View the notifications that have yet to be confirmed.
- View the name of the recipient who has not yet confirmed that they read the notification.
For more information, see Review Pending Confirmations.

To set options for administrative notifications:
1. Go to Setup > Company > Company Management > Administrative Notifications.
2. Click the Edit button, then review the following columns on the Options subtab and make changes as desired:
   - Include Admins
     - Indicates that all account administrators are added to the list of recipients for the selected type of notifications.
     - This required setting is set to Yes — Mandatory.
   - Recipients
     - Lists the specific set of users to receive in-account notifications of the selected type.
     - Default is empty.
     - You can define multiple recipients for each notification type, by using the Shift or Ctrl keys and selecting from the Recipients list.
     - Individual users and groups are available in the list.
   - Send Email
     - Indicates whether email messages containing notifications should be sent to recipients, in addition to in-account messages.
     - Default setting is disabled.
     - Check the box to enable this option.
     - If this option is enabled, email messages are sent to the complete list of recipients.
   - Require Each Recipient to Accept
     - Indicates whether all recipients should be required to confirm in-account notifications of this type.
     - Default setting is disabled. Each administrator is required to confirm the notification, but other recipients are not.
     - To ensure that all selected recipients see all in-account notifications of the selected type, check the box.

Note: Only employee users, and groups made up exclusively of employee users are available, because you cannot select Customer Center, Partner Center, or Vendor Center users as recipients.

Note: In-account notification email are different from email campaigns. It is possible that you might be signed up for one type, but not the other type. To find out if you are signed up for email campaigns, see the help topic Subscription Management.
3. When you are satisfied with settings, click **Save**.

**Note:** The Reset button clears all values in the list. It does not reset the last change you made.

### Review Notification Confirmations

You can review the **Confirmed** subtab of the notifications page for details about notifications that have been confirmed by all required recipients.

- **Notification Type** - Shows the type of notification.
- **Confirmed By** - Shows the names of users who have confirmed that they read the notification.
- **Date Confirmed** - Shows the date and time the user confirmed they read the notification.
- **Message Text** - Shows the text of the notification message.
- **Date emailed** - Shows the date when the notification was sent via email.

### Review Pending Confirmations

You can review the **Pending Confirmation** subtab for details about the notifications that have not yet been confirmed by all required recipients.

- **Notification Type** - Shows the type of notification.
- **Require Each Recipient to Accept** - Shows whether you indicated on the Options subtab, that each notification recipient was required to confirm that they read the notification.
- **Confirmed By** - Shows the names of recipients who have confirmed they read the notification.
- **Not Confirmed By** - Shows the names of those who have not yet confirmed they read the notification.
- **Message Text** - Shows the text of the notification message from NetSuite.
- **Start Date** - Shows the date when the notification message was originally posted.
- **Expiration Date** - Shows the last date the notification message will be posted.

### Managing Plug-ins

A plug-in is functionality, defined by an interface, that can be customized. After a plug-in is implemented, you can override the plug-in's default logic with logic that suits your organization's needs.

Core plug-ins are provided by NetSuite, and are typically part of a major release. A core plug-in's interface defines functions that are executed within the core NetSuite code. For more information about core plug-ins, see the help topic **Core Plug-in Overview**.

Custom plug-ins are alternate implementations of an interface that are developed by third-party solution providers who bundle them as part of a SuiteApp. For more information about custom plug-ins, see the help topic **Custom Plug-in Overview**.

When a plug-in's implementations are ready to be utilized, the organization's NetSuite administrator activates the implementations available to each account.

To view the plug-in implementations available in an account, go to Customization > Plug-ins > Manage Plug-ins.
The Manage Plug-in Implementations page lists the core and custom plug-in implementations that are available in the current account. To inactivate an implementation, clear the box. To activate an implementation, check the box.

Make changes as required. Then, click Save.

Viewing Plug-in Implementation System Notes

To view the activity of your plug-in implementation, use the System Notes subtab.

To view plug-in implementation system notes:

1. Go to Customization > Plug-ins > Plug-in Implementations. Click Edit beside the implementation that you want to view.
2. Click the System Notes subtab.

Note: Previously, plug-in implementation information was listed on the History subtab, but that subtab is no longer updated. New plug-in implementation activity is captured on the System Notes subtab.

The system note for a change on a plug-in implementation record captures the following information:

- Date when the change was made
- Who made the change
- Context for the change (for example, UI)
- Type of change, for example, Edit
- Field changed
- Old value
- New value
- Role of the user who made the change (included as of 2017.2 — you have to customize the view to see the Role column)
Important: The current version of the Custom GL Lines Plug-in is always used. An older version of the plug-in might have been used to create a transaction, and might have generated a different result than the current version. If you attempt to update a transaction in a closed period, and the current version of the plug-in generates a different result, you cannot save the updates.

You can either open the period, or branch your plug-in implementation by the date of the plug-in version.

NetSuite Tiers of Service

The following table defines the NetSuite tiers of service. Your choice of service tier affects service characteristics such as data size limits, maximum number of users, storage capacity, and maximum number of SuiteCloud Plus licenses.

SuiteCloud Plus licenses control the number of concurrent operations an account can perform and therefore the transaction throughput for the account. Except for customization and other implementation decisions related to specific business processes, SuiteCloud Plus licenses have the most impact on the scalability a company experiences with NetSuite.

<table>
<thead>
<tr>
<th>Service Tier</th>
<th>Business Data Storage</th>
<th>File Cabinet Data Storage</th>
<th>Maximum Users</th>
<th>Maximum SuiteCloud Plus Licenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared Tier</td>
<td>10GB</td>
<td>10GB</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>Tier 3</td>
<td>100GB</td>
<td>25GB</td>
<td>150</td>
<td>2</td>
</tr>
<tr>
<td>Tier 2</td>
<td>500GB</td>
<td>200GB</td>
<td>800</td>
<td>3</td>
</tr>
<tr>
<td>Tier 1</td>
<td>1TB</td>
<td>200GB</td>
<td>1,200</td>
<td>5</td>
</tr>
<tr>
<td>Tier 1+/Tier 0</td>
<td>3TB</td>
<td>400GB</td>
<td>3,600</td>
<td>10</td>
</tr>
</tbody>
</table>

For more information, see Scaling NetSuite: Service Tier and SuiteCloud Plus Fact Sheet.

For details about SuiteCloud Plus licenses, see SuiteCloud Plus Settings.

NetSuite Tiers of Service Upgrade FAQ

If you have read about the NetSuite Tiers of Service and are not sure if you would benefit from an upgrade, see the following for answers to common questions about upgrades to NetSuite tiers of service.

What is included in a tier upgrade?

Upgrading your tier of service comes with many benefits, including:

- The capacity to support a greater number of concurrent operations, generally obtained by purchasing additional SuiteCloud Plus licenses
- A dedicated Oracle instance
- Some flexibility for maintenance and upgrade scheduling
- Increased storage capacity
- Greater transaction throughput capacity for your account

What metrics should I review when considering a tier of service upgrade?

- Limit of transactions per day
NetSuite Tiers of Service

- Users per tier
- Storage capacity
- SuiteCloud Plus licenses required

What are the different tiers of service offered by NetSuite?
For details, see the NetSuite Tiers of Service table.

Will a tier upgrade fix my performance issues?
No, your tier of service does not impact performance.

How long will it take to receive the new tier of service after I place my order?
Your new tier of service is targeted to be available one month after the license goes into effect.

Will I be able to pick the date and time of my upgrade?
Your upgrade date is scheduled when the license goes into effect. Contact your Account Manager if you need to reschedule your upgrade.

How long does the upgrade take?
Your account will be offline for approximately one hour.

Will I be notified after the upgrade is complete?
Yes.

How does my sandbox account get upgraded?
Sandbox accounts are upgraded to the new service tier when you request your next sandbox refresh.

Who can I speak with about tier upgrades?
Contact your Account Manager to discuss tier upgrades.

How do I know what tier of service I need?
Your Account Manager will contact the Technology Center of Excellence to help you complete a Service Tier Assessment.

SuiteCloud Plus Settings

If you are using SuiteCloud features, the purchase of a SuiteCloud Plus license can enhance performance by:

- Increasing the governance limit for concurrent web services and RESTlet requests
- Increasing the number of queues available for scheduled scripts, or the number of processors available for scheduled scripts and map/reduce scripts
- Increasing the number of queues and threads available for CSV import jobs

The purchase of multiple SuiteCloud Plus licenses further increases the supported limit for concurrent web services and RESTlet requests, the number of queues or processors for scheduled scripts and map/
reduce scripts, and the number of threads per CSV import job. There is no increase in capacity for other features, only the ones listed here.

**Note:** Some accounts are not eligible to purchase more than one SuiteCloud Plus license. Contact your sales representative or account manager to discuss SuiteCloud Plus.

The following table illustrates SuiteCloud Plus support:

<table>
<thead>
<tr>
<th>Suite Cloud Plus Licenses</th>
<th>Web Services and RESTlet Concurrent Requests</th>
<th>Schedul ed Script Queues</th>
<th>Map/Reduce and Scheduled Script Processors</th>
<th>CSV Import Queues / Threads Per Queue</th>
<th>Daily ERP Transactions / Commerce Transactions</th>
<th>Monthly ERP Transactions / Commerce Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Account base limit + 10</td>
<td>5</td>
<td>5 Queues / 2 Threads</td>
<td>15,000 / 5,000</td>
<td>150,000 / 100,000</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Account base limit + 20</td>
<td>10</td>
<td>5 Queues / 5 Threads</td>
<td>30,000 / 5,000</td>
<td>300,000 / 100,000</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Account base limit + 30</td>
<td>15</td>
<td>5 Queues / 10 Threads</td>
<td>60,000 / 10,000</td>
<td>600,000 / 200,000</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Account base limit + 50</td>
<td>25</td>
<td>5 Queues / 10 Threads</td>
<td>100,000 / 20,000</td>
<td>1,000,000 / 400,000</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Account base limit + 100</td>
<td>25</td>
<td>5 Queues / 10 Threads</td>
<td>300,000 / 30,000</td>
<td>3,000,000 / 600,000</td>
<td></td>
</tr>
</tbody>
</table>

Be aware of the following notes regarding SuiteCloud Plus support:

- SuiteCloud licensing may be offered in conjunction with service tiers. Higher daily and monthly transaction volumes are possible in specific scenarios for some tiers. For information about service tier offerings, see [this fact sheet](#).
- As of 2017.2, concurrency limits for web services and RESTlet requests apply to the combined total of both kinds of requests per account. Previously, concurrency for web services request was governed separately per user and authentication method. The account governance limit for concurrent requests is based on the service tier as well as the number of SuiteCloud Plus licenses available. Different service tiers have different base limits. The base limit is increased by 10 for each SuiteCloud Plus license. For information about account base limits per service tier, see the help topic [Web Services and RESTlet Concurrency Governance](#).
- The 2017.2 SuiteCloud Processors feature supports a new system for handling map/reduce scripts and scheduled scripts. This system is based on script processors rather than queues. With this feature, even queue-based processing runs on processors on the back end. Changing your deployments to use processors instead of queues optimizes script processing. For more information about this feature, see the help topic [SuiteCloud Processors](#).

For more details about using SuiteCloud Plus, see the following help topics:

- [Web Services and RESTlet Concurrency Governance](#)
- [SuiteCloud Processors – Processor Allotment Per Account](#)
- [Use Multiple Threads and Multiple Queues to Run CSV Import Jobs](#)

### Setting Up Transactions for NetSuite CRM+

**Important:** The information in this section pertains only to users of the NetSuite CRM+ product. Users of other NetSuite products can refer to [Accounting Preferences](#).

In NetSuite CRM+, you can use the Set Up Transactions page to set preferences for processing your transactions.
To set up transactions:

1. Go to Setup > Company > Set Up Transactions.
2. On the Set Up Transactions page, select the preferences you want to set up.
   See the sections below for descriptions of these preferences.
   (Preferences that appear vary depending on the features you have enabled.)
3. Click Save.

Descriptions of each subtab on the Set Up Transactions page follow.

General Subtab

- **Consolidate Projects on Sales Transactions** – Check this box to consolidate projects on customer invoices. You can create invoices for one customer including multiple projects. You are no longer able to issue invoices to a specific project, instead you issue the invoices to the customer.
- **Maximum # of Quantity-based Price Levels** – Enter a number to set a limit for the most price levels allowed to be assigned to an item when using Quantity Pricing.
- **Allow Discounts per Price Level on Quantity Pricing Schedules** – Check this box if you want to enter different quantity discounts for each price level on quantity pricing schedules.
- **Default Estimate Expiration (in days)** – Enter the default number of days before you want quotes to expire.
- **Duplicate Number Warnings** – Choose to have everyone with access to your account receive duplicate number warnings when transactions are submitted with the same numbers. This preference overrides the individual preference set at Home > Set Preferences. If you clear this box, individuals can decide to have duplicate number warnings by setting the preference at Home > Set Preferences.
- **Make Departments Mandatory** – Check this box to make the Department field required on records and transactions. If you check this box, records and transactions cannot be saved without completing this field.
- **Make Classes Mandatory** – Check this box to make the Class field required on records and transactions. If you check this box, records and transactions cannot be saved without completing this field.
- **Make Locations Mandatory** – Check this box to make the Location field required on records and transactions. If you check this box, records and transactions cannot be saved without completing this field.
- **Allow Per-Line Departments** – Check this box to associate a department with individual line items on a transaction. When this preference is on, you can choose a different department for each line item on transactions. Clear this box to select a department in the header of a transaction. When this preference is off, the department chosen in the header applies to all line items on the transaction.
- **Allow Per-Line Classes** – Check this box to associate a class with individual line items on a transaction. When this preference is on, you can choose a different class for each line item on transactions. Clear this box to select a class in the header of a transaction. When this preference is off, the class chosen in the header applies to all line items on the transaction.
- **Allow Per-Line Locations** – Check this box to associate a location with individual line items on a transaction. When this preference is on, you can choose a different location for each line item on transactions.
Clear this box to select a location in the header of a transaction. When this preference is off, the location chosen in the header applies to all line items on the transaction.

Reporting Subtab

Check the Include Shipping Costs in Sales and Forecast Reports to have shipping and handling costs included in order totals for sales and forecasting reports.

Ordering/Shipping Subtab

- **Default Shipping Method** – Select the shipping method you want to appear automatically on bills and invoices.
  
  You can choose other shipping methods when you enter transactions.
  
  To add choices to this list, go to Lists > New Shipping Items.

- **Default Sales Order Status** – Choose your default status for sales orders:
  
  - Choose **Pending Approval** if your company uses the approval process for sales orders.
  
  - Choose **Pending Fulfillment** if your company does not use the approval process for sales orders.
  
  You can still choose your sales order status at the time you enter a transaction.

- **Require Re-approval on Edit of Sales Order** – Choose to require re-approval when someone edits a sales order that was previously approved.
  
  Partially fulfilled sales orders are not affected by this preference. After a sales order is partially fulfilled, the status cannot be changed back to pending approval.

- **Send E-mail Confirmation when Sales Order Cancelled** – Check this box if you want an e-mail sent to the customer when a sales order is canceled.

- **Default Return Auth. Status** – Select **Pending Approval** if your company uses the approval process for return authorizations.
  
  Select **Pending Fulfillment** if your company does not use the approval process for return authorizations.
  
  You can still choose any return authorization status when you enter a transaction.

- **Charge for Shipping** – Check this box to charge shipping by weight, by percent of total order or by a flat rate.
  
  After you check this box, go to Lists > Shipping Items > New to create shipping items.
  
  After you create shipping items, you can select them on product invoices. Your customers can also select shipping items when making a purchase from your Web store.

- **Charge Handling Separate from Shipping** – Check this box to charge a separate handling charge in addition to shipping charges.

- **Default Item Weight in Lbs.** – Enter a default shipping weight for items without a weight set on their item records.
  
  If you do not enter a weight here, NetSuite uses 1 pound as the default weight. Item weight is used to determine shipping cost if you charge shipping per item or use UPS real-time rates.

Time & Expenses Subtab

- **Override Rates on Time Records** – Check this box if you want the option to lock the billable rate you enter on time records so the billable rate is not affected by any rate changes that may happen before this customer is actually invoiced.
If you check this, you can use different price levels by going to Setup > Enable Features > Customers/Sales, and checking the Use Multiple Prices box.

Clear this box if you have the rate field in time tracking and you do not want employees to see the service item rates. Then, the rate is kept in the system, but will no longer show in time tracking.

- **Combine Detail Items on Expense Report Transactions** – This preference affects detail items on expense reports.
  
  Check this box if you want to combine line items from the same category on a single expense report submitted by an employee.
  
  For example, if an employee enters a single expense report that contains two entries for entertainment costs, the total shows as one line item for entertainment costs on the invoice.
  
  Clear this box to detail each expense report line item individually.
  
  This preference does not combine expense categories from multiple expense reports submitted by the same employee.

- **Require Approvals on Time Records** – Check this box to require supervisors to approve their employees' time transactions.
  
  If you don’t check this, time transactions can be billed to customers or included in the payroll run without the approval of a supervisor.

- **Automatically Notify Supervisor** – Check this box to send supervisors e-mail messages when they need to approve expense reports and purchase requests.
  
  If you check this, you must also check either Use Expense Reports, Enable Purchase Requests or both at Setup > Enable Features.

### Tax Subtab

- **Tax Code Lists Include** – Choose what you want to appear in the Tax field on sales transactions:
  
  - Tax Groups Only
  - Tax Groups and Tax Items
  - Tax Items Only
  
  You can create Tax Groups at Lists > Accounting > Tax Groups > New. You can create tax items at Lists > Accounting > Tax Items > New.
  
  The Tax Code Lists Include preference does not apply to journals.

### The Setup Page for NetSuite CRM+ Users

**Important:** The information in this section pertains only to users of the NetSuite CRM+ product. Users of other NetSuite products can refer to The Setup Page.

The Setup page is where you manage the administrative details of your NetSuite CRM+ account. Set up your NetSuite CRM+ account by entering company information, enabling features and setting your preferences for processing, storing, and accessing information.

It is best to enter this information as soon as possible after your NetSuite CRM+ account is activated so that information and data you enter is processed correctly.

The links that show depend on the features you have enabled and the role you are using. Features are enabled by an administrator at Setup > Company > Enable Features.
The Setup page includes the following categories:

- **Company** - This category contains links to records for establishing a company address and contacts, enabling features and setting preferences, and viewing your account billing terms and information.

- **Accounting** – This category contains links to set up expense categories, tax information, other accounting lists, and employee-related lists.

- **Sales Force Automation** – This category contains links to set up your sales force automation, including customer statuses, sales rules, territories, and commissions.

- **Marketing** – Set up marketing campaigns and online customer forms.

- **Support** – This category contains links to set up customer support management, including support case email, case types, case origins, case territories, online case forms, escalation rules and assignment.

- **Web Site** – This category contains links to customize item and category layouts for your website, or customize the colors in your site.

- **Import/Export** – This category contains links to transfer your data in and out of NetSuite CRM+ or set up an XML import for information exchange between applications.

- **Users/Roles** – This category contains links to edit user accounts and roles or view the audit trail.

- **Integration** – Set Up XML Import and SOAP web services.

You can also click **New** next to a setup link to create a new record of that type.

### Using Telephony Integration

NetSuite provides two options for integrating NetSuite with a telephone system. Each requires different technology for implementation:

- **Telephony Application Programming Interface (TAPI)** – for placing outbound calls with NetSuite. With TAPI you can click on the phone icon next to a phone number and your phone system will automatically dial the number. TAPI only works on Windows operating systems (not Mac or Linux). For more information, see Setting Up TAPI Telephony Integration.

- **Computer Telephony Integration (CTI)** – for receiving and routing inbound calls. As calls come in, the CTI application queries customer information in NetSuite and presents it to the sales or support representative in a browser window using Screen Population technology. The representative has the required information on the screen when speaking with the customer. For more information, see Setting Up CTI Telephony Integration.

To integrate your NetSuite account with either TAPI or CTI technology, the account administrator must first enable the Telephony Integration feature at Setup > Company > Enable Features, on the SuiteCloud subtab. Then, each user who plans to use Telephony Integration must go to Home > Set Preferences and follow the directions provided on the Telephony subtab.

For instructions on making calls automatically from NetSuite records, see the help topic Making Calls From NetSuite.

### Setting Up TAPI Telephony Integration

Telephony Application Programming Interface (TAPI) must be set up individually on each user’s PC. You must have a TAPI compliant phone and software such as Artisoft’s® TeleVantage.

To set up TAPI integration, the account administrator must first enable the Telephony Integration feature at Home > Set Preferences on the Telephony subtab. After downloading the driver, enter the name of the TAPI enabled phone.
To set up telephony integration with a TAPI device:

1. Go to Home > Set Preferences.
2. On the Telephony subtab, in the Telephony Option field, select TAPI Device.
3. Follow the on-screen instructions to download the ExceleTelforNetSuiteApplications.zip file, which contains the executable file needed to install the required drivers for Telephony Integration.
4. In the TAPI Device field, enter the device that controls communication with your phone. If you do not know the name of your TAPI device, you can use a sample program at www.exceletel.com to find this information.
5. In the Prefix to Dial Out field, enter any numbers that must be dialed before dialing a phone number in your phone system. For example, you may need to dial 9 or 1 before a number.
6. Click Save.

If you have trouble locating the name of your TAPI device or receive an error message that it could not be found, try the following troubleshooting tips:

- If the name of your TAPI device ends with extension.tsp, try leaving out this extension when entering the name in NetSuite.
- The TAPI Device field is case-sensitive and must match your device name exactly.
- Download a sample program here to test dialing from your phone. From the exceletel Web page, click EXE to download the etQuickDial program.

When the program has downloaded, open the program and view all TAPI-enabled devices on your computer in the Active field. Select the device you are using, and check the Active box. Then enter a phone number to dial and click Dial to make sure the call is initiated from your device correctly.

To learn how to initiate and end calls, see the help topic Making Calls From NetSuite.

Setting Up CTI Telephony Integration

To use Computer Telephony Integration (CTI), you must set up an account with one of our partners, 8x8 or Five9. Software provided by these partners uses VoIP to work with your NetSuite account to provide click-to-call for out bound calls and Screen Population (Screen Pop) technology for incoming calls.
To set up your account for CTI, an account administrator must go to Setup > Company > Enable Features. On the SuiteCloud subtab, check the boxes next to Telephony Integration and SuiteTalk (Web Services).

To set up telephony integration with CTI:

1. Go to Home > Set Preferences, and click the Telephony subtab.
2. In the Telephony Option field, select CTI.
3. In the CTI URL field, enter the URL corresponding to the partner you have chosen:
4. Click Save.

Note: See 8x8 or Five9's documentation for more information on setting up partner software to work with NetSuite.

To learn how to initiate and end calls, see the help topic Making Calls From NetSuite.
Classifications in NetSuite

- Classifications Overview
- Departments and Classes Overview
- Locations Overview
- Using Per-Line Classifications

Classifications Overview

Departments, Classes, and Locations are classifications that you can use to identify and categorize records in your NetSuite account. You can also define classifications for your organization's needs by creating custom segments. Classifications enable you to better organize data and preserve accuracy.

To use each classification, you must enable the feature and then set up records. After you have set up classification records, you can use them to identify other records in your NetSuite account. For example, you can enable the Departments feature and then set up a record for each department. You can select a department on each employee record or select a location on each sales order. You can identify employees by department and then run financial reports by location.

To create additional custom classification fields similar to class, department, and location, you use the Custom Segments feature. You can create an unlimited number of custom segments and add them to specific record types. For more information, see the help topic Custom Segments.

See the topics below to get started using classifications:
- Departments and Classes Overview
- Custom Segments Overview
- Locations Overview

If you use NetSuite OneWorld, subsidiaries are the primary classification used to organize your NetSuite records. Departments, classes, locations, and custom segments can be used in addition to subsidiaries. If you use these classifications, you must associate them with a subsidiary. This association enables you to select the department, class, location, or custom segment on the record or transaction related to that subsidiary. For more information about using subsidiaries, see the help topics Subsidiaries in OneWorld and Subsidiary Setup.

In addition, if you plan to enable the Intercompany Time and Expense feature for NetSuite OneWorld, you must determine a strategy for handling classifications on intercompany time and expenses. You can either make classifications non-mandatory for journal entries, or set up global classifications that are available to all subsidiaries. Without a defined strategy, errors may occur for automated intercompany adjustments. For information about using this feature, see the help topic Enabling Intercompany Time and Expenses.

Departments and Classes Overview

Departments and classes are categories that you create to identify, categorize and track records such as financials, transactions, and employees. There is no limit to the number of departments or classes you can create.

Departments are listed first on transactions, and are useful when designating transactions and employees as part of an internal team. For example, you can create a department for each team of employees dedicated to a certain area of business (Sales, Marketing, Accounting and others). Then you can track...
income and expenses by each department over any time period in the reports. Also you can use the classification to departments in Sales Forecasting with the Forecast vs. Quota by Department Report or the Alt. Sales Forecast vs. Quota by Department Report.

Classes are useful for wider segments within your business. For example, if you have created a department for your sales team, you can create classes to track information on sales transactions such as new customers and repeat customers. Sales orders would then indicate whether the transaction was created for a new or repeat customer. This is useful in tracking where income and expenses are generated.

To set up departments, go to Setup > Company > Classifications > Departments > New.
To set up classes, go to Setup > Company > Classifications > Classes > New.
After you have set up departments and classes, you can select them on forms and records.

**Note:** Custom Segments are custom classification fields similar to class and department. You can use the Custom Segment feature to create an unlimited number of custom segments and add them to specific record types. For more information, see the help topic Custom Segments.

### Creating Classes

Classes are categories that you can create to track records such as financials, transactions, and employees. For example, you own a janitorial service and you want to track income and expenses separately for household and commercial accounts. You set up a class for each account type and track the financial performance of each class over any time period.

To enable classes, go to Setup > Company > Enable Features. On the Company subtab, check the Classes box and then click Save.

**To create a class record:**

1. Go to Setup > Company > Classifications > Classes > New.
2. Enter up to 31 alphanumeric characters for the name of the class.
3. If this class is a subclass of another, in the **Subclass of** field, select the parent class.
4. If you use NetSuite OneWorld, in the **Subsidiary** field, select one or multiple subsidiaries. To select multiple subsidiaries, hold down Ctrl and click each subsidiary.
   A subsidiary must be associated with a class for the class to be selected on a transaction or record related to that subsidiary.
5. If you use NetSuite OneWorld, check the **Include Children** box to associate the class with all the child subsidiaries of each subsidary selected in the **Subsidiary** field.
6. Check the **Class is Inactive** box to inactivate this class record.
   Inactive classes do not appear in lists of classes on records and transactions.

   **Note:** To inactivate classes from the Classes list at Setup > Company > Classifications > Classes, check the **Show Inactives** box, check one or more boxes in the **Inactive** column, and then click **Submit**.

7. Click **Save**.

You can restrict access to transaction, employee, partner, and optionally item records based on their assigned class values. You can also limit the classes that users can assign to these records. Class restrictions can be defined per user role and then applied to all users logged in with that role. For more information, see Restricting Access to Records by Class.
You also can apply class restrictions to custom records, if the custom record type includes a Class field. You can add this field directly from the Class record by clicking the New Field button. For more information, see the help topic Applying Role-Based Restrictions to Custom Records.

Modifying and Deleting Classes

At any time you can edit an existing class. Any change you make overwrites historical transactions. For example, if you change the name of the class NorthEast to North East, all historical transactions for that class appear as North East.

You can delete a class only if there are no dependent transactions. If there are any historical transactions, you cannot delete the class.

**To modify a class record:**

1. Go to Setup > Company > Classifications > Classes.
2. Click **Edit** to the left of the class you want to modify.
3. On the Class page, modify the class as needed.
4. Click **Save**.

**To delete a class record:**

1. Go to Setup > Company > Classifications > Classes.
2. Click **Edit** to the left of the class you want to delete.
3. On the Class page, in the **Actions** menu, click **Delete**.
4. Click **OK** to confirm the deletion.

Restricting Access to Records by Class

If your account has the Classes feature enabled, you can restrict access to transaction, employee, partner, and optionally item records based on their assigned class values. You can also limit the classes that users can assign to these records. Class restrictions can be defined per user role and then applied to all users logged in with that role.

**Important:** Any account in the Chart of Accounts list that does not have an assigned class is not subject to the **own, subordinate, and unassigned** or **own and subordinates only** restrictions.

The following settings for the Class Restrictions field on the Role page define class-related restrictions for transaction and customer records:

- **none - no default** – There is no restriction on what can be selected. Record access is not determined by this field. A default selection does not appear.
- **none - default to own** – There is no restriction on what can be selected. Record access is not determined by this field. Fields of this type will select the user by default.
- **own, subordinate, and unassigned** – Users are restricted when selecting any of the employee, sales rep, or supervisor fields. Users are granted access to records belonging to their supervisor hierarchy. Users may only select themselves or their subordinates. If the select field is optional, then the user may leave the value unassigned. Note that unassigned is technically a null value when used for filtering.
- **own and subordinates only** – Users are restricted when selecting any of the employee, sales rep, or supervisor fields. Users are granted access to records belonging to their supervisor hierarchy with the exception of unassigned records. Consequently, unassigned records are filtered and denied access. Users may only select themselves or their subordinates.

Check the **Allow Viewing** box to permit users logged in with this role to see, but not edit, records for classes to which the role does not have access.

Check the **Apply to Items** box to apply the class restrictions defined here to item records, in addition to transaction and customer records.

To set up a role to include these restrictions, go to Setup > Users/Roles > Manage Roles. Click **Customize** or **Edit**, or click the New button.

**Important:** In NetSuite OneWorld, subsidiary restrictions automatically apply to classes. For example, if Class A is assigned to only Subsidiary X and a role is restricted to Subsidiary X, users with that role have access to only Class A, even if that role does not have any class restrictions.

**Important:** If you are using the Advanced Employee Permissions feature, restrictions set on the Role page are only applicable to the Employees and Employee Administration permissions. The Employee Public and Employee Confidential permissions ignore the restrictions set on this page. For more information, see the help topic Setting Employee Access for Advanced Employee Permissions.

You can also apply role-based, class restrictions to custom records. For more information, see the help topic Applying Role-Based Restrictions to Custom Records.

### Creating Departments

Departments are categories that you can create to separate and track records such as financials, transactions, and employees. For example, you can create a department for each team of employees dedicated to a certain area of business, and then track income and expenses by each department over any time period.

To enable Departments, go to Setup > Company > Enable Features. On the Company subtab, check the Departments box and then click Save.

**To create a department record:**

1. Go to Setup > Company > Classifications > Departments > New.
2. Enter up to 31 alphanumeric characters for the name of the department.
3. If this department is a subdepartment of another, in the **Subdepartment of** field, select the parent department.
4. If you use NetSuite OneWorld, in the **Subsidiary** field, select one or multiple subsidiaries.
   - To select multiple subsidiaries, hold down Ctrl and click each subsidiary.
   - A subsidiary must be associated with a department for the department to be selected on a transaction or record related to that subsidiary.
5. If you use NetSuite OneWorld, check the **Include Children** box to associate the department with all the child subsidiaries of each subsidiary selected in the **Subsidiary** field.
6. Check the **Department is Inactive** box to inactivate this department record.
   - Inactive departments do not appear in lists of departments on records and transactions.
You can restrict access to transaction, employee, partner, and optionally item records based on their assigned department values. You can also limit the departments that users can assign to these records. Department restrictions can be defined per user role and then applied to all users logged in with that role. For more information, see Restricting Access to Records by Department.

You also can apply department restrictions to custom records, if the custom record type includes a Department field. You can add this field directly from the Department record by clicking the New Field button. For more information, see the help topic Applying Role-Based Restrictions to Custom Records.

Modifying and Deleting Departments

At any time you can edit an existing department. Any change you make overwrites historical transactions. For example, if you change the name of the department NorthEast to North East, all historical transactions for that department appear as North East.

You can delete a department only if there are no dependent transactions. If there are any historical transactions, you cannot delete the department.

To modify a department record:
1. Go to Setup > Company > Classifications > Departments.
2. Click Edit to the left of the department you want to modify.
3. On the Department page, modify the department as needed.
4. Click Save.

To delete a department record:
1. Go to Setup > Company > Classifications > Departments.
2. Click Edit to the left of the department you want to delete.
3. On the Department page, in the Actions menu, click Delete.
4. Click OK to confirm the deletion.

Restricting Access to Records by Department

If your account has the Departments feature enabled, you can restrict access to transaction, employee, partner, and optionally item records based on their assigned department values. You can also limit the departments that users can assign to these records. Department restrictions can be defined per user role and then applied to all users logged in with that role.

Important: Any account in the Chart of Accounts list that does not have an assigned department is not subject to the own, subordinate, and unassigned or own and subordinates only restrictions.

The following settings for the Department Restrictions field on the Role page define department-related restrictions for transaction and customer records:

- none - no default - There is no restriction on what can be selected. Record access is not determined by this field. A default selection does not appear.
Departments and Classes Overview

- **none - default to own** – There is no restriction on what can be selected. Record access is not determined by this field. Fields of this type will select the user by default.

- **own, subordinate, and unassigned** – Users are restricted when selecting any of the employee, sales rep, or supervisor fields. Users are granted access to records belonging to their supervisor hierarchy. Users may only select themselves or their subordinates. If the select field is optional, then the user may leave the value unassigned. Note that unassigned is technically a null value when used for filtering.

- **own and subordinates only** – Users are restricted when selecting any of the employee, sales rep, or supervisor fields. Users are granted access to records belonging to their supervisor hierarchy with the exception of unassigned records. Consequently, unassigned records are filtered and denied access. Users may only select themselves or their subordinates.

Check the **Allow Viewing** box to permit users logged in with this role to see, but not edit, records for departments to which the role does not have access.

Check the **Apply to Items** box to apply the department restrictions defined here to item records, in addition to transaction and customer records.

To set up a role to include these restrictions, go to Setup > Users/Roles > Manage Roles. Click **Customize** or **Edit**, or click the New button.

**Important:** In NetSuite OneWorld, subsidiary restrictions automatically apply to departments. For example, if Department A is assigned to only Subsidiary X and a role is restricted to Subsidiary X, users with that role have access to only Department A, even if that role does not have any department restrictions.

**Important:** If you are using the Advanced Employee Permissions feature, restrictions set on the Role page are only applicable to the Employees and Employee Administration permissions. The Employee Public and Employee Confidential permissions ignore the restrictions set on this page. For more information, see the help topic Setting Employee Access for Advanced Employee Permissions.

You can also apply role-based, department restrictions to custom records. For more information, see the help topic Applying Role-Based Restrictions to Custom Records.

Converting Classes to Departments

Classes and departments are categories you create to track and classify your transactions. When you generate a transaction, departments are always listed first. If you are using classes to represent departments, you can convert them to departments and then create new classes to further detail and categorize your business.

For example, you currently have a class for your sales department, but you want to create classes for inside sales and outside sales. If you convert your sales department class to a department, you can create new classes that categorize the different areas of the sales department.

**Warning:** The conversion process overrides existing departments, deletes all class information, and is irreversible.

To convert classes to departments:

1. Go to Setup > Company > Convert Classes to Departments.
2. To convert your classes to departments, click **Save**.
3. To view your new departments, go to Setup > Company > Classifications > Departments.
Converting Classes to Locations

You can use the Locations feature to track inventory, employees, and transactions for multiple company locations. If you were previously using classes for this purpose, you can convert all your class information to location information.

When you use this feature, all class are converted to locations, including historical transactions. On financial reports that show classes or locations, values that previously appeared on class are now displayed on location.

You cannot convert classes to locations if you already have locations in the system. These existing locations must first be removed before you can convert classes to locations. In addition, each class can only have one subsidiary before being converted to locations.

**Warning:** The conversion process overrides existing locations, deletes all class information, and is irreversible.

**To convert classes to locations:**

1. Go to Setup > Company > Classifications > Convert Classes.
2. To convert your classes to locations, click **Save**.
3. To view your new locations, go to Setup > Company > Classifications > Locations.

Custom Segments Overview

The Custom Segments feature lets you create custom classification fields similar to class and department. You can create an unlimited number of custom segments, define possible values for each segment, and add the segments to specific record types. People working in NetSuite can then use the segments to classify records appropriately.

You can configure segments to display on the GL Impact page. Also, standard NetSuite reports can be customized to use custom segments as filters and columns. In financial reports, custom segments can be added as a horizontal dimension. The functionality of custom segments enhances your ability to categorize data and meet your organization's unique reporting and analysis needs.

To enable custom segments, go to Setup > Company > Enable Features. On the SuiteCloud subtab, check the Custom Segments box, and then click Save.

To create a custom segment record, see the help topic [Creating a Custom Segment](#).

Locations Overview

The Locations feature enables you to track information about employees and transactions for multiple offices or warehouses. For example, you can create locations for the corporate office and all of the sales offices, or for warehouses in several states. You can associate transactions and employees with each location, and then filter report data by location.

To enable the Locations feature, go to Setup > Company > Enable Features. On the Company subtab, check the Locations box and then click Save.

To track data by location, you must enter a record for each location you want to track. Then, you can associate employees and transactions with a location record. For more information, see [Creating Locations](#).

You can use the Locations feature to do the following:
**Locations Overview**

- **Associate transactions with a location.**
  Sales and purchases can be grouped by location, as well as bank transactions like checks, deposits, and credit card purchases.
  You can search transactions associated with a location and filter reports to show data specific to each location. For more information, see Associating a Transaction with a Location and Searching for a Transaction by Location.

- **Associate employees with a location.**
  Choose a location on the employee’s record to associate them with a location. By customizing employee roles at Setup > Users/Roles > Manage Roles, you can restrict employee access to data for only their location. For example, you can restrict access for warehouse personnel who handle item receipts or fulfillments at a single location. For more information, see the help topic Employee Locations.

- **Assign fulfillment locations to sales order lines automatically.**
  If the Automatic Location Assignment feature is enabled, you can use location records to represent your fulfillment locations and assign those locations to sales order lines automatically. NetSuite assigns locations to sales orders based on the customer shipping address, the fulfillment locations in your organization, and one or more rules that define the assignment criteria (such as the location type or the distance to the shipping address). For more information, see the help topic Automatic Location Assignment.
  The Automatic Location Assignment feature is part of the Advanced Order Management module – contact your account representative for more information.

**Important:** To associate items with a location, you must enable the Multi-Location Inventory feature. Before you enable this feature, it is recommended that you read the help topic Multi-Location Inventory to determine if this feature is appropriate for your company. After you have enabled the Multi-Location Inventory feature and distributed items, you cannot disable the feature without first contacting Customer Support. Note that the Multi-Location Inventory feature is required for NetSuite OneWorld using the Inventory feature.

**Creating Locations**

You can create a location record for each of your company's locations. Then you can track employees and transactions by location.

**Note:** To create more than 100 locations, using the Advanced Item Location Configuration feature is recommended. The Advanced Item Location Configuration feature provides more flexibility and better system performance. To create more than 1000 locations, you are required to use the Advanced Item Location Configuration feature and can create an unlimited number of location records.

Read more about the Advanced Item Location Configuration feature.

**Warning:** We do not recommend using locations to identify areas within your warehouse such as a bin, shelf, or dock. Using locations for this purpose creates difficulties with fulfillments, LIFO and FIFO costing, and NetSuite reporting.

**To create a location record:**

1. Go to Setup > Company > Classifications > Locations > New.
2. Enter up to 31 alphanumeric characters for the name of the location.
This name appears on forms and reports that require you to choose a location. For example, you might name one location Georgia Warehouse and another California Warehouse.

3. If this location is a sublocation of another, in the Sublocation of field, select the parent location.

4. If you use NetSuite OneWorld, in the Subsidiary field, select one or multiple subsidiaries.
   To select multiple subsidiaries, hold down Ctrl and click each subsidiary.
   A subsidiary must be associated with a location for the location to be selected on a transaction or record related to that subsidiary.
   NetSuite OneWorld using the Inventory feature must associate each location with a single subsidiary. NetSuite OneWorld not using this feature can associate each location with no subsidiary, one subsidiary, or multiple subsidiaries. For information about working with subsidiaries, see the help topics Subsidiaries in OneWorld and Subsidiary Setup.

5. If you use NetSuite OneWorld, check the Include Children box to associate the location with all the child subsidiaries of each subsidiary selected in the Subsidiary field.

   **Important:** The Include Children box is not available in NetSuite OneWorld with the Inventory feature enabled.

6. Check the Location is Inactive box to inactivate this location record.
   Inactive locations do not appear in lists of locations on records and transactions.

   **Note:** To inactivate locations from the Locations list at Setup > Company > Classifications > Locations, check the Show Inactives box, check one or more boxes in the Inactive column, and then click Submit.

7. Select the kind of location: Store, Warehouse, or Undefined.
   The location type is one of the criteria that the Automatic Location Assignment feature uses when determining the ideal fulfillment location. You can set the location to Undefined to represent locations that are neither a store nor a warehouse.

8. Select the time zone for the location.

9. If you want to use location-specific document and transaction numbering, in the Document Number Prefix, Transaction Number Prefix, or both fields, enter up to eight alphanumeric characters to be a prefix for autogenerated numbers.
   This prefix indicates that document numbers and transaction numbers are associated with this location.

   **Note:** You must set up location-specific transaction numbering on the Set Up Auto-Generated Numbers page at Setup > Company > Auto-Generated Numbers. On the Document Numbers subtab of this page, check the Use Location box next to each type of transaction that you want use location-specific numbering.

10. Select a location-specific logo to display on printed and emailed transaction forms.
    To upload a logo, go to Documents > Files > Images > New. Check the Available Without Login box.

    **Note:** Logos must be in JPG or GIF format. For your logo to be printed on standard forms, the logo must be no more than 200 pixels wide and 60 pixels high.

11. Check the Make Inventory Available box if inventory at this location can be stocked and can be allocated and committed for sales or fulfillments.
    Clear this box if inventory at this location can be stocked, but cannot be committed on sales or fulfillments.
12. Check the Make Inventory Available in Web Store box if you want on-hand inventory stored at the location to be included in the total quantity available that is displayed in your Web store.

   **Note:** To track inventory items by location, you must enable the Multi-Location Inventory feature. For more information, see the help topic Multi-Location Inventory. The Multi-Location Inventory feature is required for NetSuite OneWorld using the Inventory feature.

13. If you use the Multi-Location Inventory and Advanced Bin Management features, and want to use bins to track inventory at this location, check the Use Bins box.

   **Note:** On existing location records, when you check this box or clear it and then click Save, the Locations in Queue page displays the locations that are currently processing.

14. Check the Include in Supply Planning box to include this location in supply planning calculations. When the Plan Through Distribution Network preference is enabled, NetSuite completes supply planning calculations including only locations that have this setting enabled.

   **Note:** This option is available only when the Demand Planning feature is enabled.

15. Check the Include in Control Tower box to include this location when generating snapshots. For more information, read the help topic Supply Chain Control Tower.

   **Note:** This option is available only when the Supply Chain Control Tower feature is enabled.

16. Enter address information for the location.

   **Note:** In NetSuite OneWorld, the Country, Addressee, and State fields are filled in automatically with information from the subsidiary. Change the address information as required.

17. Click Save.

You can restrict access to transaction, employee, partner, and optionally item records based on their assigned location values. You can also limit the locations that users can assign to these records. Location restrictions can be defined per user role and then applied to all users logged in with that role. For more information, see Restricting Access to Records by Location.

You also can apply location restrictions to custom records, if the custom record type includes a Location field. You can add this field directly from the Location record by clicking the New Field button. For more information, see the help topic Applying Role-Based Restrictions to Custom Records.

### Modifying and Deleting Locations

At any time you can edit an existing location. Any change you make overwrites historical transactions. For example, if you change the name of the location NorthEast to North East, all historical transactions for that location appear as North East.

You can delete a location only if there are no dependent transactions. If there are any historical transactions, you cannot delete the location.

**To modify a location record:**

1. Go to Setup > Company > Classifications > Locations.
2. Click **Edit** to the left of the location you want to modify.
3. On the Location page, modify the location as needed.
4. Click **Save**.

**To delete a location record:**

1. Go to Setup > Company > Classifications > Locations.
2. Click **Edit** to the left of the location you want to delete.
3. On the Location page, in the **Actions** menu, click **Delete**.
4. Click **OK** to confirm the deletion.

**Making a Location Inactive**

If you no longer track information for a location, you can make the location inactive to prevent it from displaying in lists of locations on records and transactions.

**To inactivate a location:**

1. Go to Setup > Company > Classifications > Locations.
2. Click **Edit** next to the name of the location record you want to inactivate.
3. Check the **Location is Inactive** box.

   **Note:** If you inactivate a main location record, its child location records are automatically inactivated.

4. Click **Save**.

To inactivate locations from the Locations list at Setup > Company > Classifications > Locations, check the **Show Inactives** box, check one or more boxes in the **Inactive** column and then click **Submit**.

**Associating a Transaction with a Location**

When you associate transactions with a location, you can create and fulfill sales orders by location, create and receive purchase orders by locations, and search transactions by locations. You can also filter reports to obtain an accurate representation of sales, purchases, and employee data for each company location.

To filter reports by location, choose a location in the footer of the report.

The Location field is mandatory for inventory transactions when Locations is enabled. To enable the Locations feature, go to Setup > Company > Setup Tasks > Enable Features (Administrator). On the Company subtab, check the Locations box and then click Save.

**To associate a transaction with a location:**

1. Click the **Transaction** menu.
2. Click the name of the transaction you want to create.
3. In the Classifications section, in the **Locations** field, select the appropriate location. For more information on how to create a location, read **Creating Locations**.
4. Complete the transaction as required.
5. Click **Save**.
For example, you can select a location in the header of a sales order to record where the sale is made. Or, you could select a location in the header of a purchase order to identify where you expect to receive those items.

After transactions have been associated with a location, you can then search transactions by location. For more information, read Searching for a Transaction by Location.

Searching for a Transaction by Location

The Locations feature enables you to track information about employees and transactions for multiple offices or warehouses. For example, you can create locations for the corporate office and all of the sales offices, or for warehouses in several states. You can limit employee access to company information, and monitor sales or purchasing volumes per location. You can filter reports to display data for one or all locations.

To enable the Locations feature, go to Setup > Company > Enable Features. On the Company subtab, check the Locations box and then click Save.

You can associate an employee with a location by choosing a location on the employee’s record. Employee roles can be customized to access only data that is relevant to their location. For example, you can restrict access for warehouse personnel who handle item receipts or fulfillments at a single location. To customize roles, go to Setup > Users/Roles > Manage Roles.

You can classify transactions by location to precisely track data. For example, you can choose which location processes each sales and purchase transaction.

After transactions have been associated with a location, you can then search transactions by location.

To search for a transaction by location:

1. Go to Transactions > Management > Search Transactions.
2. On the Search Transactions page, in the Locations field, choose:
   - any of – finds transactions associated with chosen locations
   - none of – finds transactions not associated with chosen locations
3. In the text box beneath the Locations field, choose the locations to include (any of) or exclude (none of) in your search.
   To select multiple locations, press and hold Ctrl and then click each location.
4. Select or enter additional criteria in other fields to further narrow your search.
5. Click Submit.
When you have finished, the Search Results page appears listing the transactions that meet the criteria of your search. To view a transaction on the list, click the date next to the transaction. When the transaction opens, you can edit it or create a new transaction.

Restricting Access to Records by Location

If your account has the Locations feature enabled, you can restrict access to transaction, employee, partner, and optionally item records based on their assigned location values. You can also limit the locations that users can assign to these records. Location restrictions can be defined per user role and then applied to all users logged in with that role.

Important: Any account in the Chart of Accounts list that does not have an assigned location is not subject to the own, subordinate, and unassigned or own and subordinates only restrictions.

The following settings for the Location Restrictions field on the Role page define location-related restrictions for transaction and customer records:

- **none - no default** – There is no restriction on what can be selected. Record access is not determined by this field. A default selection does not appear.
- **none - default to own** – There is no restriction on what can be selected. Record access is not determined by this field. Fields of this type will select the user by default.
- **own, subordinate, and unassigned** – Users are restricted when selecting any of the employee, sales rep, or supervisor fields. Users are granted access to records belonging to their supervisor hierarchy. Users may only select themselves or their subordinates. If the select field is optional, then the user may leave the value unassigned. Note that unassigned is technically a null value when used for filtering.
- **own and subordinates only** – Users are restricted when selecting any of the employee, sales rep, or supervisor fields. Users are granted access to records belonging to their supervisor hierarchy with the exception of unassigned records. Consequently, unassigned records are filtered and denied access. Users may only select themselves or their subordinates.

Check the Allow Viewing box to permit users logged in with this role to see, but not edit, records for locations to which the role does not have access.

Check the Apply to Items box to apply the location restrictions defined here to item records, in addition to transaction and customer records.

To set up a role to include these restrictions, go to Setup > Users/Roles > Manage Roles. Click Customize or Edit, or click the New button.

Important: In NetSuite OneWorld, subsidiary restrictions automatically apply to locations. For example, if Location A is assigned to only Subsidiary X and a role is restricted to Subsidiary X, users with that role have access to only Location A, even if that role does not have any location restrictions.

Important: If you are using the Advanced Employee Permissions feature, restrictions set on the Role page are only applicable to the Employees and Employee Administration permissions. The Employee Public and Employee Confidential permissions ignore the restrictions set on this page. For more information, see the help topic Setting Employee Access for Advanced Employee Permissions.

You can also apply role-based, location restrictions to custom records. For more information, see the help topic Applying Role-Based Restrictions to Custom Records.
Using Per-Line Classifications

If you enable classifications such as departments, classes, locations, and custom segments, a field for the classification shows in the header of transaction forms. When a classification is selected in a transaction header, all lines on that transaction are associated with the selected classification. For example, if you choose the location East Coast in the Location field on a sales order, all lines on that sales order are associated with the East Coast.

You can also choose to use per-line classifications that enable you to select a classification on each transaction line. Per-line classifications can be used either instead of header classifications or in addition to them.

Per-Line Classifications Only

If you use per-line classifications instead of header classifications, a classification field shows for each transaction line but does not show in the header. For example, if you have the Locations feature enabled, a Location field shows on each transaction line. You can choose the location East Coast on one line and choose West Coast on another line.

The items on each line are associated with individual locations, but the entire transaction is not associated with a location. For example, on an invoice, line one is associated with East Coast and line two is associated with West Coast, but the Accounts Receivable line is associated with no location.

Per-Line Classifications with Header Classifications

If you use per-line classes, departments, locations, or custom segments, you can customize transaction forms to identify the classification at both the header and line level at the same time.

For example, if you have enabled both the Locations feature and the Allow Per-Line Locations preference, then a Location field displays on each transaction line and in the form header. You can choose the location East Coast on one line and choose West Coast on another line. Then, you can choose the location United States in the transaction header and the Accounts Receivable line is associated with the United States.

These classifications can be useful if you identify legal entities or geographical segments by location and wish to report separate balance sheets and income statements by those segments. From the previous example, a sales order can post line items to the correct locations (East and West Coast), whereas the header location provides a correct income statement to be run for United States transaction totals. For example:

Location: United States
Sublocation: East Coast
Sublocation: West Coast

When you use a form customized to show a class, department, location, or custom segment at both the header and line level, both fields are required. If either the line or header field is not filled, both fields are cleared unless they are mandatory. If you have also enabled a preference to make classes, departments, locations, or custom segments mandatory, the selection is mandatory at both the header and line level.

Transaction lines for tax and shipping use the class selected in the transaction header, if any.

The following preferences can be set at Setup > Accounting > Accounting Preferences:
[\[\text{Make Departments Mandatory}\]
[\[\text{Make Classes Mandatory}\]
[\[\text{Make Locations Mandatory}\]
[\[\text{Allow Per-Line Departments}\]
[\[\text{Allow Per-Line Classes}\]
[\[\text{Always Allow Per-Line Classifications on Journals}\]
   For only journal entries, this preference overrides any other \text{Allow Per-Line} preferences you have set.
[\[\text{Allow Non-Balancing Classifications on Journals}\]
[\[\text{Allow Empty Classifications on Journals}\]

For more information on these preferences, see the help topic \text{Accounting Preferences}.

To specify that a custom segment is mandatory, check the Mandatory box on the Validation & Defaulting subtab on the Custom Segment configuration page.

For more information on how to customize a form to identify a classification at both the header and line level, see \text{Customizing Forms for Per-Line and Header Classifications}.

\textbf{Customizing Forms for Per-Line and Header Classifications}

If you have enabled preferences to use per-line classes, departments, locations, or custom segments, you can customize transaction forms to identify the classification at both the header and line level at the same time.

To customize a form to identify a classification at both the header and line level, open a new transaction and click Customize. Then follow the steps below to choose which fields appear on the form and whether they are mandatory.

1. Enter a name for the custom form.
2. On the subtab \text{Screen Fields > Main}:
   \[\begin{aligned}
   &\text{Show column} – \text{Check the box next to Class, Department, or Location to use the fields in the transaction header.}
   &\text{Mandatory column} – \text{Check the box next to Class, Department, or Location to require the header field to be completed on this form.}
   \end{aligned}\]
3. On the subtab \text{Sublist Fields}, check the box in the \text{Show} column next to \text{Class, Department, or Location} to use the fields on individual transaction lines.
4. Complete other fields as necessary.
5. Click \text{Save}.

The classification fields you have indicated are available for use when you use the customized form.
Approval Routing

NetSuite Approval Routing helps your organization define who can approve employee purchase transactions and limit approval amounts by authorizer level and department. This feature helps you to control spending by allowing managers to better understand your organization’s approval process. Increased cost awareness helps management and staff work together to reduce unnecessary spending.

- The **Approval Routing Feature** is the most basic NetSuite approval routing option.
  To learn more, see Using the Approval Routing Feature.
- **Standard Suiteflow Workflows** offer a simple and flexible approvals process that is easy to install.
  To learn more, see Using Standard SuiteFlow Workflows (SuiteApps) for Approval Routing.
- **Customized SuiteFlow Workflows** offer the maximum flexibility for processing approvals.
  To learn more, see Using Custom SuiteFlow Workflows for Approval Routing.

**Important:** Whether you use the Approval Routing feature or use SuiteFlow, the setting you choose for approvals applies to all users in your company.

Posting Period for Transactions Subject to Approval

When posting transactions are subject to approval, the posting period is set upon approval of the transaction. (Non-posting transactions do not have a posting period.) The Posting Period value shown for transactions that are pending approval is subject to change when the transaction is approved.

The Posting Period value you see for transactions that are pending approval depends on your role, accounting preferences, and the status of the period as follows:

- If the period that maps to the transaction date is open and not locked, you see that period in the Posting Period field.
- If the period that maps to the transaction date is open but locked and your role includes the **Override Period Restrictions** permission, that period is displayed as the Posting Period.
- If the matching period is open but locked and your role does not include the override permission, the system behaves as if the period is closed.
- If the matching period is closed, the value you see for Posting Period is either the first open period or the current period. The accounting preference **Default Posting Period When Transaction Date in Closed Periods** determines which period is displayed.

When you approve a posting transaction, you can select a different Posting Period than the one initially displayed. You cannot select a closed period. You may be able to select an open and locked period if your role includes the Override Period Restrictions permission.

When you save the approved transactions, you may see warnings or errors, depending on the transaction and the settings of other accounting preferences. The following accounting preferences also affect the posting period. For details, see the help topic General Accounting Preferences.

- Allow Transaction Date Outside of Posting Period
- Create and Edit Inventory Transactions Dated in Closed Period
- Allow Inventory Transactions Dated Outside the Posting Period
Using the Approval Routing Feature

Approval Routing enables you to designate that specific purchase and expense transactions be approved before they are processed. Create an approval hierarchy to designate approvers for employees and set approval limits for expense reports, purchase requests, and purchase orders.

Note: If you enable Approval Routing for specific purchase and expense transactions, you can only approve 25 of those transactions at a time.

To use this method, enable Setting up Approval Routing. You do not use SuiteFlow workflows with this feature.

You can incorporate the Approval Routing feature into your workflow to process the following transaction types:

- Blanket Purchase Order Approval Workflow
- Approving an Expense Report
- Invoice Approval Workflow
- Journal Entries
- Purchase Contract Approval Workflow
- Purchase Order Approval Workflow
- Requisition Approval Workflow
- Revenue Arrangement Approval Routing
- Vendor Bill Approval Workflow

After an employee enters an expense report, purchase request, or time transaction, the approval routing workflow may require additional processing depending on the following:

- the employee's expense limit or purchase limit
- the employee's designated supervisor or approver
- the approval limit of the supervisor or approver

For example, an employee enters a purchase request for a new computer that costs $5000.00. According to our approval routing rules, the employee's supervisor must approve all purchase orders costing more than $500.00. After approval the request is forwarded to purchasing for processing.

Note: A supervisor must have access to the Employee Center to give approval. An administrator can add the Employee Center role to an employee record.

Setting up Approval Routing

To use the Approval Routing feature, a NetSuite administrator must enable Approval Routing, assign roles, to employees, designate an approver, and set approval limits.

To use approval routing:

1. Enable the Approval Routing feature.
   1. Go to Setup > Company > Setup Tasks > Enable Features.
   2. In the Employees subtab, check the Approval Routing checkbox.
3. Click **Save**.
2. Assign Assigning Roles to an Employee.
3. Designate Supervisors, Approvers, and Approval Limits on employee records.
4. Set Supervisors, Approvers, and Approval Limits.

**Note:** To maintain the hierarchy of an approval routing, enter all expense reports and purchase requests through the Employee Center. This includes employees with other roles.

For example, your A/P clerk has the ability to enter purchase requests in the A/P Clerk role. However, to maintain proper approval routing, your A/P clerk must change from the A/P Clerk role to the Employee Center to enter a purchase request. The A/P clerk's supervisor can then approve the purchase request by logging in to the Employee Center.

### Using Standard SuiteFlow Workflows (SuiteApps) for Approval Routing

NetSuite offers standard SuiteFlow workflows, available in SuiteApps, that you can use for approval routing. These workflows are ready to be installed and do not require you to create a custom SuiteFlow workflow. However, you can customize standard SuiteFlow workflows to better meet your requirements.

You do not need to enable Approval Routing to use this workflow. To learn more, see the help topic [Enabling SuiteFlow](#).

The following transactions are available for Standard SuiteFlow Workflows:

- Setting Up the Blanket Purchase Order Approval Workflow
- Using SuiteFlow for Journal Entry Approvals
- Setting Up the Purchase Contract Approval Workflow
- Setting Up the Purchase Order Approval Workflow
- Setting Up the Requisition Approval Workflow
- Revenue Recognition Approval Workflow
- Installing the Vendor Bill Approval Workflow

### Using Custom SuiteFlow Workflows for Approval Routing

Use NetSuite SuiteFlow to create custom workflows for processing approvals. You can create more flexible transaction approval processes, such as a non-sequential approval process or conditionalized routing. For example, set up a workflow that requires action from specific employees, shows buttons on forms at certain stages, or automatically send email based on specified actions.

To use a custom SuiteFlow workflow, enable a preference on the Approval Routing subtab of Accounting Preferences and then set up an approval workflow to process transactions.

You do not need to enable Approval Routing to use this workflow. To learn more, see the help topic [Enabling SuiteFlow](#).

The following transactions are available for Approval Routing:

- Custom Workflow-based Approvals for Expense Reports
- Custom Workflow Based Invoice Approval
Supervisors, Approvers, and Approval Limits

Use the Approval Routing feature to set up a hierarchy of supervisors and approvers who will approve purchase and expense transactions before they are processed.

Purchase approvals processes require that the Purchase Order preference for Approval Routing be disabled. To learn more, see Using Custom SuiteFlow Workflows for Approval Routing. Processes for expense approvals are the same regardless of the preference setting.

After a transaction is entered by or routed to an employee for approval, the employee's record settings define which transactions require additional approval. These settings include the following:

- **Supervisor** – The employee's direct supervisor
- **Expense Limit** – The amount the employee can expense without supervisor or approver approval
- **Expense Approver** – The person who approves the employee's expense reports. If no approver is selected, the supervisor approves expense reports. If an expense approver is selected, the supervisor is no longer part of the approval hierarchy
- **Expense Approval Limit** – The maximum amount an employee can approve on an expense report when specified as an approver for another employee
- **Purchase Limit** – The amount an employee can purchase without supervisor or approver approval
- **Purchase Approver** – The person who approves the employee's purchase requests. If no approver is selected, the supervisor approves purchase requests. If a purchase approver is selected, the supervisor is no longer part of the approval hierarchy
- **Purchase Approval Limit** – The maximum amount an employee can approve on a purchase request when specified as an approver for an employee

To learn how to enter employee records settings, see the help topic Human Resources Information for an Employee.

For each employee, set an expense limit or purchase limit to determine the highest transaction amount the employee is allowed enter without requiring additional approval. Then, when the employee enters an expense report or purchase request with an amount below their limit, the transaction is automatically approved.

If the employee enters a transaction with a total amount that is higher than their limit, the transaction follows approval routing processes. The transaction is sent for approval by a supervisor or approver that has an approval limit greater than or equal to the amount of the transaction.

**Note:** Employee limits and approval limits are enforced using the currency set on the employee record. If an employee enters a transaction in a foreign currency, the transaction total is first converted to the employee’s currency and then compared to the defined limits.

Approval is sought based on the supervisor or approver identified on the employee’s record until sufficient approval authority is found.
If sufficient authority is not found, an alert is displayed on the transaction.
Internationalization Overview

Introduction to Localization of NetSuite

The NetSuite application is localized into 27 languages. The multi-language option must be enabled to switch between the individual languages, see General Company Features or Enable Localization Features.

- For the full list of supported languages, see Configuring Multiple Languages.
- For information about changing the language of your NetSuite application, see the help topic Choosing a Language for Your NetSuite User Interface.

The Help Center is localized into 5 languages, specifically English (U.S.), German, Japanese, Spanish and Chinese.

- For information about changing the Help Center language, see the help topic Choosing a Language for Your NetSuite User Interface.

Localization Elements

Localization is not limited to mere translation, but the NetSuite application also performs minor adjustments, such as the adaptation of the format of time and date as well as the currency in accordance with the set locale. A standard address form is provided to all accounts and assigned by default to all countries. But sometimes it is useful to have a custom address form to support address format localization for international customers.

- For more information about customizing date formats, see Date Formats.
- For more information about currencies, see the help topic Currency Management.
- For more information about customizing address forms, see the help topic Customizing Address Forms.

Localization and management of multiple languages, dates and currencies are also related to Global E-Commerce, which is a part of NetSuite OneWorld.

- For more information about NetSuite OneWorld, see the help topic NetSuite OneWorld.

Record Localization Context

You can use the record localization context for user event and client scripts to filter script execution according to localization context.

Developers can use this feature to tailor scripts for specific countries and to prevent these scripts from deploying unnecessarily on records associated with other countries.

The localization context of a record represents the country or countries associated with that record.

For more information about Record Localization Context, see Localization Context.

SuiteScript in Localization

If you are a SuiteScript developer, you can use SuiteScript 2.0 for programmatical interaction with Translation Collections by using the N/translation module.
Introduction to Manage Translations (Beta) Feature

The Manage Translations (Beta) single page application enables you to work with Translation Collections, which are in fact storage repositories for translation strings. Translation strings always contain an ID and a source string in the default language of the Translation Collection. They can also contain a description and translations of the source string into one or more languages. Strings in a Translation Collection can be created, edited, deleted, exported into an XLIFF file, downloaded to an XML file or copied to another account.

For more information about Translation Collections, see Manage Translations (Beta).

Note: Terminology in the context of the Manage Translations (Beta) application can differ from the generally used terminology. For more information about the Manage Translations (Beta) Terminology, see Translations Terminology.

Adding Translations for Custom Objects

If your company conducts business with international customers, you might want to provide them with translations for custom fields, records or transaction types created for their convenience. Links describing these processes are listed below.

For more information about adding translations for Custom Fields, see the help topic Adding Translations for Custom Fields.

For more information about adding translations for Custom Records, see the help topic Adding Translations for Custom Records.

For more information about adding translations for Custom Transaction Types, see the help topic Adding Translations for a Custom Transaction Type.
# Internationalization Glossaries

## General Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>.xliff</strong></td>
<td>Standard file format for UI string localization. This format is also used by CAT tools and it can be bilingual — it can contain both source strings and their translation.</td>
</tr>
<tr>
<td><strong>CAT tool</strong></td>
<td>Computer-aided translation tool. CAT tools are used by translators in the course of translation to improve productivity, terminological consistency and overall translation quality.</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>Background information</td>
</tr>
<tr>
<td><strong>Currency Formatting</strong></td>
<td>Currency is formatted in accordance with the selected country's locale. For example, while some countries use comma as a decimal point and a period to separate thousands, other countries may use a dot as a decimal point and a comma or an empty space to separate thousands.</td>
</tr>
<tr>
<td><strong>Date Formatting</strong></td>
<td>Date and time is formatted in accordance with the selected country's locale. For example, while Germany uses date formatting Day/Month/Year, U.S. locale prefers Month/Day/Year.</td>
</tr>
<tr>
<td><strong>Globalization</strong></td>
<td>The process of interaction between people and entities worldwide.</td>
</tr>
<tr>
<td><strong>Internationalization (i18n)</strong></td>
<td>The process of adapting computer software to allow for localization of its parts. In NetSuite, the Internationalization (i18n) team is responsible for providing support for localization of NetSuite.</td>
</tr>
<tr>
<td><strong>Locale</strong></td>
<td>A set of parameters determining user's language and country of origin.</td>
</tr>
<tr>
<td><strong>Localization</strong></td>
<td>Localization is the process of adapting a translated text to a specific country or region. Localization can include formatting of dates, currencies or time and include specific customs relevant to the given country.</td>
</tr>
<tr>
<td><strong>Localization Context</strong></td>
<td>Background information for translation of a string or for proper localization of a string or programme.</td>
</tr>
<tr>
<td><strong>Localization Context (feature)</strong></td>
<td>This feature provides context for proper localization of records. For more information, see Localization Context.</td>
</tr>
<tr>
<td><strong>LSP/vendor</strong></td>
<td>Language service provider/vendor is an intermediary providing contact between the customer and translators. The LSP organizes translation projects mediates provides contact between the customer and contractor.</td>
</tr>
<tr>
<td><strong>Machine Translation (MT)</strong></td>
<td>Machine Translation is a computer program used for automated translation of text without any human input.</td>
</tr>
<tr>
<td><strong>Manage Translations</strong></td>
<td>This single-page application is used to work with Translation Collections and to manage translation strings in the NetSuite UI. For more information, see</td>
</tr>
<tr>
<td><strong>Platform Components:</strong> Internationalization team</td>
<td>The internationalization team provides modifications to the NetSuite application to allow localization of the application.</td>
</tr>
<tr>
<td><strong>Phone Number Formatting</strong></td>
<td>Formatting of phone number can differ from one locale from another. For example, while some countries will preface the phone number with a plus sign, other use one or more zeroes.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Source string</td>
<td>The original wording of a translation string in the default language of the Translation Collection.</td>
</tr>
<tr>
<td>Termbase</td>
<td>Termbase is a database of terms. A termbase should be used to store company-wide terminology to improve cohesion of used terms.</td>
</tr>
<tr>
<td>Translation</td>
<td>Meaning of a source string expressed in another language.</td>
</tr>
<tr>
<td>Translation Memory (TM)</td>
<td>Translation memories are used by CAT tools and contain texts divided into segments. These segments can also contain translation of the source. That translation memories are always created for a single pair of languages (source + target) and they are created by translators for the purposes of terminology management for individual customers.</td>
</tr>
</tbody>
</table>
About Localization Features

The following features are available for you to localize NetSuite:

- **Multi-Language**
  - Configuring Multiple Languages
  - Choosing a Language for Your NetSuite User Interface

- **Translation Collections (Beta)**
  - Translation Collection Overview
  - About the Manage Translations Page
  - Creating a Translation Collection
  - Editing a Translation Collection
  - Deleting a Translation Collection
  - Importing a Translation Collection
  - Exporting a Translation Collection
  - Downloading a Translation Collection to XML
  - Copying a Translation Collection to Another Account
  - Working with Translation Collection Strings
  - Using Translation Collections with SuiteScript
  - Including Translation Collections in Bundles

Enable Localization Features

To use localization features, you must enable them in your account.

**To enable localization features:**

1. Go to Setup > Company > Setup Tasks > Enable Features.
2. On the Company subtab, scroll to the International features.
3. Check the Multi-Language feature box.
4. Click **Save**.
Manage Translations (Beta)

For more information, see the index of subtopics in this section:

- Translation Collection Overview
- About the Manage Translations Page
- Creating a Translation Collection
- Editing a Translation Collection
- Deleting a Translation Collection
- Importing a Translation Collection
- Exporting a Translation Collection
- Downloading a Translation Collection to XML
- Copying a Translation Collection to Another Account
- Working with Translation Collection Strings
- Using Translation Collections with SuiteScript
- Including Translation Collections in Bundles

Translation Collection Overview

**Warning:** Manage Translations is a beta feature. The contents of this feature are preliminary and may be changed or discontinued without prior notice. Any change may impact the feature's operation with the NetSuite application. Warranties and product service levels do not apply to this feature or the impact of the feature on other portions of the NetSuite application. We may review and monitor the performance and use of this feature. The documentation for this feature is also considered a beta version and is subject to revision.

A Translation Collection is a customization object that stores translation strings with their translations. A single Translation Collection can contain up to 1,000 translation strings. A translation string is a key/value pair: the key being an identifier, and its value being a source string. Keys contain one string that can be translated into multiple languages. You can translate a string into any language supported by NetSuite. For a list of languages supported by NetSuite, see Configuring Multiple Languages.

If you are a NetSuite developer or NetSuite Administrator, you can create a collection of terms for translation. You can export the collection of terms to a translation vendor in the form of an XLIFF (.xlf) translation file. After the translation vendor provides translation of the collection of terms, you can import the translation file. You can use the collection of terms to translate labels and messages in the NetSuite UI and in SuiteApps.

You can now use SDF for Translation Collections to store translation strings with their translations in NetSuite. A Translation Collection is defined in an SDF project by translationcollection objects and XLIFF files. For information about working with Translation Collections in SDF, see the help topic Translation Collections as XML Definitions.

In the user interface, you manage Translation Collections on the Manage Translations (Beta) page, accessible through Customization > Translations > Manage Translations (Beta). For more information, see About the Manage Translations Page.

The following table lists translation management tasks and the location of information about each task:

<table>
<thead>
<tr>
<th>Task</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Translation Collections</td>
<td>Creating a Translation Collection</td>
</tr>
</tbody>
</table>
Translation Collections Overview

<table>
<thead>
<tr>
<th>Modify Translation Collections</th>
<th>Editing a Translation Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delete Translation Collections</td>
<td>Deleting a Translation Collection</td>
</tr>
<tr>
<td>Export collection translation files to send to translation vendors for translation</td>
<td>Exporting a Translation Collection</td>
</tr>
<tr>
<td>Download a Translation Collection to use in SDF projects</td>
<td>Downloading a Translation Collection to XML</td>
</tr>
<tr>
<td>Copying a translation object to another NetSuite account</td>
<td>Copying a Translation Collection to Another Account</td>
</tr>
<tr>
<td>Import translation files after they have been translated by vendors</td>
<td>Importing a Translation Collection</td>
</tr>
<tr>
<td>Manage collection strings</td>
<td>Working with Translation Collection Strings</td>
</tr>
<tr>
<td>View information about Translation Collections</td>
<td>About the Manage Translations Page</td>
</tr>
<tr>
<td>View information about the strings in collections</td>
<td>Manage Translations Page Strings Subtab</td>
</tr>
<tr>
<td>View information about collections that have been imported</td>
<td>Manage Translations Page Import Jobs Subtab</td>
</tr>
<tr>
<td>Use collections with SuiteScript</td>
<td>Using Translation Collections with SuiteScript</td>
</tr>
<tr>
<td>Include collections in bundles</td>
<td>Including Translation Collections in Bundles</td>
</tr>
<tr>
<td>Objects Available in Customization Bundles</td>
<td></td>
</tr>
</tbody>
</table>

Translation Collections Prerequisites

To use Translation Collections, you must have:

- The Multi-Language feature enabled in your NetSuite account. For information, see Enable Localization Features.
- The Manage Translation permission granted for your role. For information about setting permissions for a role, see the help topic Set Permissions.
- The languages that you want to provide translations for must be added to the list of supported languages for your company. For more information, see Enabling the Entry of Translation Strings for a Specific Language.

Translations Terminology

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation Collection</td>
<td>A customization object that stores translation strings with their translations. A single Translation Collection can contain up to 1,000 translation strings.</td>
</tr>
<tr>
<td>Translation String</td>
<td>A translation string is a key / value pair: the key being an identifier for the term, and its value being a source string.</td>
</tr>
<tr>
<td>Default Language</td>
<td>All strings in a collection are required to have a translation value in its default language. For example, a collection with a default language of French requires that all strings in the collection have a French translation value.</td>
</tr>
<tr>
<td>Default Value</td>
<td>A string's translation value in the default language of the collection to which the string belongs.</td>
</tr>
</tbody>
</table>
About the Manage Translations Page

Access the Manage Translations page from Customization > Translations > Manage Translations (Beta).

For information about the terms and concepts described in this topic, see Translations Terminology.

On the Manage Translations page, you can:

- View information about Translation Collections
- Create, modify, and delete Translation Collections
- Export collections to send to translation vendors for translation
- Import translation files after they have been translated by vendors
- View information about the strings in a collection
- Manage collection strings
- View information about collections that have been imported
- Download a Translation Collection with its strings to XML
- View statistics of collections, strings, languages, and translations for your company

The Manage Translations page has three subtabs:

- Manage Translations Page Collections Subtab
- Manage Translations Page Strings Subtab
- Manage Translations Page Import Jobs Subtab

From all three subtabs, you can view translation statistics. See Translation Statistics.

Manage Translations Page Collections Subtab

The Collections subtab shows information about Translation Collections. You can create, modify, and delete Translation Collections from the Collections subtab. You can also import and export collections from the Collections subtab.
View information about the collections in your NetSuite account:

- **Name.** The collection's name.
- **Script ID.** The collection's unique script ID.
- **From Bundle.** If the collection was installed by a bundle, the bundle it was installed in.
- **Default Language.** The collection's default language. If a particular language is not supported, the strings in the collection are shown in the default language.
- **Description.** A short description that describes the terms in the collection.
- **Strings.** The number of strings in the collection.

**Tip:** Click the plus icon next to a collection to display an expanded menu of the collection. The expanded menu shows the percentage of completed translations, the list of company languages, and the number of missing translations in the languages. You can also edit, export, or delete a collection from the expanded view.

Read the following topics to find out how you can manage Translation Collections from the Collections subtab:

- Creating a Translation Collection
- Editing a Translation Collection
- Deleting a Translation Collection
- Importing a Translation Collection
- Exporting a Translation Collection
- Working with Translation Collection Strings

### Manage Translations Page Strings Subtab

The Strings subtab shows information about the strings in Translation Collections. You can view all strings in all collections or filter to view strings in a specific collection.

View information about the strings in your collections:

- **Source String.** The translation string in the source language.
- **Description.** The translation string's description. This description helps translation vendors understand the context of the term for accurate translation. The key's description is the when, where, and why users see the source string in the application.
- **Translations.** The number of languages in which the term has been translated.
- **Collection.** The collection in which the string is included.

Filter your view of strings:

1. Look for a specific string in the search box.
2. Select a collection to view strings in the collection you select.
3. Select the translation status. Select **Invalidated** to view invalid strings. Select **Missing Translation** to view strings that are missing translations.
4. Select a language to view strings in the language you select.
5. Click Reset to clean your selections.

When you find the string you want, click the string to bring up the **Edit String** window, where you can directly edit the string. For more information about editing strings, see **Modifying Translation Collection Strings**.
You can manage the strings in Translation Collections from the Strings subtab. For more information, read Working with Translation Collection Strings.

Manage Translations Page Import Jobs Subtab

The Import Jobs subtab shows information about collections that have been imported into NetSuite. You can import collections from the Import Jobs subtab.

View information about collection imports:
- **File Name**: The name of the translation file.
- **Collection**: The name of the collection.
- **Language**: The file's target language. The target language is specified in the target-language XML element.
- **Date**: The date the collection was imported.
- **Status**: The status of the collection import.
- **Strings**: The number of strings in the imported collection.
- **Imported**: The number of strings that were imported.
- **Errors**: The number of errors that occurred during the import. Click the number to view the errors.

You can import collections from the Import Jobs subtab. For more information, read Importing a Translation Collection.

Translation Statistics

In the top-right corner of the Manage Translations page, you can find the statistics for all collections, strings, languages, and translations in your company.

Company Languages represent the number of company languages set up for your company. Additionally, company languages include the default company language your NetSuite account is provisioned in.

To set up languages for your company, click **Setup**. You will be directed to the Setup > Company > General Preferences menu, and, if you have the authorization, you can add or remove company languages.

The number of Custom Strings includes all strings in all collections owned by your company. To create custom strings, click **Create New**. For information about creating strings, see Adding Strings to Translation Collections.

The percentage of Completed Translations refers to all strings in all languages in all collections. When you click **See Missing**, you are redirected to the Strings subtab of the Manage Translations (Beta) page, with the filter set to Missing Translations. This filtering causes the subtab to show only strings that are missing some translations.

Creating a Translation Collection

For information about the terms and concepts described in this topic, see Translations Terminology.

**To create a Translation Collection:**

1. Go to Customization > Translations > Manage Translations (Beta).
Creating a Translation Collection

2. On the Manage Translations (Beta) page, click Create New. The New collection window appears.

3. Set the following properties for the new collection:
   ■ Name. Enter a name for the collection.
   ■ ID. Enter a unique ID for the collection.
   ■ Description. (Optional) Enter a description for the collection.
   ■ Default Language. Select a default language for the collection. This list is populated with languages enabled for the NetSuite account.

4. Click Save.

Editing a Translation Collection

For information about the terms and concepts described in this topic, see Translations Terminology.

To edit a Translation Collection:

1. Go to Customization > Translations > Manage Translations (Beta).
2. On the Manage Translations (Beta) page, click ... to the left of the collection you want to edit.

   Note: You can also click the name of the collection to bring up the Edit collection window.

3. Edit the following properties as needed:
   ■ Name. Enter a name for the collection.
   ■ ID. Enter a unique ID for the collection.
   ■ Description. (Optional) Enter a description for the collection.

   Note: You cannot edit the collection's Default Language.

4. Click Save.

Deleting a Translation Collection

For information about the terms and concepts described in this topic, see Translations Terminology.

To delete a Translation Collection:

1. Go to Customization > Translations > Manage Translations (Beta).
2. On the Manage Translations (Beta) page, click ... to the left of the collection you want to delete.
3. Click Delete.
4. You are prompted to confirm that you want to delete the collection. If after verifying that you are removing the appropriate collection you want to proceed, click Yes. Otherwise click No.

Importing a Translation Collection

For information about the terms and concepts described in this topic, see Translations Terminology.
You can import Translation Collections in the XLIFF format on the Strings and Import Jobs subtab of the Manage Translations page.

Only translations in XLIFF files based on the XLIFF standard v1.2. can be imported into a Translation Collection.

To import successfully, a translation file must:

- have a target language. The target language is specified in the XML file header.
- have different source and target languages. The source language is specified in the XML file header.
- contain at least one source string and its translation.

**Note:** Manage Translations (Beta) does not support creation of a new Translation Collection directly from an existing bilingual XLIFF file. A Translation Collection has to be created manually before an import of translations can be performed.

To import a Translation Collection from the Collections subtab:

1. Go to Customization > Translations > Manage Translations (Beta).
2. On the Strings subtab of the Manage Translations (Beta) page, click **Import Translations**.
3. Specify the file to import by doing one of the following:
   - Click **Choose a file**, then browse to the file on your machine.
   - Click-and-drag the file from your machine to the Import Strings dialog.
4. Click **Import**.

To import a Translation Collection from the Import Jobs subtab:

1. Go to Customization > Translations > Manage Translations (Beta).
2. On the Manage Translations (Beta) page, click the Import Jobs subtab.
3. Click **Import Translations**.
4. Specify the file to import by doing one of the following:
   - Click **Choose a file**, then browse to the file on your machine.
   - Click-and-drag the file from your machine to the Import Strings dialog.
5. Click **Import**.

Exporting a Translation Collection

For information about the terms and concepts described in this topic, see Translations Terminology.

**Important:** The export function only exports the default language. The translations are not exported, even if the Translation Collection contains translations.

To export a Translation Collection as an XLIFF file:

1. Go to Customization > Translations > Manage Translations (Beta).
2. On the Manage Translations (Beta) page, click ... to the left of the collection you want to export.
3. Click **Export**.
4. Browse to the location on your machine where you want to save the file, then click **OK**.

**Downloading a Translation Collection to XML**

For information about the terms and concepts described in this topic, see Translations Terminology.

You can use SDF for Translation Collections to store translation strings with their translations in NetSuite. A Translation Collection is defined in an SDF project by translationcollection objects and XLIFF files.

For detailed information about translationcollection objects, see the help topics Translation Collections as XML Definitions and Translation Collection Object Fields in XML Definitions.

You can download a Translation Collection to XML from the UI, and you can work with it in an SDF project.

**To download a Translation Collection to XML:**

1. Go to Customization > Translations > Manage Translations (Beta).
2. Click the Collections subtab.
3. Click ... to the left of the collection from which you want to download strings to XML.
4. Click **Download XML**.
5. Browse to the location on your machine where you want to save the file, then click **OK**.

**Copying a Translation Collection to Another Account**

For information about the terms and concepts described in this topic, see Translations Terminology.

**Warning:** Copy to Account is a beta feature. The contents of this feature are preliminary and may be changed or discontinued without prior notice. Any change may impact the feature's operation with the NetSuite application. Warranties and product service levels do not apply to this feature or the impact of the feature on other portions of the NetSuite application. We may review and monitor the performance and use of this feature. The documentation for this feature is also considered a beta version and is subject to revision.

Copy to Account is an administrator tool that can copy a custom record (custom object) between your accounts. From the NetSuite application, you can select a target account, choose dependencies, select to include record instances, then preview and deploy the custom record. The tool can copy one custom object (including dependencies and instances) at a time. For detailed information, see the help topics Copy to Account Overview and Setting Up Copy to Account.

Copy to Account is a tool you can use together with SDF. You can use SDF for Translation Collections to store translation strings with their translations in NetSuite. A Translation Collection is defined in an SDF project by translationcollection objects and XLIFF files.

**Important:** You can use the NetSuite UI to export the translation object from the NetSuite account and then add into your SDF project. However, the XLIFF files do not contain target tag values when exported, so there are no translated strings included when you use Copy to Account.

For detailed information about translationcollection objects, see the help topics Translation Collections as XML Definitions and Translation Collection Object Fields in XML Definitions.
To copy a Translation Collection to another account:

1. Go to Customization > Translations > Manage Translations (Beta).
2. On the Collections subtab, click ... to the left of the collection that you want to copy to another account.
3. Click Copy to Account (Beta).

The link redirects you to the Copy to Account tool. For information about working with the Copy to Account tool, see the help topic Using Copy to Account.

Working with Translation Collection Strings

For information about the terms and concepts described in this topic, see Translations Terminology.

Adding Strings to Translation Collections

You can add strings to a collection with the + button on the Collections subtab, or with the New button on the Strings subtab.

To add strings to a collection from the Collections subtab:

1. Go to Customization > Translations > Manage Translations (Beta).
2. On the Collections subtab, locate the collection to which you want to add a string.
3. In the Strings column, click the + button.
4. On the New string window, add the following information for the string you want to add:
   - **Source String.** The translation string in the source language.
   - **ID.** An identifier for the translation string. You can use this identifier when you work with Translation Collections through SuiteScript.
   - **Collection.** The collection to which you want to add the string.
   - **Description.** Enter a description for the source string. This description helps translation vendors understand the context of the term for accurate translation. The source string's description is the when, where, and why users see the string in the application.
   - **Translation.** Enter a translation for the source string in the languages listed. You can add a string without adding translations. Translations can be added after they have been received from translation vendors.
5. Click Save.

To add strings to a collection from the Strings subtab:

1. Go to Customization > Translations > Manage Translations (Beta).
2. Click the Strings subtab.
3. Click Create New.
4. On the New string window, add the following information for the string you want to add:
   - **Source String.** The translation string in the source language.
   - **ID.** An identifier for the translation string. You can use this identifier when you work with Translation Collections through SuiteScript.
   - **Collection.** The collection to which you want to add the string.
Working with Translation Collection Strings

■ **Description.** Enter a description for the source string. This description helps translation vendors understand the context of the term for accurate translation. The source string’s description is the when, where, and why users see the string in the application.

■ **Translation.** Enter a translation for the source string in the languages listed.

5. Click **Save**.

Modifying Translation Collection Strings

**To modify strings in a collection:**

1. Go to Customization > Translations > Manage Translations (Beta).
2. Click the Strings subtab.
3. Click ... to the left of the string you want to edit.
4. Click **Edit**.
5. On the Edit string window, edit the following information for the string you want to modify:
   ■ **Source String.** The translation string in the source language.
   ■ **ID.** The unique identifier that differentiates a source string from other collection strings.
   ■ **Description.** Enter a description for the source string. This description helps translation vendors understand the context of the term for accurate translation. The description is the when, where, and why users see the source string in the application.

   **Note:** You cannot modify the string’s collection.

6. Click **Save**.

Deleting Strings from a Translation Collection

**To delete strings in a collection:**

1. Go to Customization > Translations > Manage Translations (Beta).
2. Click the Strings subtab.
3. Click ... to the left of the string you want to edit.
4. Click **Delete**.
5. You are prompted to confirm that you want to delete the string and all of its translations. If after verifying that you are removing the appropriate string you want to proceed, click **Yes**. Otherwise click **No**.

Using Translation Collections with SuiteScript

SuiteScript developers can programmatically interact with Translation Collections with the SuiteScript 2.0 N/translation module. For more information, see the following topics:

■ **N/translation Module**
■ **SuiteScript 2.0 API Introduction**
■ **SuiteScript 2.0 API Reference**
Including Translation Collections in Bundles

For information about the terms and concepts described in this topic, see Translations Terminology.

You can use the Bundle Builder to create bundles. Bundles are packages of customization or configuration objects that can be installed in other NetSuite accounts. The Bundle Builder is available at Customization > SuiteBundler > Create Bundle if the SuiteBundler feature is enabled in your account and you have the SuiteApp Marketplace permission. You can include Translation Collections in customization bundles.

For information about creating bundles, see the help topic Creating a Bundle with the Bundle Builder.

After installation, the bundle ID displays in the SuiteApp field when the Translation Collection is viewed or edited in the target account.

The Multi-Language feature must be enabled in the source account, to support the bundling of Translation Collection objects. If that feature is not enabled in the target account, the objects are installed and scripts can access them, although the Translation Collections are not viewable in the NetSuite UI.

During bundle installation, the script ID for a Translation Collection object is automatically renamed when there is a script ID conflict but the default locale is different. Unlike other script ID conflicts, there is no option to replace the existing object during bundle installation.
Localization Context

You can use the record localization context for user event and client scripts to filter script execution according to localization context. Developers can use this feature to tailor scripts for specific countries and to prevent these scripts from deploying unnecessarily on records associated with other countries.

Limiting script execution this way can improve record performance because the number of scripts to be executed is reduced. Using the localization context, the system does not have to load the scripts from the server and execute them to determine whether these scripts are relevant or not.

This use of this feature is limited to customers using the Classic Center or the Executive Center. This means that this feature is only visible to the following roles:

- Administrator
- Payroll Setup
- CEO
- CEO (Hands Off)

For more information about Centers and Roles, see NetSuite Standard Centers.

This feature also introduces two new entry points for client scripts, localizationContextEnter and localizationContextExit. For more information about these entry points, see the help topic Localization Context.

For more information about entry points in SuiteScript, see the help topic SuiteScript 2.0 Client Script Entry Points and API.

For information about the Localization Context and Context Association Rule feature, see the following:

- Records That Support Localization Context
- Determining the Localization Context
- Localization Context–Aware Scripts
- Creating a Context–Aware Script

For more details about setting up localization context filtering for user event and client script execution, see the help topic Localization Context Filtering for SuiteScript 2.0.

The localization context filtering is also supported for scripts in SuiteApps and bundles. For more information, see the help topic Localization Context Filtering Supported for Scripts in Bundles.

Records That Support Localization Context

Use of the localization context feature is limited to standard records of the following types:

- Item
- Transaction
- Entity

For a full list of records that support localization, see the help topic Records that Support Localization.
Determining the Localization Context

The localization context of a record represents the country or countries associated with that record. The system automatically determines the localization context of a record on the basis of the values in specific country fields, such as subsidiary and tax nexus fields. These values represent individual countries, such as France, United Kingdom, or Germany.

The system follows a defined process to determine the localization context for a record, based on a variety of factors. The following diagram illustrates this process:

The process progresses through the decision tree from the “START” to one of the results in dark-gray rectangles.

The results of the process list the field on which the specific localization context is based. For example, if the result is “Subsidiary (Country),” the localization context is based on the value of the country field of the respective subsidiary.

The localization context of a record can contain multiple countries and it is not limited to a single option. When scripts are filtered based on localization context, a script is run if its context association rule is set to at least one of the countries of the localization context.

For localization context filtering in client scripts, the determination of localization context is dynamic:

1. A user changes a field, which is used to determine the localization context of a record.
2. Context determination is immediately triggered again to make sure that the localization context is correctly set.
3. Based on the new localization context, the relevant scripts are loaded from the server and attached to the record and the scripts that are no longer applicable are detached.

Localization Context–Aware Scripts

Administrators and other users with access to scripts can set up a localization context association rule for SuiteScript 2.x user event or client scripts. You can set a localization context association rule on the script deployment record by selecting the country or countries for which a script is relevant. Script deployments with a localization context association rule result in context–aware scripts.

Localization context–aware scripts only run on records associated with a defined country or countries. The execution of context–aware scripts is filtered by comparing the localization context of records to the country values selected on the script deployment record. This filtering is useful for users with subsidiaries in multiple countries, because it causes the script deployment to run faster.

For more information about setting up a localization context association rule that filters script execution based on records’ associated countries, see the help topic Localization Context Filtering for SuiteScript 2.0.

During script deployment, the localization contexts of records are verified against the countries selected on the script deployment record before these scripts load and run. The context–aware scripts skip other records. Script maintenance is easier, because you can be sure that scripts only run on relevant records.

Note: Any and all scripts created before NetSuite 2020.1 are not localization context–aware to guarantee backward compatibility.

Example: The record localization context is determined as “France” and the context association rule is employed — the scripts deploy in the following way:
The context-aware scripts deploy only on records with the localization context “France.”

Any other scripts deploy on all the records.

Creating a Context–Aware Script

You can create a context-aware script by a combination of two features: Record Localization Context and Context Association Rule. The Record Localization Context feature enables you to set a localization context of a script and the Context Association Rule limits the deployment of scripts on records with a specific localization context.

1. Create a new script or reuse an old script.
2. Deploy the script. For more information about creating or deploying a script, see the help topic Creating a Script Record or Use the Script Deployment Record.
3. In the Script Deployment window, choose the target record type from the Applies To list.
4. Click the Context Filtering subtab to display the Localization Context interface.
5. Clear the Select All box to enable entering of text into the Localization Context field.

   Note: You can use the record localization context feature only with certain record types. For a list of supported records and record types, see the help topic Records that Support Localization.

6. Enter the name of the target country into the Localization Context field. There are several ways to fill in the desired countries.
   - Write the full name of one or more of the desired countries.
   - Write the first several letters of the desired country's name and click outside the Localization Context field. A popup window appears, displaying countries whose names begin with the letters you have entered. For example, if you write “Fr” and click outside of the field, the popup window appears displaying all countries whose names start with “Fr”.
   - Search directly in the popup window.
     a. Click the double arrows symbol to open the popup window. Use the upper menu or the Search field to accelerate searching for the desired country.
     b. Search for the desired countries manually.
7. Select one or more desired countries. The selected countries appear in the right column.
8. Click Done. The window closes.
9. Click Save.
DomainKeys Identified Mail (DKIM)

To protect customers from unsolicited email, many ISPs check the domain key used in an email message to determine whether it is spam or not. DomainKeys Identified Mail (DKIM) is a method of digitally signing your email to allow its authentication.

When sending email from NetSuite, using your own domain key increases campaign delivery rates and help enhance your reputation as a legitimate marketer. Without DKIM, you cannot send more than 10,000 messages in a single email campaign.

When set up, your domain keys will be used to authenticate all email sent from NetSuite.

Note: For campaigns and bulk email, if you set up multiple domain keys NetSuite will automatically select the best possible key based on the sender's domain. For more information, see the help topic Campaign Email Domains.

From Headers in Email Can Be Rewritten

If you do not complete the Procedures to Set Up DKIM for the First Time in Your Account, by default, the From header on email you send from NetSuite will be rewritten. When the From header is rewritten, the original email address is moved to the display string, and the SMTP-related email address refers to netsuite.com. For example, an email from jsmith@example.com would be rewritten to jsmith@example.com <system@sent-via.netsuite.com>. What your recipients will see as the sender of the email depends on the email client in use at the recipient's site. Some recipients will see the original email address with the modified <system@sent-via.netsuite.com> From header. Some recipients may not see the original email address at all.

Naming, Choosing, and Sharing DKIM Selectors

Email domains can be shared between NetSuite production accounts. DKIM selectors can be configured and shared between NetSuite accounts.

Important: If you are setting up DKIM for the first time, be aware that the number of DKIM selectors is limited to one selector per email domain. Choose one selector for the shared email domain. Configure that same selector in each account that uses the same email domain.

You can name the selector anything you want, but a suggested best practice is to incorporate the current date in the selector name so that you know the age of each key.

Note: It has never been possible to use the outbound email domain of your production account for your sandbox account or your Release Preview account. The following procedure discusses shared domain keys between multiple production accounts.

This section contains the following topics:

- Procedures to Set Up DKIM for the First Time in Your Account
- DKIM Setup Verification
- Modifying Existing DKIM Configurations Where Email Domains Are Shared
Procedures to Set Up DKIM for the First Time in Your Account

You must complete all of the procedures in this section to complete your DKIM setup. The following procedures contain instructions for setting up Domain Keys in NetSuite and with your domain provider. These procedures should be performed by someone with DNS experience.

To enter Domain Keys in your NetSuite account:

1. Go to Setup > Company > Email > Email Preferences.
2. Click the Domain Keys subtab.
3. In the Domain Selector field, enter the first domain selector. The number of DKIM selectors is limited to one selector per email domain. If you are sharing an email domain between multiple production accounts, use one selector for the shared email domain. Configure that same selector in each account that uses the same email domain. See Naming, Choosing, and Sharing DKIM Selectors.

   Note: When you set up your domain name with your domain provider, you will enter the same domain selector along with the _domainkey suffix as the DNS record. For example, if you enter selector1 in this field in NetSuite, with your domain provider you would enter selector1._domainkey.yourdomain.com in a TXT record containing the correct DKIM value.

4. In the Domain Name field, enter the domain name you are using to send DKIM-signed emails from NetSuite. For example, if the email address from which you are sending DKIM signed email is jwolfe@wolfeelectronics.com, the domain is wolfeelectronics.com. An email address from this domain can appear in the From header.
5. Enter the Private and Public domain keys (in PEM format) used for signing in one of the following ways:
   - If you have used the same domain keys with another application, enter the domain keys manually.
   - If you have not generated a domain key for this domain previously, click Generate Key Pairs to have NetSuite generate them for you.
     
     You need the public domain key to set up your domain with a domain hosting service.
6. After entering the domain keys, click Generated DNS Entry. Your complete, properly formatted DNS entry is shown in a popup window. Copy this DNS entry. Do not close the browser window.
7. Complete the following procedure to set up a DNS text record with your domain provider.

To set up a DNS text record with your domain provider:

   Important: Complete the following procedure within 14 days after completing the previous procedure in NetSuite. If this procedure is not completed within 14 days, the From header of email sent from that particular domain will continue to be rewritten. For more information, see From Headers in Email Can Be Rewritten.

1. Open another browser window, and log in to your domain provider.
2. Add a text record with a name in the following format:
   
   selector1._domainkey
Procedures to Set Up DKIM for the First Time in Your Account

1. That is, use the selector name you entered in NetSuite, followed by the _domainkey suffix.

3. Paste or enter the value you copied after clicking DNS Entry in your NetSuite account.

4. Save the text record.

Note: Create a separate text record for each domain you plan on creating domain keys for.

Tip: Consider setting up a DMARC policy record for your company's entire email infrastructure. See Domain-based Message Authentication, Reporting and Conformance (DMARC) in Email Best Practices.

5. Complete the following procedure to activate the keys you set up in NetSuite.

To activate DKIM keys in your NetSuite account:

1. Back in your NetSuite account on the Email Preferences page, check the Active box for each key you have set up.

2. Click Save. All outgoing email messages sent from NetSuite using the domain or subdomain you entered will have a DKIM header.

   This code header contains the domain authentication information but does not add any text to your messages.

After setting up your domain with your provider, you can test your DKIM setup. For more information, see DKIM Setup Verification.

Note: You must set up DKIM in NetSuite and publish DNS DKIM records with your domain provider for email messages to be recognized as DMARC-compliant. You should also consider publishing a DNS DMARC policy record with your domain provider. See the help topic Domain-based Message Authentication, Reporting and Conformance (DMARC) in Email Best Practices.

For more information on DKIM, go to:

- Wikipedia: Domain Keys Identified Mail.
- See also the DKIM specifications: RFC 6376 DomainKeys Identified Mail (DKIM) Signatures.

For more information about DMARC, go to:

- https://dmarc.org/overview. You may find the Anatomy of a DMARC resource record and How Senders Deploy DMARC in 5-Easy Steps sections of that page particularly helpful. See also the DMARC specification, RFC 7489.
- See also the DMARC specification, RFC 7489

DKIM Setup Verification

You can verify that your domain keys are properly set up before attempting to use them in marketing campaigns or in other email communication. You can also perform more extensive testing by sending a test message and receiving a report on your DKIM setup.

After you have entered your domain information in NetSuite and added the appropriate DNS entries with domain provider, go to Setup > Company > Email > Email Preferences. On the Domain Keys subtab, select the domain key you want to verify and click Verify DNS Entry.
NetSuite checks to make sure the public domain key in the DNS record matches the public domain key entered in NetSuite. The results of the test are displayed in a popup window.

Possible results from this test include the following:

<table>
<thead>
<tr>
<th>Result</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your DNS entry for DKIM has successfully</td>
<td>The DNS entry has been validated. You can use this domain name in an email campaign or email merge operation.</td>
</tr>
<tr>
<td>been verified.</td>
<td></td>
</tr>
<tr>
<td>You need to enter a valid selector, domain</td>
<td>Make sure you have entered the selector, domain name and public key properly in your NetSuite account.</td>
</tr>
<tr>
<td>name and public key to perform this</td>
<td></td>
</tr>
<tr>
<td>operation.</td>
<td></td>
</tr>
<tr>
<td>There are errors in your DNS entry for</td>
<td>This error is followed by specific details about why the test failed. For example, if the public key in your domain settings does not match the public key in your NetSuite account, the test result presents the erroneous key as well as the correct key. Update the public key in the DNS entry in your domain settings to correct this problem.</td>
</tr>
<tr>
<td>DKIM.</td>
<td></td>
</tr>
<tr>
<td>Your DNS DKIM entry could not be read.</td>
<td>Your DNS entry has not been entered correctly. Please make sure the DNS entry has been properly set up with your domain provider.</td>
</tr>
</tbody>
</table>

If you receive a message that your DNS entry for DKIM has been verified, click Send Test Email to DKIM Reflector to send a test email message. A DKIM reflector is a service set up to receive and analyze email. This reflector then forwards a report on your domain key setup. The report is sent to the address shown in the Email Address to Receive Test Response field.

Modifying Existing DKIM Configurations Where Email Domains Are Shared

**Important:** Use the following procedure only if you have been sharing the same email domain between more than one NetSuite production account, and the accounts are configured with different domain selectors.

### Configuring one selector for sharing between accounts:

1. Verify the DKIM configuration for all of all the accounts you operate. Determine which account is the primary account using the shared email domain. The primary account is the account that owns the domain. For example, the primary account could be the company headquarters, while the company's subsidiaries also use the same email domain.
   a. Go to Setup > Company > Email > Email Preferences.
   b. Click the Domain Keys subtab.
2. Ensure that the chosen selector from the primary account (including the public and private domain keys) is configured and stored in all other accounts eligible to use the shared email domain.
3. If you are not able to configure and store the chosen selector in all accounts, you must create a new selector in all accounts eligible to use the domain.

**Note:** You might not be able to configure and store the chosen selector in all accounts if, for example, you no longer have access to the private key.

4. Contact NetSuite Customer Support for assistance to activate the DKIM selector chosen to be shared across all the NetSuite accounts eligible to use the domain.
**Important:** If your accounts are sharing an email domain, and if you do not complete the proceeding steps, the **From** header will be rewritten for email sent from the accounts that are using the same domain.
Scriptable Templates

You can create dynamic scriptable templates for use with email marketing campaigns and system email. Scriptable templates produce personalized output and give you control over the presentation of your email communication.

Scriptable templates, for example, enable you to create a single template that offers individualized upsell items to each recipient, utilizing each individual customer’s purchase history.

You can create scriptable templates for any type of email sent from NetSuite, including:

- marketing campaign email templates
- email and fax templates (including bulk merge templates)
- system email templates
- email and faxes sent from the Communication subtab of records
- email and faxes sent from the Messages subtab of transactions

For more information, see the following sections:

- HTML and FreeMarker for Scriptable Templates
- Synthetic Fields for Scriptable Templates
- Sample Scriptable Templates
- Converting CRMSDK Templates to Scriptable Templates

HTML and FreeMarker for Scriptable Templates

Scriptable templates use a combination of HTML and FreeMarker code. FreeMarker is a tool that generates text output based on templates. FreeMarker syntax lets you add dynamic variables to your HTML text that permit customized output. These variables provide more flexibility and customization than CRMSDK tags that are used in version 1 templates. For example, with scriptable templates, you can include conditions, loops, lists (arrays), and variables and define complex expressions like string operations and arithmetic calculations. You can use standard FreeMarker directives, define custom directives, and use other standard FreeMarker functions.

For complete information on using FreeMarker, see the FreeMarker website. A useful resource for user's new to template creation, is the Template Author’s Guide.

FreeMarker Data Model

The FreeMarker data model uses a tree structure that is populated with data from NetSuite that respects the context in which a template is being used. Context determines the records that can be referenced for a certain type of email.

The following contexts (and their supported records) are included in the NetSuite FreeMarker data model:

<table>
<thead>
<tr>
<th>Context (Email Type)</th>
<th>Supported Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campaign and Sales Campaign Email</td>
<td>entity (either customer, contact, vendor, partner, or employee), parent company (if recipient is a contact), campaign event (couponCode field only)</td>
</tr>
<tr>
<td>Context (Email Type)</td>
<td>Supported Records</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Support Case Notification</td>
<td>case, customer</td>
</tr>
<tr>
<td>Customer Issue Notification</td>
<td>issue, case</td>
</tr>
<tr>
<td>Employee Issue Notification</td>
<td>issue</td>
</tr>
<tr>
<td>Online Form Notification</td>
<td>customer, online customer form (name field only)</td>
</tr>
<tr>
<td>Login Access Notification</td>
<td>entity</td>
</tr>
<tr>
<td>Marketing Subscriptions Opt-In Email</td>
<td>entity, subsidiary (mainaddress, name, edition, showsubsidaryname, shippingaddress, federalidnumber, and returnaddress fields only)</td>
</tr>
<tr>
<td>Web Site Digital Delivery Notifications</td>
<td>web site, customer, sales order: available for all notifications</td>
</tr>
<tr>
<td></td>
<td>cash sale: available for all notifications except Gift Certificate notification</td>
</tr>
<tr>
<td></td>
<td>gift certificate: available for only Gift Certificate Notification and Gift Certificate Confirmation Notification</td>
</tr>
<tr>
<td>Web Site Order Notifications</td>
<td>web site, customer, sales order: available for all notifications</td>
</tr>
<tr>
<td></td>
<td>item fulfilment: available for only Order Fulfilled notification</td>
</tr>
<tr>
<td>Web Site Other Notifications</td>
<td>web site, customer</td>
</tr>
</tbody>
</table>

With FreeMarker, there are three types of nodes (or points where data is linked):

- **scalars** – Usually, these include field values from NetSuite records. Scalars can include data in all of NetSuite's supported field types. For example, the Email field on a contact record is a scalar.

- **hashes** – These are variables that act as directories. Typically, these refer to records and sublists in NetSuite. Hashes cannot be written to the email text but instead are used to look up fields (scalars) using dot notation. For example, the customer record is a hash.

- **sequences** – These are containers that store a list of variables. In NetSuite, these are used to return variables from sublists. Sequences refer to variables within sublists through numbers enclosed in square brackets, beginning with 0. For example, the list of contacts on the Contacts subtab of the customer record is a sequence.

You can also use include directives to reference subtemplates that you use

Scriptable templates use the same record, field, and sublist IDs that are used in SuiteScript. Refer to the SuiteScript Records Browser for a complete list of these IDs. You can use camel case or lower case in FreeMarker code.

There are additional synthetic fields that are not available for SuiteScript that are available in scriptable templates for each context. For descriptions and a complete list of these fields, see Synthetic Fields for Scriptable Templates.

**FreeMarker Syntax**

When inserting certain HTML elements such as font or color tags within the FreeMarker code, insert BEGIN and END tags to the syntax like so:

```html
<#--FM:BEGIN--><font color="&if (customer.overdueBalance > 0)>red&lt#else&gt;blue</&if">Customer Account Health</font><#--FM:END-->```

This preserves the enclosing quotes in your code and prevents an error when you try to save the template.
You can get values for fields that appear in the body of a record (as opposed to on a record's sublists) using the following syntax:

```html
${record.field}
```

For example, to reference the phone field on the customer record, you would use:

```html
${customer.phone}
```

You can insert values from all lines in a sublist in a scriptable template using a list directive with the following syntax:

```html
<#list record.sublist as sublistItem>
  ${sublistItem.field}
</#list>
```

For example, you might use the following code to list the contacts and their email addresses for a customer using the following code:

```html
<#list customer.contactRoles as cr>
  ${cr.contact}, ${cr.email}
</#list>
```

You can refer to fields from rows in sublists using the following syntax. The numeral in square brackets indicates which record from the sublist is being referenced.

```html
${record.sublist[#].field}
```

For example, to reference the name of the secondary contact on a customer record, first query to see if there are more than one contact names, if so return the name from that sublist.

```html
<#if 1 < customer.contactRoles?size>${customer.contactRoles[1].contact}</#if>
```

To include the email signature you created in your user preferences Home > Set Preferences, insert the following Freemarker syntax into your scriptable email template.

```html
${preferences.message_signature}
```

### Inserting Subtemplates into Templates

You can use the `include` directive to insert another template inside of your template. This is often used when you have a template that presents information you want to reuse many times. For example, you might create a template that is used as a header for all communication you send out. This might include your company logo and contact information. The `include` directive can reference template files by URL or File Cabinet ID.

For example, to insert a template in the NetSuite File Cabinet with the internal ID of 123, you could use:

```html
<#include "123">
```

**Note:** The number must be a file ID, not a template ID.

To insert a template by referencing the URL, you could use:
Important: If you include templates from outside of NetSuite, your email may not be generated properly if there is a problem with the URL or the hosting website. Additionally, if the hosting website does not respond to the request for the template within five seconds, the email message is generated without that template. If the hosting website is an SSL site, it must have a trusted SSL certificate.

Templates that you insert with include directives cannot themselves contain include directives.

Custom Record Fields

You can reference fields on custom records using the same syntax used for standard fields and records:

{recordID.fieldID}

For example, if you wanted to reference a field with the internal ID customfield1 on a custom record with internal ID customrecord1, you could use:

{customrecord1.customfield1}

Including Images and Files

You can include images and files in scriptable templates.

There are three standard image fields you can add to scriptable templates:

- Item Display Image (ID: storeDisplayImage) - item record
- Item Display Thumbnail (ID: storeDisplayThumbnail) - item record
- Image (ID: image) - entity records

References to these images are structured like this:

<img src="${contact.image}"

Including this code in a template creates a link to the image using the publishable URL on the image’s file record in the File Cabinet.

To include a link to a file in a scriptable template, reference the file record ID in an insert directive. For example, the following code inserts the publishable file URL for file 123 in the email message:

<#include "123">

You can also include image and file custom fields in your templates.

Creating Scriptable Templates

You can create scriptable templates with a text/HTML editor outside of NetSuite, or you can use the Text Editor field on the Template subtab of the template record itself. If you create a scriptable template outside of NetSuite, save it as a plain text (.txt) or an HTML (.html or .htm) file.
When updating system email templates (at Setup > Company > Company Management > System Email Templates) you can update the standard scriptable version of a system email template, by editing the template appended with 2.0.

![System Email Templates](image)

When sending email or fax messages from transaction or entity records, if you want to compose the message on the message (rather than choosing an existing template to use), select the type of template in the Template Format field. Then, you can use the Field Type list and the Insert Field list to add fields to your message.

**Note:** If you use the UK Edition, your business address and VAT number are automatically included in the footer of all email you send to those outside of your company to comply with UK law.

### Synthetic Fields for Scriptable Templates

In addition to the fields on supported records, there are additional fields that are not exposed to SuiteScript that you can use in scriptable templates. The following tables list these synthetic fields.

- Personal and Company Preferences in Scriptable Templates
- Customer Record Synthetic Fields
- Subsidiary Record Synthetic Fields
- Sales Rep Fields
- Subscription Category Fields
- Support Case Notification Synthetic Fields
- Issue Notification Synthetic Fields
- Online Form Notification Synthetic Fields
- Campaign and Sales Campaign Email Template Synthetic Fields
- User Fields
- Case Record Fields
- Web Site Notification Fields
- Web Site Record Fields
- Sales Order Record Fields
- Cash Sale Record Fields
- Item Fulfillment Record Fields
Personal and Company Preferences in Scriptable Templates

You can include information from some personal and company preferences in scriptable templates. The following table lists the preferences you can include in your FreeMarker code.

<table>
<thead>
<tr>
<th>Location/Description</th>
<th>Preference Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Preferences (Home &gt; Set Preferences)</td>
<td>Signature</td>
<td>${preferences.message_signature}</td>
</tr>
<tr>
<td></td>
<td>Nickname</td>
<td>${preferences.message_nickname}</td>
</tr>
<tr>
<td></td>
<td>Time Zone</td>
<td>${preferences.timezone}</td>
</tr>
<tr>
<td>Rename Records/Transactions</td>
<td>Name for Customer</td>
<td>${preferences.naming_customer}</td>
</tr>
<tr>
<td></td>
<td>Name for Lead</td>
<td>${preferences.naming_lead}</td>
</tr>
<tr>
<td>Issue Preferences (Setup &gt; Issues &gt; Issue Preferences)</td>
<td>Use Multiple Versions</td>
<td>${preferences.issue_multiple_versions}</td>
</tr>
<tr>
<td></td>
<td>and Builds</td>
<td></td>
</tr>
<tr>
<td>Company Settings (Setup &gt; Company &gt; Company Information)</td>
<td>Company Logo (Forms)</td>
<td>${companyInformation.logoUrl}</td>
</tr>
<tr>
<td>Administrator Email Address (used for login access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>notification)</td>
<td>—</td>
<td>${companyInformation.adminEmail}</td>
</tr>
<tr>
<td>Login URL (used for login access notification email)</td>
<td>—</td>
<td>${companyInformation.loginURL}</td>
</tr>
</tbody>
</table>

**Note:** If the Use Multiple Versions and Builds preference is enabled, versions and builds are presented as sublists of values. You can use this preference with a directive to present build and version information regardless of whether this preference is enabled.

Customer Record Synthetic Fields

The following synthetic fields can be referenced in any context that includes the customer record:

<table>
<thead>
<tr>
<th>Sublist (where applicable)</th>
<th>Field and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>url : The URL for the customer record in your NetSuite account.</td>
</tr>
<tr>
<td>relatedItems</td>
<td>purchasedItem : Name of the item purchased. Used to determine related items.</td>
</tr>
<tr>
<td></td>
<td>upsellItem : Name of related item.</td>
</tr>
<tr>
<td></td>
<td>sellable : Indicates whether or not the item is available for sale.</td>
</tr>
<tr>
<td>correlatedItems</td>
<td>purchasedItem : Name of the item purchased. Used to determine upsell items.</td>
</tr>
<tr>
<td></td>
<td>upsellItem : Name of the upsell item.</td>
</tr>
<tr>
<td></td>
<td>sellable : Indicates whether or not the item is available for sale.</td>
</tr>
<tr>
<td></td>
<td>correlation : Calculated correlation between upsell item and item purchased.</td>
</tr>
<tr>
<td></td>
<td>count : Number of times the upsell item and correlated item have both been purchased by the same customer.</td>
</tr>
</tbody>
</table>
Subsidiary Record Synthetic Fields

The following synthetic fields can be referenced in any context that includes fields from the subsidiary record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>logourl</td>
<td>Subsidiary logo used on forms.</td>
</tr>
<tr>
<td>pagelogourl</td>
<td>Subsidiary logo used on pages.</td>
</tr>
</tbody>
</table>

Sales Rep Fields

These fields are available for templates that include customer record fields if the customer is associated with a sales rep.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>firstName</td>
<td>Sales rep's first name.</td>
</tr>
<tr>
<td>middleName</td>
<td>Sales rep's middle name.</td>
</tr>
<tr>
<td>lastName</td>
<td>Sales rep's last name.</td>
</tr>
<tr>
<td>phone</td>
<td>Sales rep's phone number.</td>
</tr>
<tr>
<td>email</td>
<td>Sales rep's email address.</td>
</tr>
<tr>
<td>altEmail</td>
<td>Sales rep's alternate email address.</td>
</tr>
<tr>
<td>MESSAGE_NICKNAME</td>
<td>This is the name set in the Nickname field by the sales rep at Home &gt; Set Preferences &gt; General.</td>
</tr>
<tr>
<td>MESSAGE_SIGNATURE</td>
<td>This is the name set in the Signature field by the sales rep at Home &gt; Set Preferences &gt; General.</td>
</tr>
</tbody>
</table>

Subscription Category Fields

The following sublist is available for customer, vendor, contact, employee, and partner records if you have the Campaign Subscriptions feature enabled.

<table>
<thead>
<tr>
<th>Sublist (where applicable)</th>
<th>Field and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>subscriptions</td>
<td>subscription : This is the name of a subscription category.</td>
</tr>
<tr>
<td></td>
<td>subscribed : This is the subscription status for a campaign subscription category.</td>
</tr>
</tbody>
</table>

Support Case Notification Synthetic Fields

The following case record synthetic fields are available for templates used in case notifications.

<table>
<thead>
<tr>
<th>Field/Sublist</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>updatedBy</td>
<td>Name of user who last updated a case.</td>
</tr>
</tbody>
</table>
### Issue Notification Synthetic Fields

The following synthetic fields are available for issue notification email sent to customers and employees.

<table>
<thead>
<tr>
<th>Sublist (where applicable)</th>
<th>Field and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>url: URL of issue record in your NetSuite account.</td>
</tr>
<tr>
<td>—</td>
<td>externalStatus: Issue's external status.</td>
</tr>
<tr>
<td>—</td>
<td>externalTarget: Issue's external target.</td>
</tr>
<tr>
<td>details</td>
<td>■ author: User who entered a case detail.</td>
</tr>
<tr>
<td></td>
<td>■ date: Date a detail was entered.</td>
</tr>
<tr>
<td></td>
<td>■ userNote: Detail entered for an issue.</td>
</tr>
<tr>
<td></td>
<td>■ systemNotes: System notes generated for an issue.</td>
</tr>
</tbody>
</table>

### Online Form Notification Synthetic Fields

The following field is available for scriptable templates created for online form notification:

<table>
<thead>
<tr>
<th>Record</th>
<th>Field and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>onlineForm</td>
<td>name: Name of online form that was submitted.</td>
</tr>
</tbody>
</table>

### Campaign and Sales Campaign Email Template Synthetic Fields

Campaign templates can reference the couponcode field from the campaign event.

<table>
<thead>
<tr>
<th>Sublist</th>
<th>Field and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>campaignEvent</td>
<td>couponCode: Code for promotion created through the Advanced Promotions feature.</td>
</tr>
</tbody>
</table>

### User Fields

These fields are used to include information on the user who initiates email by using the template.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ isSystem</td>
<td>This field indicates whether the email is initiated by a user or is system-generated.</td>
</tr>
<tr>
<td></td>
<td>This field is set to True when email using this template is generated automatically by NetSuite, for example with system notification templates.</td>
</tr>
</tbody>
</table>
### Synthetic Fields for Scriptable Templates

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>firstName</td>
<td>When email is initiated by a specific user, this field is set to False.</td>
</tr>
<tr>
<td>middleName</td>
<td>These fields are available only for email initiated by a specific user.</td>
</tr>
<tr>
<td>lastName</td>
<td>These tags refer to fields on the user’s employee record.</td>
</tr>
<tr>
<td>phone</td>
<td></td>
</tr>
<tr>
<td>email</td>
<td></td>
</tr>
<tr>
<td>altEmail</td>
<td></td>
</tr>
</tbody>
</table>

### Case Record Fields

The following sublists are available on the case record.

<table>
<thead>
<tr>
<th>Sublist</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>issues</td>
<td>Includes information from issues on the Issues subtab on the Related Records subtab of a case.</td>
</tr>
</tbody>
</table>

### Web Site Notification Fields

The Web Site Notification synthetic fields are available for all email types sent to website customers.

<table>
<thead>
<tr>
<th>Web Site Notification Field and Description</th>
<th>Available for Email Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>itemurls : Provides the URL of the item detail page. <strong>Format:</strong> <code>${itemurls[item.internalId]}</code></td>
<td>Order Received</td>
</tr>
<tr>
<td>itemimages : Provides the URL of the item image. <strong>Format:</strong> <code>${itemimages[item.internalId]}</code></td>
<td>Order Approved</td>
</tr>
<tr>
<td></td>
<td>Order Cancelled</td>
</tr>
<tr>
<td></td>
<td>Order Fulfilled</td>
</tr>
<tr>
<td></td>
<td>Download Available</td>
</tr>
<tr>
<td></td>
<td>License Code</td>
</tr>
<tr>
<td></td>
<td>Gift Certificate</td>
</tr>
<tr>
<td></td>
<td>Gift Certificate Confirmation</td>
</tr>
<tr>
<td></td>
<td>Password Recovery</td>
</tr>
<tr>
<td></td>
<td>Checkout Errors</td>
</tr>
<tr>
<td></td>
<td>Registration Confirmation</td>
</tr>
</tbody>
</table>

**Note:** When you use either of these fields, replace `item.internalId` with a valid item internal ID from your NetSuite account. This could be in the form of a constant number or a field containing the internal ID of the item, for example, `itemline.item.internalId`. For an example, see the **Standard Web Site Order Received** email template. Email templates are available for web store email messages at Setup > Company > Email > System Email Templates.

### Web Site Record Fields

Web Site Record synthetic fields are available on the **Web Site** record for the following types of email sent to web site customers.
### Web Site Record Field and Description

<table>
<thead>
<tr>
<th>Field and Description</th>
<th>Available for Email Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>customerCenterUrl : URL of the Customer Center, where shoppers can see the details of their orders and manage their accounts.</td>
<td>Order Received</td>
</tr>
<tr>
<td>domain : The domain from which the email has been sent.</td>
<td>Order Approved</td>
</tr>
<tr>
<td>url : URL of the website from which the email has been sent.</td>
<td>Order Cancelled</td>
</tr>
</tbody>
</table>

- **Available for Email Type**
  - Order Received
  - Order Approved
  - Order Cancelled
  - Order Fulfilled

<table>
<thead>
<tr>
<th>Field and Description</th>
<th>Available for Email Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>downloadLink : URL of the location at which the item to be downloaded is stored.</td>
<td>Download Available</td>
</tr>
<tr>
<td>recoveryPasswordUrl : URL the customer must follow to recover their website password.</td>
<td>Password Recovery</td>
</tr>
<tr>
<td>errorticket : Number of the error ticket created due to the checkout error.</td>
<td>Checkout Errors</td>
</tr>
<tr>
<td>cartContents : Items in the cart that caused the error.</td>
<td>License Code</td>
</tr>
</tbody>
</table>

### Sales Order Record Fields

The following synthetic fields are available on the **Sales Order** record for email sent to web site customers.

<table>
<thead>
<tr>
<th>Sublist (where applicable)</th>
<th>Field and Description</th>
<th>Available for Email Type</th>
</tr>
</thead>
</table>

- **licenses**
  - licenseName : Name of the license that the customer has purchased.
  - licenseCode : License code that the customer has purchased.

### Cash Sale Record Fields

The following synthetic fields are available on the **Cash Sale** record for email sent to web site customers.

<table>
<thead>
<tr>
<th>Sublist</th>
<th>Field</th>
<th>Available for Email Type</th>
</tr>
</thead>
</table>

- **licenses**
  - licenseName : Name of the license that the customer has purchased.
Item Fulfillment Record Fields

The following synthetic fields are available on the Item Fulfilment record for email sent to website customers.

<table>
<thead>
<tr>
<th>Field and Description</th>
<th>Available for Email Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>trackingLink : This field contains the order tracking message.</td>
<td>Order Fulfilled</td>
</tr>
<tr>
<td>overviewTable : List of items included in the order.</td>
<td></td>
</tr>
</tbody>
</table>

Sample Scriptable Templates

Use the following sample templates to help in creating your own custom scriptable templates:

- Scriptable Issue Notification Template
- Scriptable Marketing Email Template

Scriptable Issue Notification Template

The following template can be used for issue notification. This template lists key fields on the issue record and then includes all of the details entered on the issue record.

```html
<table>
<tr><td>Issue Number</td><td>${Issue.issueNumber}</td></tr>
<tr><td>Product Team</td><td>${Issue.productTeam}</td></tr>
<tr><td>Assigned To</td><td>${Issue.assigned}</td></tr>
<tr><td>Type</td><td>${Issue.issueType}</td></tr>
<tr><td>Severity</td><td>${Issue.severity}</td></tr>
<tr><td>Status</td><td>${Issue.issueStatus}</td></tr>
<tr><td>Link</td><td>${Issue.url}</td></tr>
</table>

<hr/>
<p><strong>Abstract: </strong>${Issue.abstract}</p>
<hr/>
<p><strong>Details: </strong>(In Reverse Chronological Order)</p>
<table>
<tbody>
<tr>
<td>${detail.author}<br/>${detail.date}</td>
<td>${detail.userNote}<br/>${systemNote}<br/></td>
</tr>
</tbody>
</table>
```
Scriptable Marketing Email Template

The following marketing email template is an example of a message that uses FreeMarker code to make an individualized offer to the recipient. This offer uses upsell data in NetSuite to determine correlated upsell items.

```html
<br>Dear <#if Customer.companyName != "">${Customer.companyName}<#else>Customer</#if>,<br>
<p>Now you have unique opportunity to get your favorite items with 20% discount!</p>
<p>All you need to do is to use the following coupon code when you place an order on our site: ${CampaignEvent.couponCode}!</p>
</br>
<#assign printedOutItems = 0>
<#list Customer.correlatedItems as itemLine>
<#if 33 < itemLine.correlation>
<img src="${itemLine.upsellItem.imageURL}" alt="${itemLine.upsellItem.displayName}" height="128" width="128"/>
<br/>
</#if>
<#assign printedOutItems = printedOutItems + 1>
<#if printedOutItems = 3><#break></#if>
</#list>
<#if 3 < printedOutItems>
<#list Customer.relatedItems as itemLine>
<img src="${itemLine.upsellItem.imageURL}" alt="${itemLine.upsellItem.displayName}" height="128" width="128"/>
<br/>
<#assign printedOutItems = printedOutItems + 1>
<#if printedOutItems = 3><#break></#if>
</#list>
</#if>

<p>Best regards,<br>
<br>${preferences.MESSAGE_SIGNATURE}
</p>
```

Converting CRMSDK Templates to Scriptable Templates

If you have outdated CRMSDK templates in your account, you can convert them to scriptable templates.

**To convert a CRMSDK template to a scriptable template:**

1. View the CRMSDK template you want to convert.
2. Click **Convert to Scriptable**.
3. If this is an email template select the type of record the template is used for.
   A new template record is created and the name is appended with (Converted).
4. Check the template to make sure all fields have been converted correctly.

5. Click Save.

It is strongly recommended that you test any converted templates before using them. You can view the template in Source mode to review any fields with hidden logic after conversion.

**Important:** When you convert a template, the ID remains the same as the original template. However, custom workflows or scripts using the original template must be updated because they use different APIs.

A few notes on specific tags:

- Tags that can be used in multiple contexts (for example the Class field which can appear on transactions and also on entity records) are converted with conditions to reflect these contexts.

- The following tags are not supported in scriptable templates: NLISSUEDUPLICATEOFURL, NLISSUEDUPLICATEOF, and NLAVAILABLEONLINE. These tags are removed when a template is converted.
DMARC-Compliant Messaging in NetSuite

DMARC (Domain-based Message Authentication, Reporting and Conformance) is an anti-spoofing technology that makes it possible for domain owners to use the Domain Name System (DNS) to inform receiving servers of their DMARC policy. This policy specifies how the domain owner wants the receiving mail server to handle messages claiming to be sent from their domain, but cannot be authenticated as having actually originated from it. DMARC has become a widely-recognized standard and is being implemented by major ISPs and mail service providers. This is a positive move and will go a long way to enhancing the email reputation of commercial organizations. This topic explains how DMARC works. Links to information and resources about setting up a DMARC policy for incoming and outgoing mail messages are provided.

How Does DMARC work?

DMARC is a policy layer that sits on top of two email authentication technologies known as SPF and DKIM.

- SPF is used to authenticate the origin of an email. Does this mail come from where it says it does?
- DKIM looks at authenticating the actual message content. Is this the same message as the one which the sender sent-has it been tampered with?

DMARC looks at authentication from an end-user perspective and tries to answer the most commonly posed question, whether the FROM name that users see in their inbox is actually authentic and originates from the domain it claims to be. DMARC uses the FROM address as the basis for performing what is known as an alignment check against SPF and DKIM.

DMARC works by testing and enforcing an alignment check on the incoming mail's SPF and DKIM headers against the From domain in the mail header (known as RFC5322.From.) For more information, go to the dmarc.org website to view How Many From: Addresses Are There?. DMARC requires that only one authenticated identifier (either SPF or DKIM) needs to match the From domain to be considered in alignment. For more information on DMARC go to dmarc.org. Also go to the DMARC and the Email Authentication Process section of the Overview page. dmarc.org/overview.

How is email handled in NetSuite?

If you have enabled the Capture Email Replies feature, a special NetSuite-generated reply to address is added to your email message. This address is used by NetSuite to log the communication when a customer replies to you. First the message is routed to NetSuite, where it is recorded in the system, and then it is forwarded to your regular email address (the one specified in your User Preferences). This process is done seamlessly by NetSuite.

With DMARC alignment, forwarded email in NetSuite may cause an alignment check failure. This is because if the NetSuite SMTP IP addresses are not recorded in the originating domain owner's SPF record, the SPF alignment check in DMARC will fail. The DKIM alignment check will also fail in situations where NetSuite does not have access to the domain owner's private key. If either of these two checks fail, it will not pass DMARC because at least one authentication method needs to be aligned for it to pass the mail.

Consider setting up a DMARC policy record for your company's entire email infrastructure. See Domain-based Message Authentication, Reporting and Conformance (DMARC).

Both DKIM and DMARC policy records must be published for email messages to be recognized as DMARC-compliant. See DomainKeys Identified Mail (DKIM).

In the past, messages forwarded by NetSuite from Yahoo and some of the larger ISPs and mail service providers could fail DMARC alignment. Because Yahoo does not include NetSuite on its SPF record, nor is
it possible to have their private key for DKIM authentication, forwarded email is not able to pass DMARC. In these cases, the sending domain is overwritten. See From Headers in Email Can Be Rewritten.

**Note:** This is only the case for inbound forwarded mail. Outbound mail in NetSuite is unaffected, assuming that the account owner has full control of DKIM signing, and it has been correctly configured.
Tracking Changes in NetSuite

The following topics provide information about tracking changes in NetSuite:

- Auditing Master Data and Configuration Changes in NetSuite
- System Notes Overview
- System Notes v2
- Auditing Account Preferences
- Documenting Changes
- Audit Enablement

Auditing Master Data and Configuration Changes in NetSuite

This section provides details about NetSuite features for tracking changes, including links to a wide variety of related topics. This background about NetSuite's auditing capabilities is intended to assist you in developing a strategy to achieve your control objectives. This content will be enhanced as new information is added and as existing procedures are refined, so check back regularly for updates.

- Tools for Auditing in NetSuite
- Auditing Changes to Enabled Features
- Auditing Changes to Configuration Settings
- Tracking Roles and Permissions
- Auditing Changes to Customization Objects
- Tracking User Logins
- Tracking Emails
- Tracking Key Financial Record Audit Trails

Tools for Auditing in NetSuite

NetSuite provides system notes that track many data and configuration changes. In most cases, you can determine whether a record, or a group of configuration settings, supports system notes based on whether a System Notes subtab is available on its NetSuite page. For more information about system notes, see System Notes Overview.

You can use NetSuite's search capabilities to access system notes for auditing purposes.

- A general system note search can return system notes for all record types. A system note search can be filtered by record type, so that the results include only system notes for a particular record type. See Searching System Notes.
- Searches of record types that support system notes can include system notes details in results. For example, a customer search can include values for system notes fields related to customer record changes in results. This support is based on a join between system notes records and their related parent records. See the help topic Defining an Advanced Search.
- System notes include a Context field. The context describes how the change was made. For example, users and external systems can perform updates through the user interface, web services, SuiteScript, and a variety of other methods. Each method is considered a context. See Understanding the Context for Changes.
NetSuite provides predefined audit trails for many frequently used records. Audit trails are searches of system notes, with filters and results already defined.

- An audit trail link, available at the top of most list pages, can return system notes for a particular record type. See Viewing an Audit Trail for a Record Type.
- The audit trail for transaction records is available at Transactions > Management > View Audit Trail. See Using the Transaction Audit Trail.

Also see Auditing Data Changes using Searches.

Many record types also include a History subtab where you can track updates to each record, including line-level changes.

The deleted record search type lets you retrieve details about records that have been deleted. See Searching for Deleted Records.

Auditing Changes to Enabled Features

The Enable Features page (Setup > Company > Enable Features) indicates which features are currently enabled for use in a NetSuite account. Although this page does not have a System Notes tab, it does support system notes.

You can create a system note saved search that returns system notes for the Enable Features page, by choosing the Enable Feature filter for the Record Type field of the search. You can run this search regularly to track changes to enabled features.

The Enable Features page includes a link to an Audit Trail page. It is available from More in the upper right of the page. See Auditing Account Preferences.

Auditing Changes to Configuration Settings

Changes to general configuration settings that have a financial impact are logged in system notes. Areas covered by these system notes include: company information, general preferences, accounting lists, and tax setup.

For a list of the specific pages covered, see System Notes for Changes to Configuration and Setup Pages.

The Company Information page (Setup > Company > Company Information) has a System Notes subtab. Most of the other configuration pages do not have this tab. You can create a system note saved search that returns system notes for these pages, by setting a filter for the Record Type field of the search. For system notes for the Company Information page, choose the Company Information filter. For system notes for the General Preferences and Accounting Preferences pages, choose the Company Preferences filter. For system notes for an accounting list, set a filter that matches the name of that list.

The General Preferences and Accounting Preferences configuration pages include a link to an Audit Trail page. It is available from More in the upper right of the page. See Auditing Account Preferences.

Tracking Roles and Permissions

You can use searches to return details about role and permission assignments in your NetSuite account.

- NetSuite provides a simple role search you can use to find a particular role or set or roles, or to return a list of roles and their characteristics. For information about running simple searches, see the help topic Defining a Simple Search.
- You can use the SuiteScript Search APIs to create and automate role searches. For more information see the help topic Search APIs. Note that role record searches do not support the nlapiLoadSearch(type, id) search API.
You can create advanced employee and role record saved searches to find information about roles and permissions. For example, you can verify permissions assigned to a role, or verify permissions assigned to an employee or an employee’s role. For information about auditing permissions, see the help topics Use Searches to Audit Roles and Use Searches to Audit Permissions By Employee.

A History subtab is available on the Access tab of the Employee record, that shows changes to roles and global permissions assignments for the employee. The History subtab includes date/time, user, and a description for each change.

NetSuite provides a function you can use to quickly review the differences in permissions between roles. See the help topic Showing Role Permission Differences.

Auditing Changes to Customization Objects

See the following for tips for tracking changes to customizations in your account:

- Custom Lists, Custom Records, and Custom Transactions
- Custom Fields
- Custom Forms
- SuiteScripts
- Plug-in Implementations
- Workflows
- Bundles
- Customized Reports and Saved Searches

**Custom Lists, Custom Records, and Custom Transactions**

Each custom list definition page has a History subtab and a System Notes subtab. These subtabs have mostly the same information, except the System Notes subtab includes the context for changes.

Each custom record type definition page has a History subtab and a System Notes subtab. The System Notes subtab has additional fields not included on the History subtab, and the History subtab includes Notes. You can include system notes fields in a custom record type search, by selecting them on the Results tab of the saved search definition page. You can create a system note saved search that returns system notes for a custom record type, by choosing the record type name as a filter for the Record Type field of the search.

Currently each custom transaction type definition page does not have a History subtab or System Notes subtab. You can include system notes fields in a custom transaction type search, by selecting them on the Results tab of the saved search definition page. (To create a search for a custom transaction type, you need to create a Transaction search and set the Type field to the specific custom transaction type.) You can create a system note saved search that returns system notes for all transactions, including custom transaction types, by choosing the Transaction filter for the Record Type field of the search.

**Custom Fields**

Each custom field definition page, for most types of custom fields, has a History subtab and a System Notes subtab, both of which are displayed under History. These two subtabs have slightly varying fields.

System notes for fields with encrypted stored values mask old and new field values, displaying asterisks only, for security reasons.

History and system notes are supported for custom entity fields, custom item fields, custom transaction body fields, custom transaction column fields, custom transaction item option fields, and other custom fields.
History and system notes currently are not supported for custom item number fields or custom segments.

**Custom Forms**

Each custom form definition page has a History subtab. For each change, this subtab lists the date/time, user, type of change, and any notes.

History is supported for custom entry forms, custom transaction forms, and custom address forms.

**SuiteScripts**

Script and script deployment record activity is logged on the System Notes subtab.

Each system note for a change to a script or script deployment captures the following information:

- Date when the change was made
- Who made the change
- Context for the change (for example, UI)
- Type of change, for example, Edit
- Field changed
- Old value
- New value

**Note:** Script and script deployment records created before 2016.2 have a History subtab and a System Notes subtab. The History subtab lists logged activity that occurred before 2016.2, and the information on this subtab is no longer updated.

During script execution, a detailed script execution log is generated when either an unexpected error occurs or the `nlapiLogExecution` method is called. See the help topic Creating Script Execution Logs.

NetSuite provides access to the current and past runtime statuses of all SuiteScript 1.0 scheduled scripts that have been executed in your account. See the help topic Monitoring a Scheduled Script's Runtime Status. A similar page is provided for monitoring the status of SuiteScript 2.0 map/reduce scripts.

You can view a list of all record types that have user event or global client scripts associated with them in your account. See the help topic The Scripted Records Page.

Change management for edits to script files can be handled outside of NetSuite, through the source control management system used by script developers.

**Plug-in Implementations**

Plug-in implementation record activity is logged on the System Notes subtab.

System notes are also logged for Custom GL Lines Plug-in configuration changes.

Each system note for a change to a plug-in implementation captures the following information:

- Date when the change was made
- Who made the change
- Context for the change (for example, UI)
- Type of change, for example, Edit
- Field changed
- Old value
New value

**Note:** Plug-in implementation records created before 2016.2 have a History subtab and a System Notes subtab. The History subtab lists logged activity that occurred before 2016.2, and the information on this subtab is no longer updated.

### Workflows

The Workflow Manager in NetSuite includes information about changes to the workflow definition. For more information, see the help topic [Workflow Definition Page History Subtab](#). You can view workflow history statistics and delete workflow instances and history records on the Workflow History Record Statistics dialog. When you delete workflow instances and history records, the event is logged on the Workflow Definition Page History subtab. Additionally, when the workflow instances and history records are deleted, the user who initiated the action receives an email indicating that the deletion is complete. See the help topic [Deleting Workflow Instances and History Records](#). Additionally, you can specify whether workflow history records are saved for workflows.

You can specify whether workflow instances and history records are saved for workflows. You can enable the **Only When Testing** option to generate workflow history records only when the **Release Status** is set to **Testing**. See the help topic [Disabling History for a Workflow](#).

You can run a search to get a list of workflow instances that completed or are currently in progress for a specific workflow definition or multiple workflow definitions. See the help topic [Workflow Instance Search](#). You can also run a system notes search to see if changes have been made to a workflow. You can find more detailed information about the changes indicated in system notes search results on the Workflow Definition Page History Subtab.

For more detailed monitoring of what a workflow is doing, you can enable logging that tracks all actions and transitions that execute on a record for each state that a workflow enters. See the help topic [Workflow Execution Log](#). You can specify that the history records related to the workflow instance’s execution be deleted from the database after the workflow finishes or is canceled. See the help topic [Workflow History Subtab](#).

You can use workflow revisions to track the nature and number of modifications made to a workflow. You can track workflow revisions on the Workflow Definition Page History subtab, and through System Notes searches with the new **Revision** column. For details about the revision changes tracked on the Workflow Definition Page History subtab, see the help topic [Workflow Definition Page History Subtab](#). For more information about workflow definition revisions, see the help topic [Workflow Revisions](#).

### Bundles

NetSuite supports tracking of all bundle installations, updates, and bundle uninstallations in your account. See the help topic [Viewing the Bundle Audit Trail](#).

For bundles that you create, the Bundle Builder supports versioning. A **Version** field is available on the Bundle Basics page when you are creating or editing a bundle. You can deprecate an out of date bundle, to indicate the version of the bundle that should replace it. See the help topic [Deprecating a Bundle](#).

### Customized Reports and Saved Searches

You can use the Analytics Audit Trail search to display audit trail data covering changes to the definitions of saved searches, custom reports, report schedules, and financial report layouts. See the help topic [Audit Trail Search](#).

Information on execution of saved searches is available via the saved search Execution Log and the Saved Searches list. See the help topic [Auditing Saved Search Execution](#).
Tracking User Logins

You can use the Login Audit Trail to keep track of account users, when they have logged in, and from where. See the help topic Login Audit Trail Overview. This specialized search includes fields to track tokens associated to users, for accounts that use token-based authentication. See the help topic Troubleshoot Token-based Authentication (TBA).

System Notes capture password change information for employee, customer, vendor, partner, and prospect records. The system notes include details about who made the change, the date and time the change was made, and the type of change. Some examples of types of changes include USER_CHANGE, USER_RESET, EXPIRED, ADMIN_SET, GENERATED, and so on.

If a user has access to roles in different NetSuite accounts, the password changes are also tracked in those accounts. For more information, see the help topic Password Changes Are Logged in System Notes on Entity Records.

Tracking Emails

The Sent Email List provides a view into all outgoing email sent from an account. You can view email that was delivered successfully as well as email that was not delivered to the recipient.

The Sent Email feature provides information on all outbound email sent from an account and records the following details for all outbound email:

- Send date and sender (From)
- Recipients (To/Cc/Bcc), message ID, subject
- Email delivery status per recipient

For more information about how you can view the Sent Email List, incorporate new saved searches, and schedule saved searches, see the help topic Using the Sent Email List.

Tracking Key Financial Record Audit Trails

See the following for tips for tracking changes to key financial records:

- General Transaction Audit Trail
- Tracking Transaction Deletion
- Tracking Revenue Recognition Changes
- Tracking Changes to Items
- Tracking Changes to Journal Entries
- Tracking Changes to Projects

General Transaction Audit Trail

NetSuite stores data on each entry that a user makes to create, change, or delete a transaction. This data includes all users involved in the history of this transaction, each user's action, the user's role, the date and time of that action, whether there was an account impacted, and the amount after the change. This historical data may be referred to as system notes, an audit trail, or as history. NetSuite provides a variety of methods for you to retrieve historical details about changes made to transaction records. See the following for information:

- Transaction System Information and Communication Subtabs
Granting User Access to Transaction History
Using the Transaction Audit Trail
Viewing Transaction System Notes
General Ledger Tracking in Transaction System Notes
Tracking Financial Account Changes
Line-Level Audit Trail for Transactions
Transaction Line-Level History Window

Tracking Transaction Deletion
The deleted record search type lets you retrieve details about records that have been deleted. See Searching for Deleted Records. To search for deleted transactions, choose the Transaction filter for the Record Type field of the search.

Some countries legally require that a reason is provided whenever a transaction is deleted. The Use Deletion Reason feature satisfies this requirement by making it mandatory for users to record the reason for deleting a transaction. For details, see Recording a Reason for Deleting a Transaction. The field that tracks deletion reasons is available to SuiteScript and web services.

Tracking Revenue Recognition Changes
System notes are supported for advanced revenue management records, including revenue arrangements, revenue elements, revenue recognition rules, revenue recognition plans, and advanced revenue setup records. For details, see the help topic Change Information for Revenue Recognition Records.

Tracking Changes to Items
An audit trail link is available on the Items list page. This link provides access to a simple search page where you can search for items by old value or new value, as well as by other field values.

Each item record includes a System Information subtab that provides system notes, a list of active workflows on the item, and a history of workflows executed against the item.

Tracking Changes to Journal Entries
Each journal entry record includes a System Information subtab that provides system notes, a list of active workflows on the journal entry, and a history of workflows executed against the journal entry.

Tracking Changes to Projects
An audit trail link is available on the Projects list page. This link provides access to a simple search page where you can search for projects by old value or new value, as well as by other field values.

Each project record includes a System Information subtab that provides system notes, a list of active workflows on the project, and a history of workflows executed against the project.

Tracking GL Audit Numbering
The GL Audit Numbering Sequences page provides general ledger audit numbering information specific to the accounting period in which the sequence was run, even if the period is closed.
numbering sequence is saved as a separate record and the history is maintained. You can also create a GL numbering sequence from the GL Audit Numbering Sequences page. For details, see the help topic Viewing GL Audit Numbering Sequences.

You can customize financial reports including the Trial Balance, Balance Sheet, and Income Statement to include or exclude general ledger audit numbered transactions. You can also filter transactions on reports through the GL Audit Number field. For details, see the help topic Reports and Saved Searches.

**System-Generated Journal for NetSuite OneWorld**

NetSuite provides a system-generated, read-only journal. This journal represents the general ledger impact of payments that are at varying states of completeness in your system.

To view system journals, on the bill payment record, click the Related Records subtab. Click the number link associated with the system journal you want to view. You must have at least View level of the Make Journal Entry permission to view system journals.

For additional information about system-generated journals, see the help topic System-Generated Journals for Payments.

**System Notes Overview**

NetSuite uses System Notes to track any changes made to a record. A system note for a change on a record captures the date when the change was made, who made the change, the role of the user who made the change, the type of change, and the old and new value in the record. System Notes cannot be edited by any system user, script or app. System notes are logged on custom records as well as standard records. Anyone with view access to a record and the List > Notes Tab permission can view the system notes for that record.

When searching system notes, you can search for certain records, use advanced search filters, create a saved search, or export the information for additional analysis.

System notes are also logged on changes to general configuration settings that have a financial impact. Setting changes that are logged include:

- Company information
- General preferences
- Enable features
- Accounting lists
- Tax setup

An audit trail is a search for system note records related to a certain record type. The Transaction Audit Trail enables you to produce a report that provides a detailed history of all transactions entered into NetSuite, or you can view system notes for multiple transactions. The audit trail provides information about the transaction, who entered the transaction, and when the transaction was created or modified. The Transaction Audit Trail report is available to the CEO, CEO (Hands Off), CFO, and Support Administrator roles.

Changes to custom transaction types configurations are tracked in System Notes v2. For more information, see System Notes v2.

Perform a review of system notes and audit trails regularly. As part of an Activity Logging Review, users with appropriate permission should review items like system notes in addition to reviewing specific field changes, script changes, and expired access, and any other ongoing auditing that is required by your organization.
You can search for system notes using SuiteScript. For details, see the help topic System Note.

Viewing System Notes on Configuration Settings

To view system notes on configuration and setup pages, create a saved search. On the Standard subtab, specify the filter for system notes you want to view:

- To view system notes for enabled features, enter Record Type is Enable Features
- To view system notes for company preferences, enter Record Type is Company Preferences

On the Available Filters subtab, you can specify that the search results can be filtered by record type. For more information, see the help topic Creating Saved Searches for System Notes.

Viewing System Notes on a Record

To review changes made to a record, open the record and select System Information > System Notes. Details about every change related to the record are listed. For transactions, the System Notes subtab also shows system logs.

Use the Field dropdown list on the System Notes subtab to see changes for a certain field.

For more information, see Auditing Master Data and Configuration Changes in NetSuite.

System Notes v2

Note: System Notes v2 and System Notes are separate systems. There is no change to the existing System Notes. As of 2020.1, System Notes v2 captures audit trail information for custom transactions configuration, and the roles and permissions configuration. For more information, see System Notes Overview.

System Notes v2 supports the following record types and configuration screens:

- Custom transaction types
- Manage Roles

System Notes v2 captures detailed changes such as sublist information and groups the changes under high-level actions. The audit trail enables you to see the types of changes performed on record fields, such as create, update, change, and so on. You can also see the date and time each change was performed and by whom. System Notes v2 retains information for deleted transactions and records, whereas in existing System Notes the details of deleted transactions and records are lost.

System notes v2 lists the most recent changes at the top of the page. The page shows information about the level of actions that have been performed. To view details of the action, use the arrows in the Object column to expand and collapse the information. This expandable format reduces the amount of data first displayed when you browse the audit trail so that you can track or investigate the history.

The following screenshot shows the arrows you click to expand and collapse system notes v2 details:

The following table describes the actions System Notes v2 captures on an object and its values.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create</td>
<td>New object created.</td>
</tr>
</tbody>
</table>
### Action Table

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change</td>
<td>Existing object changed.</td>
</tr>
<tr>
<td>Delete</td>
<td>Existing Object deleted.</td>
</tr>
<tr>
<td>Set</td>
<td>Default value of new object set.</td>
</tr>
<tr>
<td>Update</td>
<td>Value of existing object updated.</td>
</tr>
<tr>
<td>Unset</td>
<td>Value of existing object removed.</td>
</tr>
</tbody>
</table>

### Viewing System Notes v2

**Note:** System notes updates run as a background process. You may experience a short delay between the time an action is performed and when the details appear in the system notes.

You can access System Notes v2 using a new System Notes link located on the top right of the following pages:

- Custom Transaction Types
- Roles

The following screenshot shows a System Notes v2 example with audit data grouped by action:

The following table describes the System Notes v2 headings.

<table>
<thead>
<tr>
<th>Heading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/Time</td>
<td>Date and time the action took place. Point to this field for the complete time, including seconds.</td>
</tr>
<tr>
<td>User</td>
<td>User who performed the action.</td>
</tr>
<tr>
<td></td>
<td>- For a managed bundle, this is the user who installed the bundle.</td>
</tr>
<tr>
<td></td>
<td>- If the user is no longer active, the oldest (based on date) active administrator-user is used.</td>
</tr>
<tr>
<td></td>
<td>- For system events, which have no user connected to the change, System is used.</td>
</tr>
<tr>
<td>Role</td>
<td>The user's role at the time of the change.</td>
</tr>
<tr>
<td>Content</td>
<td>The interface from where the change was initiated, for example, UI.</td>
</tr>
<tr>
<td>Action</td>
<td>The action performed. Actions can be create, change, delete, set, update, or unset.</td>
</tr>
<tr>
<td>Object</td>
<td>The object that was changed, for example, a permission or role.</td>
</tr>
<tr>
<td>Old Value</td>
<td>The old value of the object, before the change was made.</td>
</tr>
</tbody>
</table>
Use the Search box to search content on the active page.

System Notes v2 tracks significant changes only. For example, if you create a new object, the initial default setting is not shown. To see the initial value, you must go to the record. You only see old value and new value details in the system notes for updates and changes. As you make changes, values in previous action rows can also change to display new details. For example, when an object’s value changes, a previously blank New Value field on an existing row may update to show the initial default value.

For More information, see System Notes v2 Example.

System Notes v2 Example

This topic describes an example of actions on the Custom Transaction Type System Notes page, and how previous action rows change to display new details.

The following screenshot of a Custom Transaction Type System Notes page shows creation details of three new objects: Translation, Numbering, and Permission. To expand this entry to show details of the individual objects, click the arrow in the Object field. The default settings for the initial Create action are not shown but can be viewed in the record.

The following screenshot shows a new entry. The new row details include information about a Create action on the Permission object, and a Change action on the Account object. Also notice that the previous Create action has changed to Create, Set. The action of changing the permission caused the default value to be set and included in the system notes.

To view the Create and Change details, click the arrow to expand the top row. In the following screenshot, the Change row shows a change to the account from Savings to Inventory. The Create row shows the creation of the Accountant permission. Because there was no previous value, the value is not considered to be new or changed. Therefore, the Old Value and New Value fields are blank.
A change was made to the Accountant role to change the permission level from View to Edit. The system notes now show a new level of action. In the following screenshot, the top row shows an Update action on the Permission object and a Change action on the Level object.

Click the arrow to expand the details. The following screenshot shows that an update was made to the Permission - Accountant object. To further expand the details, click the arrow beside the Permission - Accountant object. The Change details show a permission level change from View to Edit.

The following screenshot shows that there is now an arrow beside the previous Create line for the Accountant permission. The expanded details show that the original action to create Permission - Accountant has a Set action of the Level object. The New Value field that was previously blank now shows a New Value of View.

**System Notes v2 Workbook**

SuiteAnalytics Workbook offers many workbook and dataset templates, each with predefined source data, criteria, pivot tables, and charts.

This section contains the information for the SuiteAnalytics System Notes v2 Workbook in NetSuite. For more information about SuiteAnalytics Workbook, see the help topic [Workbook and Dataset Templates](#).

- System Notes v2 Dataset Template
- System Notes v2 Workbook Template
System Notes v2 Dataset Template

This dataset combines fields from the System Notes v2 record type and two custom formulas so you can view the change history in your account. It forms the source data for the System Notes v2 Workbook Template.

Dataset Configuration

The System Notes v2 dataset combines fields from one record type, multiple custom formulas and criteria filters. To edit the dataset, see the help topic Defining a Dataset.

<table>
<thead>
<tr>
<th>Root Record Type</th>
<th>Joined Record Type</th>
<th>Custom Formula Field</th>
<th>Data Grid</th>
<th>Criteria Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Notes v2</td>
<td>(none)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These custom formulas are included in the dataset:
- New Display Value
- Old Display Value

The following fields are included in the dataset:
- Author
- Context
- Date Changed
- Element Full Name
- Object Action Type
- Object Name
- Role ID
- Root Object — Numeric Key #1
- Root Object Name
- Value Action Type

The following criteria is used to filter the dataset:
- Date From on or after same day last year

System Notes v2 Workbook Template

Use the System Notes v2 workbook to analyze system notes v2 data for your records. Create a custom workbook to add charts, pivots, and tables to view configuration details in your account.

The following records are supported in the System Notes v2 workbook:
- Roles and permissions
- Custom transaction record types – configuration only.

The System Notes v2 workbook provides administrators and compliance managers with a view of the change history in their account. The workbook information includes details about what changed, who made the change, and when the change was made. You can also create your own workbook System Notes v2 dataset.

Auditing Account Preferences

The Enable Features, General Preferences, and Accounting Preferences configuration pages include a link to an Audit Trail page.
Account administrators can use the Audit Trail to review a list of changes, including the names of changed preferences and features, who changed them, when they were changed, what the values of the preference were before and after the changes, and whether the changed features were enabled or disabled.

**To access the Audit Trail link:**

1. Go to the desired Setup page:
   - For **Enable Features**: access this page at Setup > Company > Enable Features.
   - For **General Preferences**: access this page at Setup > Company > General Preferences.
   - For **Accounting Preferences**: access this page at Setup > Accounting > Accounting Preferences.
2. Click **More** and select **Audit Trail** from the dropdown list.
3. If desired, filter the result list by selecting from the **Feature, User, Preference**, or **Modified by** dropdowns.

---

**Note:** The General Preferences and Accounting Preferences pages support SuiteScript. If a preference has been reset through scripting, NetSuite administrators will be able to view all details regarding the change.

**Important:** Although SuiteScript developers will be able to programmatically obtain values on the Enable Features page, SuiteScript cannot be used to set or change values.

---

**Documenting Changes**

It is important that you design appropriate controls in your system development life cycle (SDLC) related to customizations of the NetSuite application, such as custom roles, scripts, custom records, workflows, and other customizations. Your change management process should ensure that changes are authorized, tested, approved, and documented.

You should document changes on a standard change request form. This form can be physical, but an electronic form is recommended. For example, depending on the nature of the change, the NetSuite product team maintains change documentation through issue records, production maintenance records (a custom record type created for this purpose), or feature records.

Depending on business needs, NetSuite custom records can be tailored to serve as change request forms. Ideally, whatever documentation is used, the form should contain information that can easily be completed by the requestor. The request should be tracked internally via a document repository tool, and should include an approval mechanism to move the request from stage to stage in the change management process. A benefit to using issue records or custom records within NetSuite is that you can run saved searches on these records to generate a list of all changes for specific periods. Saved searches also support filtering to deliver information needed for audits or reviews. Using custom records also makes it easier to ensure that required fields are completed before tickets are closed, and that approvals are obtained before a change request moves to the next level. Fields such as attachments of test plans, or summary of test results can be required within the request.

A change request form should include information such as:

- Requestor name
Custom forms can be combined with a workflow to ensure that approvals are routed automatically when specific steps are completed. For example, after a requestor submits the form, it can go to an authorized individual or group to approve the change. The request can then be routed to other approvers as it moves through the following steps of the process:

- Development
- Testing / Quality Assurance (QA)
- Implementation in Production

Each step along the way should be documented on the request form. This documentation provides point-in-time information on each change, identifying the account in which the code change resides, responsibility for the change, and the impact of the change.

As with any process, exceptions may occur, and when they do, the change management process needs to document how to handle these exceptions and capture appropriate evidence. It is possible, for example, that if production code breaks, a developer may be required to go directly into the production code to quickly correct the problem. That change would then be worked backwards into the other accounts, like test and development. In this example, that emergency change would be documented on the request form. It would be noted who performed the change in the production account, when it was performed and why it did not follow normal SDLC procedures. It is important to capture these details as evidence for auditors. A well-controlled program code change management process includes strong segregation-of-duties controls to ensure the right people are making the code changes and moving code to the correct accounts, only after receiving the proper approvals.

Audit Enablement

The NetSuite application has many features that enable user entities to build and manage proper internal controls over its financial reporting. The use of NetSuite as a financial system provides the opportunity for financial process controls to exist in a single system for the organization and then extend that functionality with applications from Fastpath or FloDocs.

There are several customizations that can be done to help ensure that financial transactions are reasonably free from misstatements due to errors. These include:

- Workflows to establish dual authorization to address segregation of duties issues
  Workflows provide additional segregation of duties controls beyond logical security. For example, workflows can provide approval limits and prevent users from approving their own transactions. Workflows can be designed and built in NetSuite by organizations to meet that company's specific needs.
- Scripting
  Scripts are another way to establish controls that are not built into NetSuite by default. For example: currently within NetSuite, invoices are required to be reviewed and approved by the person who created the PO and who is the business owner for the expense. This requirement enables the Accounts Payable team to determine whether the invoices from the vendors are appropriate, and to ensure that they are matched against the proper invoice. Currently, this determination is done through scripting. When the Accounts Payable team creates an invoice against a vendor and PO, an email is sent to the business owner requesting approval of the invoice for payment.
Audit trail saved searches to monitor specific transactions

For most financial transactions in NetSuite, an audit trail is established and can be tracked and searched. Changes to roles, customizations released into the system, transactions created, as well as other common changes, can all be tracked in the system, with some exceptions. Saved search alerts can be created to identify items outside of ordinary processing. A saved search alert for any transactions initiated by personnel who would not normally be initiating such transactions is an example. A company may want to identify any POs created by Accounts Payable because they are part of the procure-to-pay process. Monitoring POs created by Accounts Payable could allow management to detect any questionable transactions, especially if the user is involved in another part of the process. Monitoring changes to credit levels, terms, and addresses are other examples of changes that can be monitored through saved searches.

Manual controls

There are some areas in NetSuite not yet addressed by automatic control. It is important to review these items and ensure that controls outside the system are established to monitor these types of transactions.

- Audit trails for journal entries post-approval

  Currently, there is no audit trail to detect when a journal entry is edited after it has been approved, or when the approver edits the entry prior to approval. Therefore, it is important to establish proper journal entry review and account reconciliations. It may also be prudent to add spending reviews for expense or disbursement accounts to check for any unusual entries. As the reviews are now the key controls, proper segregation of duties should be used for selecting the reviewer.

- Audit trails for account setup

  Account setup is currently not tracked, except for the header information (user who performed an edit, date and time). This tracking does not include details of changes. It is important to establish post-setup reviews by a different person, and also to establish controls for certain significant transactions that can be impacted by changes to the setup. One example is the credit limit for customers. This feature can be turned on or off, which could allow customers to exceed their credit limits. A periodic review of customer balances against their credit limits could be used to detect whether any have exceeded their limits. Because there may be instances where the excess to the credit limit is approved, it is important to carefully design and establish how approval is obtained and documented.

- Three-way matching for PO, invoice, and receipt of goods

  NetSuite does not currently support a three-way match. Consequently, it is important to establish a process to monitor purchases. Monitoring, scripting, and evidence of approval may be used to support purchase and invoice authorization. Within NetSuite, the Accounts Payable team monitors and ensures that there is a PO before any transaction is entered into with a vendor, and if this is not the case, a PO violation is reported and monitored. Invoices are approved and validated to ensure that they do not go over the PO amount. Invoices over the PO amount require another approved PO or will result in a reported PO violation. The Accounts Payable team also validates that services or goods are being received.

NetSuite is a tool designed to help its customers meet their business needs, but it is up to customers to ensure that they properly understand their requirements and figure out how they can use NetSuite to meet those requirements. The implementation of controls to enable auditing is customizable for each customer’s business needs. Customers should properly understand their risks, how they want to address them, the level of controls to be put in place, and how they will monitor these controls. They also need to understand their compliance obligations, and the requirements for each of these obligations.
Internal Controls in NetSuite

This section lists internal controls that are readily available in NetSuite. This listing is provided as a reference to assist you in building strong internal controls in your NetSuite implementation.

- Some controls do not require setup after your NetSuite account is operational. See Standard Internal Controls.
- Other controls require some basic setup in the NetSuite UI before they are available. See Internal Controls that Require Basic Configuration.

No customizations are required for you to utilize any of these general controls in your NetSuite implementation. Audited companies should consider taking credit for the partial or full mitigation of risks provided these internal controls.

Many internal control processes specific to your company may require the creation of some basic customizations, such as custom fields, custom records, workflows, and scripts. These types of custom solutions may be available as NetSuite SuiteApps, or Partner Applications. Or these solutions can be built by NetSuite developers.

**Warning:** This content is not intended to be an all-inclusive list or to represent what a company needs to adopt to be SOX-compliant. There are many other internal controls available in NetSuite and all companies should take a risk—based approach to ensuring materially accurate financial statements. This content provides examples of internal controls utilized in our system.

Standard Internal Controls

The following internal controls do not require any setup after your NetSuite account is operational.

- Accounts Receivable
  - Outstanding invoices are aged and added to an A/R aging report in real-time.

- Financial Close
  - General ledger accounts automatically roll up into financial statement line items.
  - The financial statement consolidation process is performed on a real-time basis.
  - The general ledger is automatically configured to include all accounts with balances.
  - All transactions automatically roll up into the general ledger in real-time.
  - Transactions cannot be posted to closed periods in NetSuite.
  - Out of balance transactions are automatically rejected.
  - Transactions referencing a closed period are automatically rejected.
  - Transactions containing an invalid or inactive GL segment, for example, account or cost center, are automatically rejected.
  - CTA (cumulative translation adjustments) are automatically calculated in NetSuite.
  - FX (currency translation) related adjustments are automatically calculated in NetSuite.
  - Access to open and close the GL accounting period in NetSuite is restricted to selected users. After a GL period is closed, NetSuite subsequently does not allow posting of any GL-impacting entries to a closed period.
  - Allocation weight is dynamically calculated when an allocation journal is generated, based on the current statistical account balance.
  - Elimination journal entries are automatically generated based on intercompany transactions.
Password strength for access to NetSuite accounts is required to comply with password policy.
Calculation is automatic for a reversing journal entry that voids checks and transactions on days or periods different from the original transaction date.
Journal entries require approval in line with Journal Entry Approval Policy prior to posting to the general ledger.
Transactions posted outside of a posting period can be prevented or can initiate a warning.
Limitations can be set on the individuals who can impact the account listed on an item record.
A gapless numbering sequence is applied to all GL-posting transactions.

Financial Reporting
- Financial statements are automatically generated for each separate entity in NetSuite.
- Financial reports for each entity are automatically prepared in their local currency and are converted in real-time into headquarters currency for consolidation purposes.

Fixed Assets
- NetSuite automatically calculates depreciation expense.
- The Fixed Asset Module automatically calculates and posts the depreciation expense to the asset record and to the related journal entries to the General Ledger.

Inventory
- NetSuite values inventory at standard cost.
- Inventory transactions created and/or edited in closed periods can be disallowed.

IT General Controls
- A minimum password length is required to comply with password policy.
- Users are required to update their passwords with a regular frequency.
- System notes are captured on the creation of all records and are not editable by users.
- System notes are captured on the edit of all records and are not editable by users.
- System notes are captured on the import and export of all custom fields.

Order to Cash
- Items purchased in a sales order for a customer are automatically reflected in the invoice and are automatically sent to the customer by email when the Save & Email button on the Next Bill tab is clicked. The order status of the sales order is automatically changed to Partially Fulfilled (several invoices or installment) or Billed (single invoice).
- For orders on an installment basis, the billing schedule in the body of a sales order for a customer is automatically populated in NetSuite and can be viewed on the History tab of the customer record. This tab indicates scheduled billing dates and amounts for each date.
- Upon invoicing, NetSuite automatically generates an entry.
- NetSuite prevents creation of a customer with a blank credit limit.
- NetSuite creates invoices only after an order has been shipped.
- NetSuite restricts changes made to item quantity, pricing, and shipping income per sales order during the invoicing process.
- NetSuite books an entry to debit Accounts Receivable and to credit Revenue upon invoice creation.
- NetSuite places an order on hold when the customer exceeds the assigned credit limit. There is a workflow trigger, where an increase in the credit limit, if applicable, is generated and approved by the CFO.
- When a customer exceeds their credit limit, NetSuite can enforce an automatic hold or simply initiate a warning message.
Orders that are entered into NetSuite, but not yet billed, can be included in customer credit limit calculations.

Standard grace periods for overdue invoices prior to placing a customer on hold can be set up in line with the customer credit policy.

Edits to previously approved sales orders are disallowed.

NetSuite prohibits users from making any changes to a revenue recognition schedule for a transaction after the A/R period has been closed.

**Procure to Pay**

- Records and transactions can optionally be limited by the department of the individual entering or editing them.
- Records and transactions can optionally be limited by the class of the individual entering or editing them.
- Records and transactions can optionally be limited by the location of the individual entering or editing them.

**Revenue**

- NetSuite does not allow revenue recognition greater than 100% of the total amount of the project.

**Time Entry**

- Time entry requires supervisor approval.
- There is a maximum number of hours an employee can enter for a specific week in line with the HCM policy.
- There is a maximum number of hours an employee can enter for a specific day in line with the HCM policy.
- There is a minimum number of hours an employee can enter for a specific day in line with the HCM policy.

**Internal Controls that Require Basic Configuration**

The following controls require some basic setup in the NetSuite UI.

- **Accounts Receivable**
  - Open receivables identified by user-defined conditions, such as large invoices or exceeding the credit limit, are automatically identified and routed for review.

- **Financial Close**
  - The amount of expense to be amortized per month is automatically spread based on the amortization schedule prepared by A/P.
  - NetSuite automatically allocates the expenses to different departments based on the allocation percentages.
  - Access to open and close the sub-ledgers (A/P, A/R, and Payroll) and the general ledger is restricted to approved roles.
  - Elimination journal entries are automatically generated based on intercompany drop-ship workflow transactions.
  - Intercompany accounts are automatically reconciled.

- **Commissions**
  - Monthly, NetSuite automatically calculates eligible commission amounts based on the plan type linked to the participant (employee or partner).
After a commission is approved, it is automatically posted to A/P and to the general ledger, and is auto-populated for the payroll run.

Commissions are calculated and processed in line with standard compensation agreements.

**Fixed Assets**
- Edit access to the Fixed Asset Module is restricted to users with approved roles only.
- NetSuite FAM is configured to calculate monthly depreciation based on the asset's cost, depreciation method, and useful life.

**Human Resources and Payroll**
- Edit access to the Payroll folder, which contains the Payroll Worksheet, is restricted to users with approved roles.
- NetSuite auto-populates employee hours and expenses after appropriate approvals are obtained in the system.
- After a payroll is committed, the related payroll taxes, benefits, bonuses, and commission expenses are automatically calculated and posted to the general ledger.

**IT General Controls**
- NetSuite compares contact and customer records and provides notifications of possible duplicate records.
- Employee access can be restricted based upon IP address.

**Order to Cash**
- A general ledger journal entry is automatically created when an authorized credit memo is created and approved.
- A journal entry is automatically generated when a batch payment posting is created and approved.
- After all payments from a bank batch are applied, a deposit activity is performed in NetSuite and the related journal entry is automatically generated.
- When payment from the bank for a single activity is applied, a deposit activity is performed in NetSuite, and the related journal entry to accounts receivable is automatically generated.
- Unbilled approved T&M hours are automatically populated in NS for invoicing.
- NetSuite only allows fulfillment and shipment of inventory if the following conditions are met:
  - Sales order is in Pending Fulfillment or Partially Fulfilled status and is not on hold for any reason.
  - Part numbers of items being fulfilled match part numbers on the Sales order and the quantity being fulfilled does not exceed the quantity on the sales order.
  - For serialized inventory items, such as switches, each fulfilled serial number matches a serial number that exists in finished goods inventory.
- Shipping amounts are automatically calculated and applied to transactions based on rules.
- A 1099 or W2 is required prior to vendor approval.

**Procure to Pay**
- NetSuite automatically routes a PO for approval based on the approval policy set. Only POs that have been properly approved can be processed for invoicing.
- Spending thresholds on POs are built into a workflow as required by governance.
- Spending thresholds on non-PO spending are built into a workflow as required by governance.
- Use of vendors in purchase orders is restricted to pre-approved vendors.
- Updates to vendor information route automatically for review to designated approvers.
Internal Controls that Require Basic Configuration

- Non-inventory purchase requests are automatically routed for approval request to the relevant reviewer/approver.
- Inventory purchase requests are automatically routed for approval request to the relevant reviewer/approver.
- A three-way match is automatically performed for POs that have lines mapped to item receivable general ledger accounts. The control is configured at the item-level. If any item quantity or price does not match, an error message is displayed, the invoice is not posted, and the invoice is placed in Pending Approval status in NetSuite.
- Expense reports are automatically routed to the employee’s manager and, after approval by the manager, to A/P for review and approval. After approval by the employee manager and A/P, the expense report is marked for payment.
- Purchase requests are routed for approval based on set approval limits.
- Expense reports are routed for approval based on set approval limits.

Revenue

- The relative fair value allocation at the time of an invoice is applied. The allocations are based on the relative fair values for all line items in the invoice based on the BESP data contained in NetSuite.
- On invoicing, NetSuite creates a service amortization schedule for all of the service line items on invoice.
- NetSuite is set up to defer revenue and the related COGS per terms and conditions set out in the customer master file. These terms include: rights of return, acceptance, shipping terms, and others.
- NetSuite automatically recognizes and defers revenue based on the Revenue Recognition Policy. (Note: The Revenue Recognition Policy must be set up in NetSuite for each item.)
- NetSuite is configured to recognize revenue on a monthly straight-line basis, prorated daily basis for the first and last month, for subscription and support revenue based on the provisioned date, contract start and end dates, and revenue recognition schedule.
Managing Transactions

NetSuite provides several features that enable you to record reasons for deleting transactions and view transaction history. See the following topics.

- Recording a Reason for Deleting a Transaction
- Reviewing Transaction History
- Transaction System Information and Communication Subtabs
- Granting User Access to Transaction History
- Viewing Transaction System Notes
- Using the Transaction Audit Trail
- Tracking Financial Account Changes
- Line-Level Audit Trail for Transactions
- Transaction Line-Level History Window

Recording a Reason for Deleting a Transaction

In some countries, it is a legal requirement to provide the reason why a transaction is deleted. The Use Deletion Reason feature satisfies this requirement because users must record the reason why they deleted a transaction.

How to Enable the Feature

To enable the feature, go to Setup > Company > Enable Features. On the Company subtab in the ERP General section, check the Use Deletion Reason box, and then click Save.

Transaction Types Impacted by the Feature

The Use Deletion Reason feature impacts all of the transactions listed at Setup > Company > Auto-Generated Numbers on the Transaction Numbers subtab. When you use this feature, users must provide a reason for deleting a transaction record. The Transaction Numbering Audit Log provides a list of the deleted transactions. It provides their transaction number, the date on which the transaction was deleted, and by whom. It also provides the reason the user deleted the transaction record and any related memo. For a list of transactions on the Transactions subtab, see Records and Transactions Available for Auto-Numbering. For information about the Transaction Numbering Audit Log, see Transaction Numbering Audit Log.

Deletion Reasons: Standard and Unique

The Use Deletion Reason feature includes two standard deletion reasons: Original Document Damaged and Other. If users choose the standard deletion reason Original Document Damaged, they do not have to include a memo. If users choose the standard deletion reason Other, they must include a memo. When you remove the reversal date on an original journal entry to delete a reversal journal entry, the deletion reason code is Other. The memo is Reversal date removed.

Users with the Administrator role or access to Accounting Lists can create and modify deletion reasons. These users can create, modify, inactivate, and choose display languages for a unique deletion reasons. Go to Setup > Accounting > Accounting Lists > New and click Transaction Deletion Reason. Complete the fields as required, and then save the record. For more information about accounting lists, see the help topic Setting Up Accounting Lists.
Recording a Reason for Deleting a Transaction

Note: Transaction deletion reasons must be unique to avoid duplication, and cannot exceed 30 characters. The name is case sensitive. Therefore, the transaction deletion reason MY CODE is unique from the transaction deletion reason my code.

Account Changes Caused by Disabling the Feature

You can disable the feature at any time. Transactions to be deleted will no longer require a deletion reason, and deletion reasons will not be accessible from Accounting Lists. However, the Transaction Numbering Audit Log will maintain the deleted transactions and their associated data.

Reviewing Transaction History

There may be times when you have questions about a transaction such as:

- When was it created, and by whom?
- Have there been any changes to it?
- Did someone void or delete it, and when?

NetSuite stores data on each entry that a user makes to create, change, or delete a transaction. This data includes all users involved in the history of this transaction, each user’s action, the date and time of that action, if there was an account impacted, and the amount after the change.

This historical data may be referred to as system notes, an audit trail, or as history. NetSuite provides a variety of methods for you to retrieve historical details about changes made to transaction records. See the following topics for information:

- Transaction System Information and Communication Subtabs
- Granting User Access to Transaction History
- Viewing Transaction System Notes
- General Ledger Tracking in Transaction System Notes
- Using the Transaction Audit Trail
- Tracking Financial Account Changes
- Line-Level Audit Trail for Transactions
- Transaction Line-Level History Window

NetSuite also provides a more general system note search function that retrieves details about other types of records in addition to transactions. For information about this function, see Searching System Notes.

Transaction System Information and Communication Subtabs

The following subtabs can be used to track tasks and information or send messages associated with transactions you enter in NetSuite:

- System Information subtab
  - On the System Information subtab, you can find system notes which track the date and time of each update to the transaction. System notes also track each user who made changes to the transaction. For more information, see Viewing Transaction System Notes.
If you use the SuiteFlow feature, you can also see the Active Workflows and Workflow History subtabs. For more information, see the help topic Viewing Workflow Activity.

- Communication subtab
  Use the Communication subtab to create and send messages to your customer. You can add the message as an HTML or PDF attachment or embed the transaction within the body of the message. The Communication subtab tracks all related email and faxes sent and received.
  When creating some transactions, you can create and add tasks, events, and phone calls associated with the transaction from the Communication subtab. After you save the transaction, this information is combined on an Activities subtab. This enables you to track meetings and conference calls you schedule in the process of finalizing a sale.

To use transaction subtabs, go to the Transactions tab and click the type of transaction you want to use. On the transaction form, click the System Information or Communication subtab. Not all transaction records have a System Information or Communication subtab.

Notes:
- The System Information subtab is available on most transaction records. However, some records available from the Transactions menu are not classified by the system as transactions and do not provide the System Information subtab, including Amortization Schedules, Budgets, Commissions, Partner Commissions, Paychecks, and Quotas.
- The Communication subtab is not included on all transaction records.

Granting User Access to Transaction History

The Financial History permission is required for users to view transaction history. Some roles have this permission by default, such as accounting clerks and sales administrators. To review permissions for standard roles, see the help topic Standard Roles Permissions Table.

An administrator can provide other users with access to transaction histories by customizing their roles to include the Financial History permission. For example, support reps can be allowed to see the sales transactions that customers inquire about.

To create a custom role with transaction history access:
1. Go to Setup > Users/Roles > User Management > Manage Roles.
2. Click Customize next to the name of the role you want to customize.
3. In the Name field, enter the name for this new role. This role name will be available in employee records on the Access tab.
4. On the Permissions subtab, click the Lists subtab.
5. In the Permission column, select Financial History.
6. In the Level column, select View.
7. Click Add.
8. Click Save.

Now, employees with the new customized role can view the Transaction History subtab on customer records and click the links to view those transactions.

To assign employees this custom role, go to Lists > Employees > Employees, and click Edit beside the employee you want to assign the role. Click the Access tab. Select the new role in the Role field, and click Add/Edit. Click Save.
Important: If the Global Permissions feature is enabled, the Financial History permission also can be added on a per-employee basis. For information, see the help topic Using the Global Permissions Feature.

Viewing Transaction System Notes

To review changes made to an individual transaction, on that transaction record’s System Information subtab, click the System Notes subtab. System notes are details stored about each change.

By default, system notes for all transaction fields are listed. Select from the Field dropdown list to list only changes for one selected field.

On the System Notes subtab, you can view past details related to the transaction, including system logs. System notes list each change made to the transaction, with the following information:

- **Date/Time** – when each change was made to the transaction. The date/time is shown in the company timezone.
- **Set by** – the user that made each change.
  - Some changes are made by the system, for example, fields where values are auto-populated.
- **Field** – the field where each change was made.
  - If you are using the Accounting feature, system notes include general ledger impact of changes with an entry of Impact in this column. For information, see the help topic General Ledger Tracking in Transaction System Notes.
- **Type** – the type of each change.
- **Old Value/New Value** – the data in the field before it was edited and the new information entered for each change.
- **Role** — role of the user that made the change (included as of 2017.1 — you have to customize the view to see the Role column)

Note the following:

- The setting for Log System Notes on Updates Only at Setup > Company > General Preferences determines whether system notes are generated when a transaction is created. This preference was introduced in Version 2012 Release 2. By default, it is enabled for new accounts as of that release or later, and disabled for accounts that existed before that release.
- Click the Customize View button to define criteria for filtering system notes and/or to change the displayed results columns. Clicking this button opens a Saved System Note Search definition page. After you have defined this type of search, you can select it from the View dropdown list for an alternate system notes display. For information about creating this type of search, see the help topic Creating Saved Searches for System Notes.
- System notes on the System Information subtab relate to each transaction as a whole. Line-level system notes also are available from History links for individual items, expenses, and journal line items on transactions. For more information, see Line-Level Audit Trail for Transactions.
- To view system notes for multiple transactions, filtered by field values, go to Transactions > Management > View Audit Trail. For more information, see Using the Transaction Audit Trail.

Using the Transaction Audit Trail

The Transaction Audit Trail enables you to produce a report that provides a detailed history of all transactions entered into NetSuite. The audit trail provides information about the transaction, who entered the transaction, and when the transaction was created or modified.
To view the Transaction Audit Trail, go to Transactions > Management > View Audit Trail. In the NetSuite U.K. edition, go to Transactions > Other.

**View Audit Trail Page**

On the View Audit Trail page, you can filter the report to limit audit trail results to a manageable number or to focus on a group of specific transactions. Filters can be based on:

- User(s) who entered transaction edits
- Action taken for the transactions: create, change, or delete
- Transactions date range, either relative (such as last month) or absolute
- Amount of transactions, defined as an exact number or a range
- Type(s) of transactions
- Account(s) affected by transactions
- Entity or entities involved in transaction, defined by name
  - Can be customers, employees, partners, vendors, or other entities

**Audit Results Page**

Select the desired filter options and then click Submit to open the Audit Results page. This list includes the following columns of data:

- Date and time that the transaction change was executed
- Name of the user who made the change
- The action taken: create, change, or delete
- Type of transaction
- Internal ID
- Transaction number
- Posting date of transaction change
- Account affected
- Amount

By default, the Audit Results page sorts transactions by their system-generated Internal ID. Click the text at the top of any column to sort the list using that attribute.

The page displays a one-line summary for each transaction. Click on a transaction's link in the Date/Time column to view details and GL Impact for that transaction.

For more information about audit results data, see Tracking Financial Account Changes.

**Other Ways to View System Notes**

- You can view system notes for an individual transaction on the transaction record. Click the System Information subtab, then the System Notes subtab. For more information, see Viewing Transaction System Notes.
- Line-level system notes are available from History links next to individual items, expenses, and journal line items on transactions. For more information, see Line-Level Audit Trail for Transactions.
To view system notes for multiple transactions, filtered by field values, go to Transactions > Management > View Audit Trail. For more information, see Using the Transaction Audit Trail.

A system note search is available at Reports > New Search. The system note search includes system notes for records other than transactions, provides different filter fields from the transaction audit trail, and offers additional functionality including the ability to export data, advanced search filters and results options, and the creation of saved searches. For more information, see Searching System Notes.

Tracking Financial Account Changes

You can use the audit trail function to search for changes made to your financial accounts.

**To use the Audit Trail:**

1. Go to Transactions > Management > View Audit Trail (Administrator).
2. Select criteria to quickly find the information you seek.
   - For example, which user performed the action, between which dates the transactions were changed, or which account the transactions affected. You can select more than one user, action, transaction type, account, or name by pressing the Ctrl key and selecting with your mouse.
3. Click **Submit**.

When the Audit Results page appears, there are 8 columns that contain information:

- **Date/Time** – This is the date and time your data was saved.
  - All times are expressed in Pacific Standard Time (PST). When Daylight Savings Time is in effect, all times are expressed in Pacific Daylight Time (PDT).
  - If you import data or load sample data, all the dates and times of existing transactions appear as the date and time your data was loaded.
- **Username** – This is the name of the person who created, changed, or deleted the transaction.
  - If your company memorizes transactions, the name of the user who created these transactions appears.
- **Action** – This is what was done to the transaction. This can be CREATE, CHANGE, or DELETE.
  - If you void a transaction, CHANGE appears.
- **Type** – This is the type of transaction that was created, changed, or deleted.
- **Number** – This is the number specific to each transaction. For example, invoice number 18 or check number 1400.
- **Post Date** – This is the date your transaction was posted to the account.
- **Account** – This is the financial account that is affected by the transaction. For example, if you create an invoice, Accounts Receivable appears in the Account column.
  - If no account was affected, the corresponding field in this column is blank.
- **Amount** – This is the total amount of the transaction.
  - Deleted and voided transactions have zero in this column. Zero also appears in this column next to changed transactions if you made a change that didn't affect the original amount.

Click any date in the **Date/Time** column to view the details of a transaction. When the Audit Results page appears with the particular transaction you selected, click **View**. The details for this transaction appears. If you want to make changes, click **Edit**, enter your changes, and then click **Save**.
**Line-Level Audit Trail for Transactions**

The audit trail for transactions includes the ability to track updates to individual line items. You can view the audit trail for individual line items directly from each transaction record's listings for items, expenses, and journal line items.

On a transaction record, each line item includes a **History** link that you can click to open a new window displaying all updates to that particular line item. This link is visible to users with Notes Tab permission.

**Note:** The line-level audit trail does not track the initial creation or deletion of line items. Only updates to existing line items are tracked.

**Export Line-Level System Notes Data**

This History window includes buttons you can click to export line-level history data as a CSV or XLS file. For more information about the History window's contents, see **Transaction Line-Level History Window**.

**Include Line-Level System Notes in Saved Searches**

To review the history of multiple line items at one time, create a transaction saved search that includes one or more Line System Notes fields in its results. You can also use Line System Notes fields as transaction saved search filters to return only selected line-item history data.

**Note:** In a past release, NetSuite introduced a new company preference, Log System Notes on Update Only. (See Setting General Account Preferences.) Before you enable this option in an account that existed before that release, you should first review any saved searches containing system notes fields, as these searches may use data from record creation system notes. If your account includes searches that rely on record creation system notes, you can either revise the searches before enabling the Log System Notes on Update Only option, or you can leave this option disabled.

For example, a case search may use record creation system notes fields to retrieve dates when cases were first escalated. To make this search work with the Log System Notes on Update Only option enabled, this search would need to be edited to use expressions and to return values for cases' Date Created field if the escalation date was not available through record update system notes fields.

**Other Ways to View System Notes**

You can retrieve transaction system notes other than line-level in the following ways:

- You can view each transaction's header-level system notes on the transaction record's History subtab, System Notes subtab. For more information, see **Viewing Transaction System Notes**.

- To view system notes for multiple transactions, filtered by field values, go to Transactions > Management > View Audit Trail. For more information, see **Using the Transaction Audit Trail**.

- A system note search is available at Reports > New Search. The system note search includes system notes for records other than transactions and provides different filter fields from the transaction audit trail. It also offers additional functionality including the ability to export data, advanced search filters and results options, and the creation of saved searches. For more information, see **Searching System Notes**.
Transaction Line-Level History Window

The history window that appears when you click History for a transaction line item includes the following columns:

- action that occurred to update the transaction line item
- date and time of the action
- specific field altered (if applicable)
- transaction line number
- new value of the line item after the action
- old value of the line item before the action
- posting date of the transaction
- transaction type
- username of the user performing the action

The following fields are tracked in the History window:

- All stored-value custom fields
- Alt.Sales
- Amortization Residual
- Amount
- Billable
- Billing Schedule
- Class
- Closed
- Commit
- Create PO
- Customer
- Delay Rev. Rec.
- Department
- Item
- Cost Category
- License Code
- Location
- Memo
- PO Rate
- PO Vendor
- Price Level
- Quantity
- Rate
- Restock
- Revenue Recognition End Date
- Revenue Recognition Schedule
- Revenue Recognition Start Date
- Revenue Recognition Term in Months
- Tax
- Units

**Note:** The line-level audit trail does not track the initial creation or deletion of line items. Only updates to existing line items are tracked.
Personal Information (PI) Removal

Personal Information (PI) Removal enables NetSuite users with the appropriate permissions to remove personal information from NetSuite fields, records, and audit logs. The main purpose of PI removal is to help customers comply with General Data Protection Regulations (GDPR), especially the right to be forgotten and keep personal information private.

The right to be forgotten is one of the key regulations recently introduced in the European Union (EU). Administrators can use PI Removal to replace the data stored in both the system log notes and the workflow history with a user-defined value. The functionality is available in 2019.2 on entity records, transactions, and custom records.

The GDPR applies to personal data, meaning any information relating to an identified or identifiable person. For example, personal data can refer to an identifier such as name, an identification number, location data, or an online identifier. It can also refer to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that person.

Personally identifiable information includes, for example:
- Family names, first names, maiden names, aliases
- Postal addresses, telephone numbers, postal codes, and cities
- IDs: social security number (fiscal code in Italy, National Insurance number in UK), bank account details (for example, IBAN), credit card numbers, and so on
- Genetic data
- Biometric data
- Data concerning health, economic situation, personal preferences, interests, reliability, behavior, movements

The Personal Information Removal feature:
- Improves compliance with GDPR
- Supports removing PI data from record field values, system notes logs, and workflow history
- Permits a privileged user to remove PI data without contacting NetSuite Customer Support
- Replaces the Audit Trail History field value with a user-defined message
- Does not remove the Audit Trail History logs

You can individual information removal requests from within NetSuite. You can view all the requests that have been submitted, including who created the request, when it was created, and the current status of the request. For more complex requests, you can build the request from SuiteScript. For more information, see the help topic N/piremoval Module.

For more information about removing personal information, see the following topics:
- Enabling the Remove Personal Information Feature
- Reviewing PI Removal Requests
- Creating and Approving a New PI Removal Request
- Checking PI Removal Results in the System Notes

Watch the SuiteCloud: Personal Information Removal video.

Permissions

The following permission types are available for PI Removal:
Enabling the Remove Personal Information Feature

Before you can remove personal information, you must enable the feature.

To enable the Remove Personal Information feature:

1. Go to .
2. On the SuiteCloud subtab, check the Remove Personal Information box, and review the SuiteCloud Terms of Service, if necessary.
3. Click Save.

After you enable the feature, you can review and submit PI removal requests. For information, see Reviewing PI Removal Requests and Creating and Approving a New PI Removal Request.

Reviewing PI Removal Requests

If your company uses the Personal Information (PI) Removal system, you can review the current status of PI removal requests. From this page you can also view details of a request, make a copy of a request, and approve, edit, or delete a request.

To review PI removal requests

1. Go to Lists > Mass Updates > Remove Personal Information.
2. For each request, you can see which records, fields, and workflows were removed. To view details of what information was processed in each request, click the field.
3. To view details of the request's status, click the Status field.
4. To display only requests of a specific record type, enter the record type name into the search box.
5. Using the icons on the far right, you can make a copy, edit, delete, view, or approve a request. See the following section for details of how to use these icons.

Using PI Removal Request Icons

Use the icons on the Personal Information Removal Request page to view details of a request, make a copy of a request, or approve, edit or delete a request. Options available depend on the status of the request.
When a removal request has the Created status, the following icons are available:

- For the Create role:
  - Make Copy, Edit, Delete

- For the Run role:
  - View, Delete, Approve

When a removal request has the Pending or Complete status, the following icons are available:

- Make Copy, View

  Make Copy - Optionally make changes. Then click Create. A copy of the request is created. For example, you might want to make a duplication of a previous selection if you forgot to include one of the items for removal.

  Edit - Make changes as needed. Click Save. Your changes are saved.

  Delete – A confirmation message appears. To continue with the deletion, click Delete. The request is deleted.

  Approve – A message appears warning you that all data will be lost permanently. To continue with the approval, click Yes, Proceed. The request status changes to Pending until the removal has been processed. Then the status changes to Complete.

  View - The new PI Removal Request Page appears in view-only mode. View the information as needed.

Creating and Approving a New PI Removal Request

If your company uses the Personal Information (PI) Removal system, you can create and approve requests to remove personal information from NetSuite fields, records, and audit logs.

To create a new PI removal request:

1. Go to Lists > Mass Updates > Remove Personal Information.
2. From the Personal Information Removal Request page, click New.
3. In the Record Type field, select the record type for the records you want to process.
4. In the Records field, select which records you want to process.

5. In the Fields field, select the fields where the personal information is stored and for which you want to replace with the replacement value.

6. In the Workflows field, select the workflows for which you want to remove personal information from the workflow history.

7. Choose whether you want to process History Only (system notes and workflow logs) or History and Field Values (history plus record fields). History and field values are replaced with a default replacement value. These values are:
   - **PI_removed** for text fields
   - **000000000** for phone numbers
   - **PI_removed@example.com** for email addresses
   - **http://example.com** for web addresses

8. Optionally, in the History Replacement field, enter the text to use in history (system notes and workflow logs) to replace the original values. If no text is entered, NetSuite uses the default replacement values described in the preceding step.

9. To continue with the data removal, click Save. The removal request is generated and appears with a status of Created.

10. To approve the removal, click the Approve icon. A confirmation message appears warning you that all data will be lost permanently and asking if you want to proceed. To proceed, click Yes, Proceed. Otherwise, click Cancel.

The request waits in the queue with a Pending status until it is processed. The available icons are now Make Copy and View.
For more information about PI Removal Request icons, see Using PI Removal Request Icons.

Checking PI Removal Results in the System Notes

If your company uses the Personal Information (PI) Removal system, where available, you can see the PI removal results in the record's system notes. The location and path to access the system notes information varies depending on the type of record. In the following example, changes were made to the Acme Medical Supplies contact record. To view the system notes for this, you would go to Lists > Relationships > Contacts and for Acme Medical Supply, click View. Then, you would click the System Information subtab and then the System Notes subtab.

You can see in the system notes that certain records were rewritten by a constant string. The first entry uses the default replacement text of PI_Removed. The second entry uses text specified in the History Replacement field when the user created the request to remove personal information.
Auditing Data Changes using Searches

To monitor changes made to NetSuite data, you can search system notes records. You can use the following tools to access system notes records:

- A general system notes search can return system notes for all record types. A system notes search can be filtered by record type, so that the results include only system notes for a particular record type. See Searching System Notes.
- Searches of record types that support system notes can include system notes details in results. For example, a customer search can include values for system notes fields related to customer record changes in results. This support is based on a join between system notes records and their related parent records. See the help topic Defining an Advanced Search.
- An audit trail link, available at the top of most list pages, can return system notes for a particular record type. See Viewing an Audit Trail for a Record Type.
- The audit trail for transaction records is available at Transactions > Management > View Audit Trail. See Using the Transaction Audit Trail.
- System notes are not created by the execution of saved searches, because they do not change data. However, each saved search has a log listing the users who have run or exported the search. This log shows who has used the search in the past 60 days, with the dates and times of each execution. You can also see an audit trail about changes made to each saved search. See the help topic Audit Trail for Saved Searches, Reports and Schedules.

Known Limitations: If you search for System Notes Fields and you elect to use Type = Change as a filter, NetSuite will return all results having type Change, Set or Unset as these are all internally considered a change. As a workaround, you can also use the following formula: Formula (text): is change: {systemnotes.type}.

Additionally, the Deleted Record search type lets you retrieve details about records that have been deleted. For information about searching for deleted records, see Searching for Deleted Records.

Searching System Notes

Each system note record stores details about a specific change made to a NetSuite record.

NetSuite provides a system note search that you can use to retrieve system notes data. To use this search, go to Reports > New Search and click System Note.

- Use a simple search to retrieve system notes data filtered by: the user(s) who entered the changes, role of the user who entered the changes, the date and time of the changes, the type of change, the field(s) changed, the value before the changes, the context for the change, and the value after the changes. For information, see the help topic Defining a Simple Search.
- Use an advanced search to retrieve system notes based on more advanced filtering and results display options. For information about the capabilities available, see the help topic Defining an Advanced Search.
- Use a saved search to take advantage of additional functionality such as emailing search results, and of course, the ability to quickly rerun the search. For information, see the help topic Defining a Saved Search.

System notes fields also are available to be used as filters and displayed as results for other record types' advanced and saved searches, including the following: contact, customer, employee, issue, item, project, opportunity, partner, transaction, and vendor.
More about System Notes

- System Notes for existing records are never purged. The only time system notes are ever deleted is when the record containing the system notes is deleted.

- There is a company preference, Log System Notes on Update Only, that enables you to view log system notes when updates occur. See Setting General Account Preferences.

**Important:** Before you enable this option in an account that existed before that release, you should first review any saved searches containing system notes fields, as these searches may use data from record creation system notes. If your account includes searches that rely on record creation system notes, you can either revise the searches before enabling the Log System Notes on Update Only option, or you can leave this option disabled.

For example, a case search may use record creation system notes fields to retrieve dates when cases were first escalated. To make this search work with the Log System Notes on Update Only option enabled, this search would need to be edited to use expressions and to return values for cases’ Date Created field if the escalation date was not available through record update system notes fields.

System Notes for Changes to Configuration and Setup Pages

System notes log changes made to enabled features, company information, and account-level preferences.

The following configuration and setup page changes are captured in system notes:

- Company Information (Setup > Company > Company Information)
- Enable Features (Setup > Company > General Preferences)
- General Preferences (Setup > Company > Enable Features)
- Expense Categories (Setup > Accounting > Expense Categories)
- Accounting Lists: Payment Method (Setup > Accounting > Accounting Lists)
- Accounting Lists: Term (Setup > Accounting > Accounting Lists)
- Accounting Lists: Cost Category (Setup > Accounting > Accounting Lists)
- Accounting Lists: Budget Category (Setup > Accounting > Accounting Lists)
- Accounting Lists: Subscription Term (Setup > Accounting > Accounting Lists)
- Accounting Preferences (Setup > Accounting > Accounting Preferences)
- Location Costing Groups (Setup > Accounting > Setup Tasks > Location Costing Groups)
- Nexuses (Setup > Accounting > Nexuses)
- Tax Types (Setup > Accounting > Tax Types)
- Tax Codes (Setup > Accounting > Tax Codes)
- Tax Groups (Setup > Accounting > Tax Groups)

Account administrators can use searches to find system notes that were generated on configuration and setup pages. For example, you can create a saved search that shows system notes on features that were enabled.

You can also filter the search results based on record type.
Other Methods for Viewing System Notes

NetSuite provides a variety of other methods that you can use to retrieve system notes for particular record types.

- The audit trail function enables you to retrieve filtered sets of system notes for a selected record type. For information about using the audit trail, see Viewing an Audit Trail for a Record Type and Using the Transaction Audit Trail.
- Each individual transaction record includes a System Notes subtab on the History subtab where you can view system notes for that transaction. See Viewing Transaction System Notes. History for individual line items also may be available from transaction records. See Line-Level Audit Trail for Transactions.
- Each individual record of a type other than transaction, such as Employee or Customer, includes a System Notes subtab on the General subtab where you can view system notes for that record.

Viewing an Audit Trail for a Record Type

You can view an audit trail to see a list of changes made to a selected record type, such as Employee or Customer. An audit trail is a search for system note records related to a selected record type.

An Audit Trail link is available from most record type list pages. (These list pages usually are available from the Lists tab.) When you click Audit Trail on a list page, an Audit Trail page opens. On this page, you can define field values as filters, to limit results to more relevant data of a manageable size.

To search a record's audit trail:

1. Go to the list for the record type you want to search.
   For example, to search for changes on customer records, go to Lists > Customers.
2. In the header of the list, click Audit Trail.
3. On the Audit Trail page, set the criteria for your search.
You can search system notes by:

- The user ID of the person who made change.
- The date and time the change was made.
- The type of change (for example, whether the field was set for the first time or updated from a previous value).
- The field changed.
- The value before the change.
- The value after the change.
- The context for the change. For more information on context, see Understanding the Context for Changes.

4. Click Submit.

Note the following:

- The audit trail for transaction records is available at Transactions > Management > View Audit Trail. For more information, see Using the Transaction Audit Trail.
- A system note search that is more general than the audit trail function is available at Reports > New Search. The system note search includes system notes for multiple record types, and offers additional functionality, including the ability to export data, advanced search filters and results options, and the creation of saved searches. For more information, see Searching System Notes.

**Searching for Deleted Records**

When a record is deleted, NetSuite retains some data about it. You can retrieve this data by using the Deleted Record search type. To use this search type, go to Reports > New Search and click Deleted Record.

You can retrieve the following data:
Searching for Deleted Records

- The date and time the record was deleted.
- The name of the user who deleted the record.
- The context for the record’s deletion. For more information on context, see Understanding the Context for Changes.
- The record’s type.
- The record’s name. Note that the values the system returns for this column vary depending on the record type. For some record types, such as entities and items, this column reflects the value of the record’s Name field. For other record types, the Name column may include a more general label.
- Optionally, the record’s external ID.

You can also use most of these fields as search criteria. The only exception is external ID.

The following screenshot shows results typical of a Deleted Record search.

As with other search types, you can use a simple search, an advanced search, or a saved search, as follows:

- **Simple search** – The most basic approach. For more information, see the help topic Defining a Simple Search.
- **Advanced search** – Lets you select the fields that should be returned and specify how results should be sorted. For more information, see the help topic Defining an Advanced Search.
- **Saved search** – Lets you save your search criteria and rerun the search later. For more information, see the help topic Defining a Saved Search.

**Note:** By default, the Deleted Record search type is available to only those users with the Administrator role. However, you can grant other roles access using the Deleted Record search permission. Users who have this permission will see results about any type of record that was deleted, even if they do not have permission to create or modify that record type.

You can run deleted records searches in SuiteScript. You can view a record in the SuiteScript Records Browser to determine whether it supports this type of search. For details, see the help topic Deleted Record Search.

The retrieval of deleted records in SOAP web services is a bit different. You can use the `getDeleted` operation rather than running a search. For a complete list of supported record types for this operation, refer to the `DeletedRecordType` enumeration in the `coreTypes.xsd`.

**Understanding the Context for Changes**

When viewing data about records, you can view the context for each change. The context describes how the change was made. For example, users and external systems can perform updates through the user
interface, web services, SuiteScript, and a variety of other methods. Each method is considered a context. For a full list of contexts, see Available Context Values.

You can view context data in any of the following ways:

- Each change to a record is typically recorded in a system notes record. This record describes the context for the change, among other details. For help navigating to system notes records and using the System Notes search type, see Searching System Notes. For help finding system notes data using the Audit Trail feature, see Viewing an Audit Trail for a Record Type.

- When a record is deleted, you can typically view the context for the record's deletion. You do this using the Deleted Record search type. For more information about this search type, see Searching for Deleted Records.

**Note:** Context was introduced in Version 2014 Releases 2. Prior to this release, context data was not collected. For that reason, it is not possible to show the context for changes made before your account was upgraded to Version 2014 Release 2.

### Available Context Values

The following table summarizes possible context values.

**Important:** For further details about how the system assigns context values, see Usage Notes.

<table>
<thead>
<tr>
<th>Context</th>
<th>Change Initiated Through</th>
<th>Corresponding Help Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk Processing</td>
<td>Any of the pages in the user interface that let you mark multiple records for simultaneous processing. Such pages include the Authorize Commissions page (at Transactions &gt; Commissions &gt; Authorize Employee Commissions) and the Mark Work Orders Built page (at Transactions &gt; Manufacturing &gt; Mark Work Orders Built).</td>
<td></td>
</tr>
<tr>
<td>Campaign Response</td>
<td>A campaign response</td>
<td>Tracking Campaign Responses</td>
</tr>
<tr>
<td>CSV</td>
<td>The CSV Import Assistant</td>
<td>CSV Imports Overview</td>
</tr>
<tr>
<td>Mass Update Mobile</td>
<td>The utility at Lists &gt; Mass Update &gt; Mass Updates</td>
<td>Mass Changes or Updates</td>
</tr>
<tr>
<td>Scheduled Workflow</td>
<td>A workflow configured to run at a specific time or interval.</td>
<td>Initiating a Workflow on a Schedule</td>
</tr>
<tr>
<td>Script (Bundle Installation)</td>
<td>A specialized script that performs processing as part of a bundle installation, update, or uninstall</td>
<td>Bundle Installation Scripts</td>
</tr>
<tr>
<td>Script (Client)</td>
<td>A script that runs in the browser</td>
<td>Client Scripts</td>
</tr>
<tr>
<td>Script (Mass Update)</td>
<td>A script that initiates a Mass Update</td>
<td>Mass Update Scripts</td>
</tr>
</tbody>
</table>
### Understanding the Context for Changes

<table>
<thead>
<tr>
<th>Context</th>
<th>Change Initiated Through</th>
<th>Corresponding Help Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Script (Portlet)</td>
<td>A script rendered in the NetSuite dashboard</td>
<td>Portlet Scripts</td>
</tr>
<tr>
<td>Script (RESTlet)</td>
<td>A script invoked by an HTTP request to a system-generated URL</td>
<td>RESTlets</td>
</tr>
<tr>
<td>Script (Scheduled)</td>
<td>A script configured to run at a specific time or interval</td>
<td>Scheduled Scripts</td>
</tr>
<tr>
<td>Script (SSP Application)</td>
<td>A script implemented using the SuiteScript Server Pages feature</td>
<td>SSP Application Overview</td>
</tr>
<tr>
<td>Script (Suitelet)</td>
<td>A script that operates in a request-response model using extensions of the SuiteScript API</td>
<td>Suitelets</td>
</tr>
<tr>
<td>Script (User Event)</td>
<td>A script triggered by an action performed on a record</td>
<td>User Event Scripts</td>
</tr>
<tr>
<td>Script (Workflow Action)</td>
<td>A script invoked as a custom action from a workflow state</td>
<td>Workflow Action Scripts</td>
</tr>
<tr>
<td>UI</td>
<td>The user interface. However, not all changes initiated through the user interface have this context label. For details, see Some Contexts Occur Within Other Contexts.</td>
<td></td>
</tr>
<tr>
<td>SOAP Web Services</td>
<td>A SOAP web services request</td>
<td>SuiteTalk SOAP Web Services Platform Overview</td>
</tr>
<tr>
<td>Web Store</td>
<td>A SuiteCommerce website</td>
<td>Commerce Product Overview</td>
</tr>
<tr>
<td>Workflow</td>
<td>A SuiteFlow workflow that occurs asynchronously. Examples include workflows initiated by nlapiInitiateWorkflowAsync and workflows invoked because they are subscribed to other records. If a workflow is triggered synchronously, by an event, the resulting changes generally share the same context as the triggering event. For examples, see Related Changes May Share a Single Context. Changes made by scheduled workflows have a context of Scheduled Workflow.</td>
<td>nlapiInitiateWorkflowAsync(recordType, id, workflowId, initialValues); Subscribe To Record Action</td>
</tr>
</tbody>
</table>

### Usage Notes

Be aware of the following conditions.

### Some Contexts Occur Within Other Contexts

The list of available context values includes some contexts that occur within other contexts. For example, one context is UI, but other contexts are specific parts of the UI. In these cases, the system uses the more specific label. For example:

- All CSV imports are initiated through the user interface, but a change made by the Import Assistant is labeled CSV, not UI.
- If a user conducts a Mass Update from a mobile device, the context listed is Mass Update, not Mobile.
Related Changes May Share a Single Context

Note that if one change triggers another change, generally the system lists the same context for both changes, even if they occurred in different ways. The context listed is the context for the change that triggered the series of events.

The reason for this behavior is as follows: The system does not save a context value for each discrete field change. Rather, the system logs a context value for each operation, such as each save operation, which may include many field changes. However, a System Notes record is created for each field change, and each field change must list a context value. For this reason, if one change directly triggers a sequence of events resulting in subsequent changes, the system lists the same context for all changes.

The following hypothetical cases illustrate this concept:

- A scheduled workflow runs, changing Field A on a particular record. If that scheduled workflow triggers a SuiteScript that makes a change to Field B, the context for both changes is Scheduled Workflow.
- A user edits a record. The user's actions trigger a workflow that makes other changes to the record. All changes have the same context, which is UI.
- The CSV Import Assistant is used to import a record. Some aspect of the new record triggers a workflow, which makes changes to the newly imported record. The context for all changes is CSV Import.
Avoiding Duplicates

The topics listed below can help you avoid unintended duplicate entries in NetSuite.

- Avoiding Duplicate Transaction Numbers
- Duplicate Transaction Number Warnings
- Using Auto-Generated Numbering for Transactions
- Avoiding Duplicate Processing of Memorized Transactions

⚠️ Important: On a transaction, use caution when you click the Submit button. If you click Submit more than one time, multiple transactions may be created.

Avoiding Duplicate Transaction Numbers

NetSuite provides a number of methods you can use to avoid the entry of duplicate transaction numbers.

- Set a user-level preference to receive a warning when a duplicate transaction number is entered. Go to Home > Set Preferences. On the Transactions subtab, check the Duplicate Number Warnings box.
- Set an account-level preference to receive a warning when a duplicate transaction number is entered. For information, see Duplicate Transaction Number Warnings.
- Use auto-generated numbering for transactions. For information, see Using Auto-Generated Numbering for Transactions.

⚠️ Important: If auto-generated numbering is enabled in a OneWorld account, subsidiary-specific prefixes for transaction numbers can be defined in subsidiary records. This ensures that each subsidiary's transactions has its own numbering sequence. See the help topic Using Subsidiary-Specific Transaction Auto-Numbering.

Duplicate Transaction Number Warnings

An administrator can set up an account so that all users are alerted or blocked from proceeding when they attempt to save transaction records with duplicate document numbers.

To enable these warnings, an administrator can go to Setup > Accounting > Preferences > Accounting Preferences. On the Items/Transactions subtab in the Other Transaction Preferences section, select one of the following Duplicate Number Warnings from the list:

- **No Warnings** – Users are not warned when the transaction they are saving will create a duplicate document number.
- **Warn** – Users receive a message when attempting to save a transaction record with the same document number as another record of the same type. When the warning is displayed, a user can enter a different number before attempting to save again. Prior to 2019.1, this is how the Duplicate Number Warnings preference worked.
- **Warn and Block** - Users receive a message when attempting to save a transaction record with the same number as another record of the same type. When the warning is displayed, the user must click Cancel and change the document number in the record. This option affects the following transaction types:
  - Vendor Bills
Vendor Credits
Card Charges
Card Refunds

**Important:** On a transaction, use caution when you click the Submit button. If you click Submit more than one time, multiple transactions may be created.

### Using Auto-Generated Numbering for Transactions

When enabled, the auto-generated numbering feature prevents assigning duplicate numbers to transactions in NetSuite. This ensures that the number cannot be edited and cannot be duplicated. Auto-generated numbering for transactions is enabled by default and cannot be disabled. For information about this feature, see Set Auto-Generated Numbers.

**To have transaction numbers generated when forms are saved:**

1. An administrator can go to Setup > Company > Auto-Generated Numbers.
2. Click the **Transactions** subtab.
3. To ensure that no duplicate transaction numbers are used, clear the box in the **Allow Override** column for each transaction.
4. Click **Save**.

When you create a transaction, the number field reads **To be generated**. When you return to the transaction, the generated number shows in this field. For example, if you create an invoice, the Invoice # field reads **To be generated**. When you save the invoice, a number is assigned. If you return to the invoice at Transactions > Sales > Create Invoices > List, you can view the number for the invoice.

**Warning:** You cannot auto-generate numbers for journals if you enable the Always Allow Per-line Classifications on Journals preference.

**Warning:** You should never override auto-generated numbers to delete any part of a default prefix or suffix on transaction numbers. Doing this may corrupt data used in transaction searches.

**Important:** If auto-generated numbering is enabled in a OneWorld account, subsidiary-specific prefixes for transaction numbers can be defined in subsidiary records. This ensures that each subsidiary's transactions has its own numbering sequence. See the help topic Using Subsidiary-Specific Transaction Auto-Numbering.

### Avoiding Duplicate Processing of Memorized Transactions

You can avoid duplicate processing of memorized transactions in a bulk update by customizing a Memorized Transaction Search form:

1. Go to Transactions > Management > Enter Memorized Transactions > List ( Administrator ).
2. In the header, click **Search**.
3. On the Memorized Transaction Search page, click **Personalize Search**.
4. On the custom search form, enter a search title.
5. Click the **Results** subtab.
6. Select **Being Processed** for the result column.

![Results](image)

7. Click **Add**.
8. Click **Save**.

When you view the results of this search, the Being Processed column displays Yes or No to indicate if a memorized transaction is being processed as part of a bulk update. If the column displays Yes for a transaction and you select the transaction for processing, it is possible to duplicate processing. Best practice is to avoid processing transactions that display Yes in the Being Processed column.

If you do submit a memorized transaction that is currently in a processing state, NetSuite displays an error message on the Processed Orders page and the memorized transaction is not processed.
Oracle Database Update FAQ

See the following for answers to common questions about the Oracle Database Update.

What is the Oracle Database Update?
We are updating our database architecture to Oracle's newest multitenancy architecture over several maintenances.

Why are we doing this update?
This update will help us prepare the NetSuite Cloud for migration to Oracle Cloud Infrastructure.

When will the update happen?
Accounts are targeted to start being updated in July 2019, and updates will run through November 2020. These maintenance updates will include both sandbox and production accounts on all datacenters.

Will this update require downtime?
Accounts will be offline for an estimated 1-4 hours to perform this maintenance update. You will receive notifications with details about the timing of this maintenance closer to the day of your update.

Will I see any differences after the update?
There will be no noticeable changes to accounts after the maintenance update completes.

Can I reschedule my database update?
At this time, it is not possible to reschedule your database update.

Where do I go if I have questions?
If you have additional questions, please reach out to your Account Manager or contact NetSuite Customer Support.
Data Center Reference Documentation

Review the following sections to understand the areas that might be impacted by failing to follow best practices for accessing NetSuite accounts.

- NetSuite Accounts Are Hosted in the Cloud
- Understanding NetSuite URLs
  - URLs for Account-Specific Domains
  - How to Transition from Data Center-Specific Domains
  - Traffic Health

NetSuite Accounts Are Hosted in the Cloud

NetSuite accounts are hosted in various data centers around the globe. You should be aware of the importance of using best practices for NetSuite account access. Your goal should be to keep your NetSuite account free from data center-specific references. To take full advantage of our cloud architecture, you should not use data center-specific URLs for accessing NetSuite. You should transition away from data center-specific references. Best practices for integrations and customizations include using dynamic discovery methods for obtaining the correct URL, using relative rather than absolute URLs for referencing NetSuite objects, and using your account-specific domains to access specific services.

**Important:** Our cloud architecture is constantly growing and is continuously optimized. We do not provide fixed IP addresses. In a cloud architecture, you must not rely on IP address-based filters, for example, when configuring your company's firewall. See NetSuite IP Addresses for more information about alternatives to relying on IP addresses for restricting access to NetSuite.

For more information on your account-specific domain options, see URLs for Account-Specific Domains.

Your goal should be to ensure that, as much as possible, your account does not rely on data center-specific URLs. All processes, including customizations and integrations, can function properly without knowledge of where the account is hosted. The first step toward the goal is to remove dependencies on hard-coded URLs. See Dynamic Discovery of URLs for SOAP Web Services and RESTlet Clients for information.

In this section, see the following topics for more details:

- Understanding Access to the NetSuite User Interface
- Product Features That Must Use Best Practices for Access
- Testing in Release Preview or Sandbox Accounts

Understanding Access to the NetSuite User Interface

How users log in to the NetSuite user interface (UI) with a browser has not changed. All NetSuite users can enter the URL `https://system.netsuite.com` in a browser to access the standard NetSuite login page. Authenticated users are automatically redirected to the correct NetSuite account. The account-specific domain for UI access is displayed in the browser's address bar.

Follow these best practices for creating links and references to NetSuite objects and records to ensure that they are not data center-specific.

- Use NetSuite shortcuts rather than creating bookmarks in your browser. For more information on creating shortcuts in NetSuite, see the help topic Shortcuts Portlet.
Use relative links to reference objects in NetSuite rather than absolute links.

Product Features That Must Use Best Practices for Access

Certain product features in an account, such as the following features, should not contain references to data center-specific URLs.

- SuiteTalk (web services) integrations
- SuiteScript
- Single Sign-on (SSO) configurations
- Customizations
- SuiteAnalytics Connect settings
- Web Store settings
- Email Campaign settings
- Email Case Capture settings
- External (Online) Forms

You may need to adjust your implementations of these features to use dynamic discovery methods or to use the URL that includes your account-specific domain. Wherever possible, replace hard-coded URLs in your account with dynamically discovered URLs. Some code containing hard-coded URLs cannot be changed to use dynamic discovery methods. In this case, modify data center-specific URLs to use your account-specific domain instead. For more information, see Verify That Features Are Using Best Practices for NetSuite Access.

Testing in Release Preview or Sandbox Accounts

Testing in your Release Preview account, when it is available, can be helpful to identify potential problems. If you have access to one or more sandbox accounts, you can also test in sandbox to identify potential problems. If you encounter difficulties when testing your production account integrations in Release Preview or in a sandbox account, it may indicate that your processes are referencing a specific data center or the wrong account ID. Testing in these accounts is not a foolproof method of finding all potential problems, but it can help to raise awareness in certain areas. For example, URLs may be hard-coded with data center-specific or account type-specific identifiers.

For more information about sandbox and Release Preview accounts, see the following topics:

- NetSuite Sandbox
- The New Release Process
- Release Preview Test Plan


The following table provides information to help you ensure your account, integrations, and customizations are not bound to a specific data center or type of account.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Summary of Concern</th>
<th>Relevant Help Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Stores and Email Campaigns</td>
<td>If you are using these feature in your account, verify whether you are using best practices for:</td>
<td>If you have domains that require DNS record updates, someone with DNS experience should make the changes. For information about</td>
</tr>
<tr>
<td>Feature</td>
<td>Summary of Concern</td>
<td>Relevant Help Topics</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------</td>
<td>----------------------</td>
</tr>
</tbody>
</table>
| SuiteTalk (SOAP web services) integrations | Web service integrations must use an account-specific domain for configuration, or dynamically determine the correct URL for NetSuite access. | See the following topics:  
  - URLs for Account-Specific Domains  
  - Dynamic Discovery of URLs for SOAP Web Services and RESTlet Clients |
| SuiteScript and RESTlets | Verify that your SuiteScript code, including RESTlets, do not contain hard-coded references to data center-specific URLs. | If you have an integration that calls a RESTlet from outside of the NetSuite account where it is deployed, see the following topics:  
  - URLs for Account-Specific Domains  
  - Dynamic Discovery of URLs for SOAP Web Services and RESTlet Clients |
| Integrated clients | Integrated clients that access NetSuite must incorporate logic that determines the correct URL, so that these clients will work as desired. NetSuite provides tools to support dynamic discovery of URLs for integrated clients. | See the following topics:  
  - URLs for Account-Specific Domains  
  - Dynamic Discovery of URLs for SOAP Web Services and RESTlet Clients |
| SuiteSignOn (Outbound Single Sign-on) | SuiteSignOn integration code dynamically populates the dc and env parameters for NetSuite access, to ensure that integrations work for NetSuite accounts no matter where the account is hosted. The dc and env parameters are automatically updated if your account is moved to a different hosting location. However, you must verify that any external applications are using these parameters, and are | See the help topic Mappings of dc and env URL Parameter Values. |

**Note:** If you are using a DNS A record rather than the DNS CNAME(Alias) for your secure website domain, you might need to update the IP address for the shopping domain.

**Important:** No downtime on existing websites or impact to other functions is expected as the result of updating the IP address on the DNS A record.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Summary of Concern</th>
<th>Relevant Help Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>External (Online) Forms</td>
<td>If you have scripts that create NetSuite records by posting data directly to CRM forms without first performing a GET method to retrieve the data (also called screen scraping) you need to make changes.</td>
<td>See URLs for Account-Specific Domains.</td>
</tr>
</tbody>
</table>
| Email Capture Plug-in | If you have implemented one or more Email Capture Plug-ins in your production account, each Email Capture Plug-in has a unique, dedicated email address. This address is usually mapped to an alias in your company's email infrastructure. You may need to update the email capture address in your email infrastructure.  
In some cases, email is sent from outside sources - people or applications - directly to the email capture address. You should inform these outside sources of any changes to the email capture address. | See the help topic Email Capture Plug-in Overview for more information. See also Create an Email Alias and Set Up Forwarding. |
| Email Case Capture | You may need to change the NetSuite Address used for case capture in your email infrastructure. | See the help topic Using Email Case Capture if you wish to review the initial setup instructions for case capture. |
| Shortcuts (in the NetSuite Shortcuts portlet), bookmarks (in your browser), or hard-coded links in customizations such as custom fields or tabs. | Verify that your customizations do not contain hard-coded references to data center-specific URLs. | See Understanding Access to the NetSuite User Interface for best practices. |
| SuiteAnalytics Connect | If the SuiteAnalytics Connect feature is enabled in your NetSuite account, users may need to make updates to the data sources. | See the following topics:  
- Accessing the Connect Service Using an ODBC Driver.  
- Accessing the Connect Service Using a JDBC Driver.  
- Accessing the Connect Service Using an ADO.NET Data Provider. |
| WSDK Links and Scripts | If you are using an External Catalog for your website, verify the domains used in your external WSDK links and scripts. You must use the account-specific domain URLs in your external links and scripts. View these domains in each account at Setup > Site Builder > Preview Web Site.  
Perform a search and replace operation on your website files to change data center-specific occurrences of the shopping.netsuite.com domain to your account-specific domain. | See the help topic Setting Up an External Catalog Site for more information. |
<p>| Warehouse Management System (WMS) SuiteApp | If you are using the Warehouse Management System SuiteApp in your account, you must update the configuration file for the NetSuite Carrier | See the help topic Updating the NetSuite WMS Printer Driver and Integrator Application File |</p>
<table>
<thead>
<tr>
<th>Feature</th>
<th>Summary of Concern</th>
<th>Relevant Help Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Integrator Application and the NSWMS Print Driver. The URL for the SOAP web services endpoint must be changed. Update the NetSuite Carrier Integrator Application and the NSWMS Print Driver CONFIG file. Use your SuiteTalk account-specific domain to update the URL for the NetSuite SOAP web services endpoint in the Application settings section of the CONFIG file. You can find the SuiteTalk (SOAP and Web Services) URL for each account on the Company URLs subtab on the Company Information page.</td>
<td>See also URLs for Account-Specific Domains.</td>
</tr>
</tbody>
</table>

### Understanding NetSuite URLs

**Important:** Data center-specific domains include a data center identifier in the URL. Acceptance of data center-specific domains for integrations is being phased out of NetSuite. Data center-specific domains for integrations will no longer be supported for Release Preview and sandbox accounts as of 2020.1, and will no longer be supported for integrations for production accounts in 2020.2. You must transition your integrations from using hard-coded data center-specific domains in your NetSuite account. Replace hard-coded data center-specific domains with dynamic discovery methods or account-specific domains.

You should always follow the best practice of ensuring that your NetSuite accounts and related integrations are not bound to a specific data center. Do not hard-code URLs or other identifiers that specify a particular data center. Whenever possible, your integrations (such as SOAP web services and RESTlet clients) should use your account-specific domain for configuration or use dynamic discovery methods to obtain the correct URL.

See the following topics for more information:

- URLs for Account-Specific Domains
- Dynamic Discovery of URLs for SOAP Web Services and RESTlet Clients
- How to Transition from Data Center-Specific Domains
- Traffic Health

### Dynamic Discovery of URLs for SOAP Web Services and RESTlet Clients

NetSuite accounts are sometimes moved from one data center to another to achieve optimal cloud resource utilization. In the past, the URLs used to access NetSuite have always been data center-specific, meaning they changed after an account is moved to a different data center. In your NetSuite account, you should avoid using data center-specific URLs. You should use your account-specific URLs. The account-specific URLs for all services are shown on the Company URLs subtab of the Company Information page of your production, Release Preview, and sandbox accounts. In cases where an application accesses more than one NetSuite account, you can use dynamic discovery methods to obtain the correct URLs.

An external client that sends requests to a NetSuite account must use the correct domain name for that account. That is, a SOAP web services request sent to a NetSuite account must be sent to the correct web services domain for that account. A request to a RESTlet must be sent to a URL that includes the correct RESTlet domain for the account where the RESTlet is deployed. The following alternatives are designed for these use cases. These alternatives can be used in production, sandbox, and Release Preview accounts.
You can use the SOAP web services operation `getDataCenterUrls`, which is available in the 2012.2 and later endpoints. You can send a `getDataCenterUrls` request to any NetSuite web services domain. This operation lets you retrieve the correct web services domain name for the specified NetSuite account.

The REST Roles Service is a standalone service available for SOAP web services requests that use the 2012.1 or an earlier endpoint. It is also useful for external applications that call RESTlets. You can send a request to any instance of the roles service and retrieve the correct web services and RESTlet domain names for any NetSuite account to which you have login permission.

You can also use the `DataCenterUrls REST Service` to dynamically discover the correct domains. It provides the same information as the SOAP web services operation.

For a NetSuite account that calls a RESTlet deployed in another NetSuite account, consider a solution that includes deployment of a version 2.0 SuiteScript. You can use the `url.resolveDomain(options)` to retrieve the RESTlet domain for any NetSuite account.

**Warning:** Do not attempt to construct an account-specific domain yourself. Each account (production, Release Preview, and sandbox) has a unique account-specific domain. The correct URLs to use for each service in an account are listed on the Company URLs subtab of the Company Information page.

URLs for Account-Specific Domains

Account-specific domains contain the account ID as part of the domain name. The account ID also identifies the account type, for example, whether the account is a production account, a sandbox account, or a Release Preview account. The account-specific domain is not dependent on the data center where an account is hosted. The domain does not change, even if the account is moved to a different data center.

Administrators and other users with the Set Up Company permission can go to Setup > Company > Company Information and click the Company URLs subtab to view the account-specific domains available for the account where they are currently logged in.

**Important:** Do not attempt to construct an account-specific domain yourself. Each account (production, Release Preview, and sandbox) has a unique account-specific domain. The correct URLs to use for each service in an account are listed on the Company URLs subtab of the Company Information page.

The URLs are listed on the Company URLs subtab for all services available in each account, including the Customer Center Login page, the NetSuite UI, SuiteTalk (SOAP and REST) web services, RESTlets, External Forms, External Catalog Sites (WSDK), and SuiteAnalytics Connect. External URLs for Suitelets are shown on the Script Deployment record.

See the following sections for more information:

- URLs for Production Accounts
- URLs for Sandbox Accounts
- URLs for Release Preview Accounts
- URLs for Suitelets

**URLs for Production Accounts**

The Company URLs subtab would look like the following when logged in to the production account, if the account ID was 123456.
Understanding NetSuite URLs

URLs for Sandbox Accounts

The Company URLs subtab would look like the following when logged in to a sandbox account, if the account ID was 123456_SB1.

**Important:** The underscore in the account ID is transformed into a hyphen in the generated account-specific domain URL and the capital letters of the acronym are transformed into lowercase letters.

URLs for Release Preview Accounts

The Company URLs subtab would look like the following when logged in to a Release Preview account, if the account ID was 123456_RP.

**Important:** The underscore in the account ID is transformed into a hyphen in the generated account-specific domain URL and the capital letters of the acronym are transformed into lowercase letters.
Understanding NetSuite URLs

URLs for Suitelets

The relative URL and the external URLs for Suitelets are shown on the Script Deployment record, when the Available Without Login box is checked.

The data center-specific External URL //forms. domain is being deprecated, to be replaced by the External URL <accountID>.extforms. account-specific domain. If you have any hard-coded references to external URLs for Suitelets using the //forms. domain, you must update these references. For access or redirection from another script to a Suitelet, the best practice is to use url.resolveScript(options) to discover the URL instead of hard-coding the URL.

Important: Do not attempt to construct an account-specific domain yourself. Each account (production, Release Preview, and sandbox) has a unique account-specific domain. The correct external URL to use is listed on the Script Deployment record.

How to Transition from Data Center-Specific Domains

You should evaluate whether you are using data center-specific domains in your NetSuite accounts and in your integrations with third parties. You should use dynamic discovery methods for integrations, replace data center-specific URLs with relative rather than absolute URLs, and modify templates and custom fields so that they use account-specific domains rather than data center-specific domains.

Important: Data center-specific domains include a data center identifier in the URL. Acceptance of data center-specific domains for integrations is being phased out of NetSuite. Data center-specific domains for integrations will no longer be supported for Release Preview and sandbox accounts as of 2020.1, and will no longer be supported for integrations for production accounts in 2020.2. You must transition your integrations from using hard-coded data center-specific domains in your NetSuite account. Replace hard-coded data center-specific domains with account-specific domains or use dynamic discovery methods.

See the following tables for guidelines for how to transition away from using data center-specific domains.

- User Interface (UI) Domains
- Integration Domains
- Commerce Domains
- Email Domains

User Interface (UI) Domains

The account-specific .app. domain hosts the NetSuite UI, the NetSuite Help Center, SuiteCommerce InStore (SCIS) and parts of the Commerce Site Management Tools (SMT).
Understanding NetSuite URLs

Important: Most users access the NetSuite UI with the URL https://system.netsuite.com. The browser automatically redirects users to the account-specific domain for the UI. Users with a customer center role and who are granted access to NetSuite must use your customer login (also called your private login) page.

The account-specific .extforms. domain hosts not only external (also called online) forms, but also externally available Suitelets. Externally available Suitelets are scripts that are able to run without the context of a session. Externally available Suitelets are set to Available Without Login on the script deployment page. For more information, see the help topic SuiteScript and Externally Available Suitelets.

For External (Online) Forms and External Suitelets, see Traffic Health for assistance with locating data center–specific domains in your NetSuite account.

Note: In the account-specific domain column in the following table, `<accountID>` is a variable representing your account ID. If you do not know the account ID, Administrators or other users with the Set Up Company permission can go to Setup > Company > Setup Tasks > Company Information. Click the Company URLs subtab to view the account-specific domains for this account. Production, sandbox, Release Preview, and all other NetSuite accounts each have unique account IDs.

<table>
<thead>
<tr>
<th>Service</th>
<th>Data Center-Specific Domains</th>
<th>Account-Specific Domain</th>
<th>How to Obtain the Correct Domain</th>
<th>Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>NetSuite UI</td>
<td>system.netsuite.com</td>
<td>The browser automatically redirects users to the account-specific .app. domain: &lt;accountID&gt;.app.netsuite.com</td>
<td>See the help topic Including URLs in Email Templates for more information.</td>
<td>Browsers, Email clients</td>
</tr>
<tr>
<td></td>
<td>system.na0.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>system.na1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>system.na2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>system.na3.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>system.eu1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>system.eu2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External (Online) Forms</td>
<td>forms.netsuite.com</td>
<td>&lt;accountID&gt;.extforms.netsuite.com</td>
<td>See the help topic Including URLs in Email Templates for more information.</td>
<td>Browsers, Custom scripts, Integrations</td>
</tr>
<tr>
<td></td>
<td>forms.na0.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>forms.na1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>forms.na2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>forms.na3.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>forms.eu1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>forms.eu2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Suitelets</td>
<td>forms.netsuite.com</td>
<td>&lt;accountID&gt;.extforms.netsuite.com</td>
<td>See the help topic url.resolveScript(options)</td>
<td>Custom scripts</td>
</tr>
<tr>
<td></td>
<td>forms.na0.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>forms.na1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>forms.na2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>forms.na3.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>forms.eu1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>forms.eu2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Understanding NetSuite URLs

Service Data Center-Specific Domains Account-Specific Domain How to Obtain the Correct Domain Clients
--- --- --- --- ---
forms.na0.netsuite.com For more information, see: URLs for Suitelets Suitelet Script Deployment Page Links Subtab Integrations
forms.na1.netsuite.com
forms.na2.netsuite.com
forms.na3.netsuite.com
forms.eu1.netsuite.com
forms.eu2.netsuite.com

Integration Domains

- The account-specific .restlets.api. domain is used for RESTlet calls.
- The account-specific .suitetalk.api. domain is used for SOAP web services and REST web services calls.
- The account-specific .connect.api. domain hosts SuiteAnalytics Connect traffic.

To transition from data center-specific domains for integrations:

Evaluate whether you are using data center-specific domains in your integrations with third parties. You have two options to transition:

1. Rather than hard-coding data center-specific URLs, use the URL that includes your account-specific domain. See URLs for Account-Specific Domains for more information.
2. Implement dynamic discovery methods to obtain the correct URL for the service you are using. See Dynamic Discovery of URLs for SOAP Web Services and RESTlet Clients for more information.

For RESTlets and SOAP web services, see Traffic Health for assistance with locating data center-specific domains in your NetSuite account.

Note: In the account-specific domain column in the following table, `<accountID>` is a variable representing your account ID. If you do not know the account ID, Administrators or other users with the Set Up Company permission can go to Setup > Company > Setup Tasks > Company Information. Click the Company URLs subtab to view the account-specific domains for this account. Production, sandbox, Release Preview, and all other NetSuite accounts each have unique account IDs.
Understanding NetSuite URLs

<table>
<thead>
<tr>
<th>Service</th>
<th>Data Center-Specific Domains</th>
<th>Account-Specific Domain</th>
<th>Obtain Domain Dynamically</th>
<th>Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>rest.eu1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>rest.eu2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SuiteTalk (SOAP and REST web services)</td>
<td>webservices.netsuite.com</td>
<td>&lt;accountID&gt;.suitetalk.api.netsuite.com</td>
<td>See Dynamic Discovery of URLs for SOAP Web Services and RESTlet Clients for more information.</td>
<td>HTTP integration clients (for example, Axis)</td>
</tr>
<tr>
<td></td>
<td>webservices.na0.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>webservices.na1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>webservices.na2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>webservices.na3.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>webservices.eu1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>webservices.eu2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| SuiteAnalytics Connect | odbcserver.netsuite.com | <accountID>.connect.api.netsuite.com | To obtain the domain, see the help topic Reviewing Configuration Information. For more information, see the following topics:  
- Accessing the Connect Service Using an ODBC Driver.  
- Accessing the Connect Service Using a JDBC Driver.  
- Accessing the Connect Service Using an ADO.NET Data Provider. | ODBC clients  
JDBC clients  
ADO.net clients |
|         | odbcserver.na0.netsuite.com |                         |                           |         |
|         | odbcserver.na1.netsuite.com |                         |                           |         |
|         | odbcserver.na2.netsuite.com |                         |                           |         |
|         | odbcserver.na3.netsuite.com |                         |                           |         |
|         | odbcserver.eu1.netsuite.com |                         |                           |         |
|         | odbcserver.eu2.netsuite.com |                         |                           |         |

Commerce Domains

The account-specific .shop domain hosts WSDK endpoints for integration with third-party webstores with NetSuite shopping cart and checkout features.

**Note:** In the account-specific domain column in the following table, <accountID> is a variable representing your account ID. If you do not know the account ID, Administrators or other users with the Set Up Company permission can go to Setup > Company > Setup Tasks > Company Information. Click the Company URLs subtab to view the account-specific domains for this account. Production, sandbox, Release Preview, and all other NetSuite accounts each have unique account IDs.
Understanding NetSuite URLs

Service Data Center-Specific Domains Account-Specific Domain Clients
shopping-na1.netsuite.com
shopping-na2.netsuite.com
shopping-na3.netsuite.com
shopping-ee1.netsuite.com
shopping-ee2.netsuite.com
See URLs for Account-Specific Domains for more information.

Email Domains

The account-specific .email. domain is the main entry point for inbound email sent to NetSuite. Use cases include Email Case Capture and Email Capture Plugin.

Note: In the account-specific domain column in the following table, <accountID> is a variable representing your account ID. If you do not know the account ID, Administrators or other users with the Set Up Company permission can go to Setup > Company > Setup Tasks > Company Information. Click the Company URLs subtab to view the account-specific domains for this account. Production, sandbox, Release Preview, and all other NetSuite accounts each have unique account IDs.

<table>
<thead>
<tr>
<th>Service</th>
<th>Data Center-Specific Domains</th>
<th>Account-Specific Domain</th>
<th>How to Find the URL</th>
<th>Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email Case Capture</td>
<td>cases.netsuite.com</td>
<td>&lt;accountID&gt;.email.netsuite.com</td>
<td>See the help topic</td>
<td>Email clients (examples include Microsoft Outlook and Mozilla Thunderbird)</td>
</tr>
<tr>
<td></td>
<td>cases-na0.netsuite.com</td>
<td></td>
<td>Using Email Case Capture.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cases-na1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cases-na2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cases-na3.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cases-ee1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cases-ee2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email Capture Plugin</td>
<td>email.netsuite.com</td>
<td>&lt;accountID&gt;.email.netsuite.com</td>
<td>See the help topic</td>
<td>Email clients (examples include Microsoft Outlook and Mozilla Thunderbird)</td>
</tr>
<tr>
<td></td>
<td>email-na0.netsuite.com</td>
<td></td>
<td>Using Email Alias and Set Up Forwarding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>email-na1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>email-na2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>email-na3.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>email-ee1.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>email-ee2.netsuite.com</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Traffic Health

The Traffic Health page can help you evaluate live traffic data for your account. Traffic Health can help you identify invalid traffic, that is, traffic using a data center-specific domain.

See the following sections for more information:

- Generate a Traffic Health Report
- External Forms Tab
Understanding NetSuite URLs

- External Suitelets Tab
- RESTlets Tab
- SOAP Web Services Tab
- Columns on the Reports

Generate a Traffic Health Report

Administrators and other users with the Set Up Company permission can go to Setup > Company > Company Management > Traffic Health to access the page. The first time the page is accessed in an account, click Generate Report to populate the list.

- By default, the initial report displays the last seven days of invalid traffic for your account.
- When generating subsequent reports, you can select the last 7 days, the last 24 hours, or the last hour.
- Text on the page informs you of how long it will be before you can generate another report, and when current report was generated.

Traffic Health helps you ensure your NetSuite accounts are ready for upcoming changes in the Oracle NetSuite cloud infrastructure, for example, changes to URLs that will occur if you are using data center-specific domains. The Oracle NetSuite cloud infrastructure is constantly growing to meet the needs of our expanding customer base.

Each area of NetSuite traffic is evaluated using a specific set of parameters. Traffic Health reports display separate tabs for External Forms, External Suitelets, RESTlets, and SOAP web services. The combination of parameters with the highest number of hits appearing in the Count column may point out the severity of an issue. The rows listed on each tab should help you locate the source of the problem. Problems can often be resolved by using an account-specific domain, or a method for dynamically discovering the correct domain to use.

You can view the traffic health of your account for the last hour, the last 24 hours, or the last 7 days. The timestamps and fixed periods are based on the Pacific time zone.

External Forms Tab

All traffic to and from your account that is using a data center-specific domain is reported on this tab, except for Suitelets (/app/common/scripting/script.nl).

The data in the columns on this tab (Host, Referrer, URL Path, and Query String) should indicate where to find the script. You should update the script to use your account-specific domain or use a dynamic service discovery method to obtain the URL.

![Traffic Health Report Example](image_url)
Understanding NetSuite URLs

External Suitelets Tab

All External Suitelets traffic (/app/common/scripting/script.nl) to and from your account that is using a data center-specific domain is reported on this tab.

The data in the columns on this tab (Host, Source IP, User Agent, and Query String) should indicate where to find the Suitelet. You should update the Suitelet to use your account-specific domain or use a dynamic service discovery method to obtain the URL.

RESTlets Tab

All RESTlets traffic to and from your account that is using a data center-specific domain is reported on this tab.

The data in the columns on this tab (Host, Source IP, User Agent, Query String, and Identity) should indicate where to find the RESTlet. You should update the RESTlet to use your account-specific domain or use a dynamic service discovery method to obtain the URL.

SOAP Web Services Tab

All SOAP web services traffic to and from your account that is using a data-center specific domain is reported on this tab.

The data in the columns on this tab (Host, Source IP, User Agent, URL Path, Authentication Method, and Identity) should indicate where to find the SOAP web service. You should update the SOAP web service to use your account-specific domain or use a dynamic service discovery method to obtain the URL.
### Columns on the Reports

The following table identifies and defines the columns available on each tab in a Traffic Health report.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
<th>Column Appears on Tabs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentication Method</td>
<td>The authentication method used by SOAP web services. Values displayed include:</td>
<td>SOAP web services</td>
</tr>
<tr>
<td></td>
<td>- Token-based Authentication (TBA)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- User Credentials (login operation and subsequent calls)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- User Credentials (Request Level Credentials)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- NetSuite Inbound SSO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- SuiteSignOn (Outbound SSO)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- No explicit authentication information provided.</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>The number of times the traffic with the same parameters used a data center specific domain was identified during the reporting period.</td>
<td>External Forms, External Suitelets, RESTlets, SOAP web services</td>
</tr>
<tr>
<td>Host</td>
<td>Domain name (Host header) associated with an incoming HTTP request.</td>
<td>External Forms, External Suitelets, RESTlets, SOAP web services</td>
</tr>
<tr>
<td>Identity</td>
<td>The email address associated with the traffic.</td>
<td>RESTlets, SOAP web services</td>
</tr>
<tr>
<td>Query String</td>
<td>Includes the Script ID or Deployment ID to help you find where you must update the URL.</td>
<td>External Forms, External Suitelets, RESTlets</td>
</tr>
<tr>
<td>Referrer</td>
<td>The Referrer column indicates the source of the traffic. If the Referrer column is blank, this can indicate:</td>
<td>External Forms</td>
</tr>
<tr>
<td></td>
<td>- a bookmark</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- an email client downloading content displayed in an email message</td>
<td></td>
</tr>
<tr>
<td>Column Name</td>
<td>Description</td>
<td>Column Appears on Tabs</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Source IP</td>
<td>Originating IP address of the request.</td>
<td>External Suitelets, RESTlets, SOAP Web Services</td>
</tr>
<tr>
<td>URL Path</td>
<td>Same as the path that shown in the Host column, but the URL Path does not include the domain.</td>
<td>External Forms, SOAP Web Services</td>
</tr>
<tr>
<td>User Agent</td>
<td>Software that acts on behalf of the user. Browsers are one type of user agent. The information in this column can identify the application type, operating system, software vendor or software version of the requesting software user agent.</td>
<td>External Suitelets, RESTlets, SOAP Web Services</td>
</tr>
</tbody>
</table>
Account Mobility Tasks

Users with an Administrator role or a System Administrator role can access the Account Mobility Tasks page at Setup > Company > Company Management > Account Mobility Tasks. The following topics describe the main Account Mobility Tasks page, and the individual task pages specific to features that will be affected when an account is moved to a different data center.

- **About the Account Mobility Tasks Page**
  - **Pre Move Tasks**
    See the following sections for specific information about tasks that must be completed before your account is moved to a different data center:
    - Verify Domain Names
    - Verify Potential Script Problems
    - Verify Active Web Services Integrations
    - Verify SuiteSignOn (Outbound Single Sign-on)
    - Modify Scripts that Post Directly to CRM Forms
    - Verify Domains in WSDK Links and Scripts
    - Locate and Remove Any Hard-coded References to NetSuite Sites
  - **Post Move Tasks**
    See the following sections for specific information about tasks that must be completed after your account is moved to a different data center:
    - Update SAML Single Sign-on
    - Update Inbound Single Sign-on

For information about other things to take into consideration when preparing your account for a move to a different data center, see the following topics:

- **NetSuite Accounts Are Hosted in the Cloud**
- **Verify That Features Are Using Best Practices for NetSuite Access**

### About the Account Mobility Tasks Page

The Account Mobility Tasks page shows all the tasks you need to review and complete when your account is scheduled for a data center move. You can use this page to track your progress in completing the required tasks. You can also use this page to ensure you are following the recommended best practices and to ensure your account is not tied to a specific data center.

Items in the Pre- and Post Move task lists can vary depending on the features that are enabled and active in your account. The main Account Mobility Tasks page displays only features and the tasks as appropriate for your account. When your account is scheduled to move to a different data center, a banner is displayed across the top of the page indicating your move date. Click on a link in the task column to go to an information page for that task.

**Note:** If the table is blank, then there are no outstanding tasks to perform.

There are three status icons for tasks: Not Started, In Progress, and Completed. All tasks initially display the Not Started status and the status fields will not become active until your move date has been
assigned. Before a move date is assigned, you can use the pages to identify and begin work on updating any issues identified. However, the status will not change to In Progress and you will not be able to mark a task as completed until after your move date has been assigned.

Pre Move Tasks

You must complete the Pre-Move Tasks well before the date your account is scheduled for a move to a different data center. For more information on each pre-move task, see the following topics:

- Verify Domain Names
- Verify Potential Script Problems
- Verify Active Web Services Integrations
- Verify SuiteSignOn (Outbound Single Sign-on)
- Modify Scripts that Post Directly to CRM Forms
- Verify Domains in WSDK Links and Scripts
- Locate and Remove Any Hard-coded References to NetSuite Sites

Verify Domain Names

If you see this task on your Pre Move Task List, Site Builder or Suite Commerce Advanced features are enabled in your account. Click the link in the Task column to open the page detailing what must be done to complete this task.

The table lists all the domains registered with NetSuite in your account. You must perform any updates for this task outside of NetSuite, with your domain name provider, not in the NetSuite UI. Visit your domain provider's website, or contact your domain provider for details.

Note: If you have a campaign email domain, that domain will also be listed in this table. You must update your DNS records to point your email domain name to the hosting servers at NetSuite using CNAME(Alias) records.

To verify and update domain names:

1. Note the status for each row in the Domain Name column. Go to the first row where the status is Not Started or In Progress (that is, the row does not display the green Completed icon).
2. Update the DNS CNAME(Alias) record with your domain provider so that it reflects the Expected Record Value.
3. The Current Record Value will automatically be updated when the new information in the DNS record is propagated to all DNS servers. The time can vary from 15 minutes to two hours. If the Current Record Value does not update after two hours has elapsed, there might be a problem with the CNAME(Alias) record. Verify with your domain provider that the changes made to the record are correct.
4. The status of this task will automatically be updated to Completed when the Current Record Value matches the Expected Record Value.
Note: On the main Account Mobility Tasks page, the **Completed By** column will display the name **System**.

**Important:** If using an A record in DNS, you must update the shopping IP address as a post move task. For steps, see the help topic **Website Domains and Email Hosting**.

**Note:** If you need help completing this task, contact NetSuite Customer Support.

### Verify Potential Script Problems

If you see this task on your Pre Move Task List, there are active scripts in your NetSuite account that appear to have hard-coded URLs. Click the link in the Task column to open the page detailing what must be done to complete this task.

The table lists all the scripts in your account that have been identified as potentially containing an instance of a hard-coded URL. Each row contains details to help you identify the script in question.

**To verify potential script problems:**

1. For each script listed, verify that it is using dynamic discovery methods to determine the correct data center. Scripts should not contain hard-coded URLs to a specific data center. For information about dynamically discovering data center URLs, see the help topic **DataCenterUrls REST Service**.

   **Note:** Only the first instance of a potential problem is shown. There may be multiple instances of a problem in the script identified. You must review the entire script and resolve all problems in the script.

2. If you find hard-coded URLs, replace them with logic that dynamically determines the URLs. For best results, use SuiteScript 2.0's **N/url Module**, which includes methods such as `url.resolveDomain(options)`, `url.resolveRecord(options)`, and `url.resolveScript(options)`. These methods let you dynamically generate links.

3. When you have reviewed all your scripts, click **Task Completed**.

4. Click **OK** on the confirmation message, or click **Cancel** if you are not finished with this task.

   **Note:** If you need help completing this task, contact NetSuite Customer Support.

### Verify Active Web Services Integrations

If you see this task on your Pre Move Task List, the Web Services feature is enabled in your NetSuite account. Click the link in the Task column to open the page detailing what must be done to complete this task.

**Note:** In 2017.2, account-specific domains are available for SOAP web services. For more information, see **URLs for Account-Specific Domains**.

The table lists all the active web services integrations in your account. The table includes the SOAP web services version (the endpoint), the IP address, and the count (the number of times the SOAP web services integration has been used in the last 30 days).
To verify active SOAP web services integrations:

1. For each integration listed, verify it is using a dynamic discovery method, such as getDataCenterUrls. Ensure that the integration incudes logic for determining the correct web services URL for the data center associated with your NetSuite account. This login should be used for every request except the initial getDataCenterUrls call.

   **Important:** All SOAP web services integrations must include logic to dynamically discover the correct URL. If the getDataCenterUrls operation is not included in the endpoint you are using, use the roles REST service or the DataCenterUrls REST service to obtain the correct URL.

   - The SOAP-based API, getDataCenterUrls, is available in 2012.2 and later SOAP web services endpoints.
   - The REST Roles Service is available for use with RESTlets and for SOAP web services users who have not upgraded to the 2012.2 or later endpoint.
   - DataCenterUrls REST Service is available in version 2017.2.

2. When you have reviewed all your SOAP web services integrations, and made updates as required, click Task Completed.

3. Click OK on the confirmation message, or click Cancel if you are not finished with this task.

**Note:** If you need help completing this task, contact NetSuite Customer Support.

Verify SuiteSignOn (Outbound Single Sign-on)

If you see this task on your Pre Move Task List, the SuiteSignOn (outbound single sign-on) feature is enabled in your NetSuite account. Click the link in the Task column to open the page detailing what must be done to complete this task.

SuiteSignOn integration code dynamically populates the dc and env parameters for NetSuite access, to ensure that integrations work for NetSuite accounts on all data centers. After the move, the dc and env parameters are automatically updated to reflect your new data center location, you do not need to do anything in NetSuite to make that happen. However, you must verify that external applications are using these parameters, and are able to handle the change that occurs due to the move. Ensure that the external applications have not hard-coded information that is exchanged in the handshake.

For more information about these parameters, see the help topic Mappings of dc and env URL Parameter Values. See also the SuiteSignOn Sequence Diagram and Connection Details to understand the interactions between NetSuite and external applications.

**To verify SuiteSignOn code:**

1. For each of your SuiteSignOn (outbound single sign-on) integrations, verify that the external applications to which these integrations connect are able to parse the dc and env parameters that are passed to them.
Important: If you do not own the external application, contact the owner of the external application to ensure they can handle the change that will occur after your move.

2. When you have reviewed all your SuiteSignOn integrations, and contacted the owners of the external applications as necessary, click Task Completed.

3. Click OK on the confirmation message, or click Cancel if you are not finished with this task.

Note: If you need help completing this task, contact NetSuite Customer Support.

See the help topic Outbound Single Sign-on (SuiteSignOn) for more information about this feature.

Modify Scripts that Post Directly to CRM Forms

If you see this task on your Pre Move Task List, it indicates that you have scripts that create NetSuite records by posting data directly to CRM forms without first performing a GET method to retrieve the data. There are scripts in your account that are posting directly to CRM forms using an API or another method that does not perform a GET, only a POST. Creating records using only the POST method is known as screen scraping. Screen scraping will no longer work after your account is moved to a different data center, as the data to be posted will be lost.

To prevent this data loss, before the move, you must modify your scripts to use the `nlapiCreateRecord` function to create cases, create leads, create custom records, or request applications.

To locate and modify scripts that are posting directly to CRM forms:

1. Review each row in the table. Each row displays the following information:
   a. an IP address
   b. the count (the number of times the external form has been posted to in your account in the last 30 days)
   c. the external form to which data is being directly posted

   Use this information to locate each script that must be modified.

2. Modify each script to use the appropriate SuiteScript method to create the records. In SuiteScript 2.0, use `record.create(options)`. In SuiteScript 1.0, use `nlapiCreateRecord(type, initializeValues)`.

Note: If you need help completing this task, contact NetSuite Customer Support.

Verify Domains in WSDK Links and Scripts

If you see this task on your Pre Move Task List, the WSDK feature is enabled in your account. You should verify the domains used in your external WSDK links and scripts. In some cases, you must change the domains used in your external links and scripts. Click the link in the Task column to open the page detailing what must be done to complete this task.

Note: Customers who use a custom shopping domain or a custom checkout domain in their WSDK links and scripts do not need to make any changes for this task.

Customers currently using the standard shopping.netsuite.com domain or its variations (shopping.na1.netsuite.com, shopping.na2.netsuite.com, shopping.eu2.netsuite.com, and shopping.eu1.netsuite.com), should take action before their account is moved to a different data center. These customers are strongly advised to replace data center-specific domains (for example, shopping.netsuite.com) in WSDK links and scripts with a domain that is not bound to a specific data center.
You have two options. You must select and implement one of these options to avoid possible performance degradation after your account is moved.

- **Account-specific domain option:** 2017.1 introduced account-specific domains in the form `<accountID>.shop.netsuite.com`. View these domains for your account at Setup > Site Builder > Preview Web Site. Modify the references in your external links and scripts to use your account-specific domains before the move.

- **Custom domain option:** As an alternative to using the account-specific domains, you can use a custom domain or a custom checkout domain. You can use a custom domain that you create and register with a third party, and then point back to NetSuite. To use a custom domain, ensure that you have configured a primary website’s domain correctly in NetSuite. This domain is different from the domain you use for your External Catalog website. For more information about configuring domains, read the help topic Point your Domain Name at your Domain (DNS Settings).

You can perform a search and replace operation on your website files to change occurrences of the shopping.netsuite.com domain to the new NetSuite account-specific domain or a custom domain.

⚠️ **Important:** Be consistent in how you use domain names throughout all your WSDK links and scripts.

For example, do not add items to the cart with the `<accountID>.shop.netsuite.com` domain and then get the cart total through the site's primary domain or the shopping.netsuite.com domain.

### To modify domain names in links and scripts:

The domain names to change are in the links and scripts used in your WSDK sites hosted outside for NetSuite. No matter which option you choose, the procedure to modify the domain names in your external links and scripts is the same.

1. Find your files hosted outside of NetSuite which contain WSDK links and scripts.
2. Open the files in file editor.
3. Search and replace all occurrences of the shopping.netsuite.com domain with either the account-specific or the custom domain in all of the website files that you use for links and scripts.
4. If you choose to use the account-specific domain, you can view it by following these steps:
   a. Go to Setup > Site Builder > Preview Web Site.
   b. Click **Links from your site back into NetSuite** or HTML and URLs for querying items.

⚠️ **Note:** If you need help completing this task, contact NetSuite Customer Support.

For information on custom domains and best practices, see the help topic External Catalog Site (WSDK) Overview.

### Locate and Remove Any Hard-coded References to NetSuite Sites

⚠️ **Important:** This task cannot be listed on the Account Mobility Tasks page, as it concerns your company's IT infrastructure, such as your company's internal network or DNS server. NetSuite has no visibility into your company's IT infrastructure, therefore, we cannot tell whether your company has hard-coded IP addresses or URLs configured in your systems.

As a best practice, NetSuite always recommends against hard-coding IP addresses and URLs. See NetSuite IP Addresses. If your company has any hard-coded NetSuite-related IP addresses or URLs in
your internal systems, you must remove them before the move. NetSuite recommends using account-
specific domains. For details, see URLs for Account-Specific Domains.

Verify with your IT department that there are no hard-coded IP addresses or URLs for NetSuite-
related sites (for example, for your NetSuite-hosted website or web store) in your company's network
infrastructure.

If you determine that NetSuite-related IP addresses or URLs have been hard-coded in your company's
infrastructure, remove them before the move, or users within your company's network will experience
degraded performance until they are removed.

Post Move Tasks

See the following sections for more information on the tasks you must perform soon after your account
has been moved to a new data center.

- Update SAML Single Sign-on
- Update Inbound Single Sign-on

Update SAML Single Sign-on

If you see this task on your Post Move Task List, the SAML Single Sign-on feature is enabled in your
NetSuite account. The SAML Service Provider (SP) metadata differs for each data center. It is very
important that you upload the SP metadata file from your new data center to your IDP.

**Warning:** If you do not make the required changes, after the move, the login operation might
fail, and the single log out function will fail.

**To make updates for SAML Single Sign-on:**

1. The person responsible for managing your SAML setup must update the NetSuite SP metadata to
   reflect the new data center. The link to the NetSuite Service Provider Metadata file is on the SAML
   Setup page. See the help topic Complete the SAML Setup Page for more information.

   **Note:** Refer to your IDP documentation for specific information on how to make the
   update.

2. After updating the NetSuite SP metadata as appropriate for your new data center, click Task
   Complete.

3. Click OK on the confirmation message, or click Cancel if you are not finished with this task.

   **Note:** If you need help completing this task, contact NetSuite Customer Support.

Update Inbound Single Sign-on

If you see this task on your Post Move Task List, the Inbound Single Sign-on feature is enabled in your
NetSuite account. Depending on your implementation of Inbound Single Sign-on, there are several data
center specific parameters that can be affected by the move, and might need to be updated in your
account.
The landingurl Parameter

If you are using the landingurl parameter in your implementation of Inbound Single Sign-on, and if the URL contains netsuite.com, you must update the URL to include the appropriate data center identifier after the move.

For example, if your account was previously hosted in the NA West data center, the landingURL parameter could have contained checkout.netsuite.com or system.netsuite.com. If your account was moved to the NA Northwest data center, you would update these to checkout.na2.netsuite.com or system.na2.netsuite.com.

After your account is moved, update your landingurl parameter absolute URLs to ensure they are pointing to the correct data center. For more information on the correct data center identifiers to use, see Understanding NetSuite URLs.

Web Store Access Parameters

NetSuite has always required that Inbound Single Sign-on requests for web store access to a NetSuite-hosted checkout domain include the c parameter (the NetSuite company ID) and the site ID to be routed correctly.

NetSuite also recommends including the domain (d) parameter in Inbound Single Sign-on requests for web store access to NetSuite-hosted checkout domains.

After your account is moved to a different data center, these Inbound Single Sign-on requests will automatically be redirected to the correct data center. However, if you notice degraded performance after the move, add (as recommended) or update the d parameter in your Inbound Single Sign-on requests for web store access to reflect the domain of your new data center.

To update Inbound Single Sign-on requests:

1. If you are using the landingurl parameter in your implementation of Inbound Single Sign-on, and if the URL contains netsuite.com, update the URL to include the appropriate data center identifier after the move.

2. Investigate Inbound Single Sign-on requests for web store access that contain netsuite.com:

   - These steps do not apply to web stores with custom checkout domains.

   a. If you were already using the d parameter before the move, update it as appropriate to reflect the domain of your new data center.

   b. If you are not using the d parameter and notice degraded performance after the move (for example, the requests time-out), add the appropriate d parameter for your new data center.

3. After you have verified that the recommended and required parameters are included in your Inbound Single Sign-on requests for web store access, click Task Complete.

4. Click OK on the confirmation message, or click Cancel if you are not finished with this task.

   - If you need help completing this task, contact NetSuite Customer Support.

See the Web Store Access Only Parameters table for the more information about the checkout URLs.

For more information on all available Inbound Single Sign-on parameters, see Tables of Single Sign-on Redirect URL Parameters.
NetSuite Account Types Overview

The Understanding NetSuite Account Types section provides summary-level descriptions of the different types of NetSuite accounts.

More in-depth descriptions are available for specialized accounts used by account administrators and developers to build and test customizations. See the following:

- NetSuite Sandbox
- NetSuite Development Accounts

Understanding NetSuite Account Types

In addition to the live production account, NetSuite provides customers with various types of accounts to use to run their business. An account is simply a place to work.

Types of NetSuite accounts include:

- The Production Account
- The Release Preview Account
- The Sandbox Account
- The Development Account

The Production Account

The production (or live) account is where you do the daily work necessary to run your business. Most users will spend most of their time working in the production account.

Users access their production account by opening a browser window and going to system.netsuite.com, and entering their email address and password. They will automatically be connected to their NetSuite production account in the correct data center. For more information about this, see NetSuite Accounts Are Hosted in the Cloud and Understanding NetSuite URLs.

The Release Preview Account

All customers with a NetSuite production account can get access to a Release Preview account when it is available. Release Preview is available twice a year, right before each NetSuite release. This account lets you test your daily business processes with the new features available in the upcoming release.

As of 2018.1, all customers access the UI for their Release Preview account from system.netsuite.com. Initially, only users with an Administrator role have access to the Release Preview account.

A user with an Administrator role must log in to NetSuite at system.netsuite.com, and change roles to the Release Preview Administrator role. An Administrator can grant access to Release Preview to other users as needed for testing.

Users can also access their Release Preview account from the New Release portlet.

See the help topics The New Release Process and the Release Preview Test Plan for more information.
The Sandbox Account

A NetSuite sandbox is a safe and isolated account where you can develop new processes and applications. You can use a sandbox to test and train your employees in existing integrations and processes without affecting your production data. The data in the sandbox is a copy of your production data. The sandbox can be refreshed from production, bringing in new data and customizations. Each refresh overwrites the previous sandbox. You can purchase one sandbox or several sandboxes to allow for development and testing teams to have their own accounts in which to experiment.

Users of sandbox accounts access the sandbox UI from the same URL they use to access their production account. Production and sandbox roles are clearly labeled in the Account Type column on the Choose Role page. Account administrators and system administrators can modify the sandbox account name by adding a suffix to help distinguish it from other accounts.

See NetSuite Sandbox for more information.

The Development Account

The NetSuite development account is a place that is isolated from your production account in which teams can develop solutions. The development account provides an improved experience for developing NetSuite customizations. NetSuite development accounts never contain production data. This separation of development accounts prevents in-progress customizations from being overwritten by refreshes, as can happen in sandbox accounts, and enables controlled access to sensitive, restricted, and financial data. These lightweight accounts support rapid deployment and testing processes.

⚠️ Warning: The development account is isolated from the production account, but not in the same way as a sandbox account. For example, invoices will be created and email will be sent from this account, so ensure that you use only test data in this account. NetSuite recommends that you do not add real customer information, such as contact information, to a development account.

Users access a development account at system.netsuite.com. Their role in the development account can be selected from the Choose Roles page.

The best time to begin using development accounts is at the start of a new project. It can be difficult to migrate to a development account if you are already in the middle of a development project in your sandbox. We recommend that you finish your existing projects in your sandbox before starting new projects in your development account.

⚠️ Note: You need multiple development accounts if you have multiple large projects which need distinct accounts for User Acceptance Testing (UAT).

For more information about development accounts, see NetSuite Development Accounts and SuiteApp Development Process with SuiteBundler.
NetSuite Sandbox

A NetSuite sandbox is a safe and isolated test account in which you can develop and test new applications and customizations without worrying about affecting your production account. You can have one or more sandboxes provisioned for each production account. Each sandbox account has the same configuration, data, and customizations as your company’s production account.

Sandbox accounts provide ideal places for:

- Testing customization elements before deployment.
- Fixing issues with existing customizations.
- Trying out third-party integration features.
- Training employees in existing and new business practices in an account identical to your production account.

Actions you take in sandbox accounts, such as transaction entries, record deletions, and form customizations, have no effect on your NetSuite production account. You can feel free to make changes in a sandbox account without altering your production data.

To help users distinguish between production roles and sandbox roles, see Logging in to Your Sandbox Account.

**Note:** For more information on acquiring one or more sandbox accounts, contact your account representative.

Review the following for more details about sandboxes:

- Some features are not fully available for testing in a sandbox account. For details, see Features Available for Testing in a Sandbox.
- For information on how to log in to your sandbox, see Logging in to Your Sandbox Account.
- For information about providing user access to a sandbox, see Granting Access to Your Sandbox Account.
- For information about using more than one sandbox, see Working with Multiple Sandbox Accounts.
- Account administrators and users with the System Administrator role can review details about the sandbox account(s) associated with a production account, and initiate the first copy of production data into newly provisioned sandbox accounts. See Using the Sandbox Accounts Page.
- Sandbox accounts can be periodically refreshed from production, upon your request. See Refreshing Sandbox Accounts. This task is managed through the Sandbox Accounts page in your production account.
- For details about what happens when a sandbox account expires, see When a Sandbox Account Expires.
- For instructions on setting preferences for email messages coming from your sandbox account, see Setting Preferences for Sandbox Email.

About Sandbox Accounts

Sandbox users access the sandbox account from the same URL that they use to access their production account (https://system.netsuite.com). They can use the Choose Role page, or the Change Roles list, to switch from a production role to a sandbox role.
On the Choose Role page, users will see their roles labeled in the Account Type column.

![Choose Role](image)

In the Change Roles list, all sandbox roles are identified by an icon.

See [Logging in to Your Sandbox Account](#) for more information.

Administrators have the ability to add a suffix to the sandbox Account Name for identification purposes. For details, see [Account Name Suffix: Labeling Your Sandbox Account](#).

There are a few features where testing in sandboxes is limited. Review the Notes column in [Testing Features in a Sandbox](#) table for details.

### Account ID Numbering Conventions for Sandbox Accounts

Sandbox account IDs are always the same as the account ID for your production account, appended with _SB1, _SB2, _SB3, and so on, like this:

- Production account ID: 345678
- Sandbox account ID: 345678_SB1
- Sandbox account ID: 345678_SB2
- Sandbox account ID: 345678_SB3

### Account Name Suffix: Labeling Your Sandbox Account

Administrators have the option to add a suffix to the sandbox account name before every refresh or copy data to sandbox and before every activation. This option helps users differentiate between multiple accounts. After entering the desired text for the suffix, to submit the request for a sandbox refresh, click [Copy Data to Sandbox](#) or [Refresh Sandbox](#). The option appears again when the account is ready for activation. Enter the desired text for the suffix, then click [Activate Sandbox](#). The suffix is appended to the account name and appears in the Account Name field after the refresh is complete and the account is activated.
In this example, after submitting the refresh request and activating the refreshed account, the account names would change as follows:

- Sandbox account ID: 123456_SB1
  Account Name: MyCompany, Inc. _Integration Testing
- Sandbox account ID: 123456_SB2
  Account Name: MyCompany, Inc. _Training Sandbox

You can also modify the Account Name of your sandbox by going to Setup > Company > Company Information and editing the Company Name field.

Features Available for Testing in a Sandbox

Some features are only available in a limited form, and some features are not available for testing in a sandbox. See the Testing Features in a Sandbox table for details.

A sandbox is a copy of your production account, as of a specific date and time. As a sandbox is only a copy of the information from your production account. Some actions you perform in the sandbox do not affect information displayed in your sandbox. A few behind-the-scenes tasks that run in your production account do not run in your sandbox.
For example, billable components information is not calculated for the sandbox. In your production account, to view your Total Storage Size (MB) information, go to Setup > Company > View Billing Information. The billing information page in your sandbox displays the billing information copied from production. Therefore, the Total Storage Size (MB) information displayed in the sandbox is not changed by actions you perform in the sandbox, such as deleting custom records.

During sandbox refreshes, certain things are not copied from your production account. For more information, see Data That is Not Copied from Production to Sandbox.

The following table describes functionality available for testing in your NetSuite sandbox.

### Testing Features in a Sandbox

<table>
<thead>
<tr>
<th>Feature</th>
<th>Availability</th>
<th>Testing Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACH Vendor Payments</td>
<td>Test-mode only</td>
<td>No actions taken (no payments sent).</td>
</tr>
<tr>
<td>Alternative Payment Methods</td>
<td>Test-mode only</td>
<td>No actions taken (no payments sent). Test mode is on for all payment processing profiles.</td>
</tr>
<tr>
<td>Bulk Merge</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Credit Card Processing</td>
<td>Test-mode only</td>
<td>No actions taken. To test your billing processes or credit card processing, use only test credit card numbers and a valid expiration date.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Important:</strong> See Credit Card Processing in Your Sandbox After a Refresh.</td>
</tr>
<tr>
<td>CDN Caching</td>
<td>Yes</td>
<td>See the help topic CDN Caching for information on enabling this feature.</td>
</tr>
<tr>
<td>CTI Integration (8x8, Five9)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>CSV Import</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Custom Records</td>
<td>Yes</td>
<td>Security-sensitive fields on custom records will display the same values displayed in the production account.</td>
</tr>
<tr>
<td>Currency Exchange Rate Integration</td>
<td>Yes</td>
<td>You must manually update rates in your sandbox or refresh from production to get updated rates.</td>
</tr>
<tr>
<td>Direct Deposit</td>
<td>Yes</td>
<td>No actions taken.</td>
</tr>
<tr>
<td>Electronic Funds Transfer</td>
<td>Test-mode only</td>
<td>No actions taken (no funds transferred).</td>
</tr>
<tr>
<td>Email Campaigns</td>
<td>Yes</td>
<td>Email campaigns must have fewer than 25 recipients.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note:</strong> You must set up DKIM in each sandbox account. Follow the Procedures to Set Up DKIM in DomainKeys Identified Mail (DKIM).</td>
</tr>
<tr>
<td>Email Case Capture</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Email Notifications and Outgoing Email</td>
<td>Yes</td>
<td>See Setting Preferences for Sandbox Email for more information.</td>
</tr>
<tr>
<td>Feature</td>
<td>Availability</td>
<td>Testing Notes</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Fax</td>
<td>No</td>
<td>No actions taken.</td>
</tr>
<tr>
<td>Intellesync</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Memorized Transactions</td>
<td>No</td>
<td>No actions taken.</td>
</tr>
<tr>
<td>NetSuite for Outlook</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Online Bill Pay</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Outlook Integration</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Payroll</td>
<td>No</td>
<td><strong>Note:</strong> Updating payroll information is not supported in sandbox accounts.</td>
</tr>
<tr>
<td>PayPal Integration</td>
<td>Test-mode</td>
<td>No actions taken.</td>
</tr>
<tr>
<td>Perquest</td>
<td>Yes</td>
<td>No actions taken.</td>
</tr>
<tr>
<td>Reports</td>
<td>Yes</td>
<td>Scheduled Reports do not send emails. <strong>Alert Me When Ready</strong> reports do send emails (assuming a user initiates this action).</td>
</tr>
<tr>
<td>Scheduled Reports</td>
<td>Yes</td>
<td><strong>Note:</strong> The company preference for sandbox email is evaluated after the report is executed and prepares to send email. Depending on the preference specified, the email is sent to a specific user or not sent at all. See Setting Preferences for Sandbox Email for more information.</td>
</tr>
<tr>
<td>SAML Single Sign-on</td>
<td>Yes</td>
<td>SAML configuration is not copied from the production account to the sandbox. You must reconfigure SAML in your sandbox account after each refresh.</td>
</tr>
<tr>
<td>Saved Searches</td>
<td>Yes</td>
<td>Scheduled Searches and Email Alerts behave as they do in the production account.</td>
</tr>
<tr>
<td>Scheduled Saved Searches</td>
<td>Yes</td>
<td><strong>Note:</strong> The company preference for sandbox email is evaluated after the search is executed and prepares to send email. Depending on the preference specified, the email is sent to a specific user or not sent at all. See Setting Preferences for Sandbox Email for more information.</td>
</tr>
<tr>
<td>Scheduled SuiteScripts</td>
<td>Yes</td>
<td>Scripts do not execute as scheduled, but can be executed manually. The deployment of custom secure domains to sandbox accounts is now possible. Errors stating that the domain already exists no longer occur for sandbox accounts. It is possible to test and verify a custom secure domain from the user's perspective in a sandbox account, before the secure domain is deployed to a production account.</td>
</tr>
<tr>
<td>Secure Domains</td>
<td>Yes</td>
<td>The deployment of custom secure domains to sandbox accounts is now possible. Errors stating that the domain already exists no longer occur for sandbox accounts. It is possible to test and verify a custom secure domain from the user's perspective in a sandbox account, before the secure domain is deployed to a production account.</td>
</tr>
<tr>
<td>Feature</td>
<td>Availability</td>
<td>Testing Notes</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Feature</td>
<td>Note:</td>
<td>Do not attempt to reuse domains that are already deployed in your production account. You must set up a unique domain for each of your accounts: production, sandbox, and Release Preview accounts.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See the help topics Secure Domain Setup Tasks and Set Up Domains for Web Stores for more information.</td>
</tr>
<tr>
<td>Server SuiteScript</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Client SuiteScript</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>SuiteAnalytics Connect (formerly ODBC)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>SuiteApps (Bundles)</td>
<td>Yes</td>
<td>See the help topic SuiteApps and Sandbox Accounts. In particular, see the help topic Sandbox Refresh Impact on Bundles.</td>
</tr>
<tr>
<td>SuiteFlow (Workflows)</td>
<td>Yes</td>
<td>Workflows or workflow actions will not execute as scheduled, but can be executed manually.</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td>Workflow history logs from production are not copied to a sandbox. Workflow instances are not copied to a sandbox.</td>
</tr>
<tr>
<td>Telephony Integration (Basic)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Token-based Authentication</td>
<td>Yes</td>
<td>Tokens created using the Token-based Authentication feature in your NetSuite production account are not copied to your sandbox. To test this feature, you must create tokens in that sandbox. Each time your sandbox is refreshed, you must create new tokens in that sandbox.</td>
</tr>
<tr>
<td>Two-Factor Authentication</td>
<td>Yes</td>
<td>2FA Settings are shared between a production account and the sandboxes that are associated with that production account. Users do not need to recreate their 2FA Settings for sandboxes.</td>
</tr>
<tr>
<td>UPS/FedEx Integration for Shipping labels</td>
<td>Test-mode only</td>
<td>No actions taken</td>
</tr>
<tr>
<td>UPS/FedEx Integration for Rate querying</td>
<td>Yes</td>
<td>The SOAP requests and responses for each job can be viewed in the SOAP Web Services Usage Log. In sandboxes, requests and responses are accessible for one day. For more information, see the help topic Using the SOAP Web Services Usage Log.</td>
</tr>
<tr>
<td>SOAP Web Services</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Website and Web Store</td>
<td>Yes</td>
<td>Domains are not copied from your production account to your sandbox. After a sandbox refresh, you must set up domains in the sandbox.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See the help topics Secure Domain Setup Tasks and Set Up Domains for Web Stores for more information.</td>
</tr>
</tbody>
</table>
Features Available for Testing in a Sandbox

<table>
<thead>
<tr>
<th>Feature</th>
<th>Availability</th>
<th>Testing Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Note:</strong> If you have multiple sandboxes, ensure that across all of your sandboxes, the domains are unique. An error message is generated if there are duplicate domains.</td>
</tr>
</tbody>
</table>

Logging in to Your Sandbox Account

By default, new sandbox accounts are accessible only to NetSuite account administrators. If you are not an administrator and do not have access to your sandbox account, contact your NetSuite account administrator for access.

You can see all of your sandbox roles when you log in to your production account. All of your roles (your production roles and your sandbox roles) are listed on the Choose Role page.

You can identify the roles for each account in the Account Type column on the Choose Role page.

You can also determine which role is a sandbox role by looking for the SB icon in the Change Roles list.

If you are prompted to update or set up your security questions, see the help topic Setting Up Security Questions.

Simultaneous Access to More than One NetSuite Account Type

Most users log in to their production account to perform tasks in NetSuite. Some users may also want simultaneous access to another NetSuite account type, for example, a sandbox account or a Release Preview account. In the past, accessing both account types required a using separate browsers to avoid invalidating one session or the other. One benefit of account-specific domains in the NetSuite UI is that accessing two or more account types at the same time is more straightforward.
To access more than one account type at the same time:

This procedure describes accessing a sandbox account, but also applies to accessing other account types (Release Preview or development accounts, for example).

1. Open your browser and log in to your NetSuite production account.
2. From the Change Role list, select a role in your sandbox account, right-click, and select open in a different tab. (The wording varies slightly depending on the browser you are using.)

The selected sandbox role opens in a new tab.
3. Click the first tab, the tab with your production account role.
4. Click Login and log in to NetSuite again.

Now both accounts have active sessions: one tab with your production account role, and one tab with your sandbox role.

Granting Access to Your Sandbox Account

On the Sandbox Accounts page, account administrators can select who can access the sandbox: only users with an administrator role, or all users.

Preference for Access After Sandbox Refresh

A preference is provided on the Sandbox Accounts page to indicate who should have access to a sandbox account after it is refreshed: either administrators only or all users. If the Administrators only option is selected, only the Administrator role is copied to the sandbox. That is, for a user with multiple roles, only the administrator role for that user is copied to the sandbox. For more information, see Refreshing Sandbox Accounts. After a refresh of a sandbox account is complete, access can be added or removed as necessary for individual users in that account.

To give sandbox access to individual users:

**Important:** Customer Center and Partner Center roles are never allowed access to sandbox accounts.

1. In the sandbox account, go to Lists > Employees > Employees (Administrator) and click Edit next to the name of the employee.
2. On the Access subtab in the employee record, clear the Give Access checkbox.
Granting Access to Your Sandbox Account

1. Log in to your sandbox account in an Administrator role. See Logging in to Your Sandbox Account for more information.
2. Go to Lists > Employees > Employees and select the employee record on sandbox.
3. On the Access subtab in the employee record, clear the Give Access box.
4. Click Save.
   The employee to whom you have removed access can no longer log in to your sandbox account.

Note: Make note of the roles assigned to the user for later.

3. Click Save.
4. Edit the same employee record.
5. On the Access subtab, check the Give Access box again and enter any required information.
6. Reassign the appropriate roles to the user.
7. Click Save.
8. Advise the user to log out of their account and then log back in to access the sandbox account.  
   - On the Choose Role page, the role is labeled Sandbox in the Account Type column.
   - In the Change Role list, the sandbox role is indicated by an SB symbol.

To give sandbox access to all users of your production account, you must go to the Sandbox Accounts page in your production account, select the All Users option for Access After Sandbox Refresh, and click Refresh Sandbox to request a refresh of your sandbox account.

The Administrator can give sandbox access to multiple users using the CSV Import Assistant.

To give multiple users access to the sandbox account using CSV import:

1. From your sandbox account, create a search for Employee with the following results:
   - Internal ID (of the Employee)
   - Give Access
2. Export the search results as a CSV file.
3. Add the non-administrator employees that you want to have sandbox access to the CSV file.
4. Update the employee record in sandbox using the CSV Import Assistant.
   1. Go to Setup > Import/Export > Import CSV Records.
   2. Set the Import Type to Employees.
   3. Set the Record Type to Employees.
   4. Select the CSV file you want to import, and click Next.
   5. Set Data Handling to Update, and click Next.
   6. Make sure you map the following fields (your field and the NetSuite field must match), and then click Next:
      - Internal ID
      - Give Access
   7. Click Save & Run.

Note: For more information, see the help topic Importing CSV Files with the Import Assistant.

To remove sandbox access from individual users:

1. Log in to your sandbox account in an Administrator role.
2. Go to Lists > Employees > Employees and select the employee record on sandbox.
3. On the Access subtab in the employee record, clear the Give Access box.
4. Click Save.
   The employee to whom you have removed access can no longer log in to your sandbox account.
Granting Access to Your Sandbox Account

**Note:** To ensure the user will not have access to the sandbox account after the next refresh, make sure these changes are reflected in your production account as well.

**Important:** During the upgrade period for a new release of NetSuite, please pay attention to your scheduled upgrade date. Do not request a sandbox refresh when the upgrade date is near. A refresh will fail if it does not complete before your scheduled upgrade begins. See [Scheduled Version Upgrade Dates and Refresh Requests](#).

## Working with Multiple Sandbox Accounts

You can use sandbox accounts to test bundles that you create or test SuiteApps from third-party sources such as independent software vendors (ISVs). You can use a single sandbox account to develop and test bundles or use multiple sandbox accounts for additional flexibility. For example, you could use one sandbox account for development and one for testing.

**Note:** When you request a sandbox refresh, the bundle definition in a sandbox is completely overwritten so that it mirrors that in the production account.

For more information, see the help topic [SuiteApps and Sandbox Accounts](#).

**Important:** If you have multiple sandboxes, for websites and web stores, ensure that across all of your sandboxes, the domains are unique. An error message is generated if there are duplicate domains.

## About Multiple Sandbox Accounts

Review the following for more details about working with multiple sandbox accounts:

- If multiple sandbox accounts are associated with a single production account, users and their assigned roles are duplicated across these accounts.
- Each user has a separate role for each sandbox account on the Choose Role page and in the Change Roles list.
- Each sandbox account has its own unique ID. To locate your sandbox account ID, go to Setup > Company > Company Information. The account ID field is located near the bottom of the right column.
- To distinguish between multiple sandboxes, an administrator could change the company name (Setup > Company > Company Information) to identify each sandbox, however, this name change will be overwritten when the sandboxes are refreshed.

## Refreshing Sandbox Accounts

Each of your sandbox accounts can be refreshed from production upon your request. Refreshing a sandbox account copies all configuration, data, user passwords, and customizations from your production account into the sandbox account. Any changes you have made to the sandbox account are overwritten.

As of 2018.1, accounts are no longer taken offline when a refresh is requested.

Users can use the sandbox account while the new copy is being prepared. Before you activate the new sandbox, make sure to save any sandbox customization changes that have occurred since the refresh request. These changes must be saved outside of the sandbox account so that they are available to be added to the new sandbox after activation. Administrators receive an email notification that the refreshed
sandbox is available to be activated. An administrator can activate this new sandbox by clicking a button on the Sandbox Accounts page at the time of their choosing. When the new copy of the sandbox account is activated, the previous version is deleted. All old data is replaced with a new copy of the production account data.

Preserving Sandbox Changes

You need to ensure that users of your sandbox account understand that any changes made to a sandbox account after a refresh request are not included in the new sandbox. When a new sandbox is activated, these changes, including any edits to custom objects, are overwritten with the data from the production account.

SDF users can save all sandbox customization changes to SDF projects before the activation of the new sandbox. After activation, the updated SDF project can be deployed to the new sandbox.

If SDF is not in use, users have to save sandbox customization changes in another manner so that these changes can be available to be added to the new sandbox account after activation.

For more details, see the help topics Sandbox Refresh Impact on Bundles and Requesting a Refresh.

Requesting a Refresh

To submit a sandbox refresh request:

1. Log in to the production account that is associated with the sandbox account(s) you want to refresh.

   **Important:** During the upgrade period for a new release of NetSuite, please pay attention to your scheduled upgrade date. Do not request a sandbox refresh when the upgrade date is near. A refresh will fail if it does not complete before your scheduled upgrade begins. See Scheduled Version Upgrade Dates and Refresh Requests.

2. Go to Setup > Company > Sandbox Accounts.
3. For each sandbox account to be refreshed, do the following:
   a. Indicate which users should have access after the refresh occurs:
      - To allow access only to the account administrator, select the **Administrators Only** option.
        (You can give access to additional users as needed. See Granting Access to Your Sandbox Account.)
      - To allow access to all existing production account users (except Customer Center users) select the **All Users** option.
   b. Click **Refresh Sandbox**.
      Your existing sandbox will remain online so you can continue working during the refresh process.
   c. Click **OK** on the Confirmation popup.

   **Note:** Your sandbox is refreshed from a backup copy of your account taken from the night before the sandbox refresh starts. It may not contain all data in your production account at the moment you select Refresh Sandbox.

   Use your current sandbox account during the refresh process. You will receive an email notification when the new sandbox is ready to be activated.
d. When the new copy of the sandbox is ready, go to the Sandbox Accounts page and select the **Activate Sandbox** button.

**Warning:** When you activate a refreshed sandbox, the new sandbox completely replaces the previous sandbox. Any changes to the sandbox account during the refresh process are not included in the newly activated sandbox. Before you activate the new sandbox, you must save any sandbox customization changes that occurred after the refresh request. These changes must be saved outside of the sandbox account so that they are available to be added to the new sandbox after activation. Account administrators should formulate a strategy for saving these changes and adding them to the new sandbox, and inform users of the processes to be used. For more information, see Refreshing Sandbox Accounts.

e. Click **OK** on the Confirmation popup, to acknowledge that the current sandbox data and configuration will be completely replaced with a new copy from your production account.

**Note:** Once your sandbox is ready for activation, you have two weeks to select the **Activate Sandbox** button. If you do not activate your new copy within the 14 days, it will be deleted.

4. You can monitor the **Refresh Status** and view the **Estimated Refresh Time (In Hours)** on the Sandbox Accounts page.
   For more information, see More About Sandbox Refresh Statuses.

### Using the Sandbox Accounts Page

The Sandbox Accounts page is available in production accounts, at Setup > Company > Sandbox Accounts, to account administrators and to users logged in with the System Administrator role. This page is not available to any other roles. You can use this page to review details about your sandbox accounts and to request refreshes of these accounts.

**Important:** Log in to your production account to see the Sandbox Accounts page. This page displays details about all sandbox accounts associated with the production account to which you are logged in.

<table>
<thead>
<tr>
<th>General</th>
<th>Refresh Summary</th>
<th>Account Notifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCOUNT NAME</td>
<td>Refreshes Used / Refreshes Total</td>
<td>18/96</td>
</tr>
<tr>
<td>Wolfe Electronics - 123456</td>
<td>ESTIMATED REFRESH TIME (IN HOURS)</td>
<td>3</td>
</tr>
<tr>
<td>EXPIRATION DATE</td>
<td>DATE REFRESH REQUESTED</td>
<td>11/16/2017 12:05:00 AM</td>
</tr>
<tr>
<td>10/12/2019 12:00:00 AM</td>
<td>DATE REFRESH ACTIVATED</td>
<td>11/20/2017 12:00:00 AM</td>
</tr>
<tr>
<td>LAST REFRESH COMPLETED</td>
<td>REFRESH STATUS</td>
<td>Complete</td>
</tr>
<tr>
<td>11/20/2017 12:00:00 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAST REFRESH REQUESTOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:kwoffe@woffeelectronics.com">kwoffe@woffeelectronics.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAST REFRESH ACTIVATED BY</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:kwoffe@woffeelectronics.com">kwoffe@woffeelectronics.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRODUCTION SNAPSHOT DATE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/16/2017 12:05:00 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCESS AFTER SANDBOX REFRESH</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To access this account, go to https://system.rosette.com and select the sandbox account from the Choose Role page.
Sandbox Accounts Page Fields

On the Sandbox Accounts page, each account is listed by the NetSuite account ID. Account status is displayed to the left of the Sandbox Account heading.

### Account Status

- **Online**: A green check
- **Offline**: An empty circle. The account is not available for use.
- **Expired**: A red X.
  
  The account was not renewed as of the expiration date and is no longer available for use.

### General

The following information is displayed in this section:

- **Sandbox Account** - Name of sandbox account.

  **Note**: For specific details about sandbox accounts such as account name suffix, see About Sandbox Accounts.

- **Expiration Date** - Date the sandbox account is scheduled to expire.

- **Last Refresh Completed** - Date when the most recent refresh of the account was completed.

  **Note**: You have 14 days from this date to activate the new copy of your sandbox account.

- **Last Refresh Requestor** - User who requested the most recent refresh.

- **Last Refresh Activated By** - User who activated the most recent refresh.
■ Production Snapshot Date - Date and time of the production snapshot used for the most recent refresh. The backup copy is taken from the night before the sandbox refresh starts. This date may not be the same as the date the refresh was requested or the date it was completed. (Note that the time is formatted according to the current user's Time Format preference, set at Home > Set Preferences.)

■ Access After Sandbox Refresh - You can choose to provide default account access to all users or only to administrators after the refresh. The selection you make remains in effect for subsequent refreshes unless you change it.
  □ All Users - If you select this option, after the refresh you can remove access from users as needed.
  □ Important: Customer Center roles are not copied during sandbox refreshes. Even if you select this option to give all users access after the refresh, users assigned the Customer Center role are excluded from this access. Because of this limitation, customer login functionality does not work in sandbox after a refresh, even if it has been working in the production account. If you want to set up this functionality to work in sandbox, you can do a CSV import of customer records into the sandbox account, to set passwords and Give Access to True for customer users.

□ Administrators Only - If you select this option, after the refresh you can add access to users as needed.

  □ Important: Only the Administrator role is copied to the sandbox. That is, for a user with multiple roles, only the administrator role for that user is copied to the sandbox.

Refresh Summary

The following information is displayed in this section:

■ Refreshes Used / Refreshes Total - Number of refreshes used out of the total number of refreshes available. If you have multiple sandbox accounts, the refresh count is shared between all of the sandbox accounts.

■ Estimated Refresh Time - Estimated number of hours required for the refresh to complete. (Note that this estimate is not exact.)

■ Date Refresh Requested - Date and time when the most recent refresh was requested.

■ Date Refresh Activated - Date and time when the most recent refresh was activated.

■ Refresh Status - Status of the most recent refresh:
  □ When a refresh fails, a popup error message displays. This message includes an error ticket number that you can provide to Customer Support to help them resolve the issue.
  □ When the production account and the sandbox account are not running the same version, a red x displays, and a popup version mismatch error displays.
  □ For more information, see More About Sandbox Refresh Statuses.

More About Sandbox Refresh Statuses

The following section lists the various refresh statuses that are displayed, and describes what each status means.
**Note:** If the Refresh Status field is blank, the sandbox refresh is taking longer than usual. It is still in progress though, and should complete soon.

- **Awaiting Processing:** The refresh request has been submitted and will be processed in the order received.
- **Pending Copy to Sandbox:** This notice only appears for newly provisioned sandboxes. Administrators can choose when to initiate the copy of data from the production account to the sandbox.
  
  **Copy Data to Sandbox:** This button only appears on the Sandbox Accounts page of newly provisioned sandboxes. Click **Copy Data to Sandbox** to initiate the copy of data from the associated production account. The sandbox status will not change to online until the copy of data is completed. (After the initial data copy to the sandbox has completed, the **Refresh Sandbox** button is displayed on the Sandbox Accounts page.)
- **Delayed:** On the Sandbox Accounts page, when the refresh status field displays Delayed, it indicates the refresh progress has stalled for some reason. When a sandbox refresh status is changed to Delayed, the Estimated Refresh Time field is blank. When the refresh resumes, the estimated refresh time is recalculated, and the new value is displayed in the Estimated Refresh Time field.
- **Refresh In Progress:** The sandbox refresh is ongoing.
- **Refresh Failed:** An error occurred during the refresh process. NetSuite Customer Support will intervene to help resolve the problem.
  
  When a refresh fails, a popup error message displays. This message includes an error ticket number that you can provide to NetSuite Customer Support to help them resolve the issue. The Refresh Failed status can also be reported when the sandbox and the production account are running different versions of NetSuite software. This can occur during the new release period, when the production account has been upgraded, but the sandbox has not yet been upgraded to the new release.
- **Pending Sandbox Activation:** This status appears on the Sandbox Accounts page when a new sandbox copy is ready to be activated by the account administrator. To activate the new copy of the sandbox account, click **Activate Sandbox**.
- **Complete:** The sandbox refresh process is complete.

**Important:** During the upgrade period for a new release of NetSuite, please pay attention to your scheduled upgrade date. Do not request a sandbox refresh when the upgrade date is near. A refresh will fail if it does not complete before your scheduled upgrade begins. See **Scheduled Version Upgrade Dates and Refresh Requests**.

For details on how to request a refresh, see **Refreshing Sandbox Accounts**.

**Warning:** When you activate a refreshed sandbox, the new sandbox completely replaces the previous sandbox. Any changes to the sandbox account during the refresh process are not included in the newly activated sandbox. Before you activate the new sandbox, you must save any sandbox customization changes that occurred after the refresh request. These changes must be saved outside of the sandbox account so that they are available to be added to the new sandbox after activation. Account administrators should formulate a strategy for saving these changes and adding them to the new sandbox, and inform users of the processes to be used. For more information, see **Refreshing Sandbox Accounts**.

For new sandbox accounts, you need to initiate the copy of data from the associated production account by clicking the Copy Data to Sandbox button. This action must be completed before a new sandbox account comes online.
**Note:** Refresh Sandbox and Copy Data to Sandbox buttons are not displayed on the Sandbox Accounts page during NetSuite releases unless both the sandbox account and its associated production account are running the same version of NetSuite. When they are not running the same version, the Refresh Status field displays a popup version mismatch error.

---

### Sandbox Accounts

<table>
<thead>
<tr>
<th>General</th>
<th>Refresh Summary</th>
<th>Account Notifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Name</td>
<td>Refreshes Used / Refreshes Total 4/84</td>
<td>To access this account, go to <a href="https://system.netSuite.com">https://system.netSuite.com</a> and select the sandbox account from the Choose Role page.</td>
</tr>
<tr>
<td>Expiration Date</td>
<td>Estimated Refresh Time (in hours) 61</td>
<td></td>
</tr>
<tr>
<td>October 27, 2016</td>
<td>Date Requested</td>
<td></td>
</tr>
<tr>
<td>Last Refresh</td>
<td>February 20, 2013 11:44 pm</td>
<td></td>
</tr>
<tr>
<td>August 13, 2013</td>
<td>Refresh Status</td>
<td></td>
</tr>
<tr>
<td>Last Refresh Requestor</td>
<td>Pending Copy to Sandbox</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:kwoffe@wofeleelectronics.com">kwoffe@wofeleelectronics.com</a></td>
<td>Copy Data to Sandbox</td>
<td></td>
</tr>
<tr>
<td>Production Snapshot Date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 14, 2013 4:11 am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access After Sandbox Refresh</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Users</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrators Only</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Account Notifications

This section contains notifications relating to each of your accounts. It will alert you to required action items or status updates for each account, along with any applicable instructions.
Scheduled Version Upgrade Dates and Refresh Requests

During the upgrade period for a new release of NetSuite, please pay attention to your scheduled upgrade date. Do not request a sandbox refresh when the upgrade date is near. A sandbox refresh request will fail if it does not complete before your scheduled version upgrade begins.

Use your best judgement to decide when to request a sandbox refresh during the version upgrade period for a new NetSuite release. For example, if it usually takes approximately two days for your sandbox refresh to complete, and:

- if your scheduled version upgrade date is 72 hours (three days) away, defer your refresh request until your production and sandbox upgrades are complete.
- if your scheduled version upgrade date is a week away, you might decide to go ahead and refresh your sandbox.

**Important:** All sandbox accounts are targeted to be taken offline for upgrade at the time and date mentioned on the New Release portlet. The time to complete a sandbox upgrade can vary depending on the amount of data in the account. Average time is about an hour and most complete within 8 hours, but times can vary.

A sandbox account can only be refreshed from its associated production account. A sandbox account cannot be refreshed from another sandbox account. Although each sandbox account is related to its production account, no formal relationships exist among sandbox accounts tied to a single production account. Change management across your sandbox accounts is your responsibility.

You can request a refresh and monitor its status on the Sandbox Accounts page. This page is available to users with the Administrator or System Administrator roles. Go to Setup > Company > Sandbox Accounts.

When your account is ready to be activated, you will receive an email notification asking you to select the Activate Sandbox button on the Sandbox Accounts page.

**Important:** During the upgrade period for a new release of NetSuite, please pay attention to your scheduled upgrade date. Do not request a sandbox refresh when the upgrade date is near. A refresh will fail if it does not complete before your scheduled upgrade begins.

**Warning:** When you activate a refreshed sandbox, the new sandbox completely replaces the previous sandbox. The new sandbox contains a copy of production account data that is a snapshot taken at the time of the sandbox refresh request. Any changes to the sandbox account during the refresh process are not included in the newly activated sandbox. Before you activate the new sandbox, you must save any sandbox customization changes that occurred after the refresh request. These changes must be saved outside of the sandbox account so that they are available to be added to the new sandbox after activation. Account administrators should formulate a strategy for saving these changes and adding them to the new sandbox, and inform users of the processes to be used. For more information, see Refreshing Sandbox Accounts.

Sandbox Refresh Notifications

An email notification is sent each time a sandbox refresh is ready for activation. This email is sent to all account administrators. It includes the sandbox account name and ID, the date the refresh was requested, the user who requested the refresh, the date of the production data used to refresh the sandbox, the number of refreshes used and remaining, and instructions on how to activate that sandbox account with the new copy.
You have 14 days to activate the new copy of your sandbox. You will receive a second notification after 12 days if you have not yet activated the account. If you do not activate the new copy of your sandbox account within the 14 days, it will be deleted and you will need to go through the sandbox refresh process again.

To activate the new copy of your sandbox, go to Setup > Company > Sandbox Accounts and select the Activate Sandbox button.

**Warning:** When you activate a refreshed sandbox, the new sandbox completely replaces the previous sandbox. The new sandbox contains a copy of production account data that is a snapshot taken at the time of the sandbox refresh request. Any changes to the sandbox account during the refresh process are not included in the newly activated sandbox. Before you activate the new sandbox, you must save any sandbox customization changes that occurred after the refresh request. These changes must be saved outside of the sandbox account so that they are available to be added to the new sandbox after activation. Account administrators should formulate a strategy for saving these changes and adding them to the new sandbox, and inform users of the processes to be used. For more information, see Refreshing Sandbox Accounts.

**Important:** If you do not activate the new copy of your sandbox and it is deleted, that refresh will still count against your total refreshes used.

Also be aware of the following information about sandbox refreshes:

- **You do not need to refresh a sandbox to update it to the latest NetSuite version.**
  
  Sandbox accounts are automatically updated to the same release level as the associated production account when the production account is updated. A refresh is not required for this type of update.

- **Sandbox refreshes cannot be done when a sandbox account is running a different version of NetSuite than the associated production account is running.**
  
  During the release of a new version of NetSuite, there may be a period of time when your production account has been updated to the latest version but your sandbox account has not yet been updated, or vice versa. A refresh cannot occur in this case. If you request a refresh, it is delayed until both sandbox and production accounts have both been updated to the latest version. During this period,
the Sandbox Refresh page displays a red X in the Refresh Status page with a popup version mismatch error.

Data That is Not Copied from Production to Sandbox

During sandbox refreshes, the following things are not copied from production:

- **DomainKeys Identified Mail (DKIM)**
  
  Domains are not copied from your production account to your sandbox. Before using email in your sandbox, you need to set up Domain Keys for a domain that is separate from the email domain set up in your production account. This needs to be set up after each refresh. See Setting Preferences for Sandbox Email.

- **Websites and web store domains**
  
  Domains are not copied from your production account to your sandbox. After a sandbox refresh, you must set up domains in the sandbox. If you have multiple sandboxes, ensure that across all of your sandboxes, the domains are unique. An error message is generated if there are duplicate domains. See the help topics Secure Domain Setup Tasks and Set Up Domains for Web Stores for more information.

- **Customer Center role assignments for customer users**
  
  Customer Center role assignments for customer users are not copied from production accounts to sandboxes during refreshes. Due to this limitation, customer login functionality does not work in sandbox after a refresh, even if it has been working in the production account. If you want to set up this functionality to work in sandbox, you can do a CSV import of customer records into the sandbox, to set passwords and Give Access to True for customer users.

  For more information, see the help topic CSV Imports.

- **Inbound single sign-on mappings**
  
  The mappings between users' external credentials and their NetSuite user credentials that are used for inbound single sign-on access to NetSuite, are not copied from production accounts to sandboxes during refreshes. These mappings must be recreated in sandbox accounts for any users who require inbound single sign-on access to these accounts. The mapping can be recreated either through the SOAP web services mapSso operation or upon user login. For more information, see the help topic Inbound Single Sign-on. See also Creating the Initial Mapping of the Administrator Role for Inbound Single Sign-on and Mapping Users and Roles for Inbound Single Sign-on Access to NetSuite.

- **SAML configuration**
  
  SAML configuration is not copied from the production account to the sandbox. For details, see the help topic SAML SSO in Multiple NetSuite Account Types.

- **System notes on records**
  
  System notes are not copied from the production account to the sandbox. For more information about system notes, see System Notes Overview.

- **SuiteFlow (workflow) history logs**
  
  SuiteFlow (workflow) history logs are not copied from the production account to the sandbox. For more information, see the help topics SuiteFlow Overview and Workflow History Subtab. Workflow instances are not copied from the production account to the sandbox either.

- **Token-based Authentication (TBA)**
  
  Tokens created in your production account are not copied to your sandbox during a refresh. To test token-based authentication in your sandbox, you must create tokens in that sandbox. Each time
Data That is Not Copied from Production to Sandbox

Your sandbox is refreshed, you will need to create new tokens in the sandbox. For information about creating tokens, see the help topic Manage TBA Tokens in the NetSuite UI.

Credit Card Processing in Your Sandbox After a Refresh

An account administrator must complete the following procedure to process credit card transactions in your sandbox account after a refresh.

To enable credit card profiles for use in sandbox:

1. In your sandbox account, go to Setup > Accounting > Financial Statements > Payment Processing Profiles.
2. Click Edit next to the payment processing profile you want to use in your sandbox account.
3. On the payment processing profile, under Authentication Credentials, re-enter the credentials required for this profile.
4. Click Save.
5. Repeat these steps for each payment processing profile you want to use in your sandbox account.

Important: Each time you refresh your sandbox account, you must repeat this procedure to process credit card transactions in your sandbox. No change is required in your production NetSuite account.

When a Sandbox Account Expires

Sandbox accounts come with expiration dates. When a sandbox account is not renewed and expires, the status of the sandbox is set to inactive. Users are no longer able to log in to an inactive sandbox account. Administrators can view the sandbox expiration date on the Sandbox Account page.

Administrators of sandbox accounts receive email notifications before a sandbox account expires, so they can renew the account without experiencing an interruption of sandbox availability or potential data loss.

Administrators are notified by email several times before the expiration date, giving them plenty of time to renew the sandbox account. The first notification email is automatically generated one month before the sandbox expires. Notifications continue on a weekly basis until the sandbox account is renewed. If the sandbox account is not renewed, a final notification email arrives on the expiration date.

Note: Contact your NetSuite account representative to renew your account before it expires.

There is a 30-day grace period after expiration during which an inactive sandbox account can be reactivated and the data retained. If you do not renew the sandbox account before this grace period ends, the sandbox is deleted and the data is purged. If your account has expired, contact your NetSuite account representative for more information.

Warning: Data from expired sandbox accounts is purged after 30 days and cannot be recovered.

Setting Preferences for Sandbox Email

Domains are not copied from your production account to your sandbox account. Before using email in your sandbox, you need to set up Domain Keys for a domain that is separate from the email domain set
Setting Preferences for Sandbox Email

up in your production account. If you try to set up the same domain you use in your production account, you will receive an error message indicating that the domain is already taken.

---

Note: It has never been possible to use the outbound email domain of your production account for your sandbox account or your Release Preview account.

The following procedures contain instructions for setting up Domain Keys in your sandbox account and with your domain provider.

Setting Up DKIM for the Sandbox Account

These procedures should be performed by someone with DNS experience.

---

Note: If you do not complete the following procedures, by default, the From header on email you send from NetSuite will be rewritten. If this is acceptable for your testing purposes, then it is not necessary to set up DKIM in your sandbox account. When the From header is rewritten, the original email address is moved to the display string, and the SMTP-related email address refers to netsuite.com. For example, an email from jsmith@example.com would be rewritten to jsmith@example.com <system@sent-via.netsuite.com>. What your recipients will see as the sender of the email depends on the email client in use at the recipient's site. Some recipients will see the original email address with the modified <system@sent-via.netsuite.com> From header. Some recipients may not see the original email address at all. If this is not acceptable for your testing purposes, then you need to perform the following procedures to set up Domain Keys for a domain that is separate from the email domain set up in your production account.

To enter Domain Keys in your NetSuite account:

1. In your sandbox account, go to Setup > Company > Email > Email Preferences.
2. Click the Domain Keys subtab.
3. In the Domain Selector field, enter the first domain selector. You can name the selector anything you want, but it is recommended that you incorporate the current date in the selector name so that you know the age of each key.

---

Note: When you set up your domain name with your domain provider, you will enter the same domain selector along with the _domainkey suffix.

For example, if you enter selector1 in this field in NetSuite, you would enter selector1._domainkey as the domain selector with your domain provider. If you set up a domain for sandbox or Release Preview, you may want to consider indicating the account type in your domain name as well.

4. In the Domain Name field, enter the domain name you are using to send DKIM signed emails from NetSuite. For example, if the email address from which you are sending DKIM signed email is jwolfe@wolfeelectronics.com, the domain is wolfeelectronics.com. An email address from this domain can appear in the From header.

5. Enter the Private and Public domain keys used for signing in one of the following ways:
   - If you have used the same domain keys with another application, enter the domain keys manually, and then click Add.
   - If you have not generated a domain key for this domain previously, click Generate Key Pairs to have NetSuite generate them for you, and then click Add.

You need the public domain key to set up your domain with a domain hosting service.
6. After entering the domain keys, click **Generated DNS Entry**. Your complete, properly formatted DNS entry is shown in a popup window. Copy this DNS entry. Do not close the browser window.

7. Complete the following procedure to set up a DNS text record with your domain provider.

### To set up a DNS text record with your domain provider:

<table>
<thead>
<tr>
<th>Important: Complete the following procedure within 14 days after completing the previous procedure in NetSuite. If this procedure is not completed within 14 days, the From header of email sent from that particular domain will continue to be rewritten.</th>
</tr>
</thead>
</table>
| 1. Open another browser window, and log in to your domain provider.  
2. Add a text record with a name in the following format:  
   
   `selector1._domainkey`  
   
   That is, use the selector name you entered in NetSuite, followed by the `.domainkey` suffix.  
3. Paste or enter the value you copied after clicking **DNS Entry** in your NetSuite account.  
4. Save the text record.  

### Note: Create a separate text record for each domain you plan on creating domain keys for. With different domain selectors, each text record can be used to create multiple keys but only for a single domain. Only one domain key pair can be set up for an account on a domain.

5. Complete the following procedure to activate the keys you set up in NetSuite.

### To activate DKIM keys in your NetSuite account:

1. Back in your NetSuite account on the Email Preferences page, check the **Active** box for each key you have set up.  
2. Click **Save**. All outgoing email messages sent from NetSuite using the entered domain or its subdomain will have a DKIM header.  
   
   This code header contains the domain key information but does not add any text to your messages.  
3. Complete the following procedure to verify your DKIM setup.

### To verify your DKIM setup:

1. Go to Setup > Company > Email > Email Preferences.  
2. On the **Domain Keys** subtab, select the domain key you want to verify and click **Verify DNS Entry**.  

### Note: NetSuite checks to make sure the public domain key in the DNS record matches the public domain key entered in NetSuite. The results of the test are displayed in a popup window.

Possible results from this test include the following:

<table>
<thead>
<tr>
<th>Result</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your DNS entry for DKIM has successfully been verified.</td>
<td>The DNS entry has been validated. You can use this domain name in an email campaign or email merge operation.</td>
</tr>
<tr>
<td>You need to enter a valid selector, domain name and public key properly in your NetSuite account.</td>
<td>Make sure you have entered the selector, domain name and public key properly in your NetSuite account.</td>
</tr>
</tbody>
</table>
Setting Preferences for Sandbox Email

Once DKIM is set up correctly for your sandbox account, you can set up your preferences for email messages sent from the sandbox account.

When you use a sandbox account, anyone with the Administrator role can set a preference for delivery of email messages from the sandbox account. It is recommended that you choose the **Send Email To** option. You can enter specific email addresses (separated by commas) giving you complete control over exactly who receives email messages from your sandbox.

For example, if you are testing marketing campaigns in your sandbox account, you might not want customers to receive email messages generated by those campaigns until they have been finalized and rolled out in your production account. You might want email messages from your sandbox account delivered only to yourself, or to the people in your organization who are responsible for designing the new campaigns. You might want to ensure email messages generated from sandbox web stores are not delivered to recipients outside your organization. In all these cases, choose the **Send Email To** option.

**Important:** Email messages generated from sandbox web stores will not be sent to the user logged in to the NetSuite UI. For example, an order notification email message would be sent to the shopper's email address, not the logged in user's email address. To prevent this, choose the **Send Email To** option.

There are exceptions to the email routing rules you specify. Security-sensitive emails will be always sent to the actual owner of the email address. For example, password reset emails do not obey preferences that override routing rules.

Examples of security-sensitive emails include:

- Reset Password
- Change Password
- Change Email Address
- Security Questions (Setup or Update)
- Two-Factor Authentication Setup (one-time password)

Set preferences for sandbox email delivery in your production account on the Email Preferences page.

**To set email delivery preferences for all sandbox accounts:**

1. Log in to your NetSuite production account.
2. Go to Setup > Company > Email > Email Preferences.

3. Choose your preference on the **Sandbox and Release Preview** subtab. Under **Sandbox Options**, choose from the following:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Send Email To** (This is the recommended option.) | Choose this option to ensure email messages are delivered to specific addresses.  
  - Enter the email address or email addresses to which to deliver email messages. Separate each email address entered with a comma.  
  - Choose this option when testing your web store in your sandbox. This option ensures web store generated email messages are routed to the desired recipient. |
| **Send Email to Logged In User** | Choose this option to route email messages to the user logged in to the NetSuite UI.  
  If you select this option, be aware of the following behaviors:  
  - Email messages initiated by an error in a scheduled script follow the notification settings in the script record.  
  - Email messages generated from web stores will not be sent to the user logged in to the NetSuite UI. For example, an order notification email message would be sent to the shopper's email address, not the logged in user's email address. To prevent this, choose the **Send Email To** option instead. |
| **Do Not Send Emails** | Choose this option if you do not want any email messages sent. |

4. Click **Save**.

5. On the Sandbox Accounts page, click **Copy Data to Sandbox** (or **Refresh Sandbox**). Your email delivery preferences are applied to all your sandbox accounts.

**Important:** During the upgrade period for a new release of NetSuite, please pay attention to your scheduled upgrade date. Do not request a sandbox refresh when the upgrade date is near. A refresh will fail if it does not complete before your scheduled upgrade begins. See [Scheduled Version Upgrade Dates and Refresh Requests](#).

After your sandbox account has been refreshed, you can log in to modify your email preferences directly on the sandbox account. This way, if you use multiple sandbox accounts, you can set different preferences for email delivery in each account. For more details, see [Features Available for Testing in a Sandbox](#).

**Note:** Upon refresh, the settings in your sandbox accounts always revert to the sandbox email preferences you set in your production account.
FAQ: NetSuite Sandbox

See the following for answers to common questions about NetSuite sandboxes.

I do not see my new sandbox when I log in. Why not?

When you are notified that your new sandbox has been provisioned, the initial account status of the sandbox is **Offline** and the refresh status is **Pending Copy to Sandbox**. Your company's NetSuite account administrator must log in to your production account, go to the Sandbox Accounts page, and click the **Copy Data to Sandbox** button. Clicking the button initiates the copy of production data to the sandbox. When the data copy is complete, on the Sandbox Accounts page, the sandbox account status displays a green check(#) indicating the sandbox is online and available.

For more information, see Using the Sandbox Accounts Page.

How can I tell if I am in my sandbox?

- As always, a sandbox logo is shown in the header.

- There is also an Account Type column on the Choose Role page so you can distinguish between your production and sandbox accounts. Sandbox accounts have the account type **SANDBOX**.

- From the Change Roles list it is indicated by an **SB** logo beside any sandbox accounts.

How can I differentiate between my production and sandbox accounts?

To help differentiate between account types, administrators can change the name of each account to include the type by going to **Setup > Company > Company Information** and changing the **Company Name**. Users can go to the Set Preferences page and color code their accounts by changing the **Color Theme** under **Appearance**.
Can I access my production and sandbox accounts simultaneously?

Yes. For details, see Simultaneous Access to More than One NetSuite Account Type.

What is the difference between a sandbox account and a development account?

Sandboxes are intended for full end-to-end testing, using your production data. Development accounts are intended for unit testing, and should only contain test data. Development accounts also provide access to both leading and lagging NetSuite versions, allowing you to test against the current version of software, and against the new version of software when it becomes available.

For more information, see NetSuite Development Accounts, Understanding NetSuite Account Types, and NetSuite Sandbox.

For information about working in these different types of accounts with SuiteApps (bundles), see the help topics SuiteApps and Sandbox Accounts and SuiteApp Development Process with SuiteBundler.

What features can I test in a sandbox?

Many NetSuite features can be tested in sandbox accounts. For more information, see Features Available for Testing in a Sandbox. The Testing Notes column in the Testing Features in a Sandbox table contains details about differences that might affect how you test the feature.

Can I test secure domains in my sandbox account?

Yes. For more details on what can be tested, see Features Available for Testing in a Sandbox.

I do not see all my production data in my sandbox. Why not?

For various reasons, not all data in your production account is copied to a sandbox. See Data That is Not Copied from Production to Sandbox for more information.

My account has more than one sandbox. How do I switch between sandboxes?

If multiple sandbox accounts are associated with a single production account, users and their assigned roles are duplicated across these accounts.

Each user has a separate role for each sandbox account on the Choose Role page and in the Change Roles list. Sandbox roles are identified by the SB icon in the Change Roles list and by the label SANDBOX in the Account Type column on the Choose Role page.

Note: To help distinguish between multiple accounts, you can change the name of each account by going to Setup > Company > Company Information and changing the Company Name. Users could also color code accounts by changing the Color Theme under Settings > Set Preferences > Appearance. These measures will need to be reset after each refresh.

Will Two-Factor Authentication work?

Yes. Two-factor authentication using your phone or an Authenticator app is shared between your production and sandbox accounts. For details, see the help topic 2FA in the NetSuite Application.

Will all users who have access to my production account see a sandbox role when they log in to the production account?

As the administrator, you decide who has access to the sandbox account. Go to the Sandbox Accounts page and under the Access After Sandbox Refresh preference, select either administrators only or all users. If the administrators only option is selected, only the administrator role is copied to the sandbox account.
How do I add (or remove) individual users access to a sandbox?

After a sandbox has been refreshed, account administrators can grant individual users access to this sandbox. See Granting Access to Your Sandbox Account for information on adding and removing access for individual users to your sandbox account.

About Sandbox Refreshes

What determines the Production Snapshot Date?

The Production Snapshot Date field on the Sandbox Accounts page displays the date and time of the production snapshot used for the most recent refresh. The snapshot is copied from the database backup from the night before the sandbox refresh actually begins. This date is not necessarily the same as the date the refresh was requested. It depends on the date when your refresh request starts processing.

The production snapshot is usually taken from the backup that occurred the night before the actual refresh starts. However, there are occasions when a backup is not suitable for creating the snapshot. In these rare cases, the snapshot is taken from the most recent suitable backup of the production database.

It is not possible to guarantee a specific date or time to be used for the production snapshot.

Why is the Refresh Sandbox button missing from the Sandbox Accounts page?

You will not see the Refresh Sandbox button or the Copy Data to Sandbox button on the Sandbox Accounts page in the following circumstances:

- When a refresh request is already in progress.
- When the sandbox has been taken offline for a NetSuite version upgrade.
- During NetSuite version upgrades, except in cases where the sandbox account and its associated production account are running the same version of NetSuite.

Note: When they are not running the same version, the Refresh Status field will display a popup with a version mismatch error message.

How long does it take for my sandbox to be refreshed?

Various factors determine how long it takes to refresh your sandbox, including the size of your production account (the amount of data), the number of integrations in your production account, and the number of customers requesting a sandbox refresh during the same time period as your request was submitted.

Can I cancel my sandbox refresh request?

It is not possible to cancel a refresh request.

A refresh completely replaces the content of the sandbox account with the content of the production account. After your sandbox account has been refreshed from production, it cannot be restored to its prior state. Before submitting a request to refresh a sandbox account, please ensure that your company is fully notified and ready for the refresh from production. Your refresh request cannot be canceled or otherwise modified in any way after it has been accepted.

I have some important data I want to keep in my sandbox. Can my data be saved during the next refresh?

A sandbox is not intended for storage of data. A refresh completely replaces the content of the sandbox account with the content of the production account snapshot. Any data that exists in a sandbox before a refresh is requested is overwritten by the refresh.
What happens to my sandbox during a NetSuite version upgrade?

All sandbox accounts are taken offline for upgrade at the same time the production account is taken offline for upgrade. For more information, see Scheduled Version Upgrade Dates and Refresh Requests.

My NetSuite version upgrade date is near, should I refresh my sandbox?

Do not request a sandbox refresh when the upgrade date is near. A sandbox refresh request will fail if it does not complete before your scheduled version upgrade begins.

Use your best judgement to decide when to request a sandbox refresh during the version upgrade period for a NetSuite release. For guidelines, see Scheduled Version Upgrade Dates and Refresh Requests.

What does the refresh status Delayed mean?

On the Sandbox Accounts page, when the refresh status field displays Delayed, it indicates the refresh progress has stalled for some reason. When a sandbox refresh status is changed to Delayed, the Estimated Refresh Time field is blank. When the refresh resumes, the estimated refresh time is recalculated, and the new value is displayed in the Estimated Refresh Time field.
NetSuite Development Accounts

NetSuite development accounts are isolated from your production account, in which you can develop and test new applications and customizations without worrying about affecting your production account.

The best time to begin using development accounts is at the start of a new project. It can be difficult to migrate to a development account if you are already in the middle of a development project in your sandbox. You should finish existing projects in your sandbox, and start new projects in a development account.

**Note:** You need multiple sandbox accounts if you have multiple large projects which need distinct accounts for User Acceptance Testing (UAT).

Development accounts have the same features and NetSuite-provisioned SuiteApps as your company's production account, but do not contain any production data. You can populate the account with only the data you need for development and testing purposes.

Because development accounts do not contain any production data, you can let outside partners develop something for you. For this reason, you should enter only non-sensitive test data in development accounts.

**Warning:** Do not enter sensitive information or any real customer data, such as contact information or credit card numbers, in development accounts. Transactions will be processed and invoices will be generated.

**Note:** Email messages sent from development accounts are delivered to the logged-in user.

Benefits of Development Accounts

Customers who purchase sandbox accounts also receive three development accounts. As of 2018.1, one development account per customer is upgraded to 2018.1 in phase 0. The other two development accounts are not upgraded until the last phase. This timing ensures that each customer with development accounts can work with both the lagging and leading versions of NetSuite until the release upgrade cycle is complete.

Development accounts are never refreshed, unlike sandbox accounts, so you never have to worry about your work in progress being accidentally overwritten by a refresh.

Development accounts provide ideal places for:

- Creating new applications and customizations.
- Testing customization elements before deployment.
- Fixing issues with existing customizations.
- Trying out third-party integration features.

Actions you take in development accounts, such as transaction entries, record deletions, and form customizations, have no effect on your NetSuite production account. However, development accounts are not guarded from external touch points in the same way as sandbox and Release Preview accounts can be. For example, in sandbox and Release Preview, you can specify how you want email to be handled in these accounts. You cannot configure email delivery from a development account in a similar manner. Email messages sent from development accounts are delivered to the logged-in user.

For recommended best practices for using development accounts with SuiteBundler, see the help topic [SuiteApp Development Process with SuiteBundler](#).
Features Available in Development Accounts

The development account is different from a sandbox account, in that the development account does not contain a copy of your production data. When the development account is provisioned, NetSuite makes available the same features and NetSuite-provisioned SuiteApps that are available in your production account. SuiteApps created by third parties are not included in development accounts when they are provisioned. Any customization object can be created or installed into these accounts with SuiteBundler. See the help topic SuiteApp Development Process with SuiteBundler.

**Warning:** Do not enter sensitive information or any real customer data, such as contact information or credit card numbers, in development accounts. Transactions will be processed and invoices will be generated.

**Note:** Email messages sent from development accounts are delivered to the logged-in user.

Logging in to Development Accounts

Users access development accounts in the same way that they access their production account. They can open a browser window and go to `system.netsuite.com` and enter their email address and password on the login page. Their role in a development account can be selected from the Choose Role page or Change Roles list. The appropriate role to choose is identified in the Account Type column on the Choose Role page.

By default, new development accounts are only accessible to the administrator for whom the account was provisioned. This administrator can create up to 10 users for each account. See Granting Access to Development Accounts. Users who need access to development accounts should contact this administrator.

Granting Access to Development Accounts

Account administrators can select 10 users who can access each development account. Users must be created separately in each development account.
To grant development account access to a user:

1. Log in to a development account. See Logging in to Development Accounts. https://system.netsuite.com
2. Go to Lists > Employees > Employees > New and create an employee record for the user.
   If this user is an employee in your production account, you can enter the username, email address, assign a role, and check the Give Access box on the Access tab. For more information about creating an employee record, see the help topic Adding an Employee Record.
3. Click Save.
   If prompted whether the user should inherit the password from the production account, click OK.
   The employee to whom you have granted access can now log in to this development account.

Contacting Support for Development Account Issues

To report problems with your development account in this release, create a support case. You will need to provide your account ID when creating a case. From your development account, go to Setup > Company > Company Information to view the Account ID field, located below the Time Zone field in the right column.

⚠️ Important: The way you contact NetSuite Customer Support, and the way you create a case varies depending on the level of support purchased with your account.

You can submit a question or issue online to NetSuite Support professionals. You can send questions or comments by email 24 hours a day. You will receive a response by email as soon as possible. Response times vary depending on the level of support you have purchased and the support team’s current case load. To improve response times, please provide lots of information (more is better), and if applicable, include steps to reproduce the problem.

Contact Support by Phone is available to customers with Gold or Platinum support, and to eligible NetSuite Partners, 24 hour a day, seven days a week. Call the number provided by your account manager. Please have your account number ready when you call for quicker assistance.
Performance Best Practices

Troubleshooting

This section refers to some commonly used best practices for optimizing and troubleshooting NetSuite performance. The following topics introduce some suggested guidelines:

- The Application Performance Management SuiteApp supports observation and performance management of NetSuite customizations and business critical operations. It can help with troubleshooting slow performance issues. For details, see the help topic Application Performance Management (APM).
- Optimizing Performance for Users provides additional tips for optimizing performance for users of NetSuite.

The SuiteApp Architectural Fundamentals & Examples (SAFE) Guide

The SuiteApp Architectural Fundamentals & Examples (SAFE) Guide, is provided for independent software vendors (ISVs) who build custom SuiteApp solutions for deployment into customer accounts. This includes a variety of best practices, some of which relate to performance optimization. See SuiteApp Architectural Fundamentals and Examples (SAFE) in SuiteAnswers.

SuiteCloud Plus

The purchase of a SuiteCloud Plus license can enhance performance by increasing the threads available for web services through support of a concurrent web services user. This increases the number of SuiteCloud processors or queues available for scheduled scripts, and increases the number of queues and threads available for CSV import jobs. Resources for optimizing SuiteCloud Plus include:

- SuiteCloud Plus Settings

SOAP Web Services

Resources for optimizing the performance of SOAP web services include:

- SOAP Web Services Performance Optimization
- Web Services and RESTlet Concurrency Governance
- Synchronous Versus Asynchronous Request Processing
- SuiteCloud Plus Settings

CSV Import

Resources for optimizing the performance of CSV import include:
SuiteBundler

Resources for optimizing the performance of SuiteBundler include:
- Managed Bundles - Best Practices
- SuiteApp Development Process with SuiteBundler

SuiteScript

Resources for optimizing the performance of SuiteScript include:
- Optimizing SuiteScript Performance
- SuiteScript Best Practices
- User Event Script Best Practices
- SuiteCloud Processors - Processor Allotment Per Account
- SuiteCloud Plus Settings

Resources for optimizing the performance of SuiteScript 2.0 include:
- SuiteScript 2.0 Map/Reduce Script Best Practices
- SuiteScript 2.0 User Event Script Best Practices

Resources for optimizing the performance of SuiteScript 1.0 include:
- How Many User Events Can I Have on One Record?

SuiteFlow

Resources for optimizing the performance of SuiteFlow include:
- SuiteFlow Best Practices

SuiteBuilder

Resources for optimizing the performance of SuiteBuilder include:
- Optimizing Custom Form Performance

SuiteAnalytics Connect

Resources for optimizing the performance of SuiteAnalytics Connect include:
• **Connect Service Considerations** provides best practices related to SuiteAnalytics Connect.

**SuiteCommerce**

Recommendations for optimizing SuiteCommerce performance for NetSuite users include:

• Best Practices for Customizing SuiteCommerce Advanced
• Managing Web Store Performance Impact
• Best Practices for Website Performance
• Improve the Performance of the Search Results Page
• Performance Management and Tips for SCIS
• NetSuite SuiteCommerce Advanced Performance Standards
Optimizing Performance for Users

In general terms, performance indicates how well a computer system or application is doing the work it is supposed to do.

This content is intended to help administrators improve the performance of their NetSuite application and address performance issues that their NetSuite users may experience.

The following topics introduce performance optimization recommendations for the NetSuite application.

- Helping Users with Performance Issues
- Optimizing User Preferences
- Optimizing Search and Reporting Performance
- Improving Network Performance
- Improving Client Performance
- Configuring Dashboard Portlets

The following topics describe some basic steps to help users with their performance issues.

- Gathering Performance Details

The following topic describes some basic steps for optimizing user preferences.

- Adjusting NetSuite Preferences

The following topics can help to manage search and reporting performance issues.

- Avoiding the "Contains" Condition in Searches
- Scheduling Exceptionally Long Saved Searches
- Scheduling Exceptionally Long Reports

The following topic can help improve network performance.

- Troubleshooting Problems with Firewalls and Proxy Servers

The following topic can help improve client performance.

- Troubleshooting Client Performance

The following topic describes how to configure dashboard portlets.

- Configuring Dashboard Portlets

Helping Users with Performance Issues

Several factors can contribute to performance issues in the NetSuite application. Slow performance on a server at NetSuite, network performance, or the performance of the user's computer (client performance), can all affect the NetSuite application.

There are a few simple tasks that you can suggest your users try to determine if they are having a performance issue:

1. Perform the attempted action (for example, load a record or run a report) 3–5 times to warm up caches. This might be especially helpful after a weekend or holiday.
2. Attempt to execute the action using multiple users. This might be helpful to identify user-specific errors.

If the above suggestions do not work, the following information can help you to identify the source of the performance issue your users may be experiencing, and provide guidance for troubleshooting. You can also find useful data to give NetSuite Customer Support if needed.

Gathering Performance Details

To help users to identify performance issues, you can ask them to double-click the Oracle NetSuite logo in the upper left corner of any page in the NetSuite application to display Performance Details. This window displays performance details that can be helpful for troubleshooting. This information will be different for each user. If necessary, you can use the information displayed to provide data to NetSuite Customer Support.

The Performance Details window includes the following data:

- **Total** – Displays total page load time in seconds.

  **Note:** This data may not apply to reports, dashboards, centers, or saved searches.

- **Server** – Displays the page load time in seconds and the percentage of the total page load time spent retrieving information from the NetSuite server.

  If this row has the highest percentage in the list, see Optimizing User Preferences.

- **Server SuiteScript** – Displays in seconds and as a percentage, the server time that was spent on server-side scripting.

- **Server Workflow** – Displays in seconds and as a percentage, the amount of server time that was spent on work flows.

- **Network** – Displays in seconds and as a percentage, the total page load time for data to travel from the NetSuite servers to the computer.

  If this row has the highest percentage in the list, the problem could be related to the internet service provider (ISP). See Improving Network Performance.

- **Client** – Displays in seconds and as a percentage, the total page load time for the computer to render the page.

  If this row has the highest percentage in the list, see Improving Client Performance.

- **Page** – Displays the web address of the page you are viewing in the application.

- **Email** – Displays the email address associated with the account.

- **Time** – Displays system date and time.

The information in the Performance Details window is based on the data sent to the client from the server. Occasionally, when the end to end time metric is not sent from the server, only the client, page, email, and time are shown.
To copy performance details into a support case:

1. Double-click the Oracle NetSuite logo at the top left of the page that exhibits slow performance.
2. Select all the text in the window, and copy.
3. Click the Support tab.
4. Click the Go to SuiteAnswers link.
5. On the SuiteAnswers page, click Contact Support Online.
7. Paste the text into the Message field.
8. Click Submit.

When you report a Network Performance issue to Customer Support, please include answers to the questions below. This information will help to diagnose and resolve the problem quickly.

- What browser are you using? Do you have any plug-ins installed?
- Are you using a firewall? If so, what is the name and version of the firewall software or device? What ports are open?
- Are you using a proxy for your HTTP Connections? If so, what is the name and version of the software? For more information, see Troubleshooting Problems with Firewalls and Proxy Servers.
- Are you using an anti-virus or anti-spyware application? If so, what is the name and version of the software?
- Include your public IP address in the case.
  
  To get this information, go to http://www.whatismyip.com.

The more information you add to a case, the better NetSuite Customer Support can serve you. If you are using a PC, open a command prompt and run the following commands to gather more information to add to your case:

- Execute a dnslookup on the affected domain and include the output. For example, if you are having trouble with <accountID>.app.netsuite.com, then type the command below in a Command Prompt window, and press Enter.

  ```
  nslookup.exe <accountID>.app.netsuite.com.
  ```

Optimizing User Preferences

Server performance is measured as the time spent processing data on a NetSuite server. Customizations or suboptimal search criteria can affect the server's performance. You can ask users to adjust their NetSuite user preferences to improve server performance.

Adjusting NetSuite Preferences

NetSuite includes many preferences that users can set to configure the system for optimum performance. Users can review available preference options, at Home > Set Preferences.
Users can adjust the following preferences to speed page loading:

- On the Appearance subtab, Centers & Dashboards section, set the **Landing Page** preference to open NetSuite to a page other than the Home page. This preference can be set to open NetSuite on the page that a user visits most frequently.
- On the General subtab, Optimizing NetSuite section:
  - Check the **Delay Loading of Sublists** box to initially load NetSuite pages without data on subtabs. When this box is checked, the data on each subtab is loaded only when the subtab is clicked. This shortens the initial page loading time.
  - Set the **Number of Rows in List Segments** field to a lower number to speed the loading of pages containing long lists. A segment size of 50 is recommended. When a page includes a long list of records, the list is divided into segments, with one segment loaded at a time. Resetting this preference decreases the size of each segment.
  - Set the **Maximum Entries in Dropdowns** field to a lower number to speed the loading of pages containing dropdown lists with lots of options. A setting of 50 or less is recommended, unless larger menus are required. Any list with more results than this setting appears in a popup instead of a dropdown list. Using popups speeds page load time.
    - With dropdown lists, all values in a list are loaded when a user accesses a page.
    - With popup list fields, the lists are not loaded until a user searches for an item or clicks the list icon. Users can quickly search and automatically complete fields by entering the first few letters of the item and pressing the Tab key.

**Optimizing Search and Reporting Performance**

NetSuite provides powerful search capabilities that enable retrieval of the precise information needed, from a potentially vast amount of stored data. However, going through a large number of stored records can slow the retrieval of search results.

**Important:** Keep in mind:

- Use scheduled searches where possible, even for integrations where performance is currently acceptable. Scheduled searches run in the background, and can help ensure results are delivered reliably even as data sizes grow over time.
- Perform searches and reports on a limited time range (smaller is always better).
- Avoid including system notes in your searches because they contain a lot of data. If you have any logic based on the record history, it is preferable to have a custom field on the record itself.

For information about different types of NetSuite searches, see the help topic *Search Overview*. For details about preferences you can set for searches, go to Home > Set Preferences, and click field names on the Analytics subtab.

### Avoiding the “Contains” Condition in Searches

The contains condition is one of the most resource-intensive search mechanisms. Try to replace this condition wherever possible to improve search performance:
If all of the records you want to retrieve begin with the value you are attempting to match, use “starts with” or “keywords” instead of “contains”.

For example, if you are searching for all records for customers with names beginning with “PennyPack”, such as “PennyPack Systems-NY” and “PennyPack Systems-SF”, you can define search criteria of “Name/ID starts with PennyPack”, rather than “Name/ID contains PennyPack”.

If all the records you want to retrieve contain words beginning with the value you are attempting to match, use “has keywords” instead of “contains”.

For example, if you are searching for all records for customers with the word “Toys” in their names, you can define search criteria of “Name/ID has keywords TOYS”.

Scheduling Exceptionally Long Saved Searches

NetSuite offers the option of scheduling saved searches and having results emailed to the recipients you choose, so you do not have to stop your work to wait for exceptionally long searches. On the Email subtab of a Saved Search definition page, you can choose the date or dates when you want to run the search, and select one or more recipients for emailed search results. Scheduled saved searches are run at 2 a.m. Pacific time on the dates specified. For more information, see the help topic Enabling Saved Search Scheduled Email.

Scheduling Exceptionally Long Reports

If you discover that a report takes a long time to return results, you can click Schedule in the footer of the report. Clicking the Schedule button opens the Schedule Report page where you can create a schedule to automatically email the report. Schedules can be created for standard and saved reports and can be sent to other users.

On the Schedule Report page you can select recipients, enter a message, and select attachments to include with the emailed report. You can then use the options on the Recurrence tab to define how often you want this report emailed to the recipients.

For more information, see the help topic Scheduling a Report.

If performance of a scheduled report or saved search is abnormally slow, use Application Performance Management (APM) to analyze the search performance of users. For details, see the help topic Analyzing Search Performance. If you require further assistance, submit a case to NetSuite Customer Support. For details, see Helping Users with Performance Issues.

Warning: If your report is not returning results quickly enough, do not repeatedly attempt to run it during the time that the original report is still running. Executing multiple reports at the same time can cause significant performance issues.

Improving Network Performance

Network performance is measured as the time it takes for data to travel from a server at NetSuite to your computer. Some pages in NetSuite may take longer to load than others.

The following issues are symptoms of network performance problems:

- A form, such as a customer record, or transaction, taking a long time to finish loading.
- A report taking a long time to display data on the page.
Use the Performance Details window to determine if network time accounts for a large amount (for example, 25% or more) of the total time to bring up a slow page. For more information, see Gathering Performance Details.

The use of a Content Delivery Network (CDN) in our global distribution network brings performance benefits to page load times in the NetSuite UI. All application domains currently have a CDN in them (https://<accountID>.app.netsuite.com).

If network performance is abnormally slow, use Application Performance Management (APM) to improve performance for users. For details, see the help topic Application Performance Management (APM). If you require further assistance, submit a case to NetSuite Customer Support. For details, see Helping Users with Performance Issues.

Troubleshooting Problems with Firewalls and Proxy Servers

Firewalls and NetSuite

A firewall is generally set up to protect your network or computer from unwanted internet traffic. The primary function of a firewall is to let good traffic pass through whereas bad traffic is blocked. If your company uses a firewall to monitor internet traffic, your network manager may need to modify the firewall to use NetSuite successfully.

If you are experiencing performance issues, pages that load slowly, or frequent time-outs, try accessing NetSuite from a location outside of the firewall. If you determine that the firewall may be a problem, try making the following changes to the firewall:

- Set up the firewall to allow all traffic to and from www.netsuite.com and any of the applicable URLs found in Understanding NetSuite URLs.
- Open the following Ports:
  - Port 80 for non-secure http pages
  - Port 443 for secure https pages
  - Port 1708 for SuiteAnalytics Connect access

Proxy Servers and NetSuite

A proxy server is not recommended for use with NetSuite.

When your company uses a proxy server for internet traffic, and you visit a Web page from your work station, a request is sent to the proxy server for that page. The proxy server retrieves the page from the internet and forwards the page to your computer. The page may then be cached, or saved, on the proxy server's disk drive for future use. For subsequent requests of the same page, the proxy server may return the cached version of the page stored on its drive instead of accessing a current version of the page from the internet.

Cached pages returned by a proxy server can cause problems when using NetSuite, because you need to view accurate and up to date information about your company.

Improving Client Performance

Client performance is measured as the time it takes for your computer to display a page. Other applications running on your computer in addition to NetSuite are using your computer’s resources. These applications may impact the performance of the NetSuite application on your computer.
Some client performance problems may appear in one browser and not in another. For example, some browsers may render pages faster than others. These differences may result from browser configuration, security defenders, and individual browser add-ons. For more details, see the help topic Supported Browsers for NetSuite.

Also note that some NetSuite tasks require intensive resources, for example creation of a sales order with 200 items.

Troubleshooting Client Performance

To identify client performance issues:
1. Right-click the toolbar on your computer. Select Start Task Manager.
2. Click the Processes tab.
3. Click Memory to sort the processes based on memory usage, or RAM.

To troubleshoot client performance issues:
1. Close all the applications you are not using. If you need to run more than one application consider increasing your computer resources (RAM).
2. Check your Security Defender firewall application. Some of these applications check the page before loading it on your browser; this check can cause a delay.
3. Remove any spyware that could be using your computer's resources.
4. Determine whether the issue is only happening for one type of form. Try to determine what is different about the form compared to other forms that load more quickly.
5. Test on different browsers. You can install Firefox on your computer for free. Load the page using Firefox, then load the page using Internet Explorer. Use the browser that displays the page faster.
6. Determine whether there are add-ons running on your browser, like anti-virus, anti-SPAM, or phishing. Eliminate browser add-ons, one by one, to identify the cause of the issue.

To verify whether a performance issue is caused by the browser:
1. Check the browser version.
   - Verify that the browser version is supported by NetSuite. For more information, see the help topic Supported Browsers for NetSuite.
   - Ensure that you are using the latest version of the browser.
   - Use of trial, development, or early adoption browser versions is not recommended.
2. Check whether the problem is occurring on other supported browsers.

Configuring Dashboard Portlets

NetSuite provides great flexibility for dashboard configuration, giving you the freedom to include a large number of portlets on every page. Be aware that the loading of real-time data for portlets can increase
page loading times. For example, Key Performance Indicators portlets and custom saved search portlets may be slow to load.

When you are setting up a dashboard, consider ways to manage page loading performance.

- If you want easy access to a portlet's information but do not need to see it on a dashboard, consider adding a shortcut in the shortcuts portlet. For details, see the help topic Shortcuts Portlet.
- If you want to include slow-loading portlets on a dashboard, you can avoid loading their data at initial page load by minimizing them.
  
  To minimize a portlet, click the portlet's title.
  
  The portlet stays minimized the next time you log in or refresh the dashboard. You need to click the title of the minimized portlet to display the data.
Troubleshooting Performance Issues

Before consulting the troubleshooting tips, check status.netsuite.com to see if there are any system issues currently being addressed, and the resolution path.

To help with troubleshooting performance issues, use the Application Performance Management (APM) SuiteApp to monitor and manage NetSuite performance for business critical operations. APM compiles information into a performance dashboard that highlights performance issues and anomalies, and links to more detail. For more information, see the help topic Application Performance Management (APM).

To see specific troubleshooting issues and how to solve them, search Troubleshooting Performance in SuiteAnswers. This information has been compiled by NetSuite Customer Support, based on their experiences troubleshooting performance issues.