

Oracle® Fusion Cloud EPM

Oracle Enterprise Performance Management Cloud Operations Guide



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Contents

Documentation Accessibility

Documentation Feedback

1 Creating and Running an EPM Center of Excellence

2 Understanding the EPM Cloud Troubleshooting Process

Creating a Backup Snapshot	2-1
Reviewing the Activity Report to Identify Performance Bottlenecks	2-2
Getting Help From Oracle	2-2
Using Fiddler to Capture Diagnostic Information	2-3
Collecting Network Performance Trace Using a Browser	2-3
Collecting Network Trace Using Google Chrome	2-3
Collecting Network Trace Using Microsoft Edge	2-4
Collecting Network Trace Using Firefox	2-4
Creating a Provide Feedback Submission	2-5
Submitting a Technical Service Request	2-6
Managing Service Requests	2-7
Understanding Access Limits	2-8
Monitoring the Service	2-8
Managing User Accounts	2-9
Client Compatibility	2-10
EPM Cloud Data Centers and Regions	2-10
EPM Cloud Classic Data Centers	2-11
OCI (Gen 2) Geographical Regions and Identifiers	2-11
Location of the New Environments	2-13
Outbound IP Addresses of EPM Cloud Data Centers and Regions	2-13
Best Practices for Production and Test Environments	2-15
Understanding Implicit and Explicit BSO Restructures	2-16
Essential Resources for Customer Success	2-17

3 Understanding Oracle Release Change Management Process

Understanding EPM Cloud Change Management Process	3-1
Resolving Regression Bugs in Test Environments	3-2
Resolving Regression or Blocking Bugs in Production Environments	3-2
Understanding Change Migration Procedures	3-2
How Oracle Communicates the Update Schedule	3-3

4 Troubleshooting EPM Cloud Issues

Resolving Login Issues	4-2
Resolving Connection Issues	4-2
Resolving Login Failures When Connecting to EPM Cloud Through VPN	4-3
Deciding Which Sign In Option to Use When Two Options are Available	4-3
Resolving Login Failures in EPM Cloud SSO Setup with Fusion Applications	4-3
Using Vanity URLs to Redirect to EPM Cloud	4-4
Restoring Access If Application is in Admin Mode: No New Logins allowed Message is Displayed	4-4
Troubleshooting Issues with Deactivation of User Access	4-4
Troubleshooting Issues with Sign-On Policies	4-5
Troubleshooting Issues with Users Belonging to IDCS Groups	4-5
Getting Help	4-6
Dealing with Down Environments	4-7
Troubleshooting Business Rules and Member Formula Errors and Performance	4-8
Best Practices	4-8
Environment Setting	4-9
Optimize BSO Cubes	4-9
Resolve Cube Outline Warnings	4-11
Optimization and Performance Considerations	4-11
Avoiding Recursion Error	4-12
Use of FIX Statements	4-13
Use of IF Statements	4-13
Block Calculation	4-14
Calculation Levels	4-14
Syntax Considerations	4-14
Use of Block Mode and Cell Mode	4-16
Recommendations for Creating Blocks and Block Size	4-16
Use of BottomUp and TopDown Calculations	4-17
Aggregations	4-17
Use of SET CALCPARALLEL and FIXPARALLEL Calculation Commands	4-17
Use of XRANGE to Calculate a Date Range	4-18
Writing Optimized Business Rules: Optimizing Essbase Calculation Scripts by Using NOT in IF Statements	4-19

Creating a Business Rule Using a Unit Test	4-20
Debug Methodology for Developing Business Rules	4-21
Business Rule Optimization	4-22
Reviewing the Activity Report to Identify Candidates for Optimization	4-22
Identifying Areas for Rule Optimization	4-23
Optimizing Rules: An Example	4-25
Business Rule Optimization for Hybrid-Enabled Cubes	4-27
Effect of Dynamic Calc Parent Members that have Member Formula with Aggregating Children	4-28
Impact of Enabling Hybrid Cubes on Calculations and Member Formula in Planning	4-28
Troubleshooting Incorrect or No Data in Member Formula in Hybrid BSO and ASO Cubes	4-28
Performing Calculations Using Dates Stored in Planning	4-29
Using a Business Rule to Populate System Date in Planning	4-29
Avoiding the Attempt to Cross a Null Member in Function Error	4-30
Resolving Essbase Error(0): Error Executing Formula	4-31
About Deploying Business Rules to Applications	4-31
Why Does the Execution Time of a Business Rule Vary?	4-31
Getting Help	4-32
Resolving Form Functional and Performance Issues	4-34
Identifying and Correcting Issues	4-34
Level0 Members Tagged as Dynamic Calc but without a Formula	4-35
Resolving the Unable to load the data entry form as the number of data entry cells exceeded the threshold Error	4-36
Resolving the Required Dimensions are Not Present Error When Opening Forms	4-36
Troubleshooting Financial Consolidation and Close Retrieval Performance	4-37
Fixing Data Entry Issues in Financial Consolidation and Close	4-45
Troubleshooting Database Refresh Issues	4-45
Preventing Daily Maintenance from Terminating Database Refresh and Cube Restructures	4-46
Resolving Financial Consolidation and Close Database Refresh Failure Error 1060200	4-46
Resolving Database Refresh Failure Error: Invalid Character 0x19	4-47
Getting Help	4-48
Resolving Issues with Smart Push	4-49
Optimizing Aggregate Storage Option Cubes	4-51
Merging Data Slices and Removing Zeros	4-51
Merging Data Slices and Removing Zeros Using A Job	4-52
Merging Incremental Data Slices and Removing Zeros Using Calculation Manager	4-52
Compacting the Outline	4-53
Compacting ASO Outline Using a Job	4-53
Compacting ASO Outline Using Calculation Manager	4-54
Reviewing Dimension Hierarchy Types	4-54
Creating Required Aggregate Views	4-56

Collecting User Data Retrieval Patterns and Creating Aggregate Views Using Jobs	4-56
Enabling Query Tracking and Creating Aggregate Views Using Calculation Manager	4-57
Reviewing ASO Retrieval Formula Statistics in the Activity Report	4-58
Getting Help from Oracle	4-58
Handling Issues Related to Large Data Export from ASO Cubes	4-59
Resolving Import and Export and Backup Errors	4-60
Managing Exports and Imports	4-60
About Exports and Imports	4-61
Performance of the Backup Process	4-62
Keeping Snapshots Up to Date	4-62
Exporting Smart List Textual Data During Daily Maintenance for Incremental Data Import	4-62
Upload and Download File Size Limit	4-63
Resolving Migration-Related Errors	4-63
Resolving User does not Exist for this Application Error while Importing Snapshots	4-64
Getting Help	4-65
Resolving Clone Environment Issues	4-65
Resolving EPM Automate Issues	4-66
Finding Your Identity Domain	4-67
Resolving Session Failures if the Environment is Configured for SSO with an Identity Provider	4-67
Resolving Script Execution Failures After Changing the EPM Cloud Password	4-67
Resolving the EPMAT-7: Unable to Connect, Unsupported Protocol: https Error When Using a Proxy Server	4-68
Resolving EPMAT-11 Internal Server Error, Connection Timed out Error	4-69
Resolving EPMAT-11: Unable to Connect to URL Error When Connecting from a Linux Computer	4-70
Resolving EPMAT-7: Session is Not Authenticated. Please Execute the Login Command Before Executing Any Other Command Error	4-70
Correcting EPMAT-9: Invalid Credentials and EPMAT-7: Invalid Parameter Errors	4-71
Correcting EPMAT-7:The user doesn't have write permissions to the current working directory and FileNotFoundException: .prefs (Access is denied) Errors	4-71
Resolving EPMAT-7: Unable to Modify Access Permission of Password File: .prefs Error	4-72
Resolving EPMAT-7: Unable to Parse Password File: .prefs Error	4-72
Resolving EPMAT-7: Unable to Parse Password File: passwordfile.epw Error	4-72
Resolving EPMAT-7: Unable to Delete Password File: .prefs Error	4-72
Resolving EPMAT-7: Unable to connect as few SSL certificates are missing in the keystore and EPMAT-7: Unable to connect as above-mentioned SSL certificates are missing in the keystore Errors	4-73
Correcting HttpConnection - Exception Caught when Closing Output Error	4-73
Handling Upgrade Failures	4-73
Handling Login Failures After Switching Networks	4-74
Correcting EPMAT-9: Insufficient Privileges To Perform the Operation Error	4-74
Resolving EPMAT-7: Invalid TempServiceType Error	4-74

Resolving EPMAT-1: Invalid Snapshot Error	4-75
Resolving EPMAT-1: Command Failed To Execute. The Parameter Location Is Invalid Error While Running the ImportMetadata Command	4-76
Handling EPMAT-1: A Job with Name <rulename> and Type RULES was not Found Error	4-76
Resolving EPMAT-6: Service Unavailable Error While Running Business Rules	4-76
Resolving copySnapshotFromInstance Error in IP Allowlist-Enabled Environments	4-77
Handling Perceived EPM Automate Process Freeze	4-77
Getting Help	4-77
Diagnosing REST API Issues	4-78
Resolving User, Role, and Group Management Issues	4-80
Role Assignment Is not Immediately Reflected	4-80
No Identity Domain Administrator Exists	4-80
Getting Help	4-81
Diagnosing Financial Reporting Reports Errors and Performance Issues	4-81
Diagnosing Financial Reporting Reports Performance Issues	4-82
Diagnosing Errors in Financial Reporting Reports	4-84
Resolving the ArrayIndexOutOfBoundsException in the Database Connection Manager	4-85
Getting Help	4-85
Troubleshooting Reports Issues	4-86
Fixing Smart View Issues	4-87
Fixing Smart View Windows Plug-in Issues	4-87
Diagnostics Tools and Health Check	4-88
Installation and Languages	4-89
Windows, Office, and Smart View Locale Settings	4-90
Installing in the Windows Program Files Folder	4-90
Smart View cfg Folder and Properties File Access Requirement	4-90
Windows Registry Access Requirement for Smart View Installation	4-90
Smart View Display and Operations Issues After Windows 10 Update	4-90
Enabling and Disabling Smart View and Other Office Add-ins	4-91
Error When First Launching Excel After Installing Smart View	4-93
Issues When Starting Excel in Automation Mode	4-93
Smart View Ribbon Fails to Display After Non-Admin Installation	4-94
Ribbons Not Selectable After Installation	4-95
Diagnosing Login Issues	4-95
Clearing Smart View Cookies	4-96
Connection Error	4-98
Failure to Establish Connection with Integrated Windows Single Signon	4-98
Problem Opening Files in Excel	4-99
Slowness with Extension Options Dialog Box	4-100
Office Slow to Start when Internet Connectivity is Not Available	4-100
Excel Process Stops Responding (Hangs) on Shut Down	4-100

Excel Looks for HsTbar.xla File After Uninstall	4-100
Office Unknown Exception Error on a Protected Sheet	4-101
Smart View HTTP Session Timeout	4-101
Session Timeout when Connected Using Vanity URLs	4-102
Extension Updates and Office Applications Remaining Open	4-103
Extension Updates and Outlook	4-103
Extension Installation from EPM Cloud and Message Window Focus	4-104
Enabling the Smart View Extension for Firefox	4-105
Fixing Function Links on Machines where Smart View was Reinstalled in a User-specified Location	4-105
Drill-through with Chrome: Blocklist and Allowlist for Native Messaging	4-106
Transition Navigation Keys Not Supported	4-106
Duplicate Queries in Word Slow to Refresh	4-107
Issues with Dynamic Data Exchange Option in Excel	4-109
Spreading Issue, Smart View Installation, and HsSpread.dll	4-110
Browser Settings When Working with XML Files on HTTP Server	4-110
Third-Party Monitoring Tools May Impact Smart View Stability	4-111
Performance and Memory Usage Considerations for Smart View with Excel	4-111
Flickering Issues on Office 2013 and Office 2016	4-113
Fixing Smart View (Mac and Browser) for Office 365 Add-in Issues	4-113
Library Folders do not display in Home Panel (Clear Storage Option)	4-113
Disabling the Popup Blocker on Chrome	4-115
Clearing the Chrome Browser Cache	4-115
Clearing the Office and Web Cache on a Mac	4-117
Connection Issue in Chrome after Clearing Cache	4-118
Task List Display Issue	4-119
Making Smart View (Mac and Browser) Work after Enabling SSO	4-119
Fixing Strategic Modeling Smart View Connection Issues	4-119
Strategic Modeling Ribbon is not Displayed	4-119
Even after Reinstalling Strategic Modeling, the Ribbon is not Displayed	4-120
Strategic Modeling Node is Not Displayed in Shared Connections	4-120
I have Other Problems	4-121
Getting Help	4-122
Fixing Workforce Issues	4-122
Resolving the Assignment of Double Benefits in Workforce	4-123
Resolving HSP_ID_XXXX Errors while Running Rules in Workforce	4-123
Troubleshooting New Hire Requisition being Added to Existing Requisition Issue	4-124
Getting Help	4-124
Fixing Strategic Modeling Issues	4-125
Fixing General Issues	4-125
Fixing Smart View Extension Issues	4-125
Fixing Strategic Modeling Web Issues	4-126

Getting Help	4-126
Diagnosing Consolidation Failures and Performance Issues in Financial Consolidation and Close	4-127
Use the Dense Sparse Optimization Option	4-127
Poor Application Design	4-129
Identify Unnecessary Calculations	4-130
Optimize Configurations and Extensions	4-131
Perform Regular Housekeeping	4-135
Diagnosing Performance Issues After Deploying Configurable Consolidation Rules	4-137
Automated Approach to Resolve Performance Issues	4-137
Manual Approach to Resolve Performance Issues	4-138
Consider Using Control To-Date View Storage	4-143
Diagnosing Performance Issues After Deploying Configurable Calculation (Insertion Point) Rules	4-143
Enable Consolidation Rules Logs and Submit Feedback to Oracle	4-147
Address Functional Issues	4-148
Get Help from Oracle	4-151
Troubleshooting Financial Consolidation and Close Approval Process Issues	4-152
Troubleshooting Financial Consolidation and Close Enterprise Journal Issues	4-153
Troubleshooting Profitability and Cost Management Issues	4-154
Application Design Best Practices	4-154
Managing Application Scalability	4-154
Managing Dimension Design	4-156
Managing Application Logic Design	4-159
Maintaining an Optimized Calculation System	4-164
Troubleshooting Calculation Issues	4-166
Reviewing Calculation Results	4-166
Validating Rule Results	4-167
Reviewing Metadata Impacts on Rules	4-168
Terminating Long Running Jobs	4-169
Getting Help	4-169
Precise Description of Issue or Failure	4-169
Historical Context	4-170
Supporting Details	4-170
Troubleshooting Account Reconciliation Issues	4-171
Impact of Loading Balances on Active Status of Profiles	4-171
Restricting Amount Value to Two Decimal Places in FDMEE for Custom File Export	4-171
Reasons why Transaction Matching Reopen Reconciliations	4-172
Resolving Reopening of Reconciliations After Partial Source (General Ledger) or Subsystem (Subledger) Balance Reload	4-172
Getting Help	4-172
Troubleshooting FDMEE and Data Integration Issues	4-173
Required Roles for Loading Data	4-173

Handling Data Integration Errors	4-173
Troubleshooting Data Load Performance Issues in Data Management	4-174
Handling Data Load Failures in Account Reconciliation	4-174
Resolving Error: 3335 During FDMEE Data Export	4-175
Getting Help	4-175
Managing Content Upgrade Issues	4-176
Handling Issues with Navigation Flows	4-177
Troubleshooting ERP Integration Functional Issues	4-180
Required Oracle ERP Cloud Predefined Roles	4-180
Required Oracle ERP Cloud Privileges If Using a Custom Role	4-180
IP Allowlist	4-181
Troubleshooting Tips for ERP Integration	4-181
Integration of EPM Cloud UI into ERP Instance	4-181
Integration of EPM Cloud UI into an Oracle ERP Cloud Instance	4-182
Getting Help	4-183
Dealing with FastConnect Issues	4-183
Troubleshooting NetSuite Planning and Budgeting Issues	4-184
Resolving IP Allowlist Functional Issues	4-185
Managing Patching Issues	4-185
Why Monthly or Patch Updates Fail	4-185
Getting Help	4-186
Managing Other Functional Issues	4-186
Resolving Other Performance Issues	4-187
Handling Financial Consolidation Data Inaccuracies	4-189
Check for Poor Application Design	4-189
Remove Customizations	4-190
Check Known Consolidation Issues	4-192
Use Data Discovery to Self-Diagnose Data Inaccuracies	4-195
Get Help from Oracle	4-195
Handling Data Loss in an Environment	4-196
Resolving Order Processing Issues	4-197

5 Making EPM Cloud-Related Requests

Requesting to Skip Automatic Updates for Environments	5-3
Requesting a One-Off Patch	5-5
Requesting a Rollback of Production or Test Environments	5-6
Requesting Merge Back of Environments	5-6
Requesting Oracle to Apply Monthly Update to Production Environments Prior to the Third Friday	5-7
Requesting a Temporary Loaner Environment	5-8
EPM Cloud Classic to Oracle Cloud Infrastructure (OCI) Migration	5-9

Oracle-Managed Migration	5-9
Mapping of Current Classic Data Centers to OCI Regions	5-13
Enrolling in the Implementation Success Program	5-13
Requesting Performance Validation for Planning, Planning Modules, and Financial Consolidation and Close	5-15
Requesting Automated Regression Testing	5-16
Requesting Essbase Block Analysis Report	5-18
Requesting Design Comparison for On-Premises Planning Application Migrated to EPM Cloud	5-19
Requesting Custom Sender Email Address for OCI (Gen 2) Environments	5-22
Submitting an Enhancement Request	5-22
Requesting an Increase in Planning Dimension Governor Limits	5-23
Requesting an Increase in Financial Consolidation and Close Dimension Governor Limits	5-25
Requesting an Increase in Profitability and Cost Management and Enterprise Profitability and Cost Management Governor Limits	5-26
Requesting an Increase in Oracle Enterprise Data Management Cloud Governor Limits	5-27
Requesting an Increase in Account Reconciliation Governor Limits	5-29
Requesting Root Cause Analysis (RCA) for a Resolved Issue	5-30
Requesting an Old Backup Snapshot of an Environment	5-32
Requesting an Increase in Capacity	5-33
Requesting a Health Check for an Environment	5-34
Requesting the Migration of Environments to Another Data Center	5-35
Requesting the Configuration of IP Allowlist	5-35
Use of Dedicated VPN Connection to Restrict Access	5-36
Requesting to Disallow Service Administrators to Assign Predefined Roles in OCI (Gen 2) Environments	5-36
Requesting Additional Environments for EPM Enterprise Cloud Service Subscriptions	5-37
Requesting Infrastructure Maintenance Delay	5-37
Requesting EPM Cloud Roadmap Information	5-37
Responding to Customer Diagnostic Alerts	5-38
Making Other Requests	5-39

6 Asking Questions About EPM Cloud

Asking How-to Questions	6-1
Asking Other Questions	6-2

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1

Creating and Running an EPM Center of Excellence

A best practice for EPM is to create a CoE (Center of Excellence).

An **EPM CoE** is a unified effort to ensure adoption and best practices. It drives transformation in business processes related to performance management and the use of technology-enabled solutions.

Cloud adoption can empower your organization to improve business agility and promote innovative solutions. An EPM CoE oversees your cloud initiative, and it can help protect and maintain your investment and promote effective use.

The EPM CoE team:

- Ensures cloud adoption, helping your organization get the most out of your Cloud EPM investment
- Serves as a steering committee for best practices
- Leads EPM-related change management initiatives and drives transformation

All customers can benefit from an EPM CoE, including customers who have already implemented EPM.

How Do I Get Started?

Click to get best practices, guidance, and strategies for your own EPM CoE: [Introduction to EPM Center of Excellence](#).

Learn More

- Watch the Cloud Customer Connect webinar: [Creating and Running a Center of Excellence \(CoE\) for Cloud EPM](#)
- Watch the videos: [Overview: EPM Center of Excellence](#) and [Creating a Center of Excellence](#).
- See the business benefits and value proposition of an EPM CoE in *Creating and Running an EPM Center of Excellence*.



2

Understanding the EPM Cloud Troubleshooting Process

How often have you looked for steps to troubleshoot issues in Oracle Enterprise Performance Management Cloud business processes? This guide identifies some common customer reported issues and the procedures to correct them.

Use this guide to self-diagnose the reason why some EPM Cloud issues occur and the steps involved in correcting them. If the suggested steps prove ineffective, this guide lists the information that you must provide while seeking help from Oracle.

In this Section

- [Creating a Backup Snapshot](#)
- [Reviewing the Activity Report to Identify Performance Bottlenecks](#)
- [Getting Help From Oracle](#)
- [Managing Service Requests](#)
- [Understanding Access Limits](#)
- [Monitoring the Service](#)
- [Managing User Accounts](#)
- [Client Compatibility](#)
- [EPM Cloud Data Centers and Regions](#)
- [Outbound IP Addresses of EPM Cloud Data Centers and Regions](#)
- [Best Practices for Production and Test Environments](#)
- [Understanding Implicit and Explicit BSO Restructures](#)
- [Essential Resources for Customer Success](#)

Creating a Backup Snapshot

All troubleshooting activities must be performed in a test environment.

Begin by creating a backup of the application in the current environment and downloading it to a local computer. See these information sources:

- [Backing Up and Restoring an Environment Using the Maintenance Snapshot in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*](#)
- [Backing Up Artifacts and Application in *Oracle Enterprise Performance Management System Lifecycle Management Guide*](#)

Reviewing the Activity Report to Identify Performance Bottlenecks

The Activity Report is generated automatically to help you identify issues that may impact the performance of your application.

A new Activity Report is generated in these three situations:

- Every day during daily maintenance of the service
- Each time you submit a Provide Feedback submission
- Every time you execute the `resetService EPM Automate` command to restart an environment

For detailed information about the Activity Report, see *Using Activity Reports and Access Logs to Monitor Usage in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Before contacting Oracle for help, especially for performance-related issues, review the Activity Report to identify bottlenecks. Specifically, carefully review the following sections of the Activity Report to identify areas that you may streamline to improve performance:

- **Number of Users:** This section helps you determine if there is a correlation between the number of users and the performance of the application.
- **Top 7 User Interface Requests by Duration:** This section, which identifies the top seven user actions by duration, provides you a starting point to identify why these actions take time to complete.
- **Top 30 Worst Performing User Interface Actions over 2 Seconds:** This section, which identifies the worst performing actions and objects (for example, rule), helps identify artifacts that you need to evaluate to improve performance.
- **Top 10 Worst Performing Business Rules over 30 Seconds:** This section identifies the business rules that take the most time to run, and are candidates for optimization.
- **Top 5 Worst Performing Calc Scripts Commands over 1 Min:** This section identifies specific sections in a rule that takes a long time to execute and should be reviewed to improve performance.
- **Top 10 Worst Performing Essbase Queries over 15 seconds :** This section list the worst performing Essbase queries, which may be optimized to yield better performance.

Getting Help From Oracle

Before approaching Oracle Support for assistance, complete the troubleshooting steps available in this book to diagnose and fix the issue.

Specific information that Oracle requires to troubleshoot your issue is identified in each discussion. These topics provide additional information.

- [Using Fiddler to Capture Diagnostic Information](#)
- [Collecting Network Performance Trace Using a Browser](#)
- [Creating a Provide Feedback Submission](#)
- [Submitting a Technical Service Request](#).

Using Fiddler to Capture Diagnostic Information

Use Fiddler to capture HTTPS traffic while you re-create EPM Automate, Oracle Smart View for Office, browser login or performance issues. Fiddler trace file contains statistics and inspectors that help Oracle debug issues more efficiently.

Watch this overview video for information on configuring Fiddler to capture HTTPS traffic.



[Overview Video](#)

You may need to configure your browser setting using the instructions available on the vendor's web site. See [Configure Browsers](#) for details.





Collecting Network Performance Trace Using a Browser



Oracle Support may require network performance data to resolve some Oracle Enterprise Performance Management Cloud performance issues.

In this Section







- [Collecting Network Trace Using Google Chrome](#)
- [Collecting Network Trace Using Microsoft Edge](#)
- [Collecting Network Trace Using Firefox](#)

Collecting Network Trace Using Google Chrome

1. Clear the cache in Chrome.
 - a. Click  (**Customize and control Google Chrome**), then select **History**, and then **History**.
 - b. Click **Clear Browsing data**.
 - c. Select all check boxes in **Clear Browsing data**.
 - d. In **Time range**, select **All time**.
 - e. Click **Clear data**.
2. Open Network Diagnostics.
 - a. Click  (**Customize and control Google Chrome** icon), then select **More tools**, and then **Developer tools**.
 - b. Click **Network**.
 - c. Click  (**Clear**) to remove any existing network information in the log.
 - d. Select the **Preserve log** check box.
 - e. Select **Auto-open DevTools for popups** global preference.
 - Click  (**Settings**).
 - In **Preferences**, from **Global**, select **Auto-open DevTools for popups**.
 - Close **Settings**.




- f. Click  (**Record network log**).
3. From the current Chrome tab, sign in to the Oracle Enterprise Performance Management Cloud environment and perform the use case that causes performance or functional issues. Do not switch tab or open a new tab.
4. Sign out of EPM Cloud.
5. From the same Chrome tab as in Step 3, sign in to the EPM Cloud environment again and perform the same use case that causes performance or functional issues to ensure that the browser has cached static content.
6. Click  (**All Traffic**).
7. Right-click in the **Name** column and select **Save all as HAR with content**, and save the trace information to a local directory.

Collecting Network Trace Using Microsoft Edge

1. Clear the cache.
 - a. Click  (**Settings and More**), then select **History**, and then **Clear Browsing data**.
 - b. Select all check boxes in **Clear browsing data**.
 - c. In **Time range**, select **All time**.
 - d. Click **Clear now**.
2. Open Network Diagnostics.
 - a. Click  (**Settings and More**), then select **More tools**, and then **Developer tools**.
 - b. Click **Network**.
 - c. Click  (**Clear**) to remove any existing network information in the log.
 - d. Select the **Preserve log** check box.
 - e. Select **Auto-open DevTools for popups** global preference.
 - Click  (**Settings**).
 - In **Preferences**, select **Auto-open DevTools for popups**.
 - f. Click  (**Record network log**).
3. Sign in to the Oracle Enterprise Performance Management Cloud environment and perform the use case that causes performance or functional issues.
4. Sign out of EPM Cloud.
5. Sign in to the EPM Cloud environment again and perform the same use case that causes performance or functional issues to ensure that the browser has cached static content.
6. Refresh the Network tab.
7. Click  (**All Traffic**).
8. Right-click anywhere within the network tab and select **Save all as HAR with Content**, and then save the trace information to a local directory.

Collecting Network Trace Using Firefox

1. Clear the cache in Firefox.

- a. Click  (View history, saved bookmarks, and more icon), then select **History**, and then **Clear Recent History**.
 - b. In **Time range to clear**, select **Everything**.
 - c. Click **Clear Now**.
2. Open Network Diagnostics. Click  (Open Menu icon), then select **Web Developer**, and then **Network**.
 3. Click  (**Console Settings**) and ensure that **Persist Logs** is selected.
 4. Sign in to the Oracle Enterprise Performance Management Cloud environment and perform the use case that causes performance or functional issues.
 5. Sign out of the EPM Cloud environment.
 6. Sign in to the EPM Cloud environment and perform the same use case that causes performance or functional issues to ensure that the browser has cached static content.
 7. Click **All** (**All Traffic**).
 8. Right-click in any column and select **Save All As HAR**, and save the trace information to a local directory.

Creating a Provide Feedback Submission

The Provide Feedback process enables Oracle to access the log files for the last 24 hours from your environment to help identify and fix the issue. While creating the submission, reproduce your issue and capture screenshots that clearly show the steps involved in recreating the issue.

For more information, see *Helping Oracle Collect Diagnostic Information Using the Provide Feedback Utility in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Note:

It is important that you create the Provide Feedback submission soon after you encounter the issue. If 24 hours have elapsed since you encountered the issue, Provide Feedback process will not be able to collect the logs for the time period when you encountered the issue.

Oracle may ask you to submit Provide Feedback multiple times during the resolution of an issue as you make changes to your application or run more activities. Such requests are made primarily to access the log files that were updated due to the changes made to the application.

Oracle does not access application snapshots without your explicit consent. Service Administrators can consent to the submission of the application snapshot by selecting **Submit application snapshot** radio button during the Provide Feedback submission process. Oracle uses the submitted application snapshot for testing purposes only; Oracle does not make changes to the application or data. If you consent to submit the maintenance snapshot, Oracle automatically encrypts and copies the current maintenance snapshot.



The maintenance snapshot that Oracle accesses when you provide this consent is the Artifact Snapshot created during the previous daily maintenance of the environment. Changes that you made after the previous daily maintenance are not reflected in the maintenance snapshot submitted during Provide Feedback. If you want Oracle to access your latest artifacts and data,

before submitting Provide Feedback, execute the `runDailyMaintenance EPM Automate` command to create a new maintenance snapshot.



 **Note:**

The utility generates a reference number for your submission, which you should include in the technical service request. The reference number is included in the feedback notification email sent to Service Administrators.

Your Goal	Learn How
Understand the information that you need to submit to quickly resolve issues	 Overview Video
Understand the process of collecting and submitting information using Provide Feedback	 Overview Video

Submitting a Technical Service Request

Sign in to the [Oracle Support](#) web site and create a technical service request. Be sure to include the reference number that the Provide Feedback utility created. Depending on your business process and issue, Oracle needs information such as:

- POVs
- User and substitution variables
- Expected and actual performance parameters (for example, expected time for consolidation versus actual time)
- Fiddler trace or HAR file of the session
- Log files

 **Note:**

Choose the **Critical Outage** category for the service request only when a critical production system or business function is unstable and an appropriate resource from your organization is available to work on this issue around the clock, if needed. For examples of critical outage scenarios, see [Critical Outage Examples \(Doc ID 2849481.1\)](#) available on the Oracle Support website.

Managing Service Requests

Service request resolution is a collaborative and iterative process which requires your active participation. A well-formed service request includes a detailed description of the issue or question, troubleshooting actions already taken, and a description of the business impact. Large, complex problems reported to Oracle Support through service requests may take time to resolve. At times, the service request may not progress fast enough to meet your implementation or upgrade plans or project milestones. In such cases, you have these options:

- **Determine if the service request severity is set correctly** Service request severity setting should comply with the categorization specified in the "Severity Definitions" section of [Oracle Cloud Hosting and Delivery Policies](#). You can request Oracle to change the severity by contacting the Support Engineer through the service request or by calling your region's support contact phone number.
- **Request management attention to the service request**

Requesting Management Attention to a Service Request

Requesting management attention to a service request involves your management and Oracle Global Customer Support management. While this process does not guarantee immediate resolution of the issue; it ensures that the right Oracle resources are focused on resolving the service request and communicating progress. It also provides a channel to notify Oracle Support of target dates and deadlines and the impact of the service request on your implementation plans. You may request the attention of an Oracle Global Support Manager to your service request in the following scenarios:

- The service request is not being resolved expeditiously to meet your implementation or upgrade plans or project milestones.
- Additional important business issues need to be communicated to Customer Support managers.
- You are not satisfied with the response or resolution that was made available.

Requesting management attention facilitates the creation of an action plan to resolve your issue and allows Oracle Support to validate and coordinate the required resources to resolve the problem.

 **Note:**

Routinely requesting management attention to non-critical issues or consistently overstating the criticality of a service request may result in a misunderstanding of the importance or critical impact of future requests. Use this option only in critical situations.

For instructions on this process, refer to [How To Request Management Attention on a Service Request \(SR\) with Oracle Support Services \(Doc ID 199389.1\)](#).

Understanding Access Limits

Can I Access the Database Used with my Cloud Environment?

No. You cannot access the database that supports your EPM Cloud environment. Access to all cloud content is provided only through the provided user interfaces, application program interfaces, and utilities. Direct access to the database using SQL is not provided.

Can I Access the EPM Cloud Operating System?

No. You cannot directly access the operating system that hosts your EPM Cloud environments. Direct access to the file system and other platform components is not provided.

Can I Access the Operating System and Application Log Files?

No. You cannot directly access the operating system and application log files from the server that hosts your EPM Cloud environments.

Monitoring the Service

This section lists queries related to monitoring EPM Cloud environments.

How do I Monitor Service Performance?

Service Administrators can monitor performance through My Services, which provides historic performance metrics. Service Administrators can also view Activity Reports, which helps streamline application design by identifying calculation scripts and user requests that impact application performance. See *Monitoring Your Service in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Is There a Way to Performance Test an Environment Under Load?

Use the replay EPM Automate command to simulate system load to verify that user experience is acceptable when the service is under a specified load. For example, you can test the user experience on a test environment under a heavy load to ensure that the service will perform well after you migrate the application from the test environment to the production environment.

Also, see *Preparing to Run the Replay Command in Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud*.

Is there an Activity Report in Narrative Reporting?

Activity Report and access logs are not available from within Narrative Reporting.

Activity Reports and access logs are generated and stored in Narrative Reporting environments. You can download them using the downloadFile EPM Automate command.

Additionally, you can generate a System Audit log (a CSV file) to identify changes to the service over a period of time. See *Performing an Audit in Narrative Reporting Administering Narrative Reporting* for detailed information.

How do I View Service Details?

Use **My Services** to view service status, uptime, and utilization data. Additionally, from My Services, you can access service console, environments, and the Oracle store.

See Viewing Service Details in My Services in *Managing and Monitoring Oracle Cloud*.

How Do I Monitor Notifications Related to Outages?

Use the **My Services Notifications** page to monitor ongoing service outages and planned service outages that Oracle schedules for service maintenance. You can filter and sort the list of notifications.

For more information, see Monitoring Notifications in *Managing and Monitoring Oracle Cloud*.

How Do I Ensure that Only Authorized Users can Access EPM Cloud Environments? How Can I Ensure that Users Can Only Connect Using Our Organization's VPN?

Use an allowlist or blocklist to control access to EPM Cloud environments. See these information sources:

- Setting Up Network Restricted Access in *.Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.
- [Managing Internet Protocol Allowlist and Blocklist Rules](#) in *Managing and Monitoring Oracle Cloud*.

What are the Data Size Restrictions in EPM Cloud?

For information, see these topics in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*:

- What Contributes to the Data Size in an Environment
- What is the Maximum Allowed Data Size in an Environment?
- What is the Retention Limit for Files and Snapshots?

What is the Retention Limit for Files and Snapshots?

Files and snapshots that you create or upload to an environment are deleted after 60 days. The daily maintenance process monitors the environment and automatically removes snapshots older than 60 days. If the total size of all remaining snapshots exceeds 150 GB, it deletes snapshots created in the last 60 days but older than 48 hours, oldest first, until the total size of snapshots is less than 150 GB. The daily maintenance snapshot, irrespective of its size, is never deleted.

Business processes other than Narrative Reporting can use the deleteFile EPM Automate command to remove unnecessary files from an environment.

Managing User Accounts

This section lists common queries about Single Sign-On (SSO) and user accounts.

If My Service is Configured for SSO, Does EPM Cloud Manage User Passwords?

If the service is configured for SSO, Oracle Enterprise Performance Management Cloud user names and passwords, and password policies, are managed by the directory server of your organization.

Service Administrators who need to access clients, such as EPM Automate, must have EPM Cloud accounts enabled for identity domain credentials. See *Ensuring that Users Can Run EPM Cloud Utilities After Configuring SSO in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*. For these accounts, EPM Cloud maintains passwords.

All users (including automation and system users) must periodically change their passwords. EPM Cloud sends reminder emails every day, starting seven days prior to password expiry, asking users to change their passwords. New passwords must adhere to the EPM Cloud password policies listed on the My Profile page of the My Services application. See *Changing Your Password in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

My Service is Not Configured for SSO. Is There a Way to Ensure that EPM Cloud Password Policies Mirror that of My Company?

No. EPM Cloud password policies cannot be changed to mirror the policies of an organization. If you want to use your own password policies, configure SSO.

Client Compatibility

This section addresses questions about browser and Oracle Smart View for Office compatibility.

How Do I Determine If Users are Using a Recommended Browser?

Use the Activity Report to track browser usage. This report lists the following:

- Browsers with unsupported versions and the number of users who used them
- Versions of the browsers that were used to access the service and the number of users who used them

Use these topics in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*:

- [Using Activity Reports and Access Logs to Monitor Usage](#)
- [Supported Browsers](#)

How do I Track the Version of Smart View Being Used?

Use the Activity Report to track Smart View usage. This report lists the following:

- Smart View versions being used and the number of users who use them
- The 10 most active Smart View users who do not use the current version of Smart View

See [Using Activity Reports and Access Logs to Monitor Usage](#) in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

EPM Cloud Data Centers and Regions

Related Topics

- [EPM Cloud Classic Data Centers](#)
- [OCI \(Gen 2\) Geographical Regions and Identifiers](#)
- [Location of the New Environments](#)

EPM Cloud Classic Data Centers

The following table lists the Oracle Enterprise Performance Management Cloud Classic data centers.

Table 2-1 Available Classic Data Centers

Data Center	Geographical Location	Identifier
USGOV	Chicago (US-Gov)	US008
	Sterling (US-Gov DR)	US009
UKGOV	Slough (UK-Gov)	EM006
	Chessington (UK-Gov DR)	EM007

OCI (Gen 2) Geographical Regions and Identifiers

Oracle Cloud Infrastructure is hosted in regions and availability domains. A region is a localized geographic area, and an availability domain is one or more data centers located within a region. A region is composed of one or more availability domains. For more information, see [Regions and Availability Domains](#) in *Oracle Cloud Infrastructure Documentation*. The following table lists the Oracle Enterprise Performance Management Cloud OCI (Gen 2) geographical regions and the region in which the IDCS or IAM instance is located for every environment in that geographical region (irrespective of the region in which the environment itself is located). For example, IDCS or IAM instance of all environments in the APAC SG001 geographical region is located in the ap-sydney-1 region.

 **Note:**

The sender email ID for EPM Cloud communications for all OCI (Gen 2) environments is `no.reply@epm.oraclecloud.com`.

Table 2-2 EPM Cloud OCI Geographical Regions and Identifiers

Geographical Region	Region Name	Identifier	Key	IDCS/IAM Instance Location
APAC SG001				ap-sydney-1
	Australia Southeast (Melbourne)	ap-melbourne-1	MEL	
	Australia East (Sydney)	ap-sydney-1	SYD	
	India South (Hyderabad)	ap-hyderabad-1	HYD	
	India West (Mumbai)	ap-mumbai-1	BOM	
	Japan Central (Osaka)	ap-osaka-1	KIX	

Table 2-2 (Cont.) EPM Cloud OCI Geographical Regions and Identifiers

Geographical Region	Region Name	Identifier	Key	IDCS/IAM Instance Location
	Japan East (Tokyo)	ap-tokyo-1	NRT	
	Singapore (Singapore)	ap-singapore-1	SIN	
	South Korea Central (Seoul)	ap-seoul-1	ICN	
EURO EU001				eu-frankfurt-1
	Germany Central (Frankfurt)	eu-frankfurt-1	FRA	
	Netherlands Northwest (Amsterdam)	eu-amsterdam-1	AMS	
Europe UK001				eu-frankfurt-1
	France Central (Paris)	eu-paris-1	CDG	
	Germany Central (Frankfurt)	eu-frankfurt-1	FRA	
	Italy Northwest (Milan)	eu-milan-1	LIN	
	Netherlands Northwest (Amsterdam)	eu-amsterdam-1	AMS	
	Spain Central (Madrid)	eu-madrid-1	MAD	
	Sweden Central (Stockholm)	eu-stockholm-1	ARN	
	Switzerland North (Zurich)	eu-zurich-1	ZRH	
	UK South (London)	uk-london-1	LHR	
	UK West (Newport)	uk-cardiff-1	CWL	
Middle East ME001				me-abudhabi-1
	Saudi Arabia West (Jeddah)	me-jeddah-1	JED	
	UAE Central (Abu Dhabi)	me-abudhabi-1	AUH	
	UAE East (Dubai)	me-dubai-1	DXB	
North America US001				us-phoenix-1
	Canada Southeast (Montreal)	ca-montreal-1	YUL	
	Canada Southeast (Toronto)	ca-toronto-1	YYZ	
	US East (Ashburn)	us-ashburn-1	IAD	
	Mexico Central (Queretaro)	mx-queretaro-1	QRO	

Table 2-2 (Cont.) EPM Cloud OCI Geographical Regions and Identifiers

Geographical Region	Region Name	Identifier	Key	IDCS/IAM Instance Location
	US West (Phoenix)	us-phoenix-1	PHX	
	US West (San Jose)	us-sanjose-1	SJC	
South America SA001				sa-saopaulo-1
	Brazil East (Sao Paulo)	sa-saopaulo-1	GRU	
	Brazil Southeast (Vinhedo)	sa-vinhedo-1	VCP	
	Chile (Santiago)	sa-santiago-1	SCL	

Location of the New Environments

Oracle provisions all new commercial Oracle Enterprise Performance Management Cloud orders to OCI data centers. The Government orders are provisioned in Classic data centers.

EPM Cloud subscriptions provisioned to OCI data center regions: You activate your environments to a data center within the data center region identified in your Ordering Document. See [Oracle Application Cloud Provisioning guide](#) for details.

EPM Cloud subscriptions provisioned to Classic data center regions: Your environments will be provisioned in a data center within the data center region identified in your Ordering Document.

Table 2-3 Location of Newly Provisioned Environments

Status	Default Location of New Environments
Existing EPM Cloud Commercial customer	OCI commercial region in the current geographical region
New EPM Cloud Commercial customer	OCI commercial region in the chosen geographical region
A US Government customer	Classic US-Gov data center (US8 or US9)
A UK Government customer	OC4 region
A EURA (European Union Restricted Access) customer	OCI EURA EU001 region

Outbound IP Addresses of EPM Cloud Data Centers and Regions

When you setup IP allowlist for an Oracle Enterprise Performance Management Cloud environment, you permit connections only from those specific IP addresses. In this scenario, requesting access from another EPM Cloud environment will not work unless you add to the IP allowlist the outbound IP addresses of the data center or region where the requesting environment is located. For example, if you are executing EPM Automate `copySnapshotFromInstance` command from an environment that has IP allowlist

configured, the outbound IP addresses of the data center or region where the source environment is located must be added to the allowlist. The same is true for Copy Application Snapshot REST API, Clone Environment screen in Oracle Hyperion Enterprise Performance Management System Lifecycle Management, `cloneEnvironment` EPM Automate command and REST API, and Navigation Flows.

Similarly, if you setup IP allowlist on a Fusion or NetSuite environment and want to establish connections from an EPM Cloud environment, you must update the IP allowlist in Fusion or NetSuite environment to include the outbound IP addresses of the data center or region where EPM Cloud environment is located.

Outbound IP Addresses of Classic Data Centers

Add the appropriate CIDR from the following table to the allowlist of the environment that receives the connections if the source environment is in a Classic data center:

Table 2-4 Outbound IP Addresses of Classic Data Centers

Data Center	Outbound IP Address
Chessington (EM007/UK-Gov DR)	141.145.79.48/29
Chicago (US8/US-Gov)	129.152.95.48/29
Slough (EM006/UK-Gov)	141.145.63.48/29
Sterling (US009/US-Gov DR)	129.157.31.48/29

Outgoing IP Address of OCI Regions for Communication within a Region

Add the CIDR 240.0.0.0/4 to the allowlist to enable communication if both environments are in the same OCI region. For example, if an environment in us-phoenix-1 region is IP allowlist-enabled, you must add 240.0.0.0/4 to the allowlist to accept requests from other environments in the us-phoenix-1 region.

Outbound IP Addresses of OCI (Gen 2) Regions for Communication Between Regions

If your allowlist-enabled environment needs to communicate with another environment in a different region, add the appropriate IP address from the following to the allowlist to enable communication. For example, if an allowlist-enabled environment in the us-phoenix-1 region has to accept a request from an environment in the us-ashburn-1 region, the allowlist-enabled environment (in us-phoenix-1 region) must add 130.35.200.71 to the IP allowlist.

Table 2-5 Outbound IP Addresses of OCI (Gen 2) Regions for Communication Between Regions

Region	Outbound IP Address
ap-hyderabad-1	129.148.134.207
ap-mumbai-1	192.29.168.100
ap-melbourne-1	192.29.211.116
ap-sydney-1	192.29.144.23
ap-osaka-1	192.29.248.174
ap-tokyo-1	192.29.39.186
ap-singapore-1	129.148.184.87
ap-seoul-1	192.29.22.211
ca-montreal-1	192.29.89.100
ca-toronto-1	192.29.14.16

Table 2-5 (Cont.) Outbound IP Addresses of OCI (Gen 2) Regions for Communication Between Regions

Region	Outbound IP Address
eu-amsterdam-1	192.29.192.117
eu-amsterdam-1 (EURA EU001)	192.29.193.58
eu-frankfurt-1	138.1.45.186
eu-frankfurt-1 (EURA EU001)	138.1.46.106
eu-madrid-1	155.248.138.168
eu-milan-1	129.149.115.202
eu-paris-1	155.248.132.129
eu-stockholm-1	129.149.83.6
eu-zurich-1	192.29.181.180
me-abudhabi-1	129.149.51.122
me-dubai-1	129.148.210.32
me-jeddah-1	192.29.117.179
sa-santiago-1	129.148.153.178
mx-queretaro-1	155.248.147.134
sa-saopaulo-1	192.29.142.211
sa-vinhedo-1	129.153.241.235
uk-london-1	147.154.230.60
uk-cardiff-1	129.148.207.125
us-ashburn-1	130.35.200.71
us-phoenix-1	130.35.2.158
us-sanjose-1	204.216.121.98

Best Practices for Production and Test Environments

This section explores some best practices for managing Oracle Enterprise Performance Management Cloud. Topics include the change management process and the use of maintenance mode.

Always Test Applications in Test Environments

Oracle recommends that all activities related to building, fine-tuning, and testing applications be performed in the test environment before migrating fully tested applications from the test to the production environment.

After a monthly update is applied to test environments on the first Friday of the month, run a regression test on them to ensure that there are no issues. Immediately report any issues you find to Oracle by creating a service request.

It is important to perform testing on test environments with Service Administrator and other predefined roles to ensure that your business users do not face issues when they start using production environments that are updated on the third Friday of the month.

Use Maintenance Mode while Performing Administrative Tasks

The maintenance mode is a state in which only Service Administrators can perform tasks within the application; all other users are locked out. The application remains in maintenance

mode until a Service Administrator returns it to regular use by turning off the maintenance mode.

When you set the application in maintenance mode, active users are signed out, which may result in losing unsaved data. To avoid data loss when an environment goes into maintenance mode, Oracle recommends that Service Administrators communicate the planned invocation of maintenance mode to users, advising them how to avoid losing unsaved data.

The following administration tasks, which consume a sizable amount of available computing resources, must be performed in maintenance mode.

- Adding a cube
- Refreshing cubes
- Restructuring an application
- Loading metadata
- Loading data

Limit the Number of Users Who are Assigned to the Service Administrator Role

Assign the Service Administrator role, the most powerful role in EPM Cloud, to only a few users. If required, assign application roles to augment the privileges of users to allow them to perform tasks that are not permitted by their role assignment in identity domain.

For more information, see *Managing Role Assignments at the Application Level in Oracle Enterprise Performance Management Cloud Administering Access Control for Oracle Enterprise Performance Management Cloud*.

Understanding Implicit and Explicit BSO Restructures

Each Oracle Hyperion Planning cube has two Oracle Essbase parts: metadata (dimensions, members, structures, hierarchies that are stored in Essbase outline) and data (which includes data stored in blocks consisting of a combination of dense members and index to the blocks, where a new block is created for every sparse dimension). These parts may be altered by a Planning database refresh or an Essbase BSO restructure.

Database Refresh or Implicit Restructures

Member or hierarchy changes made to Planning dimensions, members, or member properties are pushed to Essbase during a database refresh. A database refresh implicitly triggers a restructure in Essbase but does not remove #missing blocks. Database refresh is executed for all Planning cubes. Implicit restructures can result in the following types of restructures:

- **Outline only:** Always happens on all restructure requests.
- **Index only:** This is a low impact restructure and is used to restructure index, for example, after you add or move a new sparse member, or after you rename the alias of a sparse member.
- **Index and block:** This high impact restructure involves the restructuring of the data within the database, for example, after you add, delete, or move a dense member. It involves the restructuring of index files that hold the sparse index references and page files that hold dense blocks.

If the Essbase cube contains no data, index and page files are not present. In such cases, only the outline is restructured.

Explicit Restructure

You trigger an explicit restructure for a specific Essbase cube through a job, or by using Oracle Hyperion Calculation Manager, EPM Automate or REST APIs.

An explicit restructure does not push changes from Planning to Essbase. It always rewrites the metadata and data (outline, index, and page files), regardless of changes. It also removes #missing blocks and blocks tagged for deletion by a CLEARBLOCK calculation script.

Explicit restructures always execute high impact restructures involving rewrite of the data within the cube (all index files and page files).

Restructure Types and Execution Times

The execution time of a restructure varies depending on the size of the files being restructured (the size of index and page files) and the number of existing database fragmentation. A high impact restructure (explicit restructure or Index and block implicit restructure) takes longer to finish compared to a low impact Index only or outline only restructure.

Monitoring the Size of Index and Page Files

The following rows in the Essbase BSO Cube Statistics table in the Activity Report identify the size of the index and page files. Look for the following rows in these tables:

- Page File Sizes in MB
- Index File Size in MB

Monitoring the Number of Blocks in BSO Cubes

The number of blocks in the cube is an excellent indicator of the size of BSO cubes. Empty blocks, which may be included in this block count, can be removed by running an explicit cube restructure (see [Explicit Restructure](#)).

If you want to find the number of empty blocks in a BSO cube before running an explicit restructure, use Calculation Manager to export level 0 data. Click **Show Details** when level 0 export in Calculation Manager completes, assuming that the page doesn't time out during the export process). After clicking the **Show details**, identify phrases similar to `Total blocks: [124000]. Empty blocks: [1000]`. Existence of a high number of empty blocks is an indication to run an explicit restructure, which will remove the empty blocks.

Essential Resources for Customer Success

Ensure your success with Oracle Enterprise Performance Management by leveraging helpful resources that have been curated by our customer success architects. Use this guide to access an extensive list of resources 24/7 to help you transform your business with Oracle Enterprise Performance Management Cloud.

Two ways to Connect with experts:

1. Join the EPM Cloud community
[Cloud Customer Connect](#) is our community platform where you can collaborate and connect with other customers and Oracle product experts to share techniques, ideas, and experiences using EPM. There are also free webinars on key topics of interest to the customer community – presented by Oracle and designed to help you get the most out of your investment.
2. [My Oracle Support \(MOS\)](#) is your go-to resource for direct help and 1:1 support. You can submit a service request, access contact information for technical support, and manage

your service notifications. Additionally, you can access quick links to other helpful resources like webinars, user forums, and business success resources.

[Oracle Support Training](#) offers a variety of training programs based on your learning needs and skill level.

Ensure your team members have ongoing success:

1. Figure out your next steps quickly with our product documentation.
The [Oracle Help Center](#) is your gateway to robust documentation and additional resource links. You access it by clicking the little question mark at the top right of the console or through the online Oracle Help Center when you're not logged in. Here you can access the entire EPM documentation library, Quick Start Checklists, Getting Started Guides, platform information and more. You can always use the search feature in your browser to find specific topics covered in Oracle documents.

[Oracle EPM Tutorials](#) videos offer a variety of short videos to help you use important Oracle Enterprise Performance Management features.
2. Advance your product knowledge with our on-demand training courses.
The [Oracle Learning Explorer](#) program offers free entry-level training courses for Oracle's entire product portfolio. It was designed to empower professionals across the globe to cultivate valuable IT skills. Oracle University courses are available 24x7, so you can learn anytime, day or night.
3. Maximize your product usage with our latest features and enhancements.
The [EPM and EDM Release & Readiness Center](#) is where you will learn about the latest innovations within Enterprise Performance Management. Learn how to take advantage of what's new through new feature summaries and details, capability overviews, benefits, setup considerations, and usage tips.
4. Stay updated on the latest happenings with our free events and webinars.
[Enterprise Performance Management Events](#) include live and recorded webinars that will keep you and your team up to date on the latest topics. Sign up to learn from our subject matter experts.
5. Follow the latest thought leadership and best practices with fresh content and blog posts.
Check out our [Oracle EPM Blogs](#) where you can read our latest thoughts on strategic best practices, tips and tricks for EPM technology, and innovative ways to leverage your investment.
6. Share your feature enhancement ideas with the Community.
The [Idea Lab](#) available through Cloud Customer Connect allows you to contribute to our product roadmap by sharing your ideas on product enhancements, voting on your favorite requests, and commenting on your favorite ideas.

3

Understanding Oracle Release Change Management Process

This chapter explores the Oracle Enterprise Performance Management Cloud release change management process (monthly updates, weekly patches, one-off patches, skip automatic updates, and emergency patches), and how to address regression or blocking bugs.

In this Section

- [Understanding EPM Cloud Change Management Process](#)
- [Resolving Regression Bugs in Test Environments](#)
- [Resolving Regression or Blocking Bugs in Production Environments](#)
- [Understanding Change Migration Procedures](#)
- [Requesting to Skip Automatic Updates for Environments](#)
- [Requesting a One-Off Patch](#)
- [Requesting a Rollback of Production or Test Environments](#)
- [Requesting Merge Back of Environments](#)
- [Requesting Oracle to Apply Monthly Update to Production Environments Prior to the Third Friday](#)
- [How Oracle Communicates the Update Schedule](#)

Understanding EPM Cloud Change Management Process

Generally, each Oracle Enterprise Performance Management Cloud subscription is comprised of two environments. If you have a four-stage process (involving an environment each for development, test, acceptance, and production), you must purchase a new subscription for the two additional environments that you require.

Oracle is responsible for the change management process involved in updating the software and configuration of all environments. Any issue caused as the result of this process is defined as a regression.

You (not Oracle) are responsible for the change management of custom artifacts such as dimensions, forms and reports in all environments. The migration of artifacts from one environment to another is a self-service operation.

Oracle delivers software and configuration updates through one of the following:

- **Monthly update:** Contains a set of features and bug fixes for all instances of all services. The monthly update is applied to the test environments on the first Friday of the month and to production environments on the third Friday of the month.
- **Weekly patch:** Includes bug fixes and is mainly for fixing regression bugs found in test environments. The weekly patch is applied to all test environments on the second Friday of the month.

- **One-off patch:** Contains fixes for regression bugs, customer blocking bugs, or new features. One-off patches are applied to specific test environments on request. Customers whose environments are updated with a one-off patch test the updated environments and provide approval to apply the patch to production environments. Subsequently, Oracle applies the one-off patch to their production environments.
- **Emergency patch:** Contains one bug fix that needs to be applied immediately to an environment. This patch can be applied to test, production, or both as required.

Resolving Regression Bugs in Test Environments

Regression bugs found in test environments are fixed using a weekly patch or an emergency patch, which is applied to all test environments. Additionally, Oracle delays the update of production environments for all impacted customers to allow time to test the bug fix in test environments. If the regression issue is widespread, Oracle delays the update of production environments for all customers by canceling the monthly update of production environments.

Resolving Regression or Blocking Bugs in Production Environments

Depending on the severity of the issue, Oracle may initially patch some or all environments.

Regression or blocking bugs found in production environments are fixed using a one-off patch on the test environment of the customer who reported the issue. After customer testing and approval, Oracle applies the patch to the production environment.

If the regression issue is widespread, Oracle will apply an emergency patch containing the fix to all test environments. After three business days, Oracle applies the fix to all production environments.

Oracle may apply the emergency patch to all test and production environments at the same time if the issue hinders the normal functioning of environments.

If a fix is not immediately available, for services other than Narrative Reporting, Oracle may revert the production environment to the state it was in before the monthly update. Reverting environments involves cleaning the environment, applying the last monthly update, and then reloading the backup from the previous month. Additionally, Oracle will provide a loaner test environment to customers who request an additional test environment.

Understanding Change Migration Procedures

Monthly Update Migration flow is as follows:

- Tested and approved monthly update from Oracle Development to customer test environments
If no regression is found, Oracle updates all production environments. Subsequently, customers may migrate applications from test to production.
If Oracle development confirms a customer reported issue as a regression, Oracle applies a one-off patch to test environment.
- One-off patch
 - Oracle Development confirms a customer reported issue as a regression.
 - Oracle Development creates a one-off patch and sends it to Quality Engineering for testing.

- After testing the one-off patch, Quality Engineering certifies it by signing off.
- One-off patch is applied to test environments.
- One-off patch is applied to production environment after the customer approves the fix. Environments are brought back to the main code line patch once the regression is fixed in a monthly patch.
- Skip automatic update
A customer, citing a justification for the request, may seek to skip automatic updates of a production environment. See [Requesting to Skip Automatic Updates for Environments](#) for details.
- Emergency patch
Deployment of emergency patches requires the approval of a Vice President in Oracle Enterprise Performance Management Cloud Development.
 - Oracle Development confirms a customer reported issue as a regression or blocker issue.
 - Oracle Development creates an emergency patch and sends it to Quality Engineering for testing.
 - After testing the patch, Quality Engineering certifies it by signing off.
 - The emergency patch is applied to test environment, production environment, or both as appropriate.

How Oracle Communicates the Update Schedule

Oracle follows the following schedule to apply monthly updates.

- **Test environments:** Oracle will apply monthly updates during the first daily maintenance that occurs at or after 22:00 UTC on the first Friday of the month.
- **Production environments:** Oracle will apply monthly updates during the first daily maintenance that occurs at or after 22:00 UTC on the third Friday of the month.

See Understanding Updates to an Environment and Viewing Readiness Information in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

The [Enterprise Performance Management page of Oracle Cloud Readiness](#) provides easy access to documents that describe the new features included in the monthly update. Additionally, Oracle notifies all Service Administrators of upcoming updates through an email, which is sent on the last Friday of the month (one week before the Test environment is updated).

 **Note:**

Monthly update notifications will still be sent to the Service Administrators of the environments for which an upgrade has been put on hold.

The Oracle Help Center provides access to updated documentation, and is available in the Help Center on the first Friday of the month.

4

Troubleshooting EPM Cloud Issues

This section provides troubleshooting tips for various Oracle Enterprise Performance Management Cloud issues. It also lists the information you should provide to Oracle when seeking help if the troubleshooting tips do not resolve the issue.

In this Section

- [Resolving Login Issues](#)
- [Dealing with Down Environments](#)
- [Troubleshooting Business Rules and Member Formula Errors and Performance](#)
- [Resolving Form Functional and Performance Issues](#)
- [Troubleshooting Database Refresh Issues](#)
- [Resolving Issues with Smart Push](#)
- [Optimizing Aggregate Storage Option Cubes](#)
- [Handling Issues Related to Large Data Export from ASO Cubes](#)
- [Resolving Import and Export and Backup Errors](#)
- [Resolving Clone Environment Issues](#)
- [Resolving EPM Automate Issues](#)
- [Diagnosing REST API Issues](#)
- [Resolving User, Role, and Group Management Issues](#)
- [Diagnosing Financial Reporting Reports Errors and Performance Issues](#)
- [Troubleshooting Reports Issues](#)
- [Fixing Smart View Issues](#)
- [Fixing Workforce Issues](#)
- [Fixing Strategic Modeling Issues](#)
- [Diagnosing Consolidation Failures and Performance Issues in Financial Consolidation and Close](#)
- [Troubleshooting Financial Consolidation and Close Approval Process Issues](#)
- [Troubleshooting Financial Consolidation and Close Enterprise Journal Issues](#)
- [Troubleshooting Profitability and Cost Management Issues](#)
- [Troubleshooting Account Reconciliation Issues](#)
- [Troubleshooting FDMEE and Data Integration Issues](#)
- [Managing Content Upgrade Issues](#)
- [Handling Issues with Navigation Flows](#)
- [Troubleshooting ERP Integration Functional Issues](#)
- [Dealing with FastConnect Issues](#)

- [Troubleshooting NetSuite Planning and Budgeting Issues](#)
- [Resolving IP Allowlist Functional Issues](#)
- [Managing Patching Issues](#)
- [Managing Other Functional Issues](#)
- [Resolving Other Performance Issues](#)
- [Handling Financial Consolidation Data Inaccuracies](#)
- [Handling Data Loss in an Environment](#)
- [Resolving Order Processing Issues](#)

Resolving Login Issues

This section lists common issues related to signing in to Oracle Enterprise Performance Management Cloud using a Virtual Private Network (VPN), using vanity URLs, and connecting with Oracle Smart View for Office.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

In this Section

- [Resolving Connection Issues](#)
- [Resolving Login Failures When Connecting to EPM Cloud Through VPN](#)
- [Deciding Which Sign In Option to Use When Two Options are Available](#)
- [Resolving Login Failures in EPM Cloud SSO Setup with Fusion Applications](#)
- [Using Vanity URLs to Redirect to EPM Cloud](#)
- [Restoring Access If Application is in Admin Mode: No New Logins allowed Message is Displayed](#)
- [Troubleshooting Issues with Deactivation of User Access](#)
- [Troubleshooting Issues with Sign-On Policies](#)
- [Troubleshooting Issues with Users Belonging to IDCS Groups](#)
- [Getting Help](#)

Resolving Connection Issues

If you can connect to websites outside of your organization's network, but cannot connect to Oracle Enterprise Performance Management Cloud:

- Verify that the connection URL and the credentials you are using are valid.
If your environments are configured for SSO but you are not set up to use identity domain credentials make sure that you are using your SSO credentials.
- Check whether you can connect to the service from a different network (a wireless network or outside your organization's network).

- Verify that the browser is configured for EPM Cloud. See *Setting Up Browsers for EPM Cloud* in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.
- Verify that EPM Cloud and Oracle domains (`cloud.oracle.com` and `oraclecloud.com`) are not blocklisted.
- If you are using a VPN, connect to EPM Cloud without using the VPN. If the connection is successful, the issue may be related to your VPN configuration or internet proxy settings. Contact your network administrator for help.

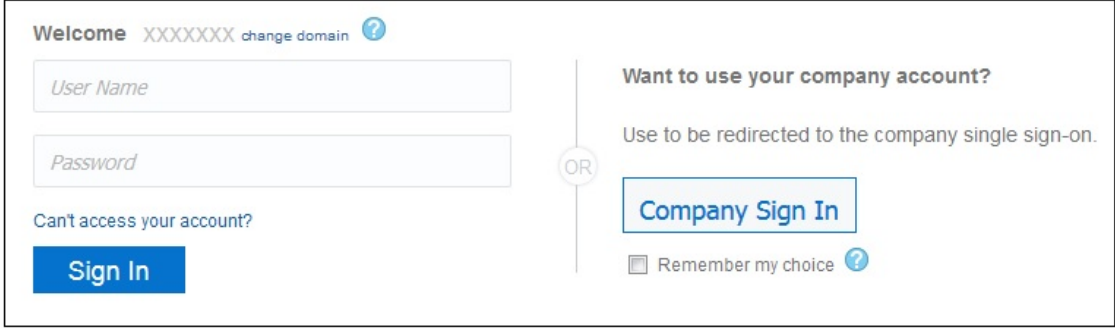
Resolving Login Failures When Connecting to EPM Cloud Through VPN

Connect to Oracle Enterprise Performance Management Cloud without using VPN to ensure that the EPM Cloud URL and credentials are valid. If you can access the service, connectivity issue may be localized to the following, which requires help from your network administrator:

- Internet proxy setting on your computer
- Your organization's VPN setup

Deciding Which Sign In Option to Use When Two Options are Available

In SSO-enabled environments, a sign in screen similar to the following is displayed for users who are permitted to maintain identity domain credentials; typically, Identity Domain Administrators and Service Administrators who need to use clients such as EPM Automate.



The screenshot shows a sign-in interface. On the left, there is a 'Welcome' message with a masked email address 'XXXXXXXX' and a 'change domain' link with a question mark icon. Below this are two input fields for 'User Name' and 'Password'. A 'Sign In' button is at the bottom left. On the right, there is a section titled 'Want to use your company account?' with the text 'Use to be redirected to the company single sign-on.' Below this is a 'Company Sign In' button and a 'Remember my choice' checkbox with a question mark icon. An 'OR' separator is placed between the two sign-in options.

You may sign in using the **Company Sign In** option to access the environment using your SSO credentials. Alternatively you can use your identity domain credentials to access Oracle Enterprise Performance Management Cloud environments.

Resolving Login Failures in EPM Cloud SSO Setup with Fusion Applications

In scenarios where SSO is enabled between Oracle Enterprise Performance Management Cloud and Oracle Fusion Applications, EPM Cloud is unable to authenticate users if the Fusion Applications environment goes down. In this case, you may get outage notification for Fusion Applications; you will not receive an outage notification for your EPM Cloud environment.

Additionally, if the Fusion Applications to which the SSO is setup is terminated or migrated to OCI, EPM Cloud is not able to authenticate users. In this case, create a service request to Oracle to break the SSO between EPM Cloud and Fusion Applications, and then, setup the SSO directly with your Identity Provider.

Using Vanity URLs to Redirect to EPM Cloud

You can use custom URLs to access Oracle Enterprise Performance Management Cloud environments from web browsers, Oracle Smart View for Office, and EPM Automate. You use a third party link shortener, for example, T.ly, Bitly, Rebrandly, TinyUrl, is.gd and so on, or an open source solution, for example, YOURLS, to configure custom URLs for each environment. For detailed information on creating vanity URLs, see the documentation from the third party link shortener of your choice. See *Using Vanity URLs in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

 **Note:**

Vanity URLs do not work cross-environment connections (EPM Connect), and EPM Cloud tools such as EPM Agent.
Vanity URLs work for Smart View version 20.200 and higher only.

Restoring Access If *Application is in Admin Mode: No New Logins allowed* Message is Displayed

The message *Application is in Admin Mode: No New Logins allowed* is displayed if the application has been placed in Admin mode that permits only Service Administrators to sign in. The application is placed in admin mode as a result of the following conditions:

- A failed database refresh job.
Access to the application is restricted to Service Administrators if a database refresh job fails. In such cases, a Service Administrator must complete these steps to make the application accessible to all users:
 - Fix the problem that caused the database refresh to fail. For example, if the failure is caused by an incomplete customization, remove or complete it.
 - Run the database refresh job again and ensure that it runs successfully.
- Maintenance by a Service Administrator where end-user access to the application is not desirable.
To allow all users to access the application, change application settings by running applicationAdminMode EPM Automate command as follows:

```
epmautomate applicationAdminMode false
```

You may also use this procedure:
 - Sign in to the environment as a Service Administrator.
 - From the Application card on the Home page, select **Settings**.
 - Select **All Users** as the value for **Enable use of Application for** setting.
 - Click **Save**.

Troubleshooting Issues with Deactivation of User Access

OCI (Gen 2) environments can be deactivated so that no user can log in to them. For instructions, see [Deactivating Oracle Cloud Services](#) in Oracle Cloud Infrastructure

Documentation. This feature can be used when an environment is not in use or when you don't want anyone to sign into an environment. It can also be used when you need to quickly deactivate access to an environment due to an internal or external security threat that needs to be investigated.

Users attempting to log in to a deactivated environment, will get the following message:



The environment is deactivated to not allow any login.

If no user is able to sign in, ensure that the environment is activated and is available for user access. For instructions on activating a deactivated environment, see [Deactivating Oracle Cloud Services](#) in Oracle Cloud Infrastructure Documentation.

Troubleshooting Issues with Sign-On Policies

The default sign-on policy in Oracle Identity Cloud Service allows all users assigned to predefined roles to sign into Oracle Enterprise Performance Management Cloud environments by supplying their credentials (user name and password). Identity Domain Administrators may configure a custom sign-on policy to determine whether a user is allowed to access OCI (Gen2) EPM Cloud environments. For example, you may configure a policy that allows only users assigned to the Service Administrator role to access environments.

If all users assigned to specific predefined roles are not able to sign in, ensure that your custom sign-on policy allows all EPM Cloud users to sign in. For detailed information on configuring sign-on policy, see these topics in *Administering Oracle Identity Cloud Service*:

- [Understand Sign-On Policies](#)
- [Add a Sign-On Policy](#)

Troubleshooting Issues with Users Belonging to IDCS Groups

The IDCS group name will prevent users belonging to the group from signing into Oracle Enterprise Performance Management Cloud under the following conditions:

- The IDCS group name is identical to the name of a predefined group or of an EPM group. These predefined group names are used in EPM Cloud: Service Administrator, Power User, User, and Viewer. EPM Groups refer to the groups created and managed in Access Control.
- The IDCS group name is longer than 256 characters.

Modify the IDCS group name if either of these conditions prevents users from being able to sign in to EPM Cloud. To change the IDCS group name:

1. Sign into Oracle Cloud Identity Console as an Identity Domain Administrator.
2. Click **Groups** under **Identity Domain**.
3. Click the name of the group you want to modify.

4. Click **Edit Group**.
5. Modify the Group name.
6. Click **Save**.

Getting Help

If the preceding solutions do not resolve your login issues, seek Oracle's help. See [Getting Help From Oracle](#). Do the following:

- Generate a Fiddler trace file of your log in session, if possible. See [Using Fiddler to Capture Diagnostic Information](#).
If you are unable to generate a Fiddler trace file of your session, see the following topics for information on collecting network trace using a browser.
 - [Collecting Network Trace Using Google Chrome](#)
 - [Collecting Network Trace Using Microsoft Edge](#)
 - [Collecting Network Trace Using Firefox](#)
- If you are able to log in, create a Provide Feedback submission. See [Creating a Provide Feedback Submission](#)
- Create a technical service request. When creating the service request, be sure to select Cloud Hosting Services (Outage,P2T/T2T,Enable SSO,Resize,CloudPortal,MyServices,User/Password,Network,Schedule Maintenance) as the **Problem Type**.

See [Submitting a Technical Service Request](#). The service request must contain the following information:

- Reference number of the provide Feedback submission that you created in the preceding step.
- Fiddler trace or HAR file, if possible.
- Screenshot of the error.
- Date, time, and time zone when the error occurred.

- URL of the environment.
- Specify whether the error occurred for a specific user or for all users.
- Specify whether the error occurred at one or all locations.
- Specify whether this is a critical outage.

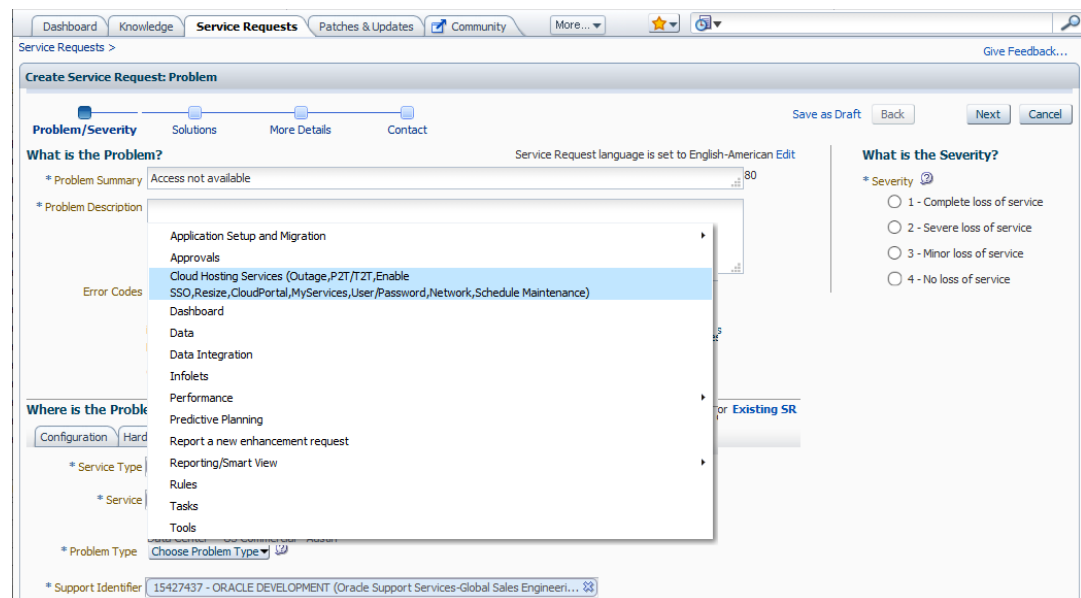
Dealing with Down Environments

Use the steps in this section to resolve issues with Oracle Enterprise Performance Management Cloud environments that are down.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning. Use these steps to deal with down environments.

1. Restart the environment.
Use the `resetService EPM Automate` command to restart the environment. Restarting an environment does not affect your application. However, sessions of currently connected users will be terminated and any unsaved data is lost. Before using this command, ensure that business rules are not running in the environment.
2. If restarting the environment does not resolve the issue, create a technical service request. When creating the service request, be sure to select **Cloud Hosting Services (Outage, P2T/T2T, Enable SSO, Resize, CloudPortal, MyServices, User/Password, Network, Schedule Maintenance)** as the **Problem Type**.



See [Submitting a Technical Service Request](#). The service request must contain the following information:

- A screenshot of the error message or a detailed description of the behavior of the environment.
- The date, time, and time zone when the environment went down.

- Whether this is a critical outage.

Troubleshooting Business Rules and Member Formula Errors and Performance

How often have you asked the question "How can I optimize slow business rules identified in the Activity Report?"

This section lists the best practices for designing business rules and member formulas to avoid common execution errors. It also describes the steps involved in optimizing slow business rules and member formulas .

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Sales Planning, and Strategic Workforce Planning.

In this Section

- [Best Practices](#)
- [Writing Optimized Business Rules: Optimizing Essbase Calculation Scripts by Using NOT in IF Statements](#)
- [Creating a Business Rule Using a Unit Test](#)
- [Debug Methodology for Developing Business Rules](#)
- [Business Rule Optimization](#)
- [Business Rule Optimization for Hybrid-Enabled Cubes](#)
- [Effect of Dynamic Calc Parent Members that have Member Formula with Aggregating Children](#)
- [Impact of Enabling Hybrid Cubes on Calculations and Member Formula in Planning](#)
- [Troubleshooting Incorrect or No Data in Member Formula in Hybrid BSO and ASO Cubes](#)
- [Performing Calculations Using Dates Stored in Planning](#)
- [Using a Business Rule to Populate System Date in Planning](#)
- [Avoiding the Attempt to Cross a Null Member in Function Error](#)
- [Resolving Essbase Error\(0\): Error Executing Formula](#)
- [About Deploying Business Rules to Applications](#)
- [Getting Help](#)

Best Practices

Here are some best practices for designing business rules, including the use of proper commands, use of syntax, optimization guidelines, recommended calculation levels, aggregation options, and debug methodology.

In this Section

- [Environment Setting](#)
- [Optimize BSO Cubes](#)
- [Resolve Cube Outline Warnings](#)

- [Optimization and Performance Considerations](#)
- [Avoiding Recursion Error](#)
- [Use of FIX Statements](#)
- [Use of IF Statements](#)
- [Block Calculation](#)
- [Calculation Levels](#)
- [Syntax Considerations](#)
- [Use of Block Mode and Cell Mode](#)
- [Recommendations for Creating Blocks and Block Size](#)
- [Use of BottomUp and TopDown Calculations](#)
- [Aggregations](#)
- [Use of SET CALCPARALLEL and FIXPARALLEL Calculation Commands](#)
- [Use of XRANGE to Calculate a Date Range](#)

Environment Setting

Consider the following best practices while using commands that instruct a business rule how to execute the calculation.

- `SET UPDATECALC OFF` turns off intelligent calculation, which is best practice for business rules that use cross dimensional operators and may have multiple users accessing the same data block combinations. Using this command is a best practice for applications where multiple users write to the database. If you use intelligent calculation, ensure it produces the expected results.
- `SET AGGMISSG OFF` should be set for applications where versions are standard target or where non-leaf data regions are used and cannot be excluded during calculation. Using `SET AGGMISSG ON` is beneficial if the application design has a Standard Bottom Up versions setup where data is loaded at level 0.
- `SET NOTICE` and `SET MSG` should only be used in development environments for individual calculation analysis. These commands should be removed for production environments or after calculation analysis is complete.
- `SET EMPTYMEMBERSETS ON` should be used when Run Time Prompts (RTP) are included in FIX statements so that empty sets are not calculated. This prevents a calculation from running on all members when the set is empty.

Optimize BSO Cubes

Optimizing BSO cubes reduces the size of the database; it involves the following processes:

- Replacing zero blocks with #missing blocks
- Removing #missing blocks to reduce the database size
- Using `Never` as the consolidation operator for members with data type of SmartList, Date, Text, and Percentage

Removing Zeros in a BSO Cube

Begin by removing zero blocks in the sparse dimensions in the cube by replacing them with #missing blocks.

To replace zero blocks with #missing blocks:

1. Create a business rule to replace zero blocks with #missing blocks. Set business rule environment to optimize this business rule:

```
SET UPDATECALC OFF;
SET CREATENONMISSINGBLK OFF;
SET CREATEBLOCKONEQ OFF;
FIXPARALLEL(NumberThreads, @RELATIVE("SparseDim",0))
FIX on all level 0 sparse dimension @RELATIVE(SparseDim,0)
```

 **Note:**

- Although UPDATECALC, CREATENONMISSINGBLK and CREATEBLOCKONEQ are, by default, disabled. Oracle recommends explicitly turning them off in the business rule.
- Be sure to replace "SparseDim" with the names of the sparse dimensions in which zero blocks are to be replaced.
- Use FIXPARALLEL to help improve performance, for example, FIXPARALLEL(4, @RELATIVE("Scenario",0)).
- Be sure to specify ENDFIXPARALLEL.

2. Use one of the following optimized calculation designs to change zero blocks to #missing blocks. Select the calculation design that performs better depending on your dimension design, data patterns, and processes.

Calculation Design 1 (for Dense or Sparse Calculation)

This calculation results in the original value and changes zero values to #missing.

```
"DenseMbr" = "DenseMbr" * "DenseMbr" / "DenseMbr";
"SparseMbr" = "SparseMbr" * "SparseMbr" / "SparseMbr";
```

Calculation Design 2 (for Dense Members in Block Mode Only)

```
"DenseBlockHeader" (
    @CALCMODE(BLOCK);
    IF ("DenseMbr" == 0)
        "DenseMbr" = #Missing;
    ENDIF
```

 **Note:**

Replace DenseMbr and SparseMbr, and DenseBlockHeader with actual names.

Removing #Missing Blocks from Cubes

Remove #missing blocks to reduce BSO database size. Use one of the following two methods to clear #missing blocks:

Method 1

Perform an explicit dense restructure

In Planning, this process can be run manually or through a job. Database restructures can also be performed using EPM Automate and REST APIs.

To execute a database restructure using Oracle Hyperion Calculation Manager:

1. Open Calculation Manager. From the Navigator, select **Rules** from **Create and Manage**.
2. Click **Actions** and then select **Database Properties**.
3. In **Enterprise View**, expand the database containing the cube that you want to restructure.
4. Right-click the cube that you want to restructure and then select **Restructure Database**.

Information Sources:

- [restructureCube](#) command in *Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud*
- [Restructure Cube](#) in *Oracle® Fusion Cloud EPM REST API for Oracle Enterprise Performance Management Cloud*

Method 2

Clear all data. Reload all data from files that you previously uploaded to the environment.

Using Never as the Consolidation Operator for Members with SmartList, Date, Text, and Percentage Data Types

Dimension members that have a data type of SmartList, Date, Text, and Percentage should use `Never` as the consolidation operator. Using the Addition consolidation operator increases the cube size without adding any value. Using Ignore as the consolidation operator will only stop addition within the dimension of the member; it will not stop the rolling up of values from other dimensions, which potentially can create unneeded blocks.

Resolve Cube Outline Warnings

Cube outlines that have Gen2 parent members with shared member descendants must have calculation property value set to `Never` or `Ignore`.

Cube outline designs that do not abide by this condition risk double counting the data at top level and can introduce unnecessary or redundant calculations that may adversely affect performance.

Optimization and Performance Considerations

- Use templates in business rules to avoid repeating sections of code and make best use of RTPs.
- Review dependencies on dynamic calc members within each calculation. If possible, change the calculation to avoid including repeated use of dynamic calc or remove the dynamic calc.
- Use FIX and IF statements to focus your calculation to ensure only the required data is calculated.
- Avoid the creation of a 0 (zero) data result, unless you want to see a zero; for example for inventory levels. This will create a block, which is included in all FIX and IF statements and is calculated. Remove zeros on data load, if possible, or prevent the creation of zeros in business rules.

- Try to avoid boolean logic within the IF statement used to check whether a condition exists. For example, replace:

```
IF ("Budget" ==#missing) OR ("Budget" ==0)
```

with one of these statements, which gives the same result but avoids the use of boolean logic:

- IF ("Budget" +1==1)
- IF (Budget/Budget ==#missing)

- Where possible, perform dense calculations before performing sparse calculations. Dense calculations do not create blocks while sparse calculation do. While performing aggregations; for example, to get a total for an allocation calculation, ensure that you only aggregate the section of the data that is required for that allocation calculation.
- Minimize the passes on a database.
- Avoid recursive formulas. Excessive recursion can create performance issues and may require you to clear values to produce consistent results.
- For best practices to replace zero blocks and remove #missing blocks in BSO cubes to reduce database size, see [Optimize BSO Cubes](#).

Avoiding Recursion Error

The main reason for the recursion error is dense dynamic calculations not included in the column header, including in the members not included in the FIX statement, being calculated concurrently. Recursion occurs if some of the other dynamically calculated members have a formula that includes the dense member in the FIX statement. A recursion error occurs if there are more than 128 levels of recursion.

The main reason for excluding dynamic calc members is to improve performance. Additionally, excluding dynamic calc members helps you avoid the recursion error by ensuring that the export uses the compressed block instead of the expanded block. It is also possible to avoid the recursion error by changing the dense dimension used as the column header for which each column defined by the FIX statement is calculated individually. Recursion does not occur because other dense dynamic calculations not included in the FIX statement are ignored allowing the rule to run successfully.



Note:

You cannot change the dense dimension column header if the export file contains more than 256 columns.

For example, you may get the `Cannot calculate. Essbase Error(1200494): Error executing formula for [Yield%] (line 15): Recursion limit [128] reached` error if you use the following calculation script:

```
SET DataExportOptions
{
    DATAEXPORTCOLFORMAT ON;
    DATAEXPORTDIMHEADER ON;
```



```

DATAEXPORTDRYRUN OFF;
DataExportRelationalFile OFF;
DataExportNonExistingBlocks OFF;
DataExportLevel ALL;
DATAEXPORTCOLHEADER "Period";
DATAEXPORTOVERWRITEFILE ON;
DataExportDynamicCalc ON;
};

```

```

FIX ("Yield%",@Relative("Change
Over",0),@Relative("Currency",0),@Relative("Entity",0),@Relative("Product",0),
@Relative("CostCentre",0),"Jan","Actual_Total",@Relative("View",0),"Working","
Fy20")

```

```

DATAEXPORT "File" ", " "/u03/inbox/data/ExportDataFile.txt" "#";

```

To avoid the error, turn off the Dynamic option by changing `DataExportDynamicCalc ON;` to `DataExportDynamicCalc OFF;`.

Use of FIX Statements

- FIX statements are used to focus the business rule (keep the number of blocks being calculated as low as possible) to ensure that you only calculate the required blocks.
- A FIX statement is recommended for sparse dimensions because it reduces the number of blocks that are required for the calculation.
- Ensure that calculations are done on level 0 of all dimensions if the application design has a bottom up versions setup.
- Where possible, use outer FIX statements on sparse dimensions and inner IF statements on dense dimensions.
- All FIX statements should include members from all dimensions other than those within the calculation. If a dimension is excluded, all members from that dimension are included. This may be unnecessary.
- Nest FIX statements where possible to reduce the number of database passes. Each full FIX statement requires a pass on the database. For example, you may use an outer FIX for Version, Scenario, and any other dimension selection that is static throughout the business rule.
- For business rules associated with web forms, leverage the selected page and POV members in FIX statements to reduce the number of blocks calculated.

Use of IF Statements

- IF statement can be used in member formula; FIX cannot.
- IF statement should be used within FIX statements to reduce the number of blocks that are to be accessed. The IF statement brings all blocks within the FIX into memory.
- Where possible, use outer FIX statements on sparse dimensions and inner IF statements on dense dimensions.
- Use ELSE instead of a combination of NOT and ELSEIF where possible to avoid unnecessary analysis of member values during the calculation. Do not use an ELSE statement if it is not required.

- Review the Calc Member Block choice to determine if you can use a sparse member without dynamic calc dependencies.
- Order IF statements, if possible, where the most number of cases hit the first IF in the block Use NOT within the IF to ensure this, if applicable. Consider the following script, which assumes that SalesYTD is a child of Ratios in Sample.Basic (where **Accounts** and **Time** are dense).

```
SET UPDATECALC OFF;
"SalesYTD" (
  IF (@ismbr ("Jan"))
    "SalesYTD" = "Sales";
  Else
    "SalesYTD"="Sales" + @prior("SalesYTD");
  Endif)
```

In this example, while 11/12th of data meets the ELSE condition, only 1/12th of the data meets the IF condition. Additionally, the SalesYTD member is calculated in Cell mode, which means that January, because it appears first in the outline, is calculated first regardless of the IF order. You can optimize this script by using NOT in the IF statement as shown in the following example:

```
SET UPDATECALC OFF;
"SalesYTD" (
  IF (NOT (@ismbr ("Jan")))
    "SalesYTD" = "Sales" + @prior("SalesYTD");
  Else
    "SalesYTD"="Sales";
  Endif)
```

Block Calculation

- Use RTPs to ensure that only the data required is included in the business rule.
- Aggregate or calculate only the data that is required at each stage of the calculation to ensure that the number of blocks included in the calculation is as low as possible for as long as possible.

Calculation Levels

- Ensure that calculations are done on level 0 of all dimensions if the application design has a bottom up version setup.
- If required for the approval process only, include aggregations in the BSO Plan Type. Move all other aggregations to the ASO Plan Type.
- Keep the number of blocks included in your calculations as low as possible, for as long as possible.

Syntax Considerations

- Always use @LEVMBRS rather than @RELATIVE if used on the entire dimension.
- Use @CHILDREN instead of @RELATIVE, if applicable.
- Use @REMOVE and @LEVMBRS if you only want to exclude some members from a FIX statement.

Performing Calculations Using Dates Stored in Planning

Oracle Hyperion Planning allows you to enter date values. For example, using the MM/DD/YYYY format, a start date may be entered as 11/01/2019 and an end date as 06/01/2020. Oracle Essbase stores date formatted values as numeric values. For example, the preceding start date is stored as 20191101 and end date as 20200601. You can use Essbase functions, for example, the @ROUND, @INT or @TRUNCATE function, to calculate the number of months between any start date and end date. The following example shows how to calculate the number of months between a start date and end date using the @ROUND function:

1. Calculate the number of months between the end date year and the start date year as follows:

```
(@ROUND ("End Date",-4) - @ROUND ("Start Date",-4))/10000*12
```

The result of this calculation (20200000 - 20190000)/10000 *12 is 12.

2. Calculate the number of months between the start of the end date year and the end date and add it.

```
(@ROUND ("End Date",-2) - @ROUND ("End Date",-4))/100
```

The result of the calculation (20200600 - 20200000)/100 is 6.

3. Calculate the number of months between the start of the start date year and the start date and subtract it.

```
(@ROUND ("Start Date",-2) - @ROUND ("Start Date",-4))/100
```

The result of the calculation (20191100 - 20190000)/100 is 11.

4. Combine the preceding steps into one formula (12+6-11) to calculate the number of months (7) between the start date and end date .

```
((@ROUND ("End Date",-4) - @ROUND ("Start Date",-4))/10000*12) +  
((@ROUND ("End Date",-2) - @ROUND ("End Date",-4))/100)-  
((@ROUND ("Start Date",-2) - @ROUND ("Start Date",-4))/100))
```

Using the @CURRMBR Function

The @CURRMBR function, which returns the name of the dimension member currently being calculated, is especially useful for scoping and managing complex calculations. However, you must consider its performance impact.

Performance is not affected when using the @CURRMBR function on a sparse dimension because the block corresponds to one sparse dimension member only. However, the performance of this function is slower when used on a dense dimensions because it runs calculations at the block level and not at the cell level. As a result, this function calculates all the dense dimension members, even if a particular dense dimension member is not present in the query. Thus, sparingly use this function with dense dimensions.

Additionally, when used on dense dimensions, the @CURRMBR function may produce unexpected results or errors if used in conjunction with other functions such as @CONCATENATE. For example, if a dynamically calculated member in a query contains the formula "Actual"->@MEMBER(@CONCATENATE(@NAME (@CURRMBR ("Account")), "_Total")) and the Account

dimension is sparse, the query will run without error as long as the account in the query generates a valid outline member. However, if the Account dimension is dense, the query results in the following error even if the account in the query generates a valid outline member.

```
Error executing formula for [member name] (line 0): attempt to cross a null @
member in function [@X]
```

This error is produced because the @CURRMBR function calculates at the block level and therefore calculates all accounts in the dense block. Not all accounts within the block generate a valid outline member, resulting in the preceding error message. For more information on the @CURRMBR function, see @CURRMBR in Oracle® Essbase Technical Reference.

Use of Block Mode and Cell Mode

- Using block mode, where cells are grouped within the block and simultaneously calculated, is generally faster, but data dependencies must be carefully considered. For example, $SalesYTD = CurMth + PriorMth$ should be calculated in cell mode so that each month is calculated in the order of the outline.
- In cell mode, each cell is calculated sequentially in the order of the dense dimensions in the outline and is, generally, slower than block mode.
- Use @CALCMODE to manually control whether block or cell mode is used.
- Use debug mode application logs to verify calc mode. If a calculation is performed in block mode, no message is displayed. A log message is shown when calculations are performed in cell mode.

Recommendations for Creating Blocks and Block Size

The recommended block size for optimal performance is between 8 KB and 200 KB. To keep BSO block size optimal, Oracle recommends that you add only the accounts used for planning and forecasting to BSO cubes. When possible, use ASO cubes for reporting by adding all reporting accounts to ASO cubes. Additionally, to streamline the block size, Oracle recommends that all upper levels in dense dimensions that are aggregations of their children be made either dynamic calc (non-store) or label only.

Blocks, generally, are created on the following actions:

- Data load
- DATACOPY
- Sparse calculations, for example, AGG or $SparseMember = X * X/X;$

A sparse calculation is triggered when:

- Sparse members are on the left of the equal sign (=).
- The formula is within a sparse calc member block; for example, "Budget" ("Sales" = "Sales"->"Actual" * 0.95;) assuming that Scenario is sparse and Measures are dense.

Blocks may be created using the calculation commands SET CREATEBLOCKONEQ, SET CREATENONMISSINGBLK, or the calculation function @CREATEBLOCK.

Oracle recommends that these settings be used sparingly and within a tight FIX statement. Test to see if you can avoid using these statements by changing the type of calculation being performed.

When faced with an issue, first determine that it is related to block creation before using these calculation commands or function. You can determine if an issue is related to block creation by submitting a zero (0) into the target block and then rerunning the calculation.

In business rule development, always clear and reload data (instead of submitting #missing or running a `clearblock` or `cleardata` script) when testing rules that may cause a block creation issue.

Use of BottomUp and TopDown Calculations

- Add calculation function `@CALCMODE (BOTTOMUP)` or calculation command `SET FRMLBOTTOMUP` to calculate only existing blocks (BOTTOMUP) instead of potential blocks (TOPDOWN).
- Because TOPDOWN calculations calculates all potential data blocks with the member, remove any irrelevant members within sparse dimensions.
- Thoroughly test calculations using BOTTOMUP to ensure that blocks are created correctly when using `@CALCMODE`.
- When using BOTTOMUP calculation, test the calculation completely by clearing data and rerunning the calculation to determine that all blocks are created correctly.
- Use debug mode application logs to verify calc mode. If a calculation is performed BOTTOMUP, no message is displayed. A log message is displayed if calculations are performed TOPDOWN.

Aggregations

- A sparse dimension aggregation should be ordered starting with the dimension that creates the fewest blocks to the one that creates the most blocks to keep the number of blocks as low as possible for as long as possible.
- Do not make end user business rules to aggregate entire sparse dimensions.
- Move only the aggregations required for reporting to the ASO Plan Type.
- Aggregate the data required only for the planning approval process.

Using AGG instead of CALC DIM Calculation Commands

- CALC DIM executes any member formula.
- CALC DIM aggregates dense or sparse dimensions.
- AGG aggregates based on outline structure.
- AGG does not execute member formula.
- AGG aggregates only sparse dimensions.

Test both AGG and CALC DIM, as performance can differ depending on the level of aggregation involved in the calculation. Exclude dimensions with dynamic calc on upper levels from all aggregations. Only aggregate the required data.

Use of SET CALCPARALLEL and FIXPARALLEL Calculation Commands

- For multi-user applications with the potential for rules running concurrently, run business rules in serial mode.
- Only use `SET CALCPARALLEL` around full sparse dimension aggregations in batch calculations.

- Parallel calculation is not recommended for small scripts; for example, scripts that run for less than 20 seconds because the overhead for creating parallelism may outweigh the benefit.
- Always test `SET CALCPARALLEL` to ensure that it is beneficial. Sometimes serial calculations or calculations with lower levels of parallelism can yield better results. This is especially true for short running business rules because of the overhead in calculating how to spread the task pool, which can exceed the time saved by the use of parallel calculation. Also, if the calculation pass in a rule that fails uses `SET CALCPARALLEL`, remove it for debug purposes.
- Test to determine if `FIXPARALLEL` provides better results than `SET CALCPARALLEL`. Use Oracle Hyperion Calculation Manager in debug mode to review logs.
- Always consider user concurrency when using `SET CALCPARALLEL` and `FIXPARALLEL`.

 **Note:**

You must thoroughly test all use of `CALCPARALLEL` and `FIXPARALLEL` for expected concurrency to achieve the most consistent execution time. Be aware that a processing overhead is involved in using parallel processing. You should carefully consider how Oracle Essbase calculates the task pool to determine how to spread out processing. Never assume that the use of `SET CALCPARALLEL` or `FIXPARALLEL` (or their higher values) will yield better results than a lower `SET CALCPARALLEL` or `FIXPARALLEL` value. In many cases, serial processing gives better performance, even in a single user test.

Although the business rule itself may not contain `CALCPARALLEL` and `FIXPARALLEL`, your scripts or templates may have them. In such cases, remove them from scripts or templates.

After taking out `CALCPARALLEL` and `FIXPARALLEL`, redeploy your rules.

For more information, see [FIXPARALLEL...ENDFIXPARALLEL](#) in *Oracle® Essbase Technical Reference*.

Use of XRANGE to Calculate a Date Range

You use `@XRANGE` to produce a range of dates in a business rule. For example, the following code creates a range of members between Mar in FY22 and Feb in Y23.

```
Member = @SUMRANGE("Actual"->"Final"->"Plan Total",@XRANGE("FY22"->"Mar", "FY23"->"Feb"))/12;
```

The Year dimension, generally, is a flat dimension with only level0 members all of which are years, for example, `FY22` and `FY23`.

The Period dimension, however, may contain other level0 members after Dec (assuming a Jan:Dec year). These will also be included in an `XRANGE` even though you do not want to include them in your calculation. In such a scenario, use two `XRANGE` calculations, one for each year. For example:

```
"Member" = (@SUMRANGE("Actual"->"Final",@XRANGE("FY22"->"Mar", "FY23"->"Dec")) + @SUMRANGE("Actual"->"Final",@XRANGE("FY23"->"Jan", "FY23"->"Feb")))/12;
```

Using this method ensures that the `XRANGE` stays within the `Jan:Feb` scope of the `Period` dimension.

Writing Optimized Business Rules: Optimizing Essbase Calculation Scripts by Using NOT in IF Statements

In Oracle Essbase calculation scripts, you use the `if` statement to execute code if a condition is true, `else` and `else if` statements to specify each new conditions to test if the previously evaluated condition is false.

You can optimize code that use `if` and `else if` statements by analyzing the condition that meets the majority of your data and then moving the evaluation of that condition to the beginning of the code so that it is executed as early as possible.

Consider the following Calculation Script example for `Sample.Basic`, where `Accounts` and `Time` are dense:

```
SET UPDATECALC OFF;
"SalesYTD" (
    IF(@ismbr("Jan"))
        SalesYTD = "Sales";
Else
    "SalesYTD"="Sales" + @prior("SalesYTD");
Endif
)
```

In this case, over 90% of the data meets the criterion of the `else` condition. Only about 10% of the data meets the criterion of the `if` condition. Because of the `@prior` function in the `else` condition, January must be calculated before all other months. On running this calculation, the total elapsed time is reported as:

```
Total Calc Elapsed Time for [IF.csc] : [0.203] seconds
```

In this calculation, note that the `"SalesYTD"` member is calculated in `Cell` mode, which means that January, because it appears before other months in the outline, is calculated first, regardless of the order of the `if` conditional statements.

You can optimize such scripts by reordering the statements and adding a `NOT` operator to the first condition as shown in this example:

```
SET UPDATECALC OFF;
"SalesYTD" (
    IF(NOT(@ismbr("Jan")))
        "SalesYTD" = "Sales" + @prior("SalesYTD");
Else
    "SalesYTD"="Sales";
Endif
)
```

The calculation, in this case, takes less than a quarter of the time compared to the previous example because over 90% of the data meets the criterion in the `if` statement.



Note:

In this example, it is imperative to calculate the formula in outline order (February must be calculated after January, March after February, and so on) to get the correct results. You can use the @calcmode(Cell) to force order if it does not happen automatically.

Creating a Business Rule Using a Unit Test

Creating a Unit Test

When creating and debugging business rules, it is important to remember that Oracle Essbase calculations work on a relative reference system where in Essbase calculates the provided syntax as it travels through the blocks in the FIX statement. Consequently, the easiest way to create or debug a business rule is to look at each individual calculation: pick a combination that you are calculating and see if it works. This allows you to consider a small number of values if the business rule does not work and makes your business rule calculate quickly. After the unit test calculates successfully you can test with a wider data set.

For example, assume this scenario: You want to calculate a percentage of Cost of Sales to identify the spread across Products, write the calculated value to a new member named COS Product% for all months, all years, all scenario, and all departments. In this scenario, you should create the business rule for COS Product% account and then pick one product as the single unit test for one department, one month, one year, and one scenario.

The formula that you should calculate against the COS Product% member in the dense Account dimension is COS Product% = "Cost of Sales" as a Percentage of "Cost of Sales"->Total Product.

You can then create a spreadsheet that contains all the individual data values required to perform this calculation for a specific combination (a unit). For this, you can choose "Sales Central" ->Jan->FY15->Forecast for the "Television".product, a Computer Accessory.

For this example, Television has a Cost of Sales value of 12 and Total Products adds up to 100, which means that the only values in the database are the values against 9 Product members for COS Account, all in January FY15 Forecast for "Sales Central". So, you start with a database that has been cleared and has input lev10 data only and create an Oracle Smart View for Office ad hoc query to retrieve the following data values you need.

	A (Account)	B (Entity)	C (Product)	D (Data)	E
1	COS	Sales Central	Television	12	
2	COS	Sales Central	Product	#missing	
3	COS Product%	Sales Central	Television	#missing	
4					

The formula for this combination or unit test is: COS Product% (D3) = = COS (D1) as a Percentage of Total Product COS (D2), which means that this spreadsheet contains everything required to unit test this business rule.

Using the Unit Test to Create Business Rules

Start the business rule to calculate the COS Product% = member with COS (the first part of the formula). Look at the difference between the target line (line3) and the data source. So, for the

COS (individual COS) look at the difference between column C in line 3 and line 1, each identifying Television. The only difference in members between line 3 and line1 is in Account; we only have to specify that as follows:

```
COS Product% = COS %
```

Do the same for the second part of the formula (Total COS), which, in this case, is COS at the top level of Product. Because there are two differences between line3 and line2: COS and Product, specify the location in Product as well to complete the formula:

```
COS Product% = COS % ->Product;
```

At this point, executing this rule will retrieve #missing instead of the correct total as shown in the following illustration:

	A (Account)	B (Entity)	C (Product)	D (Data)	E
1	COS	Sales Central	Television	12	
2	COS	Sales Central	Product	#missing	
3	COS Product%	Sales Central	Television	#missing	
4					

You must precalculate the data you require (Total COS in cell D2) to get the correct total.

Precalculating Required Data

To precalculate the required data to ensure that the business rule `COS Product% = COS % ->Product;` returns the correct value, you must include COS in it by modifying the rule as follows:

```
Fix (COS)
Agg (Product);
EndFix
COS Product% = COS % ->Product;
```

Debug Methodology for Developing Business Rules

- Always unit test the business rule on a small data set where you know the source data and the expected results, and can manually follow the calculation.
- Run the business rule in Oracle Hyperion Calculation Manager and review the log messages. Log messages are displayed in a new tab after the rule is completed and can be exported or saved. Analyzing the log files helps you identify where calculation time is being spent.
- Run each rule in a ruleset individually in Calculation Manager and review the log messages.
- Use Calculation Manager in debug mode to debug rules during development.
- If the business rule uses `CALCPARALLEL` or `FIXPARALLEL`, especially when using one of the allocate functions (`@ALLOCATE` or `@MDALLOCATE`), test by removing the parallel calculation to see if the rule runs and whether the performance improves.
- Ensure that all required data (for example, total for allocations) is present and is pre-calculated as needed before the calculation takes place.
- For lengthy scripts, start debugging at the top and work down. An issue at the beginning of the script may create issues further down. Debug section by section to ensure that all data is created correctly. Check that later sections of script do not overwrite earlier sections.

When debugging scripts, consider the syntax length within each calculation pass. If you are unsure which part of the calculation is failing, comment out sections, one at a time, from the bottom and re-run the calculation until it runs and yields the correct results. At this point, remove comments from sections, one at a time, from the top of the calculation, testing each change as you progress.

- Use debug mode to ensure that each section of script is calculated sequentially, where required.
- To ensure that all blocks are created successfully, manually clear the data and reload. Do not use a clear script as this does not adequately test block creation.
- Always test by rerunning a script to ensure that the syntax creates correct results for input and populated data.
- Always test all data results with more than one data set. In development, always test by changing the input data from a value to another and then to #missing, and from #missing to a value and then to another value. Rerun the rule for each change and validate the results.
- Where user input may change data sets (for example, for allocations) test data changing from #missing to a value and from a value to #missing. This ensures that previously calculated results are removed, if required, during the reruns. For example, if you input data for Product A, B, and C in the first run, and for Product B, C, and D (but not A) in the second run, changing the value to #missing before the second run ensures that the allocation result for Product A is correctly removed in the second run.

Business Rule Optimization

In this Section

- [Reviewing the Activity Report to Identify Candidates for Optimization](#)
- [Identifying Areas for Rule Optimization](#)
- [Optimizing Rules: An Example](#)

Reviewing the Activity Report to Identify Candidates for Optimization

The Activity Report contains information on the impact of the calculation scripts used by the application on overall performance.

See [Reviewing the Activity Report to Identify Performance Bottlenecks](#). Carefully review the following sections of the report to identify the business rules that are taking the longest time to execute.

- **Top 10 Longest Performing Business Rules over 30 Seconds**, which identifies the business rules that take the most time to run, and are candidates for optimization.
- **Top 5 Longest Performing Calc Scripts Commands over 1 Min**, which identifies specific sections in a rule that take a long time to execute and should be reviewed to improve performance.

Begin by identifying the name of the calculation scripts that are reported as being the worst performers. For example, the areas highlighted in red in the following illustration show the names of the scripts reported among the top 5 longest performing scripts.

Top 5 Longest Performing Calc Scripts Commands over 1 Min

Duration (Min:Sec)	Begin Time	End Time	Context	Calc Script Command
63:31	18:47:01	19:50:32	Cube name: ProfLoss Calc Script: ProfLoss_Night Blocks Read: 2,278,560 Blocks Updated: 176,300 Blocks Created: 0	FIXPARALLEL (4, month, "FY21" : "FY26", "T9", "E1", @RELATIVE("FTOT", 0), "FTOT", "Rolling", "Working") loop (2) CALC DIM ("Account"); EndLoop ENDFIXPARALLEL
11:48	18:35:12	18:47:00	Cube name: ProfLoss See More	FIX ("FY21" : "FY26", @RELATIVE("FTOT", 0), "Rolling", Month, "E1", "T9", "0690_5", "0691_3", "0691_5", See More
11:22	18:08:30	18:19:52	Cube name: Employee See More	FIX (Jan : Dec, E1, Month, "Total_Jobs", "Rolling", "Working") See More
11:13	18:20:59	18:32:12	Cube name: ProfLoss See More	FIX (FY21) See More
10:33	13:38:49	13:49:22	Cube name: ProfLoss See More	FIXPARALLEL (4, Working) See More

Identifying Areas for Rule Optimization



Run the slow performing business rule from Calculation Manager to identify the steps that take the longest time.



Note:

For Consolidation and Close business process, you can run only On Demand rules from Oracle Hyperion Calculation Manager.

To identify steps that take the longest time:

1. Launch Calculation Manager.
 - a. Sign in to the environment as a Service Administrator
 - b. On the Home page, click **Navigator** , and then from **Create and Manage**, select **Rules**.
2. Locate and then double-click the rule to open it.
3. Click **Launch**  to run the rule.
4. Input the required runtime parameters and click **OK**.
5. Click **Log Messages** to open the log file.

Global Range Variables Script Usages Errors & Warnings Log Messages								
Actions View		Pass Only						
Message Number	Message Level	Message Text	Message Timestamp	Pass #	Pass Time (sec)	Cummulative Time (sec)	Pass %	Cummulative %
1012668	INFO	Calculating [Product(P_000)] with fixed members [Account(4110); HSP_View(BaseData); Scenario(Plan); Version(Target); Entity(410, 420, 421, 422, 423, 430, 440, 450)]	2018.06.18 14:50:04:827	1	0.002	0.002	1.031%	1.031%
1012668	INFO	Calculating [Product(P_000)] with fixed members [Account(5110); HSP_View(BaseData); Scenario(Plan); Version(Target); Entity(410, 420, 421, 422, 423, 430, 440, 450)]	2018.06.18 14:50:04:829	2	0.001	0.003	0.515%	1.546%
1012668	INFO	Calculating [Product(P_000)] with fixed members [Account(7110); HSP_View(BaseData); Scenario(Plan); Version(Target); Entity(000, 110, 111, 112, 120, 130, 140, 210, 220, 230, 240, 410, 420, 421, 422, 423, 430, 440, 450, 501, 509, 510, 511, 519,)	2018.06.18 14:50:04:830	3	0.187	0.19	96.392%	97.938%
1012553	INFO	Copying data from [BU Version_1] to [Target] with fixed members [Account(1110, 1150, 1100, 1210, 1220, 1260, 1200, 1310, 1332, 1340, 1300, 1410, 1460, 1471, 1400, 1010, 1510, 1520, 1530, 1540, 1550, 1560, 1565, 1570, 1580, 1500, 1610, 1620, 1630, 1640, 1650,)	2018.06.18 14:50:05:017	4	0.003	0.193	1.546%	99.485%
1012668	INFO	Calculating [Account(All members) Period(All members) Entity(All members) Product(All members)] with fixed members [HSP_View(BaseData); Scenario(Plan); Version(Target)]	2018.06.18 14:50:05:020	5	0.001	0.194	0.515%	100%

 **Note:**

You may export the log messages to an XLS format file for easier evaluation and for submitting to Oracle Support, if needed.

- Assess the log messages, paying special attention to how the total business rule execution time is spread across the number of calculation passes. Identify the following, which are candidates for optimization:
 - Passes that consume a bulk of the total rule execution time. Review the **Pass #** and **Pass %** columns to determine which pass is consuming most of the rule execution time. For example, in the preceding illustration, pass 3 takes the most time to complete (0.187 seconds) and occupies 96.392% of the pass time, indicating that it is a prime candidate for optimization. The start of a new pass is shown in bold.
 - Messages that indicate dynamic calc dependencies. Dynamic calc dependency messages identify member formulas that are dependent on another dynamically calculated member. Dynamic calc dependency, especially dependencies on sparse dynamically calculated members, can slow the overall calculation performance.

 **Note:**

Use of `CALCPARALLEL` and `FIXPARALLEL` for concurrent processing in business rules by many users may result in slow performance. Because cache is allocated per calc thread, business rules that use `CALCPARALLEL` and `FIXPARALLEL` result in an exponential increase in resource consumption compared to serially processed rules.

A single invocation of a business rule that uses `CALCPARALLEL` and `FIXPARALLEL` may perform acceptably. However, overall performance will deteriorate if multiple concurrent users execute such business rules (same or different). As more users concurrently run calculations with `CALCPARALLEL` and `FIXPARALLEL`, resource usage increases and may reach capacity, thereby decreasing the overall performance. Do not use `CALCPARALLEL` and `FIXPARALLEL` for business rules run by end users. Also, do not use `CALCPARALLEL` and `FIXPARALLEL` for business rules run in batch that are run concurrently with end user business rules.

Optimizing Rules: An Example

After identifying the passes to optimize, edit the business rule. Ensure that the optimal logic and conditions are specified for each pass.

Consider the following business rule definition, which calculates two YTD accounts and then aggregates the values through the Product and Entity dimensions:

```
SET UPDATECALC OFF;
/* PASS 1 BEGINS*/
FIX ("BaseData","Plan","FY17", "FY17" "FY16")
  "BU Version_1"(
    IF(@ismbr("Jan"))
      "4110_YTD" = "4110"; "4120_YTD" = "4120"; "4130_YTD" = "4130";
      "4140_YTD" = "4140"; "4150_YTD" = "4150";
    Else
      "4110_YTD"="4110" + @prior("4110_YTD"); "4120_YTD"="4120"
        + @prior("4120_YTD");
      "4130_YTD"="4130" + @prior("4130_YTD"); "4140_YTD"="4140"
        + @prior("4140_YTD");
      "4150_YTD"="4150" + @prior("4150_YTD");
    Endif)
/* PASS 1 ENDS -- PASS 2 BEGINS*/
  Agg("Entity","Product");
/* PASS 2 ENDS */
ENDFIX
```

On running this rule in Oracle Hyperion Calculation Manager (see [Identifying Areas for Rule Optimization](#)), the Log Message tab shows a message similar to the following when **Pass Only** is selected:

Message Number	Message Level	Message Text	Message Timestamp	Pass #	Pass Time (sec)	Cummulative Time (sec)	Pass %	Cummulative %
1012668	INFO	Calculating [Version(BU Version_1)] with fixed members [HSP_View(BaseData); Year(FY16, FY17); Scenario(Plan)]	2018.07.04 09:46:19:293	1	79.235	79.235	99.995%	99.995%
1012670	INFO	Aggregating [Entity(All members) Product(All members)] with fixed members [HSP_View(BaseData); Year(FY16, FY17); Scenario(Plan)]	2018.07.04 09:47:38:528	2	0.004	79.239	0.005%	100%

An analysis of the information in the log file indicates that 99.995% of the execution time (79.235 seconds) is spent on pass 1, and only 0.005% on pass 2.

If you deselect **Pass Only**, blocks, read, and write information, similar to that shown in the following illustration, is displayed:

Message Text	Message Timestamp	Pass #
Calculator Information Message: Total Block Created: [3.1900e+03] Blocks Sparse Calculations: [3.2000e+03] Writes and [3.2100e+03] Reads Dense Calculations: [0.0000e+00] Writes and [0.0000e+00] Reads Sparse Calculations: [0.0000e+00] Cells Dense Calculations: [0.0000e+00] Cells	2018.06.29 10:47:34:...	1

The preceding rule definition has these issues:

- It does not have a FIX on Entity and Product dimensions, thereby forcing all the rules to be run on all levels of Entity and Product dimensions.
- Pass 1 needlessly calculates the upper levels. The Agg function in pass 2 does this and overwrites what is done in pass 1.

The script can be optimized as follows:

```

SET UPDATECALC OFF;
FIX ("BaseData", "Plan", "FY17")

/* PASS 1 BEGINS*/

    Fix(@LEVMBRS("Entity",0), @LEVMBRS("Product",0))
        "BU Version_1" (
            IF(@ismbr("Jan"))
                "4110_YTD" = "4110";
                "4120_YTD" = "4120";
            Else
                "4110_YTD"="4110" + @prior("4110_YTD");
                "4120_YTD"="4120" + @prior("4120_YTD");
            Endif)
        ENDFIX
/* PASS 1 ENDS -- PASS 2 BEGINS*/

    Agg("Entity", "Product");
    
```

```
/* PASS 2 ENDS */
```

ENDFIX

On running the updated rule in Calculation Manager (see [Identifying Areas for Rule Optimization](#)), the Log Message tab shows a message similar to the following:

Log Messages								
Message Number	Message Level	Message Text	Message Timestamp	Pass #	Pass Time (sec)	Cummulative Time (sec)	Pass %	Cummulative %
1012668	INFO	Calculating [Version(BU Version_1)] with fixed members [HSP_View(BaseData); Year(FY16, FY17); Scenario(Plan); Entity(000, 110, 111, 112, 120, 130, 140, 210, 220, 230, 240, 410, 420, 421, 422, 423, 430, 440, 450, 501, 509, 510, 511, 519, 520, 530, 535,]	2018.07.04 09:57:27:086	1	63.332	63.332	99.998%	99.998%
1012670	INFO	Aggregating [Entity(All members) Product(All members)] with fixed members [HSP_View(BaseData); Year(FY16, FY17); Scenario(Plan)]	2018.07.04 09:58:30:418	2	0.001	63.333	0.002%	100%

An analysis of the information in the log file indicates that the execution time taken in pass 1 is 15.901 seconds less compared to the previous run.

If you deselect **Pass Only**, blocks, read, and write information similar to that shown in the following illustration is displayed for pass 1:

Message Text	Message Timestamp	Pass #
Calculator Information Message: Total Block Created: [2.5900e+03] Blocks Sparse Calculations: [2.5920e+03] Writes and [2.5940e+03] Reads Dense Calculations: [0.0000e+00] Writes and [0.0000e+00] Reads Sparse Calculations: [0.0000e+00] Cells Dense Calculations: [0.0000e+00] Cells	2018.06.29 10:38:22:...	1

A comparison of the blocks, read, and write information with similar data from pre-optimization indicates an across the board reduction in the processing statistics of the business rule.

Business Rule Optimization for Hybrid-Enabled Cubes

A hybrid-enabled cube ensures that it is hybrid-enabled for queries (for retrievals, reports, and so on). By default, cubes are not hybrid-enabled for calculations because hybrid aggregation is not supported for some functions (including AGG, CALC DIM, and @MDALLOCATE). If your calculations involve formulas with dynamic dependency and are not using functions for which hybrid is not supported, turning on hybrid for such calculations may provide some performance benefit: you can turn on hybrid for calculations in a business rule as needed using the following directive:

```
SET HYBRIDBSOINCALCSCRIPT FULL; for detailed information on this command, see "SET HYBRIDBSOINCALCSCRIPT" in Calculation and Query Reference for Oracle Essbase.
```

Hybrid mode can be turned off using the SET HYBRIDBSOINCALCSCRIPT NONE; directive.

For a list of functions for which hybrid aggregation is supported, see [Functions Supported in Hybrid Aggregation Mode](#) in *Technical Reference for Oracle Analytics Cloud - Essbase*

As with all commands, these should be carefully tested to ensure that they give benefit. Note the following:

1. Only formulas that have dynamic calc dependencies are supported in hybrid mode.
2. DATAEXPORT for dynamic members does not use hybrid mode.
3. Do not use CREATENONMISSINGBLOCK or CREATEBLOCKONEQ in calculation scripts you want to run in hybrid mode.

Effect of Dynamic Calc Parent Members that have Member Formula with Aggregating Children

Parent members tagged as Dynamic Calc with member formula having aggregating children result in double calculation. Thus, this should be avoided by either not having member formula for parent members with aggregating children, or not having aggregating children for parent members with member formula.

Impact of Enabling Hybrid Cubes on Calculations and Member Formula in Planning

Review your calculated results in Hybrid Cube-enabled Oracle Hyperion Planning business processes if you are using constants, and not data values from other members (for example, for Feb, Days in month = 28), to assign values in calculations.

Calculation results in Hybrid Cube-enabled Planning business processes may be different from the results observed in business processes that are not Hybrid Cube-enabled. The difference in calculation results may be attributed to the fact that Hybrid Cube-enabled Planning business processes use a configuration that ignores any formula that is based only on constants to assign a data value. To resolve this issue, add a @CreateBlock into the formula on a dense element of the formula. When the @CreateBlock is on a dense dimension, this addition creates the blocks for all the other dense elements at the same time. Also, use the ELSE statement for every IF statement to ensure that all required blocks have been created.

For information on the user of Oracle Essbase in Oracle Enterprise Performance Management Cloud, see About Essbase in EPM Cloud in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Troubleshooting Incorrect or No Data in Member Formula in Hybrid BSO and ASO Cubes

ASO cubes and hybrid BSO cubes use the solve order against members to determine the calculation order.

Always start the debugging of member formula by reviewing the data from a data retrieval in which all members from all dimensions are level0. If the data retrieval does not yield expected results at level0:

- Review all members for dynamic calc formula to ensure that dependent elements are calculated in the correct order.
- Retrieve the data again with all members from all dimensions set to level0.
- Ensure that the retrieved data is correct.

- Review other levels.

In your test, if the data does not calculate correctly at level0, review the members in the unit test to determine if another formula is impacting calculations. If the formula being debugged is the only formula in the unit test, identify its dependants and ensure that the order of calculation (as determined by the solve order against the member) is set correctly. A lower solve order will be calculated before a higher solve order. Where solve orders are the same, members are calculated in the default order by which members are evaluated in a dimension.

Performing Calculations Using Dates Stored in Planning

Oracle Hyperion Planning allows users to enter date values in forms. For example, a start date can be entered as 11/01/2021 if the format in use is MM/DD/YYYY. Although the values are entered in date format, it is possible to calculate values based on dates entered.

Oracle Essbase stores Planning date values as numeric values. For example, Essbase the start date 11/01/2021 is stored as 20211101. If the end date in Planning is 06/30/2022 (Essbase value 20220630), you can calculate the number of months between the dates using the @ROUND Essbase function as shown in this example:

1. Calculate the number of months between the end date and the start date years
 $(@ROUND ("End Date",-4) - @ROUND ("Start Date",-4))/10000*12$

The calculation $(20220000 - 20210000/100000*12)$ yields the result 12.

2. Calculate the number months between the start of the end date year and the end date.
 $(@ROUND ("End Date",-2) - @ROUND ("End Date",-4))/100$

The calculation $(20220600 - 20220000/100)$ yields the result 6.

3. Calculate the number months between the start of the start date year and the start date.
 $(@ROUND ("Start Date",-2) - @ROUND ("Start Date",-4))/100$

The calculation $(20211100 - 20210000/100)$ yields the result 11.

4. To determine the number of months between the start date and end date, subtract the result of step 3 (11) from the sum of the results of step 1 (12) and step 2 (6)
 The number of months between the start date and end date = $(12+6)-11=7$

You can write a similar formula using the @INT or @TRUNCATE Essbase functions.

Using a Business Rule to Populate System Date in Planning

Oracle Essbase stores dates from Oracle Hyperion Planning as numerical values, for example, the Start Date May 21, 2021 is stored as 20210521.

Business processes other than Planning that use the Essbase database utilize a date functionality that uses the number of elapsed seconds since midnight, January 1, 1970 (a non-numerical format different than how Planning stores dates) to store such dates.

It is possible to convert Essbase date format to Planning format for use in forms to populate the system date (today's date) in Planning date members.

For example, assume that you want to dynamically add a system-generated date (based on the current system date) to a Planning member as "Start_Date" using a calculation in a form. This need may stem from an audit requirement to dynamically add a read-only, non-user date input against a record, for example, to identify when a new contract or customer was added.

To convert the Essbase date value May 21, 2021 to equivalent Planning numerical value, multiply the month by 100 and year by 10,100, and then add the products of these calculations to the number of days as shown below:

```
Year = 2021 * 10,000 = 2021000
Month = 05 * 100 = 500
Day = 21
2021000 + 500 + 21 = 2021521
```

You can do this in a business rule by holding the Essbase date elements in variables until you write the result to a Planning member. To accomplish this, Essbase provides functions that help you extract today's date (@TODAY) and to derive the day, month or year from that date (@DATEPART).

The following example shows how to use @TODAY and @DATEPART to create variables that store the date, month, and year from system date in Essbase format, perform the calculation to convert them to Planning date format, and store the Planning date format in a variable to populate "Start_Date" as required:

```
Var_Day = @DATEPART(@TODAY(), DP_DAY);
Var_Month ==@DATEPART(@TODAY(), DP_MONTH)*100;
Var_Year = @DATEPART(@TODAY(), DP_YEAR)*10000;
Var_TodayDate = @sum(Var_Day, Var_Month, Var_Year);

Start_Date = Var_TodayDate;
```

You could use a formula, using syntax similar to the following, to dynamically add the system date as the "Start_Date" to a member:

```
@MEMBER(@HspNthMbr(@name(@descendants("AllMembers")), nextMember)) -
>"Start_Date"=Var_TodayDate;
```

Avoiding the *Attempt to Cross a Null Member in Function Error*

Generally, the Attempt to cross a null member in function [EX] error is displayed in business rules that use an @concatenate or substring function to create a new member name and the resulting member is not present in the database in which the business rule is being executed.

Consider the example

```
"BegBalance"=@member(@concatenate(@name(@parent(@currnbr("Company"))), "_Input"));
, which writes the BegBalance value into the Company member with an _Input suffix for each Company member.
```

If the member is named Company1, there should also be a member Company1_Input for this formula to work. If, for example, a Company2 member is created and a corresponding Company2_Input member is not, the business rule fails with an attempt to cross a null member in function [EX] error.

To resolve this issue, the FIX statement around the @concatenate or @sibling syntax should be amended to exclude members that do not have the corresponding _Input members. In this example, you should find and exclude members of Company dimension that do not have corresponding Company_Input members or add Company_Input members to Company dimension members that do not have them.

Resolving Essbase Error(0): Error Executing Formula

Validation of business rules during the development phase may display the `Cannot calculate. Essbase Error(0): Error executing formula for [xxxxx]:status code [1200397] in function [@SXCOMBINE] error if incorrect parameters are used in a function, commonly in @SUMRANGE. If you are using @SUMRANGE, review the documentation to ensure that you are using the correct syntax, which is @SUMRANGE (mbrName [,XrangeList]). Additionally, usage has to be accurate, for example, mbrName cannot contain cross dimensional operators (->).`

About Deploying Business Rules to Applications

At times, Oracle Enterprise Performance Management Cloud may display a warning, while refreshing Hybrid Cube-enabled Oracle Hyperion Planning applications, that the best practices governing the number of business rules in the application have been violated.

This issue is reported if your application contains more than 20 deployed business rules. You may find only 20 rules in Oracle Hyperion Calculation Manager, but the application reports more than 20 rules.

This issue occurs if you deleted, from Calculation Manager, some business rules that were previously deployed to the application but did not follow it up with a full redeployment of rules from Calculation Manager to the application.

To resolve this issue, from Calculation Manager, perform a full deployment of rules to the Planning application. When you perform a full deployment of rules:

- All existing rules in the Planning application are deleted.
- All rules marked as deployable in Calculation Manager are deployed to the Planning application.

To perform a full deployment of rules marked as deployable to a Planning application:

1. In **Deployment View** in Calculation Manager, ensure that only the rules that you want to deploy to the Planning application are marked as deployable.
2. Right-click the application to which rules are to be deployed.
3. Select **Deploy**.

Why Does the Execution Time of a Business Rule Vary?

Quite often, users notice that the execution time of a business rule varies from one environment to another or when used with different run-time prompts. Invariably, the difference in execution time is associated with the amount of data (number of blocks, cells, and so on) that the rule is processing.

In Oracle Hyperion Calculation Manager, after a business rule execution against a BSO cube finishes, log messages appear in a new tab. You can export these messages to a CSV file for easier parsing and comparison. Log messages contain a **Calculator Information Message** section containing information similar to the following

```
Total Block Created: [XXXX] Blocks  
Sparse Calculations: [XXXX] Writes and [XXXX] Reads  
Dense Calculations: [XXXX] Writes and [XXXX] Reads
```

Sparse Calculations: [XXXX] Cells

Dense Calculations: [XXXX] Cells

In this example, [XXXX] indicates a number such as 1.2600e+02. To convert [XXXX] to real numbers that indicate the calculations and read and write operations performed on blocks and cells:

1. Using Microsoft Excel, open the CSV file that contains the log messages from one environment or rule.
2. Locate the **Calculator Information Message** section, for example:

```
Total Block Created: [0.0000e+00] Blocks
Sparse Calculations: [2.7760e+03] Writes and [4.4136e+04] Reads
Dense Calculations: [0.0000e+00] Writes and [0.0000e+00] Reads
Sparse Calculations: [1.1561e+08] Cells
Dense Calculations: [0.0000e+00] Cells
```

3. Copy each value in the **Calculator Information Message** section into adjoining free cells and then change the cell format to Number.

	A	B	C
1	Total Block Created: [0.0000e+00] Blocks	0.00	
2	Sparse Calculations: [2.7760e+03] Writes and [4.4136e+04] Reads	2776.00	44136.00
3	Dense Calculations: [0.0000e+00] Writes and [0.0000e+00] Reads	0.00	0.00
4	Sparse Calculations: [1.1561e+08] Cells	115610000.00	
5	Dense Calculations: [0.0000e+00] Cells	0.00	

On reformatting these cells, the values 2.7760e+03 and 4.4136e+04 from the line Sparse Calculations: = [2.7760e+03] Writes and = [4.4136e+04] Reads are converted to real numbers 2776.000 and 44136.00.

4. Repeat the preceding steps to get the number of calculations and read and write operations performed on blocks and cells in the environment or rule to which you are comparing performance.
5. Compare the calculations and read and write operations performed to determine the reason for difference in performance.
Because of a change in the run time prompt, for example, the same rule may have to deal with more blocks and cells during two executions on the same process. Generally, a calculation may take longer to run if it deals with more blocks and cells. Similarly, calculations that entail larger read or write value take longer to run than those that have lower values.

Getting Help

If you were unable to optimize the rule or member formula using the information in the preceding sections, review these factors before seeking help from Oracle, especially if the issue manifested itself recently:

- Recent changes to the application.
Compare the following tables in the Activity Report with the information available in an Activity Report from a previous date when the rule or member formula was working well. This comparison will help you identify application design changes that have taken place between the two dates:
 - Application Size

- Oracle Essbase BSO Cube Statistics.
For example, if a dimension of a BSO cube is changed from Dense to Sparse, it may adversely affect business rule or member formula performance.
- Whether you made any recent changes to the use of the impacted business rule or member formula (for example, different values of run-time prompts, change in user or substitution variables, more concurrent users, and so on).

If your review does not resolve the issue, complete these steps:

- **For business rule issues only:** Re-run the rule in Oracle Hyperion Calculation Manager and export the log messages output.
- Use the Provide Feedback utility right after running the rule in Calculation Manager to gather the information that Oracle Support needs to identify and fix your problem. See *Helping Oracle Collect Diagnostic Information Using the Provide Feedback Utility in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.
- Submit a technical service request indicating the reference number that the Provide Feedback utility created. See [Submitting a Technical Service Request](#). Provide the following to Oracle in the service request:
 - Name of each cube that has the issue.
 - Cube type (ASO or BSO) of each cube that has the issue.
 - **For business rule issues only:**
 - * Rule name. If you are using a ruleset, run each rule in Calculation Manager to determine the specific rule that you want Oracle to review. Please include the cube name reference for navigation purposes in Calculation Manager.
 - * Values of all runtime prompts. If a rule performs differently when you change runtime prompts, provide all runtime prompts and explain which prompt relates to each behavior.
 - **For member formula issues only:**
 - * Member name that contains the formula.
 - * Dimension of the member that contains the formula.
 - Values of all user and substitution variables. If a rule or member formula performs differently when you change substitution variables, provide all user and substitution variables and explain which variable relates to each behavior.
 - Expected and actual durations. If running a comparison, provide the expected and actual duration for all comparisons.
 - **For business rule issues only:**
 - * Exported log messages output generated while running the rule in Calculation Manager.
 - * Business purpose of the calculation shown in the longest running pass of the rule (available in log messages under Pass%).
 - * The timestamp and time zone of the start and end time of the rule run to help Oracle locate the specific execution instance within the logs available in Provide Feedback.
 - **For member formula issues only:** Attach the Oracle Smart View for Office Excel file with level 0 members showing the issue .
 - Did this issue start after the latest monthly update?

- Is this a newly developed rule or an existing rule?
- The date, time and time zone of the last time when the rule or member formula was known to function or perform as expected and when the issue first occurred (for existing rules and member formulas only).
- The snapshot of the environment, if available, from the last time when the business rule or member formula was functioning or performing as expected (for existing rules and member formulas only).
- A list of recent application, rule or formula changes that could have caused the issue (for existing rules and member formulas only).
- Whether this is a critical outage.

Resolving Form Functional and Performance Issues

Performance and functional issues in forms may be caused by factors such as business rule execution settings and the complexity of business rules. Other factors impacting performance include database design, the number of cells on the form, and dynamic content in the form.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Enterprise Profitability and Cost Management, Tax Reporting, Sales Planning, and Strategic Workforce Planning.

In this Section

- [Identifying and Correcting Issues](#)
- [Level0 Members Tagged as Dynamic Calc but without a Formula](#)
- [Resolving the Unable to load the data entry form as the number of data entry cells exceeded the threshold Error](#)
- [Resolving the Required Dimensions are Not Present Error When Opening Forms](#)
- [Troubleshooting Financial Consolidation and Close Retrieval Performance](#)
- [Fixing Data Entry Issues in Financial Consolidation and Close](#)

Identifying and Correcting Issues

Use the procedures in this section to identify and correct issues that may cause unacceptable Oracle Hyperion Planning forms performance.

1. Review the best practices to replace zero blocks and remove #missing blocks in BSO cubes to reduce database size. See [Optimize BSO Cubes](#).
2. Review the Activity Report, which contains information on the impact of business rules on performance. Specifically, review the **Business Rules Attached to a Form Taking Longer than 3 Seconds** section of the report to determine if an attached business rule is causing poor performance. Use the instruction in [Troubleshooting Business Rules and Member Formula Errors and Performance](#) to optimize business rules attached to the form. Ensure that the network proxy timeout setting is sufficient to meet the business rule execution time requirements. If a business rule attached to a form takes longer than three minutes to execute and the network proxy timeout is set to three minutes or less, your proxy may repeatedly execute the rule. You can avoid this issue by setting the network proxy timeout to more than 3 minutes.

3. If performance does not improve after completing the preceding steps, review the application design, the number of cells on the form, and dynamic content in the form in order to improve the performance.
 - a. Ensure that the member data storage property of all Level 0 members that do not use a member formula is set to `Never Shared`.
 - b. Ensure that level 0 members tagged as Dynamic Calc has a formula. See [Level0 Members Tagged as Dynamic Calc but without a Formula](#).
 - c. Always design a symmetric (versus asymmetric) form. Oracle Essbase queries may be symmetric or asymmetric. Symmetric queries are those where members queried on rows or columns are of cross-dimensional layout. Asymmetric queries are those where the cross-dimensional layout of the members being queried changes in either the rows or the columns.

On encountering an asymmetric query, the Essbase hybrid query engine, which processes only symmetric grids, automatically breaks it into multiple symmetric grids. These symmetric grids are processed one at a time and then returned in the original asymmetric form, which makes the process less efficient.
4. If you get the `Unable to load the data entry form as the number of data entry cells exceeded the threshold` error, see [Resolving the Unable to load the data entry form as the number of data entry cells exceeded the threshold Error](#) for options to resolve the error.
5. If performance still does not improve, seek help from Oracle.
 - Create a Provide Feedback submission, and include screenshots of the form as you run it in your environment.

Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
 - Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Is this a Forms 1.0 form or a Forms 2.0 form?
 - Name and path of the form, all POVs, and all user and substitution variables being used.
 - Expected performance parameters and actual results.
 - Did this issue start after the latest monthly update?
 - If the performance of the form was acceptable previously, but is not now, include the date, time, and time zone when performance was acceptable.
 - Snapshot of the environment, if available, from the last time when the performance of the form was acceptable.
 - Form changes that you made since the last time when the performance was acceptable.
 - Whether this is a critical outage.

Level0 Members Tagged as Dynamic Calc but without a Formula

If level 0 members are tagged as Dynamic Calc but do not have a formula, either remove the Dynamic Calc tagging or create formulas for them. You cannot load data into level 0 members tagged as Dynamic Calc. They cannot show values because members tagged as Dynamic

Calc require a formula to calculate values, which is missing. Such members adversely affect retrieval performance.

Resolving the *Unable to load the data entry form as the number of data entry cells exceeded the threshold* Error

Oracle Enterprise Performance Management Cloud uses a number of governor thresholds to ensure optimum performance. Oracle Hyperion Planning displays the `Unable to load the data entry form as the number of data entry cells exceeded the threshold` message and prevent you from loading data into the form if it exceeds the data entry cell threshold. This threshold, which ensures the availability of EPM Cloud while running large queries, cannot be raised. Such forms are too large to be run in Oracle Smart View for Office.

These options are available to avoid the `Unable to load the data entry form as the number of data entry cells exceeded the threshold` error:

- Suppress missing blocks in the affected form.
- Redesign the form.
Because Planning is used for planning and budgeting, the initial goal should be to not use forms for reporting purposes or data mining. It is a mistake to try and use Planning as a way to hunt for data.

It is quite likely that business users know the specific location of the data slice allowing them to narrow the scope of the form by moving the largest row or column dimension to the page. Designing and maintaining a form that looks everywhere for a specific data slice is easier, but is not optimal. Forms should be designed for a specific business purpose and should focus on a select slice of the overall data for the portion of the budget that is being worked on at the time. This concept of designing forms provides better security access control to slices of data.

For example, assume that iDescendants of DimA and DimB are added as rows and there are 1000 members in each dimension, which means you are starting with one million rows. If four columns are present in this form, this form has a cell count of four million. To reduce form size, you can create a form with one of these dimensions, preferably, the largest sparse dimension (for example, DimA), as the anchor dimension. The redesigned form is then based on the number of members in DimA. The other dimension (DimB) remains in the row, which means that you have 1000 rows in the form. If you use the page dimension to toggle between available members in DimA and analyze and budget accordingly, you will not run a query on four million cells.

- Reduce or clear empty block
While the cell count does not include missing blocks, it includes empty blocks (blocks without data). You should clear empty blocks if they are not needed for allocation purposes. You can clear empty blocks using Oracle Hyperion Calculation Manager. You can do this also by exporting level0 data, then clearing all data, then importing level0 data, and then running aggregation.

Resolving the *Required Dimensions are Not Present* Error When Opening Forms

While attempting to open a form, Planning and Planning Modules business process may display the following error:

You are trying to open the form, but cannot because all of the required dimensions are not present. Possible causes may be that you do not have access to at least one member of a required dimension, or the member selection resulted in no members present. Contact your administrator.

Cause

This error is displayed when members of a dimension included in the form are not valid for the cube on which the form is created.

Solution

- Ensure that you have read or write access to at least one member of each dimension on the form.
- Ensure that at least one member of each dimension on the form is valid for the cube on which the form is created.
- Push newly created members referenced on the form, if any, to Oracle Essbase by refreshing the database.

Troubleshooting Financial Consolidation and Close Retrieval Performance

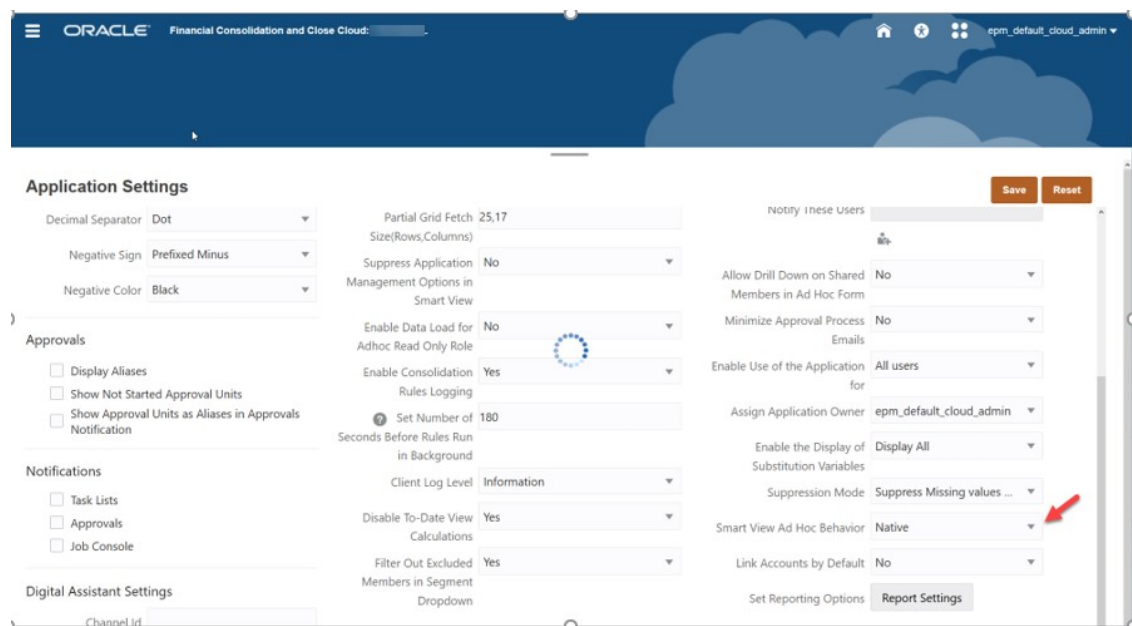
The following troubleshooting steps can help retrieval performance in a Financial Consolidation and Close environment.

Perform a Smart View Health Check in Your Environment

You can perform a health check on your environment to optimize performance. See [Performing a Health Check On Your System](#) in *Oracle® Smart View for Office User's Guide*.


Reviewing and Changing Smart View Ad Hoc Behavior


You can review the Smart View Ad Hoc behavior that you set on the Application Settings tab. Changing Smart View Ad Hoc Behavior to Native may help zoom performance. See [Smart View Behavior Options in EPM Cloud](#) in *Working with Oracle Smart View for Office*.



Application Metadata Analysis

To ensure that your metadata is valid, you can run **Validate Metadata** from the Application Overview tab at any time. See Validating Metadata.

Validate Metadata 

 Click Run to validate metadata. After validating, you can expand on screen or click Export to extract all messages to a CSV file. The members are displayed in [Cube].[Parent].[Child] format. You can use the Dimension Editor to modify metadata.

Error Warning Info

Name	Error Description
------	-------------------

Fix any metadata errors when possible, especially members with Level 0 Dynamic Calculations without formulas. If necessary, add a *stored* child placeholder member as described below. A Level 0 Dynamic Calc member must have a member formula or it will adversely affect performance.

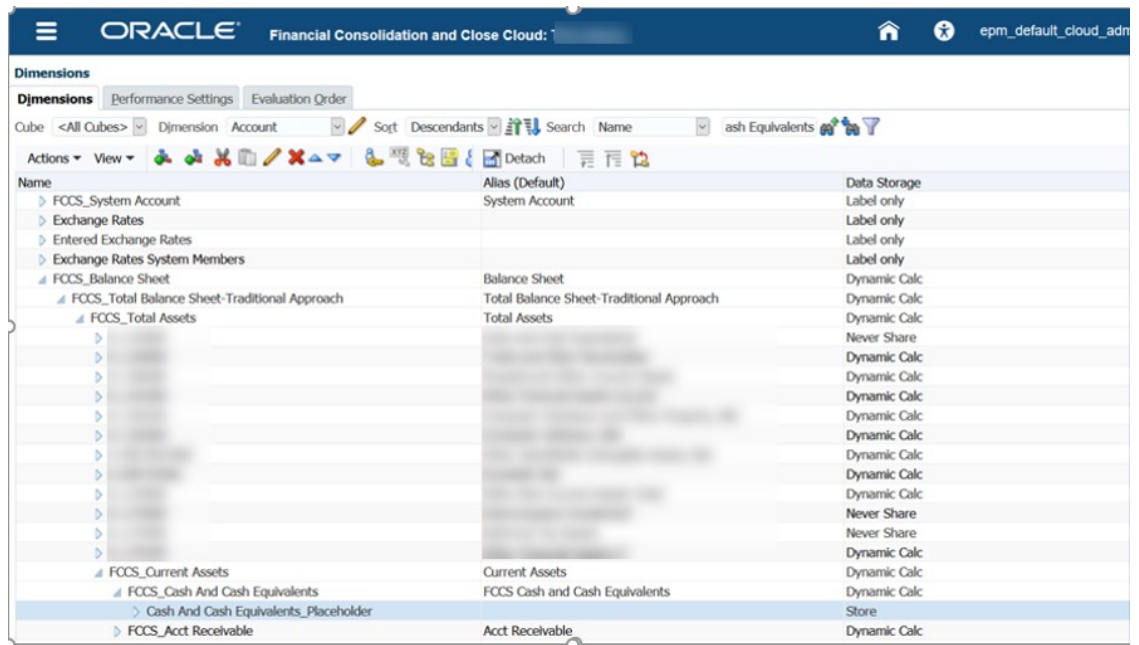
Check seeded Level 0 Dynamic Calc Account Dimension members

Review the following FCCS seeded members in the Account Dimension in the Dimension Editor to ensure they each have a child member with Data Storage set to Store.

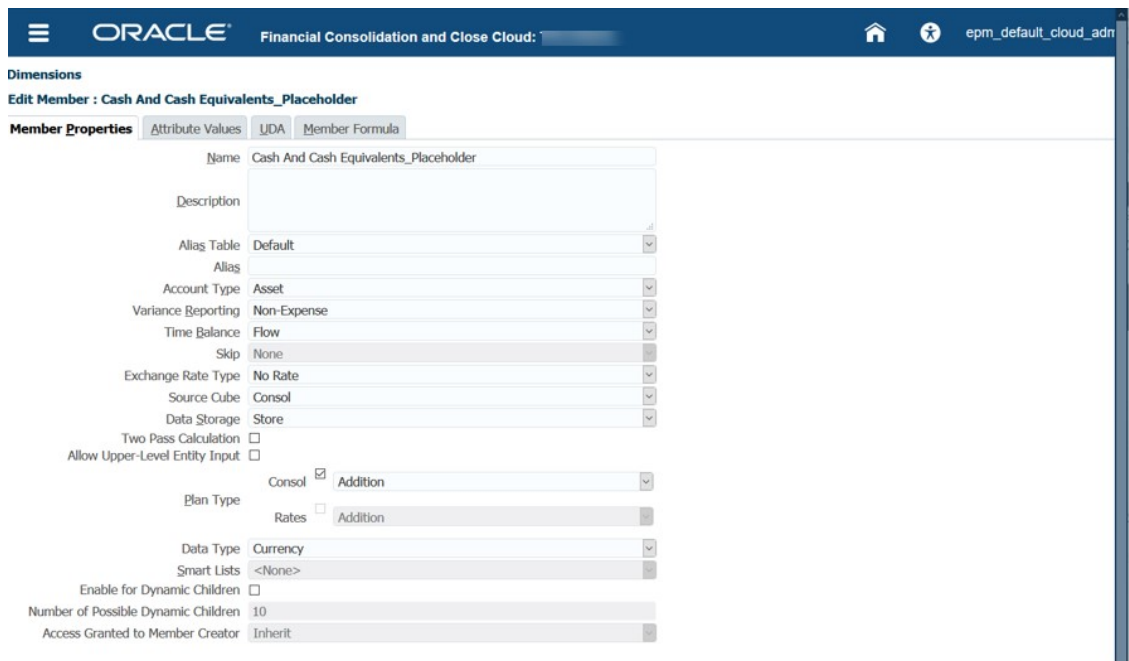
If your application does not need child members for any of the following FCCS seeded members, you will need to create a stored "dummy" or placeholder account since you cannot directly change the FCCS seeded members to Store.

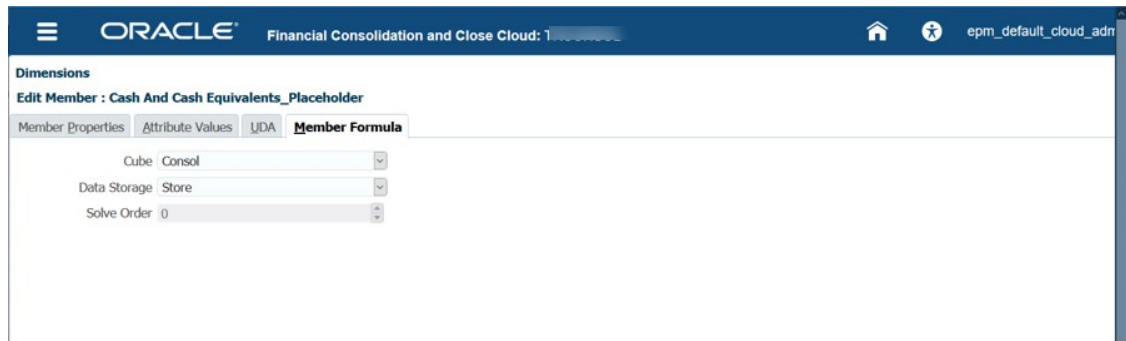
- FCCS_Cash And Cash Equivalents
- FCCS_Acct Receivable
- FCCS_Inventories
- FCCS_Fixed Assets
- FCCS_Other Long Term Assets
- FCCS_Acct Payable
- FCCS_Other Current Liabilities
- FCCS_Long Term Liabilities
- FCCS_Sales
- FCCS_Cost of Sales
- FCCS_Operating Expenses
- FCCS_Other Income Expense
- FCCS_Provision for Income Tax
- FCCS_Other Equity

For example, if "FCCS_Cash And Cash Equivalents" does not have a stored child member, create one called "FCCS_Cash And Cash Equivalents_Placeholder".



Make sure that you set Data Storage to Store on both Member Properties and Member Formula tabs.





Ensure Correct Solve Order for Dynamic Calc Dimension Members

The following table shows the Consol Solve Order values when you are using the Standard option of Account as the Dense dimension.

Consol Solve Order for Standard option:					
Movement:	Consolidation:	Data Source:	Period:	View:	Account:
Ensure the Consol Solve Order for all Dynamic Calc members are set to 53,25 or higher as shown below. If a member formula contains another Dynamic Calc member increment the Consol Solve Order for the member formula to 1 higher than the largest member Consol Solve Order in the formula.		Ensure the Consol Solve Order for all Dynamic Calc members are set to 28 or higher as shown below. If a member formula contains another Dynamic Calc member increment the Consol Solve Order for the member formula to 1 higher than the largest member Consol Solve Order in the formula.			
Update the Consol Solve Order for following members to 53.		Update the Consol Solve Order for following members to 28. If a new Dynamic Calc member is added as a child of any of the seeded members below including an alternative hierarchy, ensure there is a member formula and the Consol Solve Order is set to 28. Otherwise, ensure there is a child member with Data Storage set to Store.			
Update the Consol Solve Order for FCCS_OpeningBalance_Cash		FCCS_Total Data Source			
Update the Consol Solve Order for FX_Total_NonCash		FCCS_TotalInputAndAdjusted			
Update the Consol Solve Order for FCCS_ClosingBalance_Cash					
Note: Consol Solve Order for FCCS_ClosingBalance_Variance must be set to 55.					
Update the Consol Solve Order for following members to 25. If a new Dynamic Calc member is added as a child of any of the seeded members below including an alternative hierarchy, ensure there is a member formula and the Consol Solve Order is set to 25. Otherwise, ensure there is a child member with Data Storage set to Store.					
FCCS_Mvmts_Operating					
FCCS_Mvmts_Investing					
FCCS_Mvmts_Financing					
FCCS_CashFlow					
FCCS_CashFlow_Operating					
FCCS_CashFlow_NetIncome					
FCCS_CashFlow_AdjustmentsToNetIncome					
FCCS_CashFlow_DepreciationAndAmortization					
FCCS_CashFlow_NetAssets					
FCCS_CashFlow_AccountsReceivable					
FCCS_CashFlow_Inventories					
FCCS_CashFlow_OtherCurrentAssets					
FCCS_CashFlow_AccountsPayable					
FCCS_CashFlow_OtherCurrentLiabilities					
FCCS_CashFlow_Investing					
FCCS_CashFlow_Acquisitions					
FCCS_CashFlow_Disposals					
FCCS_CashFlow_CapitalExpenditures					
FCCS_CashFlow_ProceedsFromSalesOfPPE					
FCCS_CashFlow_OtherInvestingActivities					
FCCS_CashFlow_Financing					
FCCS_CashFlow_IssueOfStock					
FCCS_CashFlow_ProceedsFromDebt					
FCCS_CashFlow_RepaymentOfDebt					
FCCS_CashFlow_OtherFinancingActivities					

The following table shows the Consol Solve Order values when you are using the Dense Sparse Optimization option that uses Period and Movement as the Dense dimensions.

Consol Solve Order for DSO option:					
* The following sentences applies to all the following Dimensions.					
If a member formula contains another Dynamic Calc member increment the Consol Solve Order for the member formula to 1 higher than the member with the largest Consol Solve Order referenced in the formula.					
If a new Dynamic Calc member is added as a child of any of the seeded members below including an alternative hierarchy, ensure there is a member formula and the Consol Solve Order is set to the same as the Parent. Otherwise, ensure there is a child member with Data Storage set to Store.					
Movement:	Period:	View:	Account:	Consolidation:	Data Source:
Ensure Consol Solve Orders on all dynamic members except the members listed below are set to 0.	Ensure the Consol Solve Order for all Dynamic Calc members are set to 53 or higher based on highest solve order member in a member formula.	Ensure the Consol Solve Order for all Dynamic Calc members are set to 52 or higher based on highest solve order member in a member formula.	Ensure the Consol Solve Order for all Dynamic Calc members are set to 58 or higher based on highest solve order member in a member formula. Ensure the Consol Solve Order for all Ratio Account members are set to 58.	Ensure Consol Solve Orders on all dynamic members are set to 0. For Applications without the Ownership Management feature enabled, the solve order for the Proportion member and its Ancestors must be set to 51.	Ensure Consol Solve Orders on all dynamic members are set to 0.
Update the Consol Solve Order for following members to 59.	Update the Consol Solve Order for following members to 53.	Update the Consol Solve Order for following members to 52.			
FCCS_CashChange	YearTotal	FCCS_YTD			
FCCS_OpeningBalance_Cash	Q1,Q2,Q3 and Q4	FCCS_HYTD			
FX_Total_NonCash	HY1 and HY2	FCCS_QTD			
FCCS_ClosingBalance_Cash					
Consol Solve Order for FCCS_ClosingBalance_Variance must be set to 56.					



Note:

A Solve Order conflict may exist with the Parent Total member formula and YTD formula. The FCCS_Parent Total member applies only for Parent Currency in Multiple-Currency applications. It is recommended that you use Entity Total instead of Parent Total, if possible. If not, try changing the Solve Order on FCCS_Parent Total to 51 and then refresh the database. Be sure to verify your data.

Example Screenshots for changing Solve Order

Click **Applications**, then **Overview**, then select the **Dimensions** tab. Right-click on a column and uncheck Default mode. Then scroll over to the Consol Solve Order column to edit it. You can click and drag columns for easier viewing.

Edit Member Properties :Movement

Save Cancel

Actions Search Name

Member Name	Parent Mem	Consol Data Storage	Data Type	Consol Consol op.	Two Pass Calculation	SmartLists	Default Alias Table
Movement		Never Share	Unspecified	Ignore	No	<None>	
FCCS_Movements	Movement	Dynamic Calc	Unspecified	Ignore	No	<None>	Total Movements
FCCS_ClosingBalance_Variance	Movement	Dynamic Calc	Unspecified	Ignore	No	<None>	Closing Balance - Cash Flow
FCCS_CashFlow	Movement	Dynamic Calc	Unspecified	Ignore	No	<None>	Cash Flow
FCCS_CashChange	Movement	Dynamic Calc	Unspecified	Ignore	No	<None>	Cash Change

Default Data Storage
 Consol Data Storage
 Data Type
 Consol Consol op.
 Two Pass Calculation
 Smart Lists
 Default Alias Table
 Combined Alias Table
 Description
 UDA
 Consol Formula
 Consol Solve Order
 Rates Solve Order
 Is Default Movement
 Enable for Dynamic Children
 Number of Possible Dynamic Children
 Access Granted to Member Creator
 Force fit columns
 Default Mode

Edit Member Properties :Movement Save Cancel

Actions Search Name

Default Alias Table	Combined Alias Table	Description	UDA	Consol Formula	Consol Solve Order	Rates Solve Order	Is Default Movement	Enable for Dynamic Children	Number of Possible Dynamic Children	Acc M
Total Movements					0	0	<None>	No		Inf
Closing Balance -				IF(@SLEV('Entity',0))	25	0	<None>	No	10	Inf
Cash Flow					25	0	<None>	No	10	Inf
Cash Change					53	0	<None>	No	10	Inf

After all the above changes have been made, run Validate Metadata again and then run Refresh Database.

Validate Metadata Run Cancel

Click Run to validate metadata. After validating, you can expand on screen or click Export to extract all messages to a CSV file. The members are displayed in [Cube],[Parent],[Child] format. You can use the Dimension Editor to modify metadata.

Error Warning Info

Name	Error Description



Note:

Unnecessary Solve Order on Custom Dimension

Be sure to clear any Solve Order on Custom dimension members. These conflict with the Account dimension solve order, and unnecessarily aggregate Account as the last dimension.

Two Pass Calculation on Account Dimension Hierarchy Not Required

Make sure that Two Pass Calculation is set to No. See Working with Member Formulas in *Administering Financial Consolidation and Close* .

Retrieval Optimization Analysis

Do not use HSGetValue Formulas

Convert your HSGetValue spreadsheet retrievals to Ad Hoc retrievals. They perform much better as retrieval size grows and are easier to maintain once converted. HSGetValue formulas are supported. Use them only when necessary for small to medium size retrievals.

Start with Periodic View

If you are using the Control To-Date View, the stored View dimension member YTD is #missing. Use the YTD_Rule member to dynamically calculate the YTD Balances upon retrieval. Note - You can use YTD or YTD_Rule member when using the Dense/Sparse Optimization option.

For Optimization Analysis, change your View from YTD_Rule to Periodic for quicker analysis. Once optimized, you can switch back to YTD_Rule as needed.

Analyze the Account Dimension for slow member formulas

Check performance for all accounts in the spreadsheet, especially with member formulas. Remove the accounts with member formulas from the spreadsheet and execute the retrieval. If the retrieval is now quick, add groups of accounts with member formulas back in the retrieval to isolate the slow members formula(s). Once isolated, optimize the member formula, ensuring the correct Consol Solve Order and add them back to the spreadsheet to confirm they are optimized.

If the retrieval is still slow without the member formulas and with Periodic View, you can continue to isolate account members to determine which ones are slow. This is a rare occurrence that is usually a metadata problem with level 0 dynamic accounts without formulas or a solve order problem.

For Hybrid-enabled applications, use @NONEMPTYTUPLE(); directive at the beginning of a member formula.

Enable the Control To-Date feature if needed

If the application is currently an Extended Dimension application that does not use the Dense/Sparse Optimization option and your YearTotal and QTD retrievals are slow, enable the Control To-Date feature. Enabling this feature replaces these formulas with more efficient ones.

Analyze the other Dimensions for slow member formulas if needed

Check performance one dimension at a time in the spreadsheet, especially with member formulas. If the Dimension to be analyzed is not in the POV dialog box, drag the Dimension into the POV dialog box. Then drill down in the POV Member Selector to the next level and execute the retrieval process. Continue doing this until you find the member formula or level member that slows down the retrieval. Once found, optimize the member formula or level member, ensuring the correct Consol Solve Order and add them back to the retrieval process.

Periodic to YTD_Rule

If your Periodic View retrieval is now faster after the preceding analysis and optimization, change your View to YTD_Rule as needed. Your YTD_Rule View member should now perform better. If not, consider pulling back the Periodic View for most of your Balance sheet accounts as they already have a YTD Balance, and then adding up the periods in Excel for your YTD balance for Income Statement accounts. You may have to make a few extra worksheet tabs with retrievals and add Excel sum formulas. You can then create a Summary YTD balance report worksheet tab referencing the Excel formulas and data on the other worksheet tab(s). Once done, you can just click Retrieve All in the SmartView menu and the multiple retrieval and Summary tabs will be refreshed and the formulas calculated.

Executing Update View Calculation Rule to optimize retrieval performance for the Control To-Date View Storage option

When you use the Control To-Date View Storage option, the stored View dimension member YTD is #missing and not calculated and stored unless you execute the **Update View Calculation** rule. The YTD_Rule member will calculate the YTD Balances dynamically and should be used when possible.

If a retrieval is still too slow using the YTD_Rule member, consider moving to the Dense Storage Option or pre-consolidating and storing YTD for some Entities. You can determine which Entities are slowest by using a process of elimination based on level in the Hierarchy and size, and then run the **Update View Calculation** rule for those Entities to store YTD and retest.

When you consolidate for those Entities in the POV(s) using this feature, the consolidated values will be stored in the YTD View member. Only the Entities consolidated with the Update View Calculation feature will have values for the YTD View member; all other Entity values will be #missing. For the other Entity values, you will need to use the YTD_Rule View member. You

can mix and match YTD and YTD_Rule View members as it makes sense in your reports. For reports where this is not feasible and you are using just the YTD View member, you must remember to consolidate all Entities on the report using the **Update View Calculation** feature.

Each time a Periodic Consolidation is executed again for a Period, any previously executed Update View Calculation for that Period and Entities will need to be re-executed to reflect the latest Period Consolidation in the YTD values.

Disable View Calculations

Financial Consolidation and Close provides an Application Settings option to disable View calculations. This option disables computation and storing of YTD, HYTD, and QTD data for data input (through forms, data import, Oracle Hyperion Financial Data Quality Management, Enterprise Edition, and so on) and reporting in the YTD, HYTD, and QTD members. Turning this setting to *Yes* helps improve the performance of data loads and reports. For more information, see [Disabling View Calculations](#) in *Financial Consolidation and Close Administrator's Guide*.

Review Spreadsheet design

Asymmetric

Symmetric report design is much faster than Asymmetric. A high number for nOdometers in the Activity Report (see the following sample report for an example) is a good indicator of an inefficient Asymmetric report. Ideally a Symmetric report would have nOdometers:1.

Top 10 Worst Performing Essbase Queries over 15 seconds

Duration (Min:Sec)	Begin-Time (UTC)	End-Time (UTC)	Contexts
04:45 ^{aa}	09:06:42 ^{aa}	09:11:27 ^{aa}	DBNAME:Consol ^{aa} QUERY_USER:epm_default_cloud_admin ^{aa} reportType:Grid ^{aa} nHash:3986401159 ^{aa} sts:0 ^{aa} nOdometers:12 ^{aa} sumOfOdomSizes:228 ^{aa} sumOfOdomVolumes:60 ^{aa} bSuppressMissing:F ^{aa} bCellStatusMDX:F ^{aa} bMeaningless:F ^{aa} bSuppressInvalid:F ^{aa} ullBlocksRead:2.96941e+07 ^{aa} ullFormulaExec:5.74535e+06 ^{aa} ullFormulaMissing:5.69993e+06 ^{aa} ullFormulaExecOOT:0 ^{aa} bAsoCacheFull:F ^{aa} nMicrocubes:0 ^{aa} nRetrClusters:0 ^{aa} nRetrTuples:0 ^{aa} nOutCellsAll:61 ^{aa} nOutCellsNonMi:56 ^{aa} tScanAgg:0 ^{aa} action:0x10 ^{aa} modifier:0x4cc ^{aa} format:0x430c100 ^{aa}

Ideally, the columns have only one Dimension where the members are changing, for example, periods (Jan-Dec). As you start adding more Dimensions, for example, Year (FY15,FY16,etc.), the grids become more Asymmetric and retrievals may slow down. The same concept applies for Rows.

When needed for performance, create multiple worksheet tabs, each pulling smaller specific retrievals. You can then use Excel functionality to combine data referencing the smaller specific retrieval worksheet tabs into a summary sheet. Once created, you can then just click Retrieve All in the menu and the multiple worksheet tabs and summary sheet will be refreshed.

Other Considerations

If an application has a member formula that requires a lot of data for proper calculation, it may make sense to store the data versus Dynamic Calc if the member is not in the Account the dimension for the Control To-Date View Storage, or the Movement and Period dimension for the Dense Storage Option.

Spreadsheets with a smaller number of worksheet tabs and well-defined Oracle Smart View for Office queries with dynamic POVs perform better than large spreadsheets with all kinds of different data and text.

Apply traditional Oracle Essbase Hybrid retrieval optimization procedures.

Using Substitution Variables

To improve performance for applications that use the Dense/Sparse Optimization option (where Period and Movement are the Dense dimensions), you can add the `ParallelCustomDimDSO` and `ParallelCustomDimTranslation` substitution variables. To see performance improvements, you should set both of these substitution variables to True.

To improve performance for multi-period consolidations in applications that use the Dense/Sparse Optimization option, you can add a substitution variable named `EnableYearlyConsol` and set the value to True.

See [Substitution Variables for Financial Consolidation and Close](#).

Fixing Data Entry Issues in Financial Consolidation and Close

Valid intersections enable you to define rules, which filter certain cell intersections to users when they enter data or select runtime prompts. Incorrect valid intersection rules will cause data entry and update issues in your Financial Consolidation and Close application. Some possible issues caused by incorrectly defined valid intersections include:

- Failure to refresh the database because the process fails to create form definition
- Dropdown lists in POVs of forms not displaying selectable members
- Failure to load account members from a CSV file because the form prevents data entry
- Inability to upload exchange rate and enter rates against application currency

If you are faced with these issues, review the valid intersection definitions in your application. Especially, review newly added valid intersections to ensure that valid intersection rules are not the root cause of your issue. For detailed information on valid intersections, see Understanding Valid Intersections in *Financial Consolidation and Close Administrator's Guide*.

Troubleshooting Database Refresh Issues

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Enterprise Profitability and Cost Management, Tax Reporting, Sales Planning, and Strategic Workforce Planning.

In this Section

- [Preventing Daily Maintenance from Terminating Database Refresh and Cube Restructures](#)
- [Resolving Financial Consolidation and Close Database Refresh Failure Error 1060200](#)

- [Resolving Database Refresh Failure Error: Invalid Character 0x19](#)
- [Getting Help](#)

For best practices to replace zero blocks and remove #missing blocks in BSO cubes to reduce database size, see [Optimize BSO Cubes](#).

Preventing Daily Maintenance from Terminating Database Refresh and Cube Restructures

The daily maintenance process terminates all processing, including any in-progress database refreshes and cube restructures.

To ensure that long running database refreshes and cube restructures are not impacted by the daily maintenance process, before starting a long lasting database refresh or cube restructure, run the daily service maintenance process specifying the option to skip the next occurrence of the process using the runDailyMaintenance EPM Automate command as indicated below.

```
epmAutomate runDailyMaintenance skipNext=true
```

Resolving Financial Consolidation and Close Database Refresh Failure Error 1060200

Database refresh from Financial Consolidation and Close non-hybrid application displays the following error:

```
Cube refresh failed with Essbase Cube: Consol, Error code: 1060200, Message:  
HSP_TMP_db248fa7-058e-4ddc-9891-46c9346a8b33
```

Cause

This error occurs, generally, after you add a shared entity under mid-hierarchy where the entity being added was already shared above and below the hierarchy.

Solutions

1. Use one of these performance substitution variables to improve performance. The degree of performance improvement varies widely across different applications as it is purely driven by the application design and data distribution.
 - **OptimizeConcurrency:** Use this substitution variable with a value of true (OptimizeConcurrency=true) to improve the concurrency of the consolidation process by executing some of the calculations at the very beginning or at the end. The degree of improvement depends on the entity structure. Deep entity hierarchies will see more performance improvement than shallow entity hierarchies.
 - **DeltaDBRefresh:** Use this substitution variable with a value of true (DeltaDBRefresh=true) to perform only necessary actions based on metadata change. Not applicable for Legacy Non "Extended Dimensionality" applications.
 - **OluRatesLoad:** Use this substitution variable with a value of true (OLURatesLoad = True) to improve database refresh performance if the application has a lot of scenarios, currencies and rate accounts.
 - **OptimizeDBRefresh:** Use this substitution variable with a value of true (OptimizeDBRefresh=true) to improve performance by streamlining the way that exchange rates are pushed to the Console cube during the database refresh.

2. Change the newly added shared member down to the bottom.
 - a. Open the Financial Consolidation and Close application.
 - b. Select **Navigator**, then **Dimensions**, and then **Entity**.
 - c. Select the hierarchy where you recently added the shared member.
 - d. Move the selected hierarchy to the bottom using the **Move Down** icon.
 - e. Refresh the database and verify that the process completes successfully. If database refresh fails, take necessary corrective actions.
 - f. After the database refresh is complete, move the shared entity to its original location.
 - g. Refresh the database again and verify that the process completes successfully.

Resolving Database Refresh Failure Error: Invalid Character 0x19

Database cube refresh operation may fail and display the following error:

```
Cube refresh failed with Essbase Cube: <CubeName>, Error code: 1060374,  
Message: Error XML Exception: invalid character 0x19 attribute value 'alias'
```

Cause




This error is caused by the presence of special (control) characters in the member name or member alias within the application.

At times, an upstream integration process may introduce illegal control characters in member aliases. Example, the hexadecimal control character 0x19 is an illegal character per the XML standard and cannot be used in member names and aliases. Upstream systems should remove or filter out such illegal characters from member names and aliases.

Solution

To resolve this error:

1. Sign in to the application.
2. On the Home page, select **Tools** and then **Migration**.
3. In **Categories**, click **Core**.
4. Make sure that no artifact is selected in **Artifact List: Core**.
5. Expand **Global Artifacts** and then **Common Dimensions**.
6. Export one or more dimensions to a CSV file. Exporting the artifacts to CSV helps you use Microsoft Excel or a text editor to locate the special character that causes this error. You can export all standard and attribute dimensions to one file or choose a few dimensions to export. For example, you may select **Standard Dimensions** to export all standard dimensions.
 - a. Select the dimensions that you want to export to review and identify the member or alias name that cause this error.

Artifact List: Core  | Select All Export Close |  

Name	Type	Modified Date	Modified By
<input type="checkbox"/> Relational Data	Folder		SYSTEM
<input type="checkbox"/> Global Artifacts	Folder		SYSTEM
<input type="checkbox"/> Common Dimensions	Folder		SYSTEM
<input checked="" type="checkbox"/> Standard Dimensions	Folder		SYSTEM
<input checked="" type="checkbox"/> Account	Account Dimension	11/5/23	epmuser
<input checked="" type="checkbox"/> Period	Period Dimension	11/5/23	epmuser
<input checked="" type="checkbox"/> Year	Year Dimension	11/5/23	epmuser
<input checked="" type="checkbox"/> Scenario	Scenario Dimension	11/5/23	epmuser
<input checked="" type="checkbox"/> Version	Version Dimension	11/5/23	epmuser
<input checked="" type="checkbox"/> Entity	Entity Dimension	11/5/23	epmuser
<input checked="" type="checkbox"/> Product	Dimension	11/5/23	epmuser
<input type="checkbox"/> Attribute Dimensions	Folder		SYSTEM

- b. Click **Export** and follow the screen prompt to save the export file.
7. Download the exported file to a local computer. See these information sources:
 - downloadFile in *Working with EPM Automate for Oracle Enterprise Performance Management Cloud*
 - Downloading Files and Snapshots from an Environment in *Administering Migration for Oracle Enterprise Performance Management Cloud*
8. Using Microsoft Excel or a text editor, review the CSV file to identify special characters present in artifact names or member aliases.
9. Repeat steps 6 through 8 to export and review Attribute Dimensions to identify special characters present in artifact names or member aliases.
10. In the application, remove special characters present in member names and aliases.
11. Refresh the database to verify that the process finishes without errors.

Getting Help

Seek help from Oracle if a database refresh results in timeouts or does not perform as you expect.

1. Create a Provide Feedback submission that captures your actions while refreshing the database.
You may, optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:

- Did this issue start after the latest monthly update?
- If the process was working and performing better previously, but is not now, include the date, time, and time zone when the process was working as expected.
- Snapshot of the environment, if available, from the last time when the database refresh worked and performed better.
- Application changes that you made since the last time the database refresh worked properly and performed better.
- Whether this is a critical outage.

Resolving Issues with Smart Push

If you encounter performance issues or errors while performing smart push, try to optimize them. Smart push errors may include a resource not being available to complete the job and an inability to allocate needed resources for smart push.

For best practices to replace zero blocks and remove #missing blocks in BSO cubes to reduce database size, see [Optimize BSO Cubes](#).

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Enterprise Profitability and Cost Management, Tax Reporting, Sales Planning, and Strategic Workforce Planning.

Handling Smart Push Errors

Typical Smart push errors related to lack of resources include the following:

- Smart Push Error – There are not enough resources available for cube xxx to complete this job. The job will complete when the resources are available.
- Push Data failed – Unable to allocate resources for cube xxx for 45 seconds. Reduce the number of simultaneous operations on this cube or try again later.

To fix resource allocation-related errors:

1. Review the Activity Report to identify resource intensive activities and slow performing Oracle Essbase operations. Typically, the impact such operations have on system resources could deprive smart push of needed resources. Be sure to review the following tables in the Activity Report. See *About the Activity Report in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.
 - Top 10 Worst Performing Calc Scripts
Optimizing these calculation scripts may free up system resources that can be allocated to smart push.
 - Top 10 Worst performing Business Rules over 30 seconds
Execution of business rules require system resources. Redesigning these business rules may free up resources that can be allocated to smart push. See [Troubleshooting Business Rules and Member Formula Errors and Performance](#).
 - Top 10 Worst Performing Essbase Queries over 15 Seconds
This table identifies up to 10 long running Essbase queries that take more than 15 seconds to run. Evaluate these queries to make them more efficient.
 - Business Rules Attached to a Form Taking Longer than 3 Seconds
Evaluate these rules to see if they can be streamlined to take less execution time.

2. Review recent application changes, especially changes to data maps definition. Review data map and other application changes and evaluate how they impact the use of system resources. Redo data map definitions that contribute significantly to resource use.

Review the Application Design Changes table in the Activity report to identify recent changes to the application.
3. Avoid smart pushes to the ASO cube when exclusive operations such as merge slices and clear data are in progress.
ASO cube exclusive operation behavior affects smart push. Because other operations have to wait for the completion of exclusive operations, smart push waits if exclusive operations on the Essbase cube are in progress. Smart push, which is an end-user operation, has a limited wait period. If the exclusive operation finishes within the wait period, smart push is initiated; otherwise smart push fails.

Optimizing Smart Push

To optimize smart push:

- Drop aggregate views
- Enable query tracking
- Run a few smart pushes to ensure that everything works as designed
- Create aggregate views based on query tracking
- Set up a nightly job to drop and re-create aggregate views

If these optimization steps do not improve performance, seek help from Oracle.

Resolving Smart Push Performance Issues

If you encounter performance issues while performing smart push, evaluate whether the data calculations are causing the performance issues.

Dynamic calculation members may impact the performance of smart push operations. To ensure optimal performance of smart push, exclude dynamic calc members from the smart push definition. If you must transfer dynamic calc members, move only the required members and exclude the members that are not required.

Getting Help

1. Create a Provide Feedback submission that captures your actions. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Detailed steps to reproduce the issue.
 - Did this issue start after the latest monthly update?
 - If the process was performing better previously, the date, time, and time zone when smart push was performing as expected.
 - Snapshot of the environment, if available, from the last time when smart push was performing as expected.
 - Application changes that you made since the last time smart push was performing as expected.

- Whether this is a critical outage.

Optimizing Aggregate Storage Option Cubes

Performance of Aggregate Storage Option (ASO) reporting cubes is governed by many factors, including the number of slices in the cube, the outline of the cube, and the type of dimensions in the cube.

Optimizing ASO cubes involves the following steps:

- [Merging Data Slices and Removing Zeros](#)
- [Compacting the Outline](#)
- [Reviewing Dimension Hierarchy Types](#)
- [Creating Required Aggregate Views](#)
- [Reviewing ASO Retrieval Formula Statistics in the Activity Report](#)
- [Getting Help from Oracle](#)

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Enterprise Profitability and Cost Management, Oracle Hyperion Profitability and Cost Management, Sales Planning, and Strategic Workforce Planning.

Merging Data Slices and Removing Zeros

A data slice is an incremental store for data. Fewer data slices improve a cube's performance and reduce the database size.

A data slice is created in the following situations:

- When you load data into an ASO cube
- When you submit data from Oracle Smart View for Office
- When you run a calculation or allocation

Creating a data slice when loading data improves the performance of incremental data loads, but increases the size of the database. After loading the new slice into the database, Oracle Essbase creates all necessary views on the slice (such as aggregate views) before the new data is visible to queries. The number of incremental data slices is displayed under **Essbase ASO Cube Statistics** in the Activity Report. See *About the Activity Report* in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Fewer data slices improve a cube's performance. To improve performance, you can merge all incremental data slices into the main database slice. Alternatively, you can merge all incremental data slices into a single data slice without changing the main database slice.

If you clear data before pushing it into an ASO cube, the affected data cells show the value 0 instead of #Missing. Additionally, when you delete a value through Smart View or data forms, the value is set to 0 instead of #Missing. For optimal performance, you must replace 0 with #Missing.

You can merge data slices and remove zeros manually from Oracle Hyperion Calculation Manager or schedule the process as a job. Because the database is locked during the process, Oracle recommends scheduling the job when users are not using the application.

- [Merging Data Slices and Removing Zeros Using A Job](#)
- [Merging Incremental Data Slices and Removing Zeros Using Calculation Manager](#)

Merging Data Slices and Removing Zeros Using A Job

Jobs are actions that you can schedule to start at a convenient time. To merge data slices you create and schedule a **Merge Data Slices** job.


To merge incremental slices and remove zeros using a job:

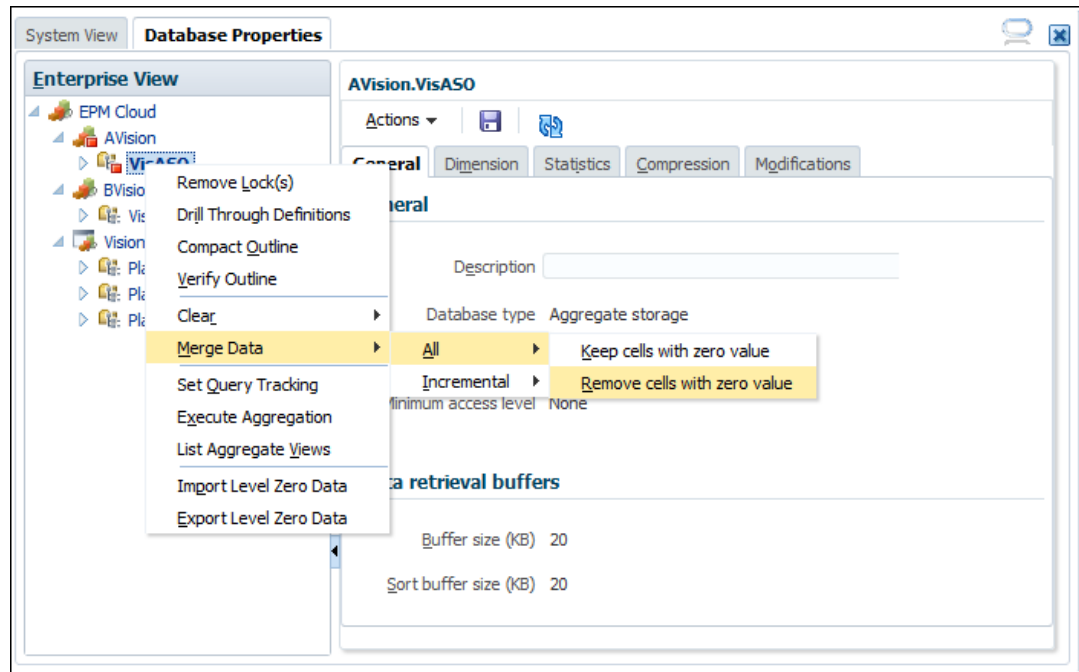
1. Sign in to Oracle Enterprise Performance Management Cloud.
2. Click **Application**, then **Jobs**, and then click **Schedule Jobs**.
3. Select **Merge Data Slices** as the job type.
4. In **Name**, enter a name for the job.
5. Select when to run the job. You can run a job right away or schedule it to run at a later time.
6. Click **Next**.
7. Specify merge options in **Job Details**:
 - a. Select the cube.
 - b. Select how you want to merge data slices. Choose one of the following:
 - **Merge all into the main slice** to merge all data slices into the main data slice.
 - **Merge all into a single incremental slice** to consolidate all data slices.
 - c. Under **Merge Options**, select **Remove cells with zero value** to replace 0 with #Missing as the value in cells from which data has been cleared prior to the data push.
8. Click **Next** and then review the selected job settings.
9. Click **Finish**.

Merging Incremental Data Slices and Removing Zeros Using Calculation Manager

You can merge data slices and remove zeros by running the merge operation using Oracle Hyperion Calculation Manager. You cannot schedule the merge operation in this manner.

To merge data slices and remove zeros using a business rule:

1. Sign in to Oracle Enterprise Performance Management Cloud.
2. Click **Navigator**  and then **Rules** under **Create and Manage**.
Calculation Manager is displayed.
3. In Calculation Manager, Click **Actions** and then **Database Properties**.
4. From **Enterprise View**, expand the database node.
5. Right-click the cube and select **Merge Data**, then **All**, and then **Remove cells with zero value**.



6. Click **OK** to start the merge process.

Compacting the Outline

Although ASO cubes do not contain blocks, cube fragmentation may occur when members or dimensions are added or deleted. Compacting the cube outline, especially after changing metadata, defragments the cube to improve performance and reduce size. Compacting the outline optimizes size, but does not clear data.

You must compact the ASO cube outline on a routine basis, especially after modifying hierarchies. Because compacting the outline requires locking the cube, this process is best scheduled to run when the application is idle. If you are in development phase, you may compact the cube manually using Oracle Hyperion Calculation Manager and review the output to identify areas for optimization. See the following topics:

- [Compacting ASO Outline Using a Job](#)
- [Compacting ASO Outline Using Calculation Manager](#)

Compacting ASO Outline Using a Job

To schedule a job to compact the outline:


1. Sign in to Oracle Enterprise Performance Management Cloud.
2. Click **Application**, then **Jobs**, and then click **Schedule Jobs**.
3. Select **Compact Outline** as the job type.
4. In **Name**, enter a name for the job.
5. Select when to run the job. You can run a job right away or schedule it to run at a later time.
6. Click **Next**.
7. In **Job Details**, select the cube to compact.

8. Click **Next** and then review the selected job settings.
9. Click **Finish**.

Compacting ASO Outline Using Calculation Manager

Compact the ASO outline from Oracle Hyperion Calculation Manager to run the process right away. When the process is complete, you can review details of the process to optimize the outline. This process is recommended for streamlining outlines in development environments.

To compact outlines using Calculation Manager:

1. Sign in to Oracle Enterprise Performance Management Cloud.
2. Click **Navigator**  and then **Rules** under **Create and Manage**. Calculation Manager is displayed.
3. In Calculation Manager, Click **Actions** and then **Database Properties**.
4. From **Enterprise View**, expand the database node.
5. Right-click the cube and select **Compact Outline**.
6. Click **OK** to start the process.

When the process finishes, **Compact Outline Action Status** is displayed.

7. Click **Show Details** to view process status. Review warnings to identify changes that can be made to optimize the outline. Some sample warnings:

```
Invalid formula for member [<Member1>] (reason: depends on a member [<Member2>] with invalid formula) will be ignored during execution
```

```
The formula for member [<Member1>] is Complex. If possible add a non-empty directive to optimize for sparse data
```

```
Invalid Formula for member [<Member1>] (reason: depends on a member [<Member2>] with higher solveorder) will be ignored during execution
```

Evaluate the warnings and make changes to the indicated member using the Dimension Editor.

Reviewing Dimension Hierarchy Types

Each ASO dimension is assigned a hierarchy type: Stored, Dynamic, or Multiple. Elements of dimensions with Stored hierarchy type are stored and aggregations are materialized in aggregate views.

Elements of Dynamic dimensions cannot be aggregated into views. In Multiple type dimensions, generation 2 (children of the top node) are set to Stored or Dynamic. For Multiple hierarchy type, you choose the hierarchy type as either Stored or Dynamic at generation 2. The first generation 2 child (usually the main hierarchy) must be of type Stored. For such hierarchies, you should edit all generation 2 members and select either Stored (preferred) or Dynamic as hierarchy type.

Stored dimensions are preferred to ensure optimal performance. Because the hierarchy types you choose also impact the number of aggregate views that can be created, Oracle recommends the following:

- Use only Stored type dimensions, if possible.
- Use Multiple, where possible, if Stored type dimension cannot be used.

- For Multiple hierarchy dimensions, set Generation 2 to Stored rather than Dynamic, if possible.
- Use Dynamic dimensions only if Multiple hierarchy type cannot be used.
- Account dimension must always be Dynamic because it is the ASO compression dimension. This cannot be changed.

Impact of Hierarchy Types in Dimension Conversion

When converting a dimension, for example, from Dynamic to Multiple, the node member (Gen1) becomes Label Only. The conversion will work if the dynamic dimension only has one child (+) at generation 2. Dimension conversion from Dynamic to Multiple may not be possible if you require a total at Gen1 (node) level.

Setting Hierarchy Types

Hierarchy type (Stored, Dynamic or Multiple) is set against the top node member of each dimension. In all cases, the descendants inherit the parent's hierarchy type. Thus, Stored and Dynamic hierarchy types are set for the entire dimension. For dimensions given Multiple hierarchy type, each generation 2 member (the children of the node member) is set to either Dynamic or Stored.

Considerations for Stored hierarchy type include the following:

- Stored hierarchy type can contain consolidation operators + (addition) and ~ (ignore).
- The no-consolidation or ignore operator can be used in a Stored hierarchy type only if the member's parent is set to LABEL_ONLY.

Considerations for Dynamic hierarchy type include the following:

- Members with Dynamic hierarchy type can use any consolidation operator, including addition and ignore.
- It is possible to use formulas within Dynamic hierarchy type.
- Shared members may exist within a Stored hierarchy type in some circumstances, but may need to be in a Dynamic hierarchy (see [Shared Members and Hierarchy Types](#)).
- Avoid making large dimensions Dynamic.

Use of Formula and Hierarchy Types

While it is possible to use formulas within Dynamic hierarchy type, it is important to note that the entire dimension need not be Dynamic; only the hierarchy that the formula exists in need to be Dynamic.

Where possible, when a dimension contains formula, use Multiple as the hierarchy type. At generation 2, make only the hierarchies within the dimension that contain formula Dynamic; make the rest Stored.

The Scenario dimension, which may have Actual, Budget, Forecast, and some formula, is a good example. Often, these are generation 2 members. In this case, make Scenario hierarchy type Multiple, make generation 2 members with formula Dynamic, and all other members Stored.

Shared Members and Hierarchy Types

Shared members can affect decisions about hierarchy type within ASO databases. Whereas Stored dimensions cannot have shared members Stored hierarchies within a Multiple dimension type can have shared members.

When setting hierarchy types in Multiple dimensions, set as many hierarchies as possible as Stored type (setting at generation 2).

Shared members can exist in Stored hierarchies within Multiple dimensions if the shared member is only shared once and is shared with a level 0 member. There may, however, be the following restrictions on shared members within a Stored hierarchy requiring you to set a generation 2 hierarchy within the Multiple dimension as Dynamic:

- To ensure that values are not double-counted, a stored hierarchy cannot contain multiple copies of the same shared member.
- A Stored hierarchy cannot contain both stored and shared versions of the same member.
- A Stored hierarchy can contain a shared instance of a Dynamic hierarchy member only if the Dynamic hierarchy member is a level 0 member without a formula. In other words, a Stored hierarchy cannot contain a shared member of an upper level member or a member with a formula.
- Shared members can exist within a Multiple dimension if each shared member is used only once and is a shared instance of a level0 member.

Make your shared member hierarchy (not the dimension) Dynamic only if it is not possible to set the hierarchy as Stored. In many cases, however, shared members can exist in a Multiple dimension with all generation 2 members set to Stored, for example, where shared members are only used once within all shared hierarchies.

Creating Required Aggregate Views

Aggregate or materialized views are higher level dimension intersections that calculate and store a part of the data to disk based on hierarchies. They enhance retrieval performance by storing calculated data. You must re-create aggregate views when new data slices are created.

Optimizing aggregation can significantly improve the performance of ASO cubes. ASO cubes support default aggregation and query tracking aggregation. Query tracking aggregation requires that you enable query tracking and allow a sufficient time to allow the system to capture user data retrieval patterns which can then be used to create aggregate views. You can enable query tracking using a job or using Oracle Hyperion Calculation Manager.



Note:

Existing query tracking data, if any, is removed when you merge data slices.

See the following topics:

- [Collecting User Data Retrieval Patterns and Creating Aggregate Views Using Jobs](#)
- [Enabling Query Tracking and Creating Aggregate Views Using Calculation Manager](#)

Collecting User Data Retrieval Patterns and Creating Aggregate Views Using Jobs

To enable query tracking and to create aggregate views using jobs:

1. Sign in to Oracle Enterprise Performance Management Cloud.
2. Click **Application**, then **Jobs**, and then click **Schedule Jobs**.
3. Select **Optimize Aggregation** as the job type.
4. In **Name**, enter a name for the job.

5. Select when to run the job. You can run a job right away or schedule it to run at a later time.
6. Click **Next**.
7. In **Job Details**, select the ASO cube for optimizing aggregation.
8. Select what you want to do:
 - Select **Enable query tracking** to start capturing user data retrieval patterns (queries).
 - Select **Execute Aggregation Process** to create aggregate views, and then select options:


 **Note:**

Do not select these options to run default aggregation.

- Select **Based on query data?** to use recorded query data to select the most appropriate set of aggregate views. Use this option only if query tracking has been turned on.
 - Select **Include rollup option?** to include secondary hierarchies (with default level usage) in the view selection process.
 - Select **Include growth size option?** and enter the ratio for maximum cube growth to aggregate the views the server selects until the maximum growth reaches the ratio that you specify.
9. Click **Next** and then review the selected job settings.
 10. Click **Finish**.

Enabling Query Tracking and Creating Aggregate Views Using Calculation Manager

To use Oracle Hyperion Calculation Manager to enable query tracking and to create aggregate views:

1. Sign in to Oracle Enterprise Performance Management Cloud.
2. Click **Navigator**  and then **Rules** under **Create and Manage**.
Calculation Manager is displayed.
3. In Calculation Manager, Click **Actions** and then **Database Properties**.
4. From **Enterprise View**, expand the database node.
5. Select an option:
 - To enable the collection of data retrieval patterns, right-click the cube and select **Set Query Tracking**.
 - To create aggregate views, right-click the cube and select **Execute Aggregation**. If you are creating aggregate views using query tracking data, select options:
 - Select **Include rollup option?** to include secondary hierarchies (with default level usage) in the view selection process.
 - Select **Include growth size option?** and enter the ratio for maximum cube growth to aggregate the views the server selects, until the maximum growth reaches the ratio that you specify.

 **Note:**

If you are performing a default aggregation, do not select the preceding options.

6. Click **OK** to start the process.

Reviewing ASO Retrieval Formula Statistics in the Activity Report

For detailed information on accessing and using the Activity Report, see Using the Activity Report in *Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Review the ASO retrieval metrics available in the **Top 10 Longest Performing Essbase Queries over 15 seconds** section in of the Activity Report to evaluate whether the formula executions required to complete ASO data retrieval are optimal. Specifically, evaluate the values of these metrics:

- **ullFormulaExec**, which identifies the number of formula executions required to complete the retrieval. If this number is high, review **ullFormulaMissing** and **ullFormulaExecOOT**. Also, compact the outline and view the output to check whether any formula that is described as complex can benefit from the use of **Nonemptymember** or **Nonemptytuple** setting.
- **ullFormulaMissing**, which identifies the number of formula executions required to complete the retrieve where the values are set to **#missing**. If this number is high, review all the member formulas to verify whether *Nonemptymember* or *Nonemptytuple* statement can be used. Also, compact the outline and view the output to check whether any formula that is described as complex can benefit from the use of *Nonemptymember* or *Nonemptytuple* statement.
- **ullFormulaExecOOT**, which identifies the number of formula executions that are considered *out of turn*. Generally, Out of turn formula executions indicate a solve order issue. Compact the outline and view the output to identify the solve order issues and resolve them. Also, review the solve order of members with formula that are called by other members with formula to ensure that formula execution occurs in the correct order.

For information on compacting ASO outlines, see:

- [Compacting ASO Outline Using a Job](#)
- [Compacting ASO Outline Using Calculation Manager](#)

Getting Help from Oracle

If the preceding optimization steps do not improve the performance of ASO cubes, seek help from Oracle.

1. Create a Provide Feedback submission that captures your actions. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following:
 - The name of the ASO cube that you are trying to optimize.

- The Form or the Excel spreadsheet you are using to test cube performance.
- If using a Form for testing, a chronological listing of the selections that must be made in the form to reproduce your issue.
If a combination of steps demonstrates the issue while another does not, provide both set of selections.
- If the issue is related to zooming in (not related to data retrieval), attach the spreadsheet before zoom and provide specific instructions to reproduce the issue; for example, open the spreadsheet, select cell B2, and then zoom in to next level. Also explain the result of the operation.
- Screenshots of Oracle Smart View for Office Options (ensure that all options on each tab are captured).
- Did this issue start after the latest monthly update?
- Is this is a critical outage?

Handling Issues Related to Large Data Export from ASO Cubes

This section explains how to troubleshoot issues if you get Oracle Essbase query limit error when exporting a large number of data cells from ASO cubes.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Enterprise Profitability and Cost Management, Oracle Hyperion Profitability and Cost Management, Sales Planning, and Strategic Workforce Planning.

Using EPM Automate Script

Because of the limits imposed by Essbase `QUERYRESULTLIMIT`, it is not possible to export a large quantity of data from Oracle Enterprise Performance Management Cloud user interface. To resolve this issue, Oracle has published a Windows PowerShell script which exports a large number of cells from an ASO cube using EPM Automate. See Automate the Export of a Large Number of Cells from an Aggregate Storage Cube in *Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud* for detailed information.



Note:

You must use the 64 bit version of PowerShell to run this script.

Getting Help

If the execution of the EPM Automate script fails to export data or you face an issue when running the script, contact Oracle for help.

- Create a Provide Feedback submission. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - The name of the ASO cube from which you are trying to export data.

- The script file that you executed.
- Error messages that were displayed when you ran the script.
- The command, exactly as you used, to run the script.
- Did this issue start after the latest monthly update?
- If the data export was working previously, the date, time, and time zone when it stopped working.
- Snapshot of the environment, if available, from the last time when data export worked as expected.
- Application changes that you made since the last time data export was working as expected.
- Whether this is a critical outage.

Resolving Import and Export and Backup Errors

Oracle Hyperion Enterprise Performance Management System Lifecycle Management supports two types of exports: backup of the environment and incremental export of artifacts. When you back up the environment, you create a snapshot of the environment, similar to the maintenance snapshot, by exporting the application with all of its data and artifacts. You export from an environment to create an incremental backup of specific artifacts.

Every day, during the operational maintenance of the environment, Oracle backs up the content of the environment to create a maintenance snapshot, named Artifact Snapshot, of existing artifacts and data. For detailed information, see *Overview of the Maintenance Snapshot* in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Sales Planning, and Strategic Workforce Planning.

In this Section

- [Managing Exports and Imports](#)
- [Upload and Download File Size Limit](#)
- [Resolving Migration-Related Errors](#)
- [Resolving User does not Exist for this Application Error while Importing Snapshots](#)
- [Getting Help](#)

Managing Exports and Imports

Related Topics

- [About Exports and Imports](#)
- [Performance of the Backup Process](#)
- [Keeping Snapshots Up to Date](#)
- [Exporting Smart List Textual Data During Daily Maintenance for Incremental Data Import](#)

About Exports and Imports

About Exports

The Migration Status Report, which is displayed after you initiate the export operation from Oracle Hyperion Enterprise Performance Management System Lifecycle Management, indicates `Failed` as the status if the operation fails for any reason. Click **Failed** in the report to open the Migration Details screen, which indicates why the export failed and the corrective action. In most cases, you can fix the export or backup errors yourself by reviewing the Migration Status Report. You can attempt the export operation again after correcting the error that caused the export to fail.

About Imports

You import snapshots to create a clone of another environment or to migrate artifacts from another environment.

You cannot import a backup snapshot into an environment where an application already exists. If you want to import a backup snapshot into an environment with an existing application, first run the recreate EPM Automate command (with `removeAll=false` setting) to restore your environment to a clean state, and then import the backup snapshot.



Note:

The Migration Status Report will not contain historic import and export details if you recreate the environment.

You import specific artifacts from a backup snapshot or an incremental snapshot to migrate artifacts from one environment to another. For example, you can import a snapshot of tested artifacts from a test environment into a production environment. Similarly, you can import Oracle Essbase data and artifacts from an incremental snapshot created by exporting them from another environment.

The Migration Status Report, which is displayed after you initiate the import operation from Lifecycle Management, indicates `Failed` as the status if the import fails for any reason. Click **Failed** in the report to open the Migration Details screen, which indicates why the import failed and the corrective action. You can attempt the operation again after correcting the error that caused the import to fail.

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Performance of the Backup Process

Backing up an environment using Oracle Hyperion Enterprise Performance Management System Lifecycle Management takes longer to finish than the backup performed during the daily maintenance of an environment. The difference in backup process performance during daily maintenance and manual backups using Lifecycle Management can be attributed to the logic used during these processes.

Oracle recommends that you use the backup creating during daily maintenance for restoring the environment and for disaster recovery purposes.

Keeping Snapshots Up to Date

Oracle Enterprise Performance Management Cloud supports snapshot compatibility for one monthly cycle only; you can migrate maintenance snapshots from the test environment to the production environment and vice versa. However, the auditing requirements of some customers may necessitate restoring snapshots from multiple years on the latest environment, and accessing application for a a short period of time.


This can be achieved using an EPM Automate script that you can execute once every month to convert the available snapshots and make them compatible with the latest EPM Cloud update level. Oracle recommends that you run the script after the third Friday of the month to ensure that all issues within the production environment have been resolved.

See *Recreate an Old EPM Cloud Environment for Audits in Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud* for information on how to create this script.

Exporting Smart List Textual Data During Daily Maintenance for Incremental Data Import

If the **Export EPM Cloud Smart List textual data during daily maintenance for incremental data import** system setting is set to **Yes** (enabled), the daily maintenance process exports the Oracle Essbase data and the business process member-driven Smart List

intersections with their corresponding text labels. In environments with high data volume, enabling this setting can cause the daily maintenance process to exceed the one hour window because it has to identify all the possible intersections, uniquely identify their mappings, and then export them.

 **Note:**

Business process member-driven Smart List data is not needed to restore your environment; it is required only if you plan to use the maintenance snapshot for incremental (or selective) data load.

If you are experiencing lengthy data exports or if the maintenance process exceeds the scheduled window in environments with high data volumes, set the **Export EPM Cloud Smart List textual data during daily maintenance for incremental data import** to **No**. For detailed information on specifying this setting and how to specify them, see *What Application and System Settings Can I Specify?* in *Oracle Hyperion Planning Administrator's Guide*.

Upload and Download File Size Limit

Oracle Enterprise Performance Management Cloud enforces these upload file size restrictions if you are using the web interface (for example, Migration),

- The maximum snapshot upload size is 2 GB
- The maximum file upload size is 500 MB

Use the `uploadFile EPM Automate` command to upload files that exceed these limits.

EPM Cloud does not enforce size limits on file and snapshot downloads.

Resolving Migration-Related Errors

Oracle Enterprise Performance Management Cloud supports many migration scenarios. These topics in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators* provide detailed information:

- [What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service?](#)
- [Migration Paths for Legacy EPM Cloud Snapshots](#)
- [Migration Paths for EPM Standard Cloud Service and EPM Enterprise Cloud Service Snapshots](#)

Importance of the Essbase Version in Use

By default, EPM Standard Cloud Service and EPM Enterprise Cloud Service are deployed using an Oracle Essbase version capable of supporting Hybrid BSO cubes (referred to as Hybrid Essbase).

Legacy EPM Cloud environments, for the most part, are configured with an Essbase version that does not support hybrid-cubes (referred to as Non-hybrid Essbase). The following are exceptions:

- Enterprise Planning and Budgeting Cloud
- Planning and Budgeting Cloud with Plus One option

- Financial Consolidation and Close Cloud with extended dimensionality

For legacy environments, you can use a self-service operation to upgrade from Non-hybrid to Hybrid Essbase. Compatibility of your snapshot with the Essbase configured in your environment may cause migration errors even when you are migrating between similar environments, for example, from test environment to production environment in legacy Planning and Budgeting Cloud. For detailed information, see About Essbase in EPM Cloud in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

What Should I Do If I Get a Migration Error?

- Check if the migration is supported. Information about supported migrations is available in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*:
 - What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service?
 - Migration Paths for Legacy EPM Cloud Snapshots
 - Migration Paths for EPM Standard Cloud Service and EPM Enterprise Cloud Service Snapshots
- Verify that a compatible Essbase version is being used. You use the recreate EPM Automate to upgrade or downgrade Essbase in legacy environments.
- Review the Migration Status Report to see the errors and potential corrective actions to fix them. See Generating the Migration Status Report in *Oracle Enterprise Performance Management System Lifecycle Management Guide*.

Resolving *User does not Exist for this Application* Error while Importing Snapshots

Oracle Enterprise Performance Management Cloud designates the Service Administrator who creates the application as the default application owner. If you remove this user from the environment and then import a snapshot of the environment into another, the import process displays the *User does not exist for this application* error because the application owner recorded in the imported snapshot is no longer a valid EPM Cloud user. To fix this issue, change the application owner in the source environment and then generate a new snapshot for import into another environment.

To change the application owner:

1. Sign into the source environment as a Service Administrator.
2. From the **Application** card, select **Settings**.
3. Under **System Settings**, from **Assign Application Owner** drop down list, select an active user (other than the current application owner).
4. Click **Save**.
5. Wait for about 10 minutes and then use the preceding steps to verify that the removed user is no longer listed as the application owner.
6. Create a new snapshot and import it into the target environment.

Getting Help

If the import or export continues to fail after you correct the errors reported in the Migration Status Report, seek help from Oracle. To get help from Oracle:

1. Create a Provide Feedback submission, which includes screenshots of the import or export process.
Optionally, authorize Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). Ensure that you attach additional screenshots, if needed, to the service request. In the service request, answer these questions:
 - Did this issue start after the latest monthly update?
 - Is this a critical issue?

Resolving Clone Environment Issues

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

The Clone Environment feature of Oracle Hyperion Enterprise Performance Management System Lifecycle Management is a screen-based way to clone an environment and, optionally, identity domain artifacts (users and roles). The cloneEnvironment EPM Automate command provides equivalent function. These options provide alternatives to writing an EPM Automate script to clone environments.

If you encounter an error while using the Clone Environment feature, troubleshoot it using these steps:

- Review the important considerations available in Cloning EPM Cloud Environments in *Oracle Enterprise Performance Management System Lifecycle Management Guide*.
- If the error indicates that the migration has failed, refer to Migration Paths for EPM Standard Cloud Service and EPM Enterprise Cloud Service Snapshots in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators* to check whether the source and target environments are compatible for migration.

Considerations for IP Allowlist-Enabled Environments

If the source or destination environment has IP allowlist enabled, see [Outbound IP Addresses of EPM Cloud Data Centers and Regions](#) to verify that the allowlist in the destination environment contains the required IP address of the source environment, and that the allowlist in the source environment contains the required IP address of the destination environment.

Getting Help

If the issue is only with the Clone Environment screen, use EPM Automate to clone the environment until the issue is resolved. If you cannot resolve the issue, get help from Oracle:

- Create Provide Feedback submissions for both source and target environments. Optionally, authorize Oracle to access the maintenance snapshots of the environments by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
- Submit a technical service request that identifies both the Provide Feedback reference numbers. See [Submitting a Technical Service Request](#). The service request must contain:
 - A screenshot of the error message.
 - Whether you chose to clone users and roles.
 - Did this issue start after the latest monthly update?
 - Whether this is a critical outage.

Resolving EPM Automate Issues

This section lists common EPM Automate issues and how to resolve them.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

In this Section

- [Finding Your Identity Domain](#)
- [Resolving Session Failures if the Environment is Configured for SSO with an Identity Provider](#)
- [Resolving Script Execution Failures After Changing the EPM Cloud Password](#)
- [Resolving the EPMAT-7: Unable to Connect, Unsupported Protocol: https Error When Using a Proxy Server](#)
- [Resolving EPMAT-11 Internal Server Error, Connection Timed out Error](#)
- [Resolving EPMAT-11: Unable to Connect to URL Error When Connecting from a Linux Computer](#)
- [Resolving EPMAT-7: Session is Not Authenticated. Please Execute the Login Command Before Executing Any Other Command Error](#)
- [Correcting EPMAT-9: Invalid Credentials and EPMAT-7: Invalid Parameter Errors](#)
- [Correcting EPMAT-7:The user doesn't have write permissions to the current working directory and FileNotFoundException: .prefs \(Access is denied\) Errors](#)
- [Resolving EPMAT-7: Unable to Modify Access Permission of Password File: .prefs Error](#)
- [Resolving EPMAT-7: Unable to Parse Password File: .prefs Error](#)
- [Resolving EPMAT-7: Unable to Parse Password File: passwordfile.epw Error](#)
- [Resolving EPMAT-7: Unable to Delete Password File: .prefs Error](#)
- [Resolving EPMAT-7: Unable to connect as few SSL certificates are missing in the keystore and EPMAT-7: Unable to connect as above-mentioned SSL certificates are missing in the keystore Errors](#)
- [Correcting HttpConnection - Exception Caught when Closing Output Error](#)

- [Handling Upgrade Failures](#)
- [Handling Login Failures After Switching Networks](#)
- [Correcting EPMAT-9: Insufficient Privileges To Perform the Operation Error](#)
- [Resolving EPMAT-7: Invalid TempServiceType Error](#)
- [Resolving EPMAT-1: Invalid Snapshot Error](#)
- [Resolving EPMAT-1: Command Failed To Execute. The Parameter Location Is Invalid Error While Running the ImportMetadata Command](#)
- [Handling EPMAT-1: A Job with Name <rulename> and Type RULES was not Found Error](#)
- [Resolving EPMAT-6: Service Unavailable Error While Running Business Rules](#)
- [Resolving copySnapshotFromInstance Error in IP Allowlist-Enabled Environments](#)
- [Handling Perceived EPM Automate Process Freeze](#)

Finding Your Identity Domain

Ensure that you are correctly specifying your identity domain when logging into an environment using EPM Automate.

Use one of the following methods to identify your identity domain:

- Look in the Activity Report for your environment. The name of the identity domain is displayed at the top left corner of the Activity Report. See *About the Activity Report in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.
- Derive the identity domain from the URL that you use to access the environment. For example, in the URL `https://epm-exampleDomain.epm.dataCenter.oraclecloud.com/epmcloud`, the identity domain name is `exampleDomain`.

The test and production environments of a subscription share the same identity domain.

Resolving Session Failures if the Environment is Configured for SSO with an Identity Provider

EPM Automate does not work with SSO (identity provider) credentials that you use to access EPM Cloud or Oracle Smart View for Office.

If the service is configured for SSO, an Identity Domain Administrator must enable EPM Automate users to sign in with their identity domain credentials.

See *Ensuring that Users Can Run EPM Cloud Utilities After Configuring SSO in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Also, see *Enabling Sign In With Identity Domain Credentials in Administering Oracle Cloud Identity Management*.

Resolving Script Execution Failures After Changing the EPM Cloud Password

You will receive periodic password expiry warnings from `oraclecloudadmin_ww@oracle.com` to change your identity domain password. If you ignore this warning, your password will expire.

After you update the password, scripts that require the use of Oracle Enterprise Performance Management Cloud credentials will fail to run if you do not use the updated password. If you use an encrypted password file to run scripts, update your password encryption file to reflect the new password. See the `encrypt EPM Automate` command for usage and examples. If you use plain text passwords in scripts, be sure to update the scripts with the new password.

Generally, EPM Automate displays the `Invalid Credentials` error in situations where the identity domain password of the user executing the script is invalid (has expired or is locked). In such cases, ensure that the password of the user is valid.

Resolving the EPMAT-7: Unable to Connect, Unsupported Protocol: https Error When Using a Proxy Server

This error is displayed if the root CA certificate that EPM Automate uses is not available to establish a secure connection with the HTTP Proxy server that is being used.

On Windows, EPM Automate uses the Root CA SSL certificate installed in `C:\Oracle\EPM Automate\jre1.8.0_401\lib\security\cacerts` to secure communication with the proxy server, if any, that you use. If the Root CA certificate is not available in this store, you must install it to resolve this error. Generally, this certificate is available in the default certificate store used on your computer. Work with your Windows network administrator or use the following procedure to identify and import it.

To install the Root CA certificate in the certificate store used by EPM Automate:

1. Create a backup copy of the current EPM Automate certificate store (generally, `C:\Oracle\EPM Automate\jre1.8.0_401\lib\security\cacerts`).
2. Login to the Oracle Enterprise Performance Management Cloud environment from a browser and complete steps appropriate for your browser to identify and save the Root CA certificate in use:
 - **Mozilla Firefox:**
 - a. Click the **Verified by** (padlock) icon in the URL bar and then **Connection secure**, and then **More Information**.
 - b. On **Security**, click **View Certificate**.
 - c. In **Certificates**, open the tab listing the root CA certificate.
 - d. In **Miscellaneous** section, click **PEM (cert)** next to **Download** to save the specific certificate to the download folder set for Firefox..
 - **Microsoft Edge:**
 - a. Click the **View site information** (padlock) icon in the URL bar and then **Connection is secure**, and then **Show certificate**.
 - b. In **Certificate Viewer**, click **Details**.
 - c. In **Certificate Hierarchy**, click the root certificate and then click **Export**.
 - d. Save the certificate to a convenient location on your computer.
 - **Google Chrome:**
 - a. Click the **View site information** icon in the URL bar, then **Connection is secure**, and then **Certificate is valid**.
 - b. In **Certificate Viewer**, click **Details**.
 - c. In **Certificate Hierarchy**, click the root certificate and then click **Export**.

- d. Save the certificate to a convenient location on your computer.
3. From an elevated Command Prompt window, navigate to the bin folder of the JRE that EPM Automate uses; usually, `C:\Oracle\EPM Automate\jre1.8.0_401\bin`
4. Run Java keytool and import the Root CA certificated that you exported in step 2. Use `changeit`, which is the default password, when prompted for the keystore password.

```
keytool -import -alias "ROOT_CA_NAME" -keystore "EPM
Automate_KEystore_LOCATION" -file
"NAME_AND_LOCATION_EXPORTED_CA_ROOT_CERTIFICATE"
"EXPORTED_CA_ROOT_CERTIFICATE"
```

For example, you can use the following command to import DigiCert Global Root CA certificate that you previously exported as `C:\downloads\DigiCert Global Root CA.crt`:

```
keytool -import -alias "DigiCert Global Root CA"
-keystore "C:\Oracle\EPM Automate\jre1.8.0_111\lib\security\cacerts" -file
"C:\downloads\DigiCert Global Root CA.crt"
```

For detailed information on fixing other proxy-related issues, see [Fixing Proxy Issues](#).

Resolving *EPMAT-11 Internal Server Error, Connection Timed out Error*

The *EPMAT-11 Internal Server Error, Connection timed out* error is displayed if a connection cannot be established because of a bad URL or invalid proxy settings on the computer.

- Verify that you are using a valid URL.
- If your organization requires the use of a proxy server to connect to the internet, verify that the proxy settings are accurate.
If your proxy settings require you to authenticate with the proxy server, then you must enter the proxy server domain, user name, and password as parameters to the `loginEPM Automate` command. Contact your network administrator for help with proxy server domain name and credentials.

Fixing Proxy Issues

EPM Automate uses HTTP/HTTPS proxy; it does not support SOCKS proxy. If you are facing proxy-related issues, consider the following:

- In the network proxy layer, add all Oracle Enterprise Performance Management Cloud URLs to the allowlist and remove SSL interception of these URLs.
If you cannot remove SSL interception for EPM Cloud URLs, you must import the SSL certificate of the proxy server into the JRE that EPM Automate uses.
- If the issue is specific to Linux computers, verify that the following environment variables are set:
 - `proxyHost`
 - `proxyPort`
 - `https.proxyHost`
 - `https.proxyPort`
- If *EPMAT-7: Unable to connect as few SSL certificates are missing in the keystore* or *EPMAT-7: Unable to connect as above-mentioned SSL certificates are*

`missing in the keystore` error is reported on AIX servers, ensure that JRE 1.8 is installed on the server and is included in the `JAVA_HOME` environment variable. Also verify that the proxy server security certificate is installed in the keystore. See [Resolving EPMAT-7: Unable to connect as few SSL certificates are missing in the keystore and EPMAT-7: Unable to connect as above-mentioned SSL certificates are missing in the keystore Errors](#).

- If `EPMAT-6: Service Unavailable` error is reported, ensure that an external internet traffic control tool is not forcing the termination of connection between EPM Automate and the environment to which it is connected.

Resolving *EPMAT-11: Unable to Connect to URL* Error When Connecting from a Linux Computer

The error `EPMAT-11: Unable to connect to URL` can occur if proxy settings are not specified in the environment variables.

On Linux computers, verify that the following environment variables are set. The utility looks for the value of these variables to determine proxy settings:

- `proxyHost`
- `proxyPort`
- `https.proxyHost`
- `https.proxyPort`

For detailed information on fixing proxy-related issues, see [Fixing Proxy Issues](#).

Resolving *EPMAT-7: Session is Not Authenticated. Please Execute the Login Command Before Executing Any Other Command* Error

EPM Automate may, intermittently during the execution of batch jobs, display the `EPMAT-7:Session is not authenticated. Please execute the "login" command before executing any other command` message.

The `.prefs` file is created in the working directory after the login routine is complete. EPM Automate uses this file while executing commands.

To correct this issue:

- Ensure that your virus scanner is not deleting the `.prefs` file.
- Check whether multiple simultaneous EPM Automate sessions are in progress from the same directory.
To run multiple simultaneous sessions from the same directory, you must configure a unique numeric session identifier (`EPM_SID`). For more information, see *Running Multiple Instances of EPM Automate in Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud*.

Correcting *EPMAT-9: Invalid Credentials* and *EPMAT-7: Invalid Parameter* Errors

EPMAT-7: Invalid Parameter Error

This error is displayed on Linux platforms when you execute the login EPM Automate command with a password that contains a special character such as the \$ (dollar sign). Sometimes, EPM Automate displays `EPMAT-7: Invalid Parameter` error in this situation.

To resolve this error, on Linux platforms, escape the special characters using a backslash (\). For example, to use the password `Example$19` with the login command, specify it as `Example\$19`. For detailed information, see *Handling Special Characters in Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud*.

EPMAT-9: Invalid Credentials Error

EPM Automate displays this error if the identity domain password of the user executing a command or script is invalid (has expired or is locked).

You will receive periodic password expiry warnings from `oraclecloudadmin_ww@oracle.com` to change your identity domain password. If you ignore this warning, your password will expire. After you update the password, EPM Automate commands and scripts that require the use of Oracle Enterprise Performance Management Cloud credentials will fail to run if you do not use the updated password.

To resolve this error, if you use an encrypted password file, update your password encryption file to reflect the new password. See the encrypt EPM Automate command for usage and examples. If you use plain text passwords in scripts, be sure to update the scripts with the new password.

Correcting *EPMAT-7: The user doesn't have write permissions to the current working directory and FileNotFoundException: .prefs (Access is denied)* Errors

The error `EPMAT-7: The user doesn't have write permissions to the current working directory or FileNotFoundException: .prefs (Access is denied)` is displayed if you do not have write permission in the directory from which you execute EPM Automate. EPM Automate creates a `.prefs` file, which contains user information, and log files in the current directory.

On Windows computers, the contents of `.prefs` file is visible only to the user who created it and to Windows administrators. In Linux, UNIX and macOS environments, `.prefs` file is generated with permission 600, which allows only the owner to read and write to it.

To resolve this error, ensure that the current user has read and write access to the directory from which EPM Automate is run. You do not have to run EPM Automate from the installation directory. You can run it from any directory on a local drive where you have read and write access. You cannot run EPM Automate from a mapped network drive.

Additionally, this user must have appropriate access to any other directory from which a file is accessed (for example, while running the `uploadFile` command) or written (for example, while running the `downloadFile` command).

Resolving *EPMAT-7: Unable to Modify Access Permission of Password File: .prefs* Error

On Linux servers, EPM Automate may display the following error messages:

- `EPMAT-7:Unable to modify access permission of password file: .prefs`
- `Unable to read password file: {0}. Access denied`

This issue occurs when EPM Automate is unable to modify the `.prefs` file. Generally, when a session is active, EPM Automate generates a `.prefs` file in the working directory to support the session. When another user attempts to execute a command from the same directory, EPM Automate is unable to update the `.prefs` file that was generated for the session that is already in progress and owned by a different user. Because the new (second) user does not have the required permissions on the existing `.prefs` file, EPM Automate displays this error message.

Always use the `logout` command to terminate the session. The `.prefs` file is removed when a user logs out. Additionally, each user should run EPM Automate from a different working directory.

Resolving *EPMAT-7: Unable to Parse Password File: .prefs* Error

EPM Automate displays this error if you run EPM Automate from a directory where you do not have Write access. If the user running EPM Automate does not have Write permissions in the working directory, EPM Automate is unable to create the `.prefs` file for managing the session.

Ensure that the user running EPM Automate has Write access to the working directory.

Resolving *EPMAT-7: Unable to Parse Password File: passwordfile.epw* Error

EPM Automate displays this error if you attempt to login with a 21.10 or older version of EPM Automate client using a password file that was encrypted using EPM Automate client version 21.11 or later. This scenario occurs if a Service Administrator's password file encrypted using EPM Automate client version 21.11 or later is shared by users who have not yet updated their EPM Automate clients.

To resolve this issue, use the `Upgrade` command, to upgrade your EPM Automate client.

Resolving *EPMAT-7: Unable to Delete Password File: .prefs* Error

Scheduled EPM Automate jobs may fail intermittently and display `EPMAT-7:Unable to delete password file: .prefs` error. Generally, this error is reported when EPM Automate commands affecting more than one environment are run in parallel from the same directory.

While running commands against an environment, EPM Automate creates a `.prefs` file that stores session information. During the parallel execution of commands from one directory against multiple environments, EPM Automate is able to maintain only one `.prefs` file within the directory. As a result, because it is able to execute commands only against the environment for which the `.prefs` file is available, EPM Automate reports this error.

To resolve this issue, you have two options:

- Run EPM Automate from different directories so that the script executing commands against one Oracle Enterprise Performance Management Cloud environment is separated from the the script running commands against another environment. This allows scripts to create and maintain `.prefs` files in different directories.
- Update your scripts so that multiple sessions against different environments can be maintained from the same directory.

For more information, see Running Multiple Instances of EPM Automate in *Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud*.

Resolving *EPMAT-7: Unable to connect as few SSL certificates are missing in the keystore* and *EPMAT-7: Unable to connect as above-mentioned SSL certificates are missing in the keystore* Errors

These errors are displayed if EPM Automate cannot find the required proxy server SSL certificate in the key store.

If you are using an internet proxy server, to prevent login errors related to SSL certificates when accessing Oracle Enterprise Performance Management Cloud from Windows computers, the login EPM Automate command automatically identifies the missing certificate that may prevent you from establishing a connection and adds it to the keystore under `C:\Oracle\EPM Automate\jre1.8.0_311\lib\security\cacerts`. For this to happen, you must run the `login` command with the `KeystorePassword=KEYSTORE_PASSWORD` optional parameter. Contact your IT Administrator for the value of the keystore password.

On Linux computers, the login command identifies the missing security certificate from the proxy server, downloads it, and display an error. A user with `root` access can then install the downloaded certificate in the JRE available in the `JAVA_HOME` identified in the environment variables.

See these information sources:

- Java Runtime Environment and EPM Automate
- Keytool Java documentation

Correcting *HttpConnection - Exception Caught when Closing Output* Error

This error is displayed if your organization uses a security software (for example, Forcepoint) to prevent access to certain web sites but exceptions are not added for Oracle Enterprise Performance Management Cloud URLs.

To prevent this error from occurring, work with your network administrator to add the the URLs of EPM Cloud environments to the exception list of the security software.

Handling Upgrade Failures

Windows 10 permits only Windows administrators to install programs. As a result, on such platforms, only Windows administrators can install and upgrade EPM Automate.

To resolve upgrade failures:

- **Windows:** Ensure that the user running the upgrade command is a Windows Administrator.

- **Linux and UNIX:** Ensure that the user running the upgrade command has Read/Write privileges in the directory where EPM Automate is installed.

Handling Login Failures After Switching Networks

After you switch from one network to another, initial EPM Automate login attempt fails because of the change in the MAC address of the client computer. For example, this failure occurs at your first login attempt after you switch from a wi-fi connection to a LAN connection.

To resolve this error, sign in again to make EPM Automate use the current MAC address.

Correcting *EPMAT-9: Insufficient Privileges To Perform the Operation* Error

Privilege-related errors are displayed under these scenarios:

- A user, who is assigned to a predefined Oracle Enterprise Performance Management Cloud role that does not permit the execution of an EPM Automate command attempts to run that command.
- A user, who is not assigned to a predefined EPM Cloud role attempts to log in using EPM Automate.

Insufficient Privilege Error

EPM Automate displays the `EPMAT-9: Insufficient Privileges To Perform the Operation` error if a user, who does not have the required predefined role to run an EPM Automate command attempts to execute that command. For example, a user who is assigned to the `User` predefined role executes the `downloadFile` command. Most commands can be executed only by Service Administrators.

User Does not Exist for this Application Error

The `User does not exist for this application` error is displayed when a user who does not have a predefined role assigned in the EPM Cloud environment executes the login command. To resolve this error, assign the appropriate role to the user.

For example, an SFTP user listed in My Services attempts to login using EPM Automate. Because SFTP users are not allowed to login using EPM Automate, the tool displays this error.

Resolving *EPMAT-7: Invalid TempServiceType* Error

This error is reported when you execute the `recreate` command under the following situations:

- You used the `TempServiceType` optional parameter against an environment that cannot be converted to the requested service type because of the restrictions imposed by the command.

Legacy Subscriptions: The `recreate` command can temporarily convert Planning and Budgeting Cloud, Enterprise Planning and Budgeting Cloud, Tax Reporting Cloud, and Financial Consolidation and Close Cloud environments to support Account Reconciliation, Oracle Enterprise Data Management Cloud, Enterprise Performance Reporting Cloud or Profitability and Cost Management Cloud applications. After this conversion is complete, you must convert the environment back to the original service type before attempting to convert it to another service type. For example, you converted a Planning and Budgeting Cloud environment to a Profitability and Cost Management Cloud. You cannot directly convert this Profitability and Cost Management Cloud to an Oracle Enterprise Data Management Cloud environment; you must first convert it back to a Planning and Budgeting Cloud environment (by using `epmAutomate recreate -f`), and then convert it to

an Oracle Enterprise Data Management Cloud using `epmAutomate recreate -f TempServiceType=EDMCS`.

Legacy Oracle Hyperion Profitability and Cost Management: You can convert your Profitability and Cost Management environments to Planning or Enterprise Planning environments by running the following command:

```
epmAutomate recreate -f removeAll=true TempServiceType=PBCS
```

To convert the environment back to the original Profitability and Cost Management environment, use the following command:

```
epmAutomate recreate -f TempServiceType=PCMCS
```

 **Note:**

Profitability and Cost Management environments cannot be converted to Account Reconciliation, Oracle Enterprise Data Management Cloud, or Narrative Reporting environments.

EPM Standard Cloud and EPM Enterprise Cloud Subscriptions: You can convert an Oracle Enterprise Performance Management Cloud environment to support any other supported business process. After this conversion is complete, you must convert the environment back to the original service type before attempting to convert it to use another business process.

For example, you converted a Consolidation and Close environment to support Profitability and Cost Management. You cannot directly convert this Profitability and Cost Management environment to support an Enterprise Data Management business process; you must first convert it back to a Consolidation and Close environment and then convert it to support Enterprise Data Management.

- You specified an invalid value for the `TempServiceType` optional parameter. For example, you specified `TempServiceType=DMCS` instead of `TempServiceType=EDMCS`.

To correct this issue:

- Verify that you are using an acceptable value for the `TempServiceType` parameter. The value of this parameter must be in all upper case. Acceptable values are ARCS, EDMCS, EPRCS, PBCS, and PCMCS.
- Run the `recreate` command without any parameters (`epmAutomate recreate -f`) to return the environment to its original service type. After this process is complete, execute the command (for example, `epmAutomate recreate -f TempServiceType=EDMCS`) to convert the environment to support another business process.

Resolving *EPMAT-1: Invalid Snapshot Error*

The `exportSnapshot` command, which repeats a previously performed export operation, depends on a snapshot export definition being available in the business process. EPM Automate reports this error if it does not find a usable snapshot export definition to create the new snapshot.

To resolve this error:

1. Using Oracle Hyperion Enterprise Performance Management System Lifecycle Management, create a snapshot by exporting the desired artifacts. For detailed information, see *Backing up Artifacts and Application in Oracle Enterprise Performance Management System Lifecycle Management Guide*.
2. Rerun the `exportSnapshot` command using the name of the exported snapshot from the preceding step as the value of the `SNAPSHOT_NAME` parameter.

Resolving *EPMAT-1: Command Failed To Execute. The Parameter Location Is Invalid* Error While Running the `ImportMetadata` Command

EPM Automate displays this error due to a syntax error in the command you specified to run the `importMetadata` command.

To resolve this issue, use one of the following methods:

- If the import CSV file name specified in the job is identical to the name of the CSV file you are using with the command, use the `uploadFile` command to upload the import CSV file into the environment. Run the `importMetadata` command without specifying the `FILE_NAME` optional parameter. In this situation, the command usage should be `epmAutomate importMetadata JOB_NAME`.
- If the import CSV file name specified in the job is not identical to the name of the CSV file you are using with the command or when the import CSV file name is not included in the job that is being used for the import operation, zip the import CSV file into an archive and upload it to the environment using the `uploadFile` command. Run the `importMetadata` command using the name of the archive as the value of the `FILE_NAME` parameter. In this situation, the command usage should be `epmAutomate importMetadata JOB_NAME FILE_NAME.zip`.
- When importing metadata from multiple CSV files, zip the CSV files into one archive and use the name of the archive as the value of the `FILE_NAME` optional parameter: `epmAutomate importMetadata JOB_NAMEimport_CSvs.ZIP`.

Handling *EPMAT-1: A Job with Name <rulename> and Type RULES was not Found* Error

This error is reported when you attempt to run the `runBusinessRule` EPM Automate command using the name of a business rule that is not yet deployed in the business process.

To resolve this error, deploy the rule, identified by `<rulename>` in the error message, to the business process. You deploy rules and rulesets to business processes from Oracle Hyperion Calculation Manager. For detailed information, see *Deploying Business Rules and Business Rulesets in Calculation Manager*. Deployed rules in the business process are listed on the **Rules** card.

Resolving *EPMAT-6: Service Unavailable* Error While Running Business Rules

This error, generally, is displayed when you execute the `runBusinessRule` EPM Automate command because an external internet traffic control tool (example, `NetLimiter`) forces the premature termination of connection between EPM Automate and the environment to which it is connected before the business rule execution is finished.

To resolve this issue, check your network configuration, especially the proxy and firewall settings. If the issue persists, work with your network administrator to identify and correct the issue.

For detailed information on fixing proxy-related issues, see [Fixing Proxy Issues](#).

Resolving copySnapshotFromInstance Error in IP Allowlist-Enabled Environments

If the current environment has IP allowlist configured, you may get an error while running the `copySnapshotFromInstance` command. To fix it, see [Outbound IP Addresses of EPM Cloud Data Centers and Regions](#) to identify the outbound IP address of the source environment that you specified in the `copySnapshotFromInstance` command and add it to the allowlist of the current environment.

Handling Perceived EPM Automate Process Freeze

Sometimes, an EPM Automate job may take an inordinately long time, and look like the process is stalled. If you face this issue, using a browser, log into Oracle Enterprise Performance Management Cloud and check the following:

- Whether the job has been submitted
- Whether the job has completed

If the EPM Automate process freezes, press **Ctrl+C** to terminate it and automatically create log files for the terminated command. These log files are uploaded to Oracle when you create a Provide Feedback submission to seek help from Oracle (see the following section).

Getting Help

If your issue persists after trying the preceding tips, seek help from Oracle Support. See [Getting Help From Oracle](#).

Submit the following:

- **If you can sign in to your environment using EPM Automate:**
 - Sign in to your environment.
 - Upgrade to the latest version of EPM Automate by running the upgrade command:

```
epmAutomate upgrade
```
 - Check if your issue is resolved.
 - If your issue persists, create a Provide Feedback submission using the feedback command. Be sure to attach relevant EPM Automate-based script files that you are using. For example:

```
epmAutomate feedback "ListFile command in example.ps1 failed"  
file=example.ps1
```
 - Submit a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#) for instructions. In the service request:
 - * Did this issue start after the latest monthly update?
 - * Is this a critical outage?
- **If you cannot sign in to your environment using EPM Automate:**

Use the credentials you are using with EPM Automate to sign into the environment using a browser. If your sign in attempt fails, see [Resolving Login Issues](#).

If you can sign in using a browser, but not through EPM Automate:

1. Use an Oracle Enterprise Performance Management Cloud screen to create a Provide Feedback submission. See [Creating a Provide Feedback Submission](#) for information on providing feedback from EPM Cloud screens.
2. Generate the debug log file. To generate the log file attempt to start a new EPM Automate session using the `-d` option and direct the output to a file as shown in the following example:

```
epmautmate login username password URL -d > fileName
```
3. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#) for instructions. In the service request:
 - Attach the debug log file that you generated.
 - Did this issue start after the latest monthly update?
 - Is this a critical outage?

Diagnosing REST API Issues

Use the instructions in this section to resolve issues related to Oracle Enterprise Performance Management Cloud REST APIs.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

Finding Your Identity Domain

Ensure that you are correctly specifying your identity domain when executing REST APIs.

Use one of the following methods to identify your identity domain:

- Look in the Activity Report for your environment. The name of the identity domain is displayed at the top left corner of the Activity Report. See *About the Activity Report in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.
- Derive the identity domain from the URL that you use to access the environment. For example, in the URL `https://epm-exampleDomain.epm.dataCenter.oraclecloud.com/epmcloud`, the identity domain name is `exampleDomain`.

Resolving Script Execution Failures After Changing the EPM Cloud Password

You will receive periodic password expiry warnings from `oraclecloudadmin_ww@oracle.com`. After changing your password, scripts that use your old EPM Cloud credentials will fail to run.

If you use an encrypted password file to run scripts, update your password encryption file using the `encrypt EPM Automate` command to reflect the new password. If you use plain text passwords in scripts, be sure to update them.

Resolving Session Failures in SSO-Enabled Classic Environments

In Classic environments, you must always use your identity domain credentials to run REST APIs. If your service is configured for SSO with an identity provider, you cannot execute REST APIs using your SSO (identity provider) credentials that you use to access EPM Cloud.

If the service is configured for SSO, an Identity Domain Administrator must enable all users who run REST APIs to sign in with their identity domain credentials.

See these information sources:

- Ensuring that Users Can Run EPM Cloud Utilities After Configuring SSO in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*
- Enabling Sign In With Identity Domain Credentials in *Administering Oracle Cloud Identity Management*

Checking Your Credentials

If you cannot sign in to your environment using REST API, use the credentials you are using with REST API to sign into the environment using a browser or EPM Automate. If your sign in attempt fails, see [Resolving Login Issues](#).

Resolving Copy Application Snapshot API Failures in IP Allowlist-Enabled Environments

If the current environment has IP allowlist configured, you may get an error while issuing Copy Application Snapshot API. To fix it, see [Outbound IP Addresses of EPM Cloud Data Centers and Regions](#) to identify the outbound IP address of the source environment that you specified in the Copy Application Snapshot API parameter and add it to the allowlist of the current environment.

Seeking Help

If you can sign in using a browser or EPM Automate, but not through REST APIs or if you can sign in using REST API but an error is reported in using an API, contact Oracle Support for help.

1. Create a Provide Feedback submission. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - The REST API URL, user name, payload, query parameters, and headers.
 - Error messages that you received.
 - Did this issue start after the latest monthly update?
 - Is this is a critical outage?

Resolving User, Role, and Group Management Issues

Use this information to resolve user, role, and group management issues.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

In this Section

- [Role Assignment Is not Immediately Reflected](#)
- [No Identity Domain Administrator Exists](#)
- [Getting Help](#)

Role Assignment Is not Immediately Reflected

Sometimes, a role assignment may not take immediate effect in an environment. For example, a user who was assigned a predefined role through **My Services** may get the `Not Allowed` error while accessing the environment.

Changes to predefined role assignments performed using My Services are reflected in Access Control after any user logs into the environment using a browser or Oracle Smart View for Office at least four minutes after the role assignment was performed. For example, if the role assignment was completed at 09:20, the role assignment will be reflected if any user logs in to the environment using a browser or Smart View at or after 09:24.

Newest changes are reflected in Access Control immediately if the following events occur:

- If the users and predefined role assignment were imported using the `importSnapshot` or the `cloneEnvironment` EPM Automate commands or Oracle Enterprise Performance Management Cloud REST APIs
- For OCI (Gen 2) only: If the Role Assignment Audit Report is generated using EPM Automate, REST API, or Access Control

The Role Assignment Audit report contains up-to-date information. See these information sources:

- *Accessing Audit and User Reports in Identity Cloud Service (for OCI (Gen2) only) in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*
- `roleAssignmentAuditReport` in *Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud*

No Identity Domain Administrator Exists

Identity Domain Administrators manage Oracle Enterprise Performance Management Cloud users and roles. A user is granted this role when the identity domain is set up for your service.

The Identity Domain Administrator can assign the Identity Domain Administrator predefined role to other users. Oracle recommends that you have at least two users assigned to ensure that you always have an active Identity Domain Administrator in case one of them leaves the

organization or is unavailable. If you do not have an active Identity Domain Administrator, there is no way for your organization to perform activities that require this role, for example, adding new users.

If you are left with no active Identity Domain Administrator, create a technical service request and provide the first name, last name, email address, and user login of the user who should be assigned to the Identity Domain Administrator role.

Getting Help

If the issue persists, seek help from Oracle.

1. Create a Provide Feedback submission.
Optionally, authorize Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain:
 - A screenshot of the **My Services** screen showing the roles assigned to the user.
 - The current Role Assignment report available in the environment.
 - A detailed description of the problem.
 - Did this issue start after the latest monthly update?
 - Whether this is a critical outage.

Diagnosing Financial Reporting Reports Errors and Performance Issues

This section addresses how to identify and correct performance issues and errors in Oracle Hyperion Financial Reporting reports.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Sales Planning, and Strategic Workforce Planning.



Note:

If your issue is related to Reports, see [Troubleshooting Reports Issues](#).

In this Section

- [Diagnosing Financial Reporting Reports Performance Issues](#)
- [Diagnosing Errors in Financial Reporting Reports](#)
- [Resolving the ArrayIndexOutOfBoundsException in the Database Connection Manager](#)
- [Getting Help](#)

For best practices to replace zero blocks and remove #missing blocks in BSO cubes to reduce database size, see [Optimize BSO Cubes](#).

Diagnosing Financial Reporting Reports Performance Issues

Poorly designed Oracle Hyperion Financial Reporting reports can generate several Multi-Dimensional Expression (MDX) requests or Oracle Essbase queries leading to the consumption of significant Oracle Enterprise Performance Management Cloud resources. Excessive resource consumption results in performance degradation when concurrent users access such reports.

The presence of several segments in the report is the key reason for generating a large number of MDX requests. This section explains how to make Financial Reporting reports more efficient by reducing the number of segments.

Redesigning Reports: a Use Case

The Original Report

The following illustration depicts the original report design:

				A
				Working BaseData Plan Current Point of View for
1	100, 200, 403, 500	System defined member list	System defined member list	#
2	100	Children of 1100	P_100	#
3	100	1100	P_100	#
4	100	Children of 1200	P_100	#
5	100	1200	P_100	#
6	100	Children of 1300	P_100	#
7	100	1300	P_100	#
8	100	Children of 1400	P_100	#
9	100	1400	P_100	#
10	200	Children of 1100	P_100	#
11	200	1100	P_100	#
12	200	Children of 1200	P_100	#
13	200	1200	P_100	#
14	200	Children of 1300	P_100	#
15	200	1300	P_100	#
16	200	Children of 1400	P_100	#
17	200	1400	P_100	#
18	403	Children of 1100	P_100	#
19	403	1100	P_100	#
20	403	Children of 1200	P_100	#
21	403	1200	P_100	#
22	403	Children of 1300	P_100	#
23	403	1300	P_100	#
24	403	Children of 1400	P_100	#
25	403	1400	P_100	#
26	500	Children of 1100	P_100	#
27	500	1100	P_100	#
28	500	Children of 1200	P_100	#
29	500	1200	P_100	#
30	500	Children of 1300	P_100	#
31	500	1300	P_100	#
32	500	Children of 1400	P_100	#
33	500	1400	P_100	#

This report illustration shows these design elements:

- Multiple rows for each Entity member 100, 200, 403, and 500.
- Each Entity member has 8 rows each for different accounts.

The following table presents a high-level view of the original report design and the optimized design:

Original Report Design	Optimized Design
<p>Multiple rows for each Entity member:</p> <p>100 200 300 400</p>	<p>Combines Entity members into one segment:</p> <p>100, 200, 403, 500</p>
<p>Each Entity member has 8 rows each for different accounts. Example for member 100:</p> <p>100 = Children of 1100 100 = 1100 100= Children of 1200 100=1200 100 = Children of 1300 100 = 1300 100 =Children of 1400 100 = 1400</p>	<p>Combines all segments for all members into one segment:</p> <p>Entity members 100,200,403,500=Children of 11</p>

The Optimized Report

The following illustration depicts the optimized report design, which reduces the number of segments. Reducing the number of segments makes the report run faster by reducing the number of MDX requests:

The screenshot shows a report configuration interface. At the top, there are buttons for 'Period: Feb' and 'Year: FY17'. Below that is an 'Account' filter with a checkmark and an 'X' icon, and a text input field containing 'Children of 1100, 1100, Children of 1200, 1200, Children of 1300, 1300, Children of 1400, 1400'. Below the filters is a table with the following data:

				A	
				Working	
				BaseData	
				Plan	
				Current Point of View for	
1	100, 200, 403, 500	System-defined member list	System-defined member list		#
2	100, 200, 403, 500	Children of 1100, 1100, Chil	P_100		#
3	TD	10:0	P_100		#

Other Important Report Design Considerations

- Design reports against ASO cubes, if possible. Design reports against BSO cubes only if ASO cubes are not available.
- Always select **Missing Blocks** under **Suppression** to ensure that missing blocks are not included in the report.
- Minimize the number of rows and columns. Best practice: use dense dimensions for columns and sparse dimensions for rows.
- Design reports to query at the required children level of members rather than at the parent level.

- If level 0 members are tagged as Dynamic Calc but do not have a formula, either remove the Dynamic Calc tagging or create formulas for them. You cannot load data into level 0 members tagged as Dynamic Calc. They cannot show values because they are tagged as Dynamic Calc but have no formula to calculate values. Such members adversely affect retrieval performance.
- If possible, avoid relational-type reports (reports with multiple row dimensions expanded using functions) with a large combination of members. Big reports may take a significant amount of time to execute (or may not execute). A report is considered big when the number of cells exceeds ten thousand. This is similar to treating Financial Reporting as a large scale data extraction tool, which it is not.
- Avoid reports with large number of cells with text functions (for example, `CellText`, `PlanningAnnotations`, and `ListOfCellDocuments`) that retrieve additional metadata from the data source.
- Use current POV, prompts, or books instead of the Page dimension; all Page members are retrieved at one time upon executing the report.
- Consider and test the impact of Conditional Formatting and Conditional Suppression, which can affect performance depending on the size of the report. Performance is contingent on the type of criteria and frequency with which they are used within the report. Criteria that are part of metadata or data query, for example, data value, member name, and member alias or description, are rendered fast. With large reports, minimize the use of criteria that are not part of the regular metadata or data query. Examples of such criteria include generation, level, account type, and attribute value.
- Consider the dimension layout. For example, analyze what can be moved from the POV or page into the body of the report.
- Always design a symmetric (versus asymmetric) report. Essbase queries may be symmetric or asymmetric. Symmetric queries are those where members queried on rows or columns are of cross-dimensional layout. Asymmetric queries are those where the cross-dimensional layout of the members being queried changes in either the rows or the columns.
On encountering an asymmetric query, the Essbase hybrid query engine, which processes only symmetric grids, automatically breaks it into multiple symmetric grids. These symmetric grids are processed one at a time and then returned in the original asymmetric form, which makes the process less efficient.

Troubleshoot Financial Consolidation and Close Retrieval Performance

See [Troubleshooting Financial Consolidation and Close Retrieval Performance](#) for information on troubleshooting the report performance in Financial Consolidation and Close environments.

Review Recent Application Changes

Identify if recent changes to the application causes report generation to slow down. You can do this by comparing the information in the Application Size table in the current Activity Report with the information in the Activity Report from a previous date when the report was working well. Also review any recent changes to the report design and usage to verify that such changes have not impacted the report.

Diagnosing Errors in Financial Reporting Reports

Setting TRACE level logging in Oracle Hyperion Financial Reporting helps you generate detailed logging information that helps Oracle troubleshoot reports issues. Before submitting Provide Feedback, make sure to set TRACE level logging and retry the action that gives the error.

To set TRACE level logging:

1. In Oracle Hyperion Financial Reporting Web Studio, select **File**, then **Manage**, and then **Log Configuration**.
2. In the **Log Configuration** dialog box, from the drop-down, select **TRACE:32** for the following components:
 - oracle.EPMADM
 - oracle.EPMFR
 - oracle.EPMFR.frwebstudio
 - oracle.EPMFR.jsp
 - oracle.EPMJCR
3. Click **OK**.
4. Reproduce the report issue to generate trace information.
5. When you have finished, from the **Log Configuration** dialog box, revert the log configuration to its original setting.

Resolving the ArrayIndexOutOfBoundsException in the Database Connection Manager

While changing the database connection used for the report, you may get the `Java.lang.ArrayIndexOutOfBoundsException` in the Database Connection Manager if report name contains special characters, especially the comma.

To resolve this error, refrain from using special characters in the report name.

1. Remove the special characters in the report name.
2. Change the database connection for the report.

Getting Help

After optimizing the report to reduce the number of MDX requests, if you do not see performance improvements or if you have errors in the report, seek help from Oracle Support:

- Use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem. Optionally, consent to submitting the snapshot to Oracle. See [Creating a Provide Feedback Submission](#).
- Submit a technical service request indicating the reference number that the Provide Feedback utility created. See [Submitting a Technical Service Request](#).
In the service request, answer these questions:
 1. Did this issue start after the latest monthly update?
 2. When was the issue first observed?
 3. Was there any recent application or usage change that could have caused this issue?

Provide the following information along with the service request:

- Snapshot of the environment, if available, from the last time when the financial report was functioning or performing as expected.
- Report or report book name. If it is report book, identify the report that has the issue.
- All POVs.

- User and substitution variables in use.
- Rows and columns that have the issue.
- Expected and actual report generation times.
- Whether this is a critical outage.

Troubleshooting Reports Issues

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Enterprise Profitability and Cost Management, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

If you experience errors or performance issues with Reports in Oracle Enterprise Performance Management Cloud, seek help from Oracle Support.

Note:

If your issue is related to Oracle Hyperion Financial Reporting reports, see [Diagnosing Financial Reporting Reports Errors and Performance Issues](#).

- Use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem. See [Creating a Provide Feedback Submission](#). Optionally, authorize Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission.
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). In the service request, answer these questions:
 - Did this issue start after the latest monthly update?
 - When was the issue first observed?
 - Were there any recent application or usage change that could have caused this issue?
- Provide the following along with the service request:
 - Snapshot of the environment, if available, from the last time when the report was functioning or performing as expected.
 - Type of the artifact that has the issue (Report, Book, Burst Definition, or Snapshot Report).
 - Report or report book name. If the issue is in a report book, identify the report that has the issue.
 - Rows and columns that have the issue.
 - All POVs.
 - User and substitution variables in use.
 - Expected and actual report generation times.
 - Whether this is a critical outage.

Fixing Smart View Issues

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

In this Section

- [Fixing Smart View Windows Plug-in Issues](#)
- [Fixing Smart View \(Mac and Browser\) for Office 365 Add-in Issues](#)
- [Fixing Strategic Modeling Smart View Connection Issues](#)

Fixing Smart View Windows Plug-in Issues

Related Topics

- [Diagnostics Tools and Health Check](#)
- [Installation and Languages](#)
- [Windows, Office, and Smart View Locale Settings](#)
- [Installing in the Windows Program Files Folder](#)
- [Smart View cfg Folder and Properties File Access Requirement](#)
- [Windows Registry Access Requirement for Smart View Installation](#)
- [Smart View Display and Operations Issues After Windows 10 Update](#)
- [Enabling and Disabling Smart View and Other Office Add-ins](#)
- [Error When First Launching Excel After Installing Smart View](#)
- [Issues When Starting Excel in Automation Mode](#)
- [Smart View Ribbon Fails to Display After Non-Admin Installation](#)
- [Ribbons Not Selectable After Installation](#)
- [Diagnosing Login Issues](#)
- [Clearing Smart View Cookies](#)
- [Clearing WebView2 Cookies](#)
- [Connection Error](#)
- [Failure to Establish Connection with Integrated Windows Single Signon](#)
- [Problem Opening Files in Excel](#)
- [Slowness with Extension Options Dialog Box](#)
- [Office Slow to Start when Internet Connectivity is Not Available](#)
- [Excel Process Stops Responding \(Hangs\) on Shut Down](#)
- [Excel Looks for HsTbar.xla File After Uninstall](#)
- [Office Unknown Exception Error on a Protected Sheet](#)

- [Smart View HTTP Session Timeout](#)
- [Session Timeout when Connected Using Vanity URLs](#)
- [Extension Updates and Office Applications Remaining Open](#)
- [Extension Updates and Outlook](#)
- [Extension Installation from EPM Cloud and Message Window Focus](#)
- [Enabling the Smart View Extension for Firefox](#)
- [Fixing Function Links on Machines where Smart View was Reinstalled in a User-specified Location](#)
- [Drill-through with Chrome: Blocklist and Allowlist for Native Messaging](#)
- [Transition Navigation Keys Not Supported](#)
- [Duplicate Queries in Word Slow to Refresh](#)
- [Issues with Dynamic Data Exchange Option in Excel](#)
- [Spreading Issue, Smart View Installation, and HsSpread.dll](#)
- [Browser Settings When Working with XML Files on HTTP Server](#)
- [Third-Party Monitoring Tools May Impact Smart View Stability](#)
- [Performance and Memory Usage Considerations for Smart View with Excel](#)
- [Flickering Issues on Office 2013 and Office 2016](#)

Diagnostics Tools and Health Check

[Diagnostic Tools](#)

[Health Check](#)

Diagnostic Tools

When an issue arises while using Oracle Smart View for Office that you cannot resolve on your own, use the Smart View Diagnostic tools to create and collect log files and screenshots to send to Oracle Support. When you are finished collecting diagnostic data, you use the diagnostic tools to zip up the files. Then you transmit the ZIP file to Oracle Support for analysis. The log files and screenshots are used by Oracle Support to troubleshoot and resolve your issue.

The Smart View Diagnostic tools are located in the **Diagnostics** group in the Smart View ribbon. You enable the display of the tools by

You can customize certain features of Smart View Diagnostic tools; for example:

- Hide data values in an Office document.
- Hide member names in an Office document.
- Direct the diagnostics output files to a folder other than the default.
- Allow automatic screenshots for each warning or error message that is displayed.

See [Smart View Diagnostics and Health Check](#) in the *Oracle® Smart View for Office User's Guide* for more information on the Diagnostics tools.

Health Check

You can perform a "health check" on your system to optimize performance and to get information about your machine, Microsoft Office version, Smart View version, and the extensions you have installed.

You can view the following information about your system:

- Version Information—Operating System, Excel Version, Smart View Version
- Hardware Information—RAM Memory, Processor, Smart View Installed Drive Space
- Excel Add-ins—Depends on the Excel add-ins that are installed
- COM Add-ins—Depends on the COM add-ins that are installed

You can make the following changes to system settings and Smart View options:

- Registry Information
 - KeepAlive Timeout
 - Receive Timeout
 - ServerInfo Timeout
- Smart View Options
 - Undo Buffer
 - Improve Metadata Storage
- Graphic Setting
 - Disable Windows Transitions on Addin Task Panes
 - Disable Animations

For more information, see "Performing a Health Check On Your System" in the *Oracle® Smart View for Office User's Guide*.

Installation and Languages

The Oracle Smart View for Office installer uses the language set in the **Format** field of the Windows **Region and Language** dialog box, **Formats** tab. This language also becomes the default language when running Smart View.

After installation, anytime you change the Smart View language setting (**Options** dialog box, **Advanced** tab), Smart View remembers the new setting on each subsequent launch of Excel.

To return Smart View to the default language, you can use either of the following methods in the **Options** dialog box, **Advanced** tab:

- Click the **Reset** button.
- Select the first option in the **Language** drop-down list. This is always **Default**, which is the language specified in the **Region and Language** dialog box, **Formats** tab

After uninstalling and then reinstalling, Smart View reverts to the language specified in the Windows **Region and Language** dialog box, **Formats** tab, and not the last language specified in the Smart View **Options** dialog box, **Advanced** tab.

Windows, Office, and Smart View Locale Settings

On each Oracle Smart View for Office client machine, the following locale settings should match:

- Smart View language option
- Microsoft Office language
- Windows Regional Settings
- Windows operating system

Running Smart View in a language other than the language of the machine's Windows operating system, system locale, or Office language, may result in incorrect data being returned. For example, if the Windows operating system, system locale, and Office language are English, and you run Smart View in Russian, reports or chart data may display incorrectly.

Installing in the Windows Program Files Folder

On Windows operating systems, such as Windows 10, non-administrator users are not authorized to modify the `Program Files` folder or the `Program Files (x86)`. If an administrator installs Oracle Smart View for Office in `Program Files` or `Program Files (x86)`, a non-admin user will not be able to uninstall Smart View.

The default installation folder for Smart View is `C:\Oracle\SmartView`.

Oracle advises that you do not install in Smart View in the `Program Files` or `Program Files (x86)` folder.

Smart View cfg Folder and Properties File Access Requirement

Oracle Smart View for Office requires Write access to the `<Smart View Install>/cfg` folder, `properties.xml` file during runtime. An "Access Denied" error may occur if users do not have permission to write to this folder or file when attempting the following operations:

- Saving a file to EPM Cloud using the Save or Save As commands in the Smart View ribbon
- Performing ad hoc analysis

Windows Registry Access Requirement for Smart View Installation

The Oracle Smart View for Office installation writes to the Windows Registry.

In order for Smart View to write to the Registry, the following is required:

- The user account from which Smart View is installed must have permission to write to the Windows Registry.
- The "Run as administrator" option is used when installing Smart View.

If a user without the appropriate permissions to the Registry installs Smart View, issues can arise with some Smart View operations, such as drill-through.

Smart View Display and Operations Issues After Windows 10 Update

After a Windows 10 update on some high-resolution displays, drag-and-drop may not work as expected, some controls may look blurry, and some operations may not work properly. For

example, an "Invalid selection" error occurs when trying to drag and drop members from the POV.

To avoid the "Invalid selection" error and other display issues after a Windows update:

1. Select the Windows 10 **Start** button, then **Settings**, then **System**, then **Display**, and then **Advanced scaling settings**.
2. Under **Fix scaling for apps**, set **Let Windows try to fix apps so they are not blurry** to **On**.
3. Restart Excel.

Drag-and-drop and other operations should work as expected, and the display of Oracle Smart View for Office controls should be improved.

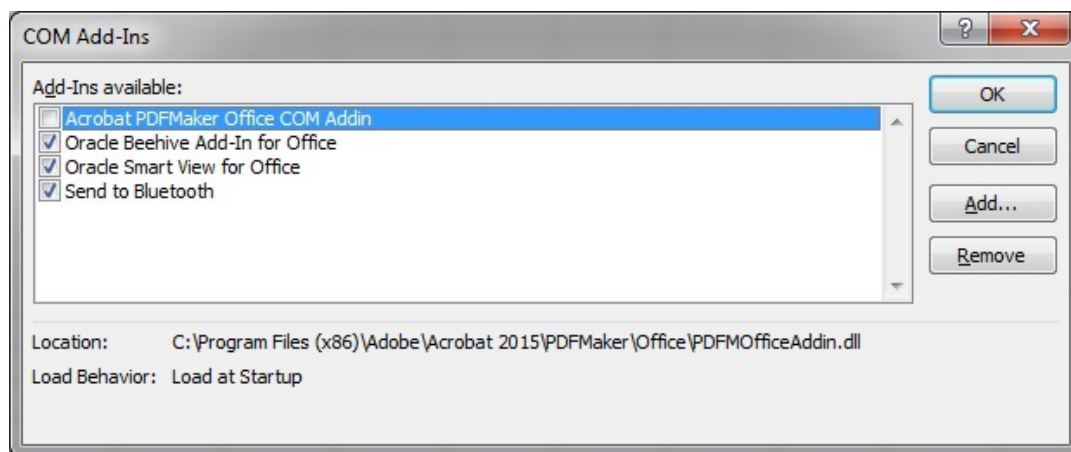
Enabling and Disabling Smart View and Other Office Add-ins

You can enable and disable Oracle Smart View for Office and other Microsoft Office add-ins from the **Add-Ins** tab in Excel Options. In some cases, Smart View performance can be improved when other Office add-ins are disabled.

To enable or disable Smart View or other Office add-ins for all applicable Office applications (including Outlook):

1. Open Excel, Word or PowerPoint.
Do not use Outlook to enable and disable Office add-ins.
2. Go to **File**, then **Options**, and then **Add-Ins**.
Continue with step 3 to work with COM Add-ins. Continue with step 4 to work with Excel Add-ins.
3. To enable or disable COM add-ins, from **Manage**, select **COM Add-ins**, then click **Go** and then perform a task:
 - To enable add-ins, ensure that the check box next to the add-in is checked.
If the check box next to the add-in is cleared, then click the check box to select it, and then click **OK**.
If the add-in you want to enable is not in the list, click **Add**, navigate to the location of the add-in file in your system and select it, then click **OK**, and then click **OK** again in the **COM Add-Ins** dialog to close it.
 - To disable add-ins, ensure that the check box next to the add-in is cleared.
If the check box next to the add-in is checked, then click the check box to clear it, and then click **OK**.

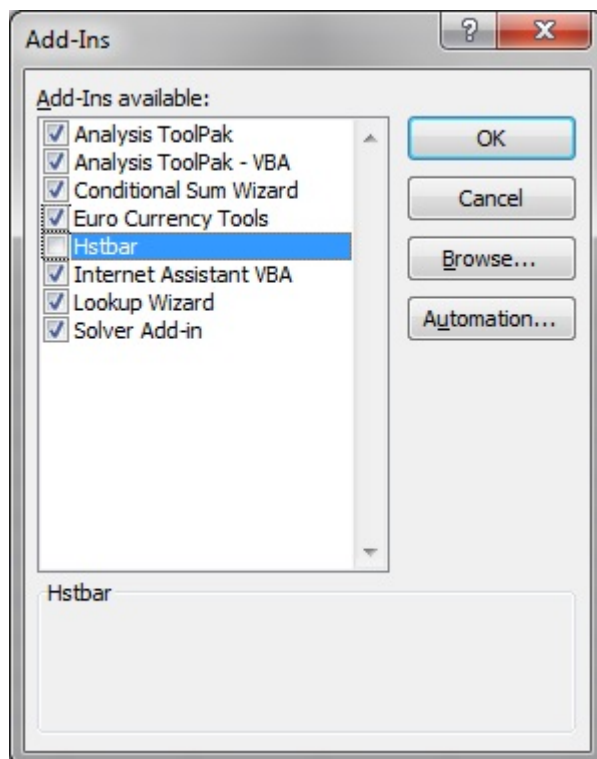
In the following example **COM Add-Ins** dialog box, the **Acrobat PDFMaker Office COM Addin**, is disabled; other available add-ins are enabled, including Smart View.



4. To enable or disable Excel add-ins, from **Manage**, select **Excel Add-ins**, then click **Go** and then perform a task:

- To enable add-ins, ensure that the check box next to the add-in is checked.
If the check box next to the add-in is cleared, then click the check box to select it, and then click **OK**.
If the add-in you want to enable is not in the list, click **Browse**, navigate to the location of the add-in file in your system and select it, then click **OK**, and then click **OK** again in the **COM Add-Ins** dialog to close it.
- To disable add-ins, ensure that the check box next to the add-in is cleared.
If the check box next to the add-in is checked, then click the check box to clear it, and then click **OK**.

In the following example **Add-Ins** dialog box, the Smart View add-in, **Hstbar**, is disabled; other available add-ins are enabled. Note that these add-ins are not related to Smart View.



5. Restart any open Office applications.

Error When First Launching Excel After Installing Smart View

After installing Oracle Smart View for Office and launching Excel for the first time, you may get an error message similar to the following: "Unable to set the installed property of the add-in class."

Workarounds:

- Enable the Smart View add-in for Microsoft Office using one of the following methods:
 - [Trust Center Method](#)
 - [COM Add-ins Method](#)
- If the above methods do not resolve the issue, try reinstalling Smart View as administrator. See [Smart View Ribbon Fails to Display After Non-Admin Installation](#) .

Trust Center Method

1. In Office (for example, in Excel), go to **File**, then **Options**, and then **Trust Center**.
2. Click the **Trust Center Settings** button.
3. In the left pane, select **Trusted Locations**.
4. Click **Add new location** to launch the **Microsoft Office Trusted Location** dialog box.
5. In **Path**, enter the path to the Smart View bin folder; for example:
`C:\Oracle\SmartView\bin`
6. Click **OK**.
7. Click **OK** to close the **Trust Center**, and then click **OK** to close **Excel Options**.

COM Add-ins Method

1. In Office (for example, in Excel), go to **File**, then **Options**, and then **Add-ins**.
2. From **Manage**, select **COM Add-ins**, and then **Go**.
3. In **COM Add-ins**, select the check box to enable the **Oracle Smart View for Office** add-in, and click **OK**.

Issues When Starting Excel in Automation Mode

In some cases, third-party software that automates Excel processes, such as exporting to Excel, may cause issues with Excel and a conflict with Oracle Smart View for Office.

Workaround:

To disable Smart View when Excel is started in automation mode, you may enable "DisableInAutomation" by adding a key and key value to the Windows Registry. To do this, create the Options key and DisableInAutomation key value as follows:

- Key Name:

```
[HKEY_CURRENT_USER\Software\Oracle\SmartView\Options]
```

- Key Value:

```
"DisableInAutomation"=dword:00000001
```

When set to 00000001, Smart View is disabled when Excel is started in automation mode. Smart View starts correctly when Excel is started manually, outside of an automated process.

When set to 0 or not created at all, then Smart View is enabled and starts when Excel is started in automation mode, which may cause issues. Smart View starts correctly when Excel is started manually, outside of an automated process.

Creating the Registry Key and Key Value

To create and update the registry key, Options:

1. Click **Start**, click **Run**, type `regedit` in the **Open** box, and then click **OK**.
2. Locate and then select the following registry subkey:

```
HKEY_CURRENT_USER\Software\Oracle\SmartView\
```

3. From the **Edit** menu, select **New**, and then select **Key**.
4. Type `Options`, and then press **Enter**.
5. From the **Edit** menu, select **New**, and then select **DWORD Value**.
6. Type `DisableInAutomation`, and then press **Enter**.
7. In the **Details** pane, right-click **DisableInAutomation**, and then click **Modify**.
8. In the **Value** data box, type 00000001, and then click **OK**.

The value, 00000001, enables the **DisableInAutomation** key.

Note:

If a zero value is entered, then this option is disabled.

9. Exit Registry Editor.
10. Restart Excel.

Smart View Ribbon Fails to Display After Non-Admin Installation

In some cases, installing Oracle Smart View for Office on Windows 10 or 11 as a non-admin can cause the Smart View ribbon to fail to display.

In a non-admin install, you double-click the `SmartView.exe` file to launch the installer. In an admin install, you right-click `SmartView.exe` and select **Run as administrator**.

If you installed Smart View as a non-admin and the Smart View ribbon does not display, complete the following procedures to troubleshoot this issue:

[Add the COM Add-in](#)

[Reinstall Smart View as Administrator](#)

Add the COM Add-in

To add the Smart View COM add-in:

1. In Excel, select **File**, then **Options**, and then **Add-ins**.
2. From **Manage**, select **COM Add-ins**, and then click **Go**.
3. In **COM Add-ins**, select the check box to enable the **Oracle Smart View for Office** add-in, and click **OK**.
4. Restart Excel.

If the Smart View ribbon does not display after restarting Excel, proceed to [Reinstall Smart View as Administrator](#).

Reinstall Smart View as Administrator

If the Smart View ribbon still fails to display after adding the COM add-in, perform these steps:

1. Uninstall Smart View.
See [Uninstalling Smart View](#) for more information.
2. Reinstall Smart View by right-clicking `SmartView.exe` and selecting **Run as administrator**.
See [Installing from My Oracle Support or Oracle Technical Resources](#) for more information.
3. Launch Excel and verify that the Smart View ribbon is displayed.

Ribbons Not Selectable After Installation

On Windows 10 and 11, after installing Oracle Smart View for Office and starting Excel for the first time, you are not able to select any other Excel ribbons or the Smart View ribbon, or select any menu items on the default Home ribbon.

Workaround: Click the **X** in the top right corner to close Excel, and then restart Excel. Now you should be able to select the Smart View ribbon and any other Excel ribbon.

Diagnosing Login Issues

Related Topics

- [Smart View Does Not Connect to a Data Source](#)
- [Attempts to Connect to the Server Fail in SSO-Enabled Environments](#)

Smart View Does Not Connect to a Data Source

Oracle Smart View for Office fails to establish a connection with a data source primarily because of errors in the shared or private connection URL that is being used. For information on connection types, see *Shared Connections and Private Connections* in *Working with Oracle Smart View for Office*.

- Verify that the connection URL syntax and the credentials being used are accurate.
Consult your Smart View administrator to verify:
 - The shared or private connection URL you are using is correct
 - You have a valid user name and password to access the connection

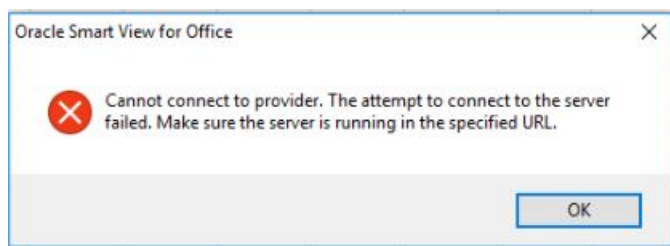
- Using a browser, access the environment that supports the data source. Make sure that you can log in using the credentials that you are using to access the data source through Smart View.

For example, if you are attempting to connect to an Oracle Enterprise Performance Management Cloud data source, launch a browser and enter the connection URL for the web business process. In the signon screen, enter the user name and password you would use to access that business process as a connection in Smart View. Consult your Smart View administrator if you need help forming the URL or if you do know the user name and password that you would use to access the connection in Smart View.

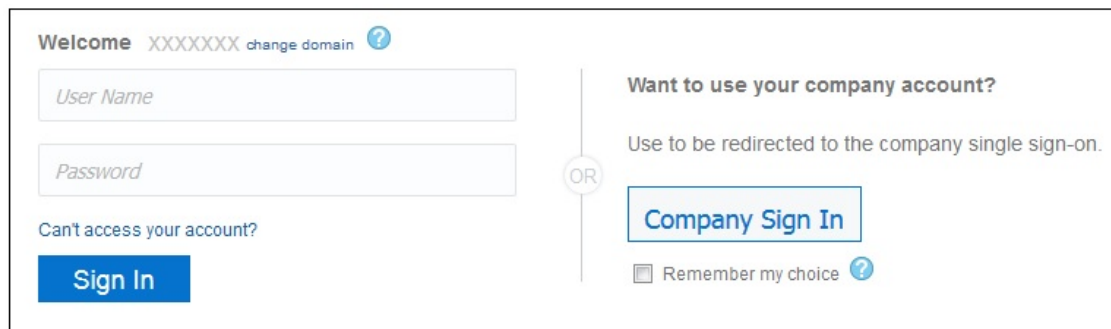
- If the issue persists, seek Oracle's help using the steps detailed in Getting Help.

Attempts to Connect to the Server Fail in SSO-Enabled Environments

Smart View fails to establish a connection to an EPM Cloud environment that is configured for SSO and displays the following error:



This error is displayed if you previously selected the **Remember my choice** option in a browser while signing into an EPM Cloud environment using the **Company Sign In** button.



To resolve this issue, complete this procedure:

1. Close Microsoft Excel.
2. Delete browsing history, temporary internet files, cookies and site data, and form data.

You can use browser-specific procedures for deleting the above items. Additionally, you can complete the procedure in [Clearing Smart View Cookies](#).

3. Open Excel and sign into Smart View.

Clearing Smart View Cookies

Occasionally, you may need to clear Oracle Smart View for Office cookies.

For example, after using the **Disconnect All** command and restarting Smart View, you may find that you're not prompted to log in. Clearing cookies will clear the browser cache and facilitate the signoff and subsequent login.

To clear Smart View cookies:

1. Close all Office applications.
2. Use either method to launch the Microsoft Windows Internet Options dialog:
 - In a Windows Command Prompt, enter `inetcpl.cpl`
 - From the Windows Control Panel, select **Internet Options**.

The **Internet Options** dialog is displayed.

3. In the **General** tab, click the **Settings** button.

The **Website Data Settings** dialog is displayed.

4. **Optional:** In the **Temporary Internet Files** tab, under **Check for newer versions of stored pages**, select **Every time I visit the webpage**.

5. In the **Temporary Internet Files** tab, click the **View files** button.

A File Explorer window displays the contents of this folder:

```
C:\User\\AppData\Local\Microsoft\Windows\INetCache
```

6. Delete the contents of the `AppData\Local\Microsoft\Windows\INetCache` folder.
7. Click **OK** to exit the **Website Data Settings** dialog, and then click **OK** to exit the **Internet Properties** dialog.
8. Restart Office, select a data provider, and provide your login credentials when prompted.

If you still experience issues, try clearing the WebView2 cache, described in [Clearing WebView2 Cookies](#).

Clearing WebView2 Cookies

Occasionally, you may need to clear Microsoft WebView2 cookies.

For example, after using the **Disconnect All** command and restarting Oracle Smart View for Office, you may find that you're not prompted to log in. Clearing WebView2 cookies will clear the cache and facilitate the signoff and subsequent login.

To clear WebView2 cookies:

1. Close all Office applications.
2. In File Explorer, navigate to:

```
%AppData%\Oracle\SmartView\WebView
```

3. Clear the contents of the `WebView` folder.

Note:

On Windows Server operating systems, clear the content of the `WebView` folder and any other folders under `%AppData%\Oracle\SmartView` where the name begins with `WebView`.

- Restart Office, select a data provider, and provide your login credentials when prompted. If you still experience issues, try clearing the Smart View cache, described in [Clearing Smart View Cookies](#).

Connection Error

Oracle Smart View for Office may fail to connect to Planning or Planning Modules with the script error,

```
An HTTP error occurred with the code "-1"
```

The workaround is to set the **Browser Emulation Mode** option in the **Health Check** dialog; for example, set this option to 11001 for Microsoft Internet Explorer 11 compatibility.

For more information on the **Browser Emulation Mode** option in the **Health Check** dialog, see [Performing a Health Check on Your System](#) in the *Oracle® Smart View for Office User's Guide*.



Note:

Microsoft discontinued support for Internet Explorer on June 15, 2022. However, you should not uninstall Internet Explorer. For more information, see [Internet Explorer 11 End of Support and Smart View](#).

Failure to Establish Connection with Integrated Windows Single Signon

When Oracle Enterprise Performance Management Cloud is configured to use Windows single signon with Microsoft Azure AD, attempts to establish connection to EPM Cloud using a shared connection can fail and you may see this error message:

```
The provider running at <serviceURL>/workspace/SmartViewProviders is not a Shared Services provider.
```

Using a private connection, the message reads:

```
Unable to connect to the provider.
```

This error is related to Oracle single signon setup, and occurs when users are already logged in to their Microsoft Azure AD account (also known as Microsoft Entra ID).

Workarounds: To resolve this error, try either of the following workarounds:

- Enable "Chooser login page" during Fusion SSO setup. Once enabled, users are brought to the chooser login page and they are able to connect by clicking **Company Sign On**.
- If the "Chooser login page" is not enabled, then add full URLs, including Oracle Smart View for Office shared or private connection URLs, to the secure site list in Windows **Internet Options**.

Be sure to add all URLs that are used during authentication.

 **Note:**

Administrators should perform a trace to assist in collecting the URLs of *all* the sites involved in authentication. For example, there should be "oraclecloud" sites for production, possibly a test site, as well as Azure AD sites, along with the Smart View connection URLs.

Do not use an asterisk (*) to abbreviate URLs, for example, do not use *.oraclecloud.com. You must always use the full URL.

To add URLs, including Smart View connection URLs, as secure, or trusted sites, in the Windows Control Panel, go to **Internet Options**, then select the **Security** tab, then select **Trusted Sites**, and then click the **Sites** button. Enter the full URL and click **Add**. Repeat for all required authentication and connection URLs.

Some Smart View connection URL syntax examples follow:

- Shared connection:

```
https://<serviceURL>/workspace/SmartViewProviders
```

- Private connection:

```
https://<serviceURL>/HyperionPlanning/SmartView
```

See [Creating Shared Connections](#) and [Creating Private Connections](#) in the *Oracle Smart View User's Guide* for more information on data source connection syntax.

Problem Opening Files in Excel

Sometimes, temporary files and folders stored in the `C:\Users\UserName\AppData\Roaming\Microsoft\Excel` folder can cause issues when trying to open a workbook file in Excel. You can back up the contents of this folder and then clear the folder to improve performance when opening a workbook.

To improve Excel performance when opening a workbook:

1. Close all applications and restart your computer once.
This is to ensure that there are no hidden instances of Excel running in the background.
2. After the reboot, create a folder on your computer (for example, in the `Desktop` or the `Documents` folder) and give it a descriptive name (for example, `Excel AppData Backup`).
3. Open Windows File Explorer, then select the **View** menu, and then select the check box to show **Hidden items**.
4. Navigate to:

```
C:\Users\User_Name\AppData\Roaming\Microsoft\Excel
```

Replace `User_Name` with your Windows login user name.

5. Use Windows Cut and Paste to move all the files and folders from the directory you created in the previous step to the backup folder that you created in [step 2](#).
The `C:\Users\User_Name\AppData\Roaming\Microsoft\Excel` folder should be empty.
6. In File Explorer, go to the **View** menu and clear the **Hidden items** check box.
7. Close File Explorer, and then start Excel.

8. Try opening the files that you were having problems opening earlier.

Slowness with Extension Options Dialog Box

When opening the **Extensions** tab of the **Options** dialog box or when checking for extension updates, if your system seems to be taking a long time to complete these tasks, ensure that the machine has access to the internet.

Office Slow to Start when Internet Connectivity is Not Available

When starting Office, Oracle Smart View for Office performs various security checks at startup, including checks on all the installed extensions. Internet connectivity is required in order to perform these checks.

Without internet connectivity, the security checks on extensions cannot be carried out and Office applications will be very slow to launch.

You may disable extensions in order to improve Office startup time, but you will lose the functionality related to those extensions, even if you are still able to connect to data providers through your company's intranet.

Oracle recommends verifying that you can connect to the internet when starting Office with Smart View installed.

Excel Process Stops Responding (Hangs) on Shut Down

Excel may be slow to shut down if the `Excel15.xlb` file is corrupted. This file stores changes to the ribbons in Excel.

A simple fix to this issue is to rename `Excel15.xlb`. A clean `Excel15.xlb` file is rebuilt the next time you start Excel.

The `Excel15.xlb` file is located in the
`C:\Users\user\AppData\Roaming\Microsoft\Excel` folder.

To rename the `Excel15.xlb` file, see [Renaming or Deleting the Excel xx.xlb File](#).

Excel Looks for HsTbar.xla File After Uninstall

Sometimes, after uninstalling Oracle Smart View for Office and subsequently launching Excel, Excel may still try to locate the Smart View `HsTbar.xla` file.

To correct this, you must edit the Windows Registry.

To edit the Windows Registry to keep Excel from looking for `HsTbar.xla` file after uninstalling Smart View:

1. Open the Windows Registry Editor (enter `regedit` in a command window).
2. Locate this key:
`HKEY_CURRENT_USER\Software\Microsoft\Office\<OfficeVersion>\Excel\Options`
3. Delete the `OPEN` or `OPEN<n>` entry where the value in the **Data** column contains `HsTbar.xla`.

For example:

`C:\Oracle\SmartView\bin\HsTbar.xla`

When there are multiple `OPEN` entries, perform these steps:

- a. Delete all `OPEN` entries where the **Data** column value contains `HsTbar.xla`.
- b. Rename all remaining `OPEN<n>` entries, maintaining their sequential values.

For example, here are six `OPEN` entries, where two of the entries, `OPEN` and `OPEN4`, contain `HsTbar.xla` in the **Data** column.

Name	Value in Data Column
<code>OPEN</code>	Contains <code>HsTbar.xla</code>
<code>OPEN1</code>	Does not contain <code>HsTbar.xla</code>
<code>OPEN2</code>	Does not contain <code>HsTbar.xla</code>
<code>OPEN3</code>	Does not contain <code>HsTbar.xla</code>
<code>OPEN4</code>	Contains <code>HsTbar.xla</code>
<code>OPEN5</code>	Does not contain <code>HsTbar.xla</code>

Delete the `OPEN` and `OPEN4` entries, and then rename the remaining entries as follows, maintaining their sequential order:

- Rename `OPEN1` to `OPEN`
- Rename `OPEN2` to `OPEN1`
- Rename `OPEN3` to `OPEN2`
- Rename `OPEN5` to `OPEN3`

The remaining entries are:

Name	Value in Data Column
<code>OPEN</code>	Does not contain <code>HsTbar.xla</code>
<code>OPEN1</code>	Does not contain <code>HsTbar.xla</code>
<code>OPEN2</code>	Does not contain <code>HsTbar.xla</code>
<code>OPEN3</code>	Does not contain <code>HsTbar.xla</code>

Office Unknown Exception Error on a Protected Sheet

Upon opening a password-protected worksheet, an exception is thrown as Oracle Smart View for Office tries to set `Range.ID`, required for duplicate (non-unique) member name support. An exception is also thrown by the Excel API on any operation that requires Smart View to write into worksheet if the worksheet is password protected.

Note that Smart View does not work with password-protected worksheets.

If possible, try the following workarounds:

- Remove password protection.
- Rewrite macros in a way that prevents Smart View from trying to write in password-protected worksheets.

Smart View HTTP Session Timeout

HTTP session timeouts can occur, for example, when working with large queries that take a long time to run, or when you're experiencing slower internet connections.

Other errors you may see in an HTTP session timeout include:

- An "Invalid pointer" error
- "XML Load Error: XML Document must have a top level element"

To avoid HTTP session timeouts, you may add the following Windows Registry DWORDS to the Internet Settings key:

- Key Name:

```
HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Internet  
Settings
```

- Key Values:

- DWORD: ReceiveTimeout
Value data: *value in milliseconds*
- DWORD: KeepAliveTimeout
Value data: *value in milliseconds*
- DWORD: ServerInfoTimeout
Value data: *value in milliseconds*

For example, 900000 milliseconds is the equivalent of 15 minutes. Adjust the timing according to your requirements.

As a guideline, 900000 milliseconds is the equivalent of 15 minutes.

To add the timeout key values to the Internet Settings registry key:

1. Ensure that all Office applications, including Outlook, are closed.
2. Launch the Windows Registry Editor.
3. Locate and then select the following registry subkey:

```
HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Internet  
Settings
```

4. Add the three DWORD key values, ReceiveTimeout, KeepAliveTimeout, and ServerInfoTimeout:
 - a. From the **Edit** menu, select **New**, and then select **DWORD Value**.
 - b. Type the DWORD name, and then press **Enter**.
 - c. In the **Details** pane, right-click DWORD you added in step 4.b, and then select **Modify**.
 - d. In the **Value data** text box, type the timeout value in milliseconds, select **Decimal**, and then click **OK**.
 - e. Repeat step 4.a through step 4.d for each of the three required DWORD key values.
5. Exit Registry Editor.
6. Restart Excel.

Session Timeout when Connected Using Vanity URLs

You may experience a timeout error when trying to connect in Smart View using a vanity URL. This issue is vendor-specific, as the timeout is occurring on the vanity URL provider. The vendor is delivering the error message in this case.

Extension Updates and Office Applications Remaining Open

In order for extensions to be properly installed, removed, or updated, all Office applications must be shut down. When an Office application is reopened, updates for extensions are applied.

Sometimes, even though an Office application has been closed, it does not completely shut down, or does not shut down in a timely manner. In these cases, an instance of Office is still running and Oracle Smart View for Office is unable to apply the extension updates correctly.

For these situations, it may be necessary to open the **Windows Task Manager** and look for possible Office applications that may still be running. For Windows 10 and 11, select the **Details** tab to find the correct process name corresponding to the Office applications. Application names to look for are:

- EXCEL.EXE
- OUTLOOK.EXE
- POWERPNT.EXE
- WINWORD.EXE

If any of these application names are displayed in the Task Manager, click on the name and end the process.

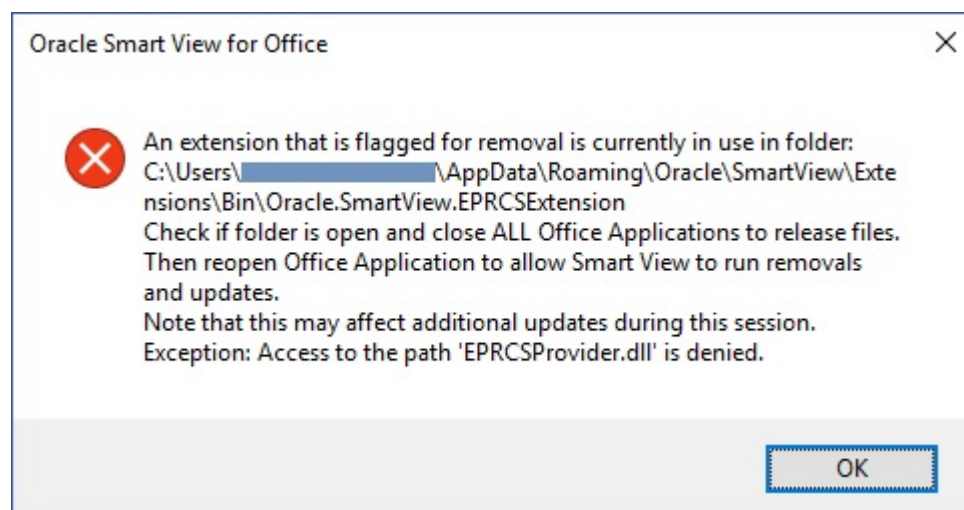
Once all Office applications are closed, reopen one of the applications so that Smart View can apply pending updates.

Extension Updates and Outlook

When applying extension updates, if any Office application is running, including Outlook, a message directs the user to close all Office applications. This includes Outlook, as well as Excel, Word, and PowerPoint.

If the message in [Figure 1](#) is displayed after attempting an extension update, it means that one of the Office applications was *not* closed. Often, the application left open is Outlook.

Figure 4-1 Message - Office Application Open During Extension Update



If Smart View is *not* needed for Outlook, it can be disabled to help avoid this issue during extension updates.

To disable Oracle Smart View for Office in Outlook:

1. In Outlook, go to the Smart View ribbon, then select **Options**, and then select **Advanced**.
2. Under **Display**, select the **Disable Smart View in Outlook** check box.
3. Click **OK**, and then close Outlook.
4. Restart Outlook.
Verify that the Smart View ribbon no longer appears.
5. Start a different Office application to continue the extension update process.

Extension Installation from EPM Cloud and Message Window Focus

Installing extensions from supported Oracle Enterprise Performance Management Cloud services involves downloading an extension installer file and double-clicking it. When double-clicking an extension installer (.svext), a message window is displayed indicating the success or failure of the installation. The message window can sometimes lose focus and go behind another open window, and can easily go unnoticed. This may lead to users trying to install the extension again, causing an error due to the previous open message window having a hold on the folder and files.

To clean up this extension installation issue:

1. Close all Office applications (Excel, Word, PowerPoint, Outlook).
2. Check the Windows task bar for an existing message window, and close it.
3. Remove prior extension installations:
 - a. Navigate to %AppData%\Oracle\SmartView\extensions\bin
 - b. Delete the extension folder.
For example, to delete the Narrative Reporting extension folder, delete the `Oracle.SmartView.EPRCSExtension` folder.
 - c. Delete the extension installation folder.
For example, to delete the Narrative Reporting extension installation folder, delete the `EPRCSProviderInstaller` folder.
4. Remove pending installations:
 - a. Navigate to %AppData%\Oracle\SmartView\extensions\update
 - b. Delete the pending extension installation folder.
For example, to delete the Narrative Reporting pending extension installation folder, then delete the `Oracle.SmartView.EPRCSExtension` folder.
5. Return to the location where you previously downloaded the extension installer file, and double-click it.
For example, to install the Narrative Reporting extension, double-click `EPRCSProviderInstaller.svext`.
6. Open Excel, Word, or PowerPoint, and in the Smart View ribbon, click **Options**, then select **Extensions**, and then verify that the extension you installed is listed.

Enabling the Smart View Extension for Firefox


During installation, Oracle Smart View for Office automatically installs an extension for Mozilla Firefox.

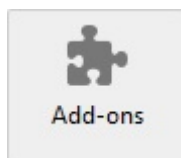
If you specify Firefox as your default browser, Smart View utilizes the extension for Firefox in these scenarios:

- Performing drill-through in Smart View
- Launching forms in Smart View from browser-based applications, such as Oracle Hyperion Financial Management or the Planning business module in Oracle Enterprise Performance Management Cloud.

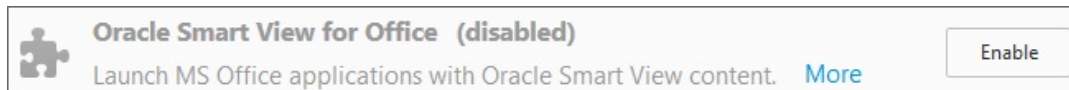
The extension for Firefox is automatically enabled after installing Smart View. However, if the extension should become disabled, follow the procedure in this topic to enable it again.

To enable the Smart View extension for Firefox:

1. In Firefox, in the upper right corner of the browser, click , and then select **Add-ons** from the drop-down menu:

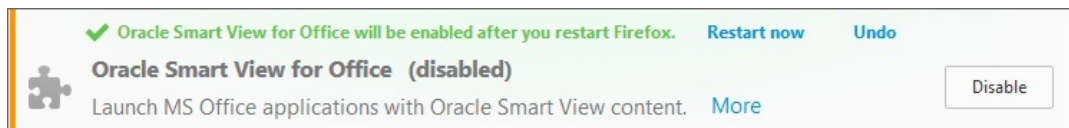


2. In the left pane, select **Extensions**, and then scan or search the list to locate the **Oracle Smart View Office** entry.



3. Click **Enable**, and restart Firefox.

You can restart Firefox immediately using the **Restart now** link, or restart Firefox at your convenience.



Fixing Function Links on Machines where Smart View was Reinstalled in a User-specified Location

When connected to an Oracle Smart View for Office provider, such as Tax Reporting in EPM Cloud or Essbase in EPM System, and using functions on a machine where Smart View was reinstalled in a different location (for example, originally Smart View was installed in the default installation location and then, on the same machine, Smart View was reinstalled in a user-

specified, non-default location), the functions may not work correctly after reinstalling Smart View. To fix this issue, perform the following steps:

1. In Excel, go to **File**, then **Options**, then **Add-ins**, then **Excel Add-ins**, and click **Go**.
2. In the **Add-ins** dialog, select the check box for **Hstbar**. This gives an error message stating that "the HSTbar.xla file is not found in the location. Do you want to delete it?" Click **Yes** to delete it.
3. Close and relaunch Excel.
4. Open the saved workbook and connect to the data provider.
5. In the Smart View ribbon, go to Functions, and then **Fix Links**.
Fix Links updates the function definitions.

Drill-through with Chrome: Blocklist and Allowlist for Native Messaging

Drill-through with a Google Chrome browser can fail when Chrome is managed by enterprise policy. In this case, native messaging applications can use a blocklist or an allowlist. For example, if an administrator restricts access to all messaging hosts by using a blocklist (by specifying "*" in the blocklist registry key), then drill-through from Oracle Smart View for Office would not work with Chrome.

In order to enable the Smart View native application which supports the Chrome extension (the application is `C:\Oracle\SmartView\bin\SVNatvMsg.exe`), then an administrator must add the name of the application, `com.oracle.smartview.nmh` (as specified in `C:\Oracle\SmartView\bin\chromenmh.json`) to the allowlist registry key.

Note:

- Creating a blocklist is described here:
<https://cloud.google.com/docs/chrome-enterprise/policies/?policy=NativeMessagingBlocklist>
- Creating an allowlist is described here:
<https://cloud.google.com/docs/chrome-enterprise/policies/?policy=NativeMessagingAllowlist>

Transition Navigation Keys Not Supported

Oracle Smart View for Office does not support Excel's **Transition navigation keys** option.

Due to a Microsoft limitation, many of the Microsoft APIs that Smart View depends on for both Smart View and Excel functionality do not work when the **Transition navigation keys** option is enabled. For example:

- In Excel, copy/paste, macros, automation API calls do not work correctly.
- In the Planning Admin extension, member formula formatting in the Smart View Dimension Editor does not display correctly; formulas have incorrect syntax when submitted to Oracle Hyperion Planning.

In order to ensure the best performance possible, Smart View requires the following:

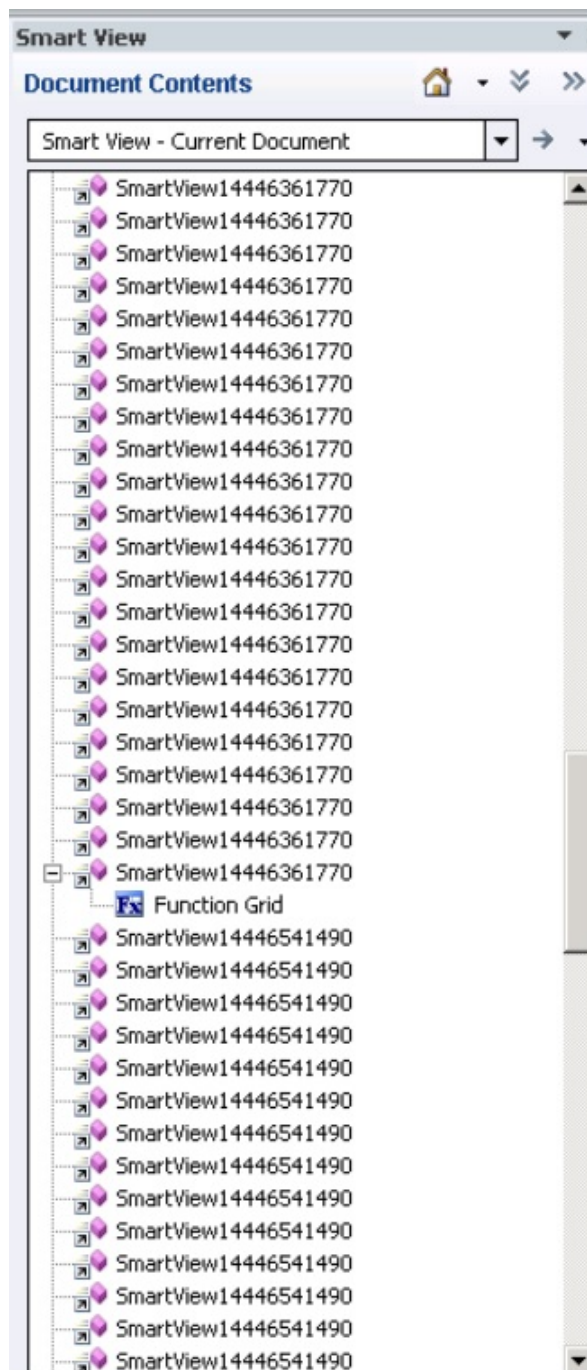
- The Excel option, **Transition navigation keys**, must be cleared.

- The **Smart View** option, **Improve Metadata Storage**, must be enabled (by default, this option is enabled).

Duplicate Queries in Word Slow to Refresh

In some Word documents containing a large number of queries and created prior to Oracle Smart View for Office release 11.1.2.5.520, performance may be an issue when refreshing the data in the document. In some cases, instead of re-using existing queries where appropriate, each Smart View data point in the Word document is treated as a separate query. The result is that Refresh operations can be very slow.

If the document contains many duplicate queries (that is, queries with the same name), the duplicate queries are displayed in the Document Contents pane in Word. For example, Document Contents might look like this:



The duplicate queries are SmartView14446361770 and SmartView14446541490.

You can run the Visual Basic macro below to remove the duplicate queries:

```
Sub DeleteExtraQueries()  
,  
    ' DeleteExtraQueries Macro  
,  
    Dim queriesName As Variant  
    Dim uniqueQueriesName As New Collection  
    Dim varName, newList As String  
    Set vars = ActiveDocument.Variables
```

```

For i = 1 To vars.Count
    varName = vars.Item(i).Name
    If Not StrComp(vars.Item(i).Name, "SV_QUERY_LIST", vbTextCompare) Then
        List = vars.Item(i).Value
        queriesName = Split(List, "<|>")

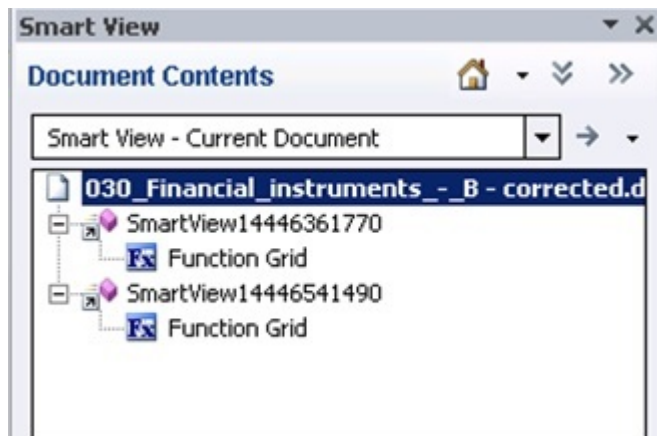
        On Error Resume Next
        For Each queryName In queriesName
            uniqueQueriesName.Add queryName, queryName
        Next
        newList = ""
        For Each queryName In uniqueQueriesName
            newList = newList & queryName & "<|>"
        Next
        newList = Left(newList, Len(newList) - 3)
        vars.Item(i).Value = newList
    End If

Next

End Sub

```

After running the macro, the two queries, SmartView14446361770 and SmartView14446541490, appear only once in Document Contents:



Issues with Dynamic Data Exchange Option in Excel

Various issues may arise when the Excel option, **Ignore other applications that use Dynamic Data Exchange (DDE)**, is selected. For example, there are problems launching Excel, launching Excel files from outside of Excel, and using the **Export in Query Ready Mode** option from a browser to export balances from Oracle Hyperion Financial Reporting.

Workaround: Click the Microsoft Office Button (upper left corner of Excel), and then click **Excel Options**. In the **Advanced** category, scroll down to the **General** options, and then clear the **Ignore other applications that use Dynamic Data Exchange (DDE)** check box. Restart Excel.

Spreading Issue, Smart View Installation, and HsSpread.dll

In some cases, spreading is not working as expected.

Oracle Smart View for Office is not automatically spreading data from the YearTotal or Quarter level down to the months. Data is spread automatically when entering values into forms on the web, but the same functionality is not working in Smart View.

The issue may be due to the dynamic link library, `HsSpread.dll`, not being registered correctly, which can happen when Smart View is installed by a non-admin user.

This issue affects Planning 18.02.67+ and Planning Modules 17.12.54 and later.

To fix this issue, Oracle recommends the following:

- Uninstall Smart View and reinstall as the Windows administrator. See [Reinstall Smart View as Administrator](#).
- If the spreading issue persists after reinstalling Smart View as the administrator, then manually register the `HsSpread.dll` file. See [Register HsSpread.dll](#).

Reinstall Smart View as Administrator

To reinstall Smart View as administrator, perform these steps:

1. Uninstall Smart View.
See [Uninstalling Smart View](#) for more information.
2. Reinstall Smart View by right-clicking `SmartView.exe` and selecting **Run as administrator**.
See [Installing from My Oracle Support or Oracle Technical Resources](#) for more information.
3. Launch Excel, open a form or ad hoc grid, and verify that spreading is working.
If the spreading issue persists, complete the steps in [Register HsSpread.dll](#).

Register HsSpread.dll

To register the `HsSpread.dll` with Windows:

1. Start a Windows command prompt as administrator.
2. Switch to the `bin` folder in your Smart View installation.
The default location is `Oracle\SmartView\bin`.
3. Run the following command:

```
C:\Windows\Microsoft.NET\Framework\v4.0.30319\regasm.exe /codebase  
HsSpread.dll
```
4. In the command prompt, check for any errors in the output.
5. Test the spreading functionality.
If the issue persists, contact Oracle Support.

Browser Settings When Working with XML Files on HTTP Server

Web browsers may cache XML files posted on an HTTP server and referenced by Oracle Smart View for Office. This can cause problems when using the following Smart View functionality:

- Accessing shared connections from an XML file
This is the XML file posted on an HTTP server and noted in the **Shared Connections URL** field of the Smart View **Options** dialog box. If you plan to access online help from a local drive or internal web server, this file can also specify the location of the help.
- Updating extensions
Smart View references the `UpdateList.xml` file that is posted on an HTTP server when Smart View end users install, update, and remove extensions in the **Extensions** tab of the **Options** dialog box.

Complete the steps in this topic to clear the browser cache so that the latest version of the XML file is used for the purposes noted above.

To clear the cache so that Smart View is accessing the latest XML file version posted on an HTTP server, set the following options in the **Internet Properties** dialog in the Control Panel

1. Launch the Control Panel, and then select **Internet Options**.
2. In the **General** tab, **Browsing history** group, select **Settings**.
3. In the **Check for newer versions of stored pages** section, select **Every time I visit the webpage**, and then click **OK**.
4. In the **Internet Options** dialog box, select the **Advanced** tab.
5. In the **Security** section, select the **Empty Temporary Internet Files folder when browser is closed** option.
6. Click **OK** to close **Internet Options** and restart the browser.

Third-Party Monitoring Tools May Impact Smart View Stability

Some of the applications monitoring Microsoft Office, such as MacAfee or Trellix, may interfere with Oracle Smart View for Office. Smart View makes many Office and Windows API calls, which may be detected, blocked, or delayed by these applications, causing stability issues for Office and Smart View. Some users may experience Excel failing when Smart View add-in is enabled.

Workaround: Administrators may review other applications running on the machine and adjust the appropriate settings.

For example, for MacAfee, deselect the "Enable deep inspection of Windows API calls EDR policy for affected hosts."

Refer to the documentation for your monitoring tools for information on disabling this option.

Performance and Memory Usage Considerations for Smart View with Excel

Oracle Smart View for Office is a Microsoft Office add-in. As an add-in, it is loaded in to the Microsoft Excel process. When a report is imported into Excel through Smart View, the Excel process consumes memory and this can negatively impact performance.

For example, instances of grids and forms, objects in the Undo buffer, XML parsing, etc., will cause the Excel process to consume memory. Because of this, the Excel or machine memory limit becomes the Smart View memory limit as well. This can severely impact performance.

There is no memory configuration parameter in Smart View to manage this.

Excel 32-bit and 64-bit have different memory limits:

- For Excel 32-bit, the maximum memory limit, or RAM, is 2GB.

Oracle testing showed that when Excel 32-bit memory usage reaches beyond 700 MB, Excel can behave abnormally and can terminate unexpectedly.

- The 64-bit versions of Excel are not constrained to 2 GB of RAM, as are the 32-bit Office applications.

For large reports, Oracle recommends using 64-bit Excel. Or consider reducing the data being sent to Smart View by reducing the number of rows, columns, and POVs in the reports.

Oracle suggests that you consider taking some or all of the actions listed below in an effort to limit memory usage and improve performance.

The following actions can help to limit memory usage:

1. In the Smart View **Options** dialog box, **Advanced** tab, ensure that these options are enabled:
 - **Reduce Excel File Size**
 - **Improve Metadata Options**
2. In the **Options** dialog box, **Advanced** tab, set **Number of Undo Actions** to '0' (zero), if possible, or to a low number such as 1 or 2.
3. Change Excel calculation from Automatic to Manual. Go to the Excel **Formulas** ribbon, then select **Calculation Options**, and then select **Manual**.
4. In the **Options** dialog box, **Formatting** tab,
 - a. If you have selected the **Use Excel Formatting** option, then you should clear the **Move Formatting on Operations** option.
 - b. Clear the **Adjust Column Width** option.
 - c. Clear the **Retain Numeric Formatting** option.
5. In the **Options** dialog box, **Extensions** tab, disable any unneeded extensions.
6. In Excel, to improve performance and stability, disable or uninstall any unused add-ins. For example, disable or uninstall the Oracle Essbase Spreadsheet Add-in. Other possible add-ins to disable or uninstall are, for example, Adobe PDF, WebEx, or Send to Bluetooth
7. Reduce the workbook size.
8. Limit the data imported to Excel:
 - a. Use prompts, filters, POVs, or other ways to reduce the data returned back to Smart View.
 - b. Enable the **Suppress Rows** and **Suppress Columns** options in the **Data Options** tab of the Smart View **Options** dialog box.

The following actions can help to improve performance, as well as limit memory usage:

1. In the **Options** dialog box, **Advanced** tab, set **Number of Undo Actions** to '0' (zero), if possible.
2. In the **Options** dialog box, **Member Options** tab, ensure that these options are cleared:
 - **Preserve Formulas and Comments in ad hoc options**
 - **Formula Fill**

Clear these options only if you do not need to preserve formulas or comments during ad hoc operations.

Also, refer to the following documentation from Microsoft, "Excel 2010 Performance: Performance and Limit Improvements":

[http://msdn.microsoft.com/en-us/library/ff700514\(v=office.14\).aspx](http://msdn.microsoft.com/en-us/library/ff700514(v=office.14).aspx)

Flickering Issues on Office 2013 and Office 2016

When using Oracle Smart View for Office with Microsoft Office 2013 or 2016, 32-bit or 64-bit, flickering occurs with the POV toolbar and the Smart View Panel. The flickering is likely caused by changes in Excel 2013 and Excel 2016.

To reduce flickering, use the Health Check utility in Smart View to specify the settings for "Disable Window Transitions on Addin Task Panes" and "Disable Animations," listed under "Graphics Settings." Oracle advises using the recommended settings for these options. See [Performing a Health Check On Your System](#) for more information.

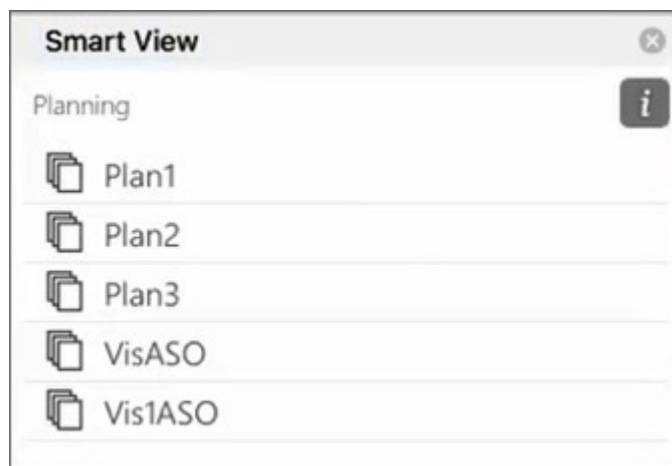
Fixing Smart View (Mac and Browser) for Office 365 Add-in Issues

Related Topics

- [Library Folders do not display in Home Panel \(Clear Storage Option\)](#)
- [Disabling the Popup Blocker on Chrome](#)
- [Clearing the Chrome Browser Cache](#)
- [Clearing the Office and Web Cache on a Mac](#)
- [Connection Issue in Chrome after Clearing Cache](#)
- [Task List Display Issue](#)
- [Making Smart View \(Mac and Browser\) Work after Enabling SSO](#)

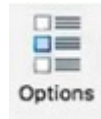
Library Folders do not display in Home Panel (Clear Storage Option)

After login, sometimes the Library folder for your application does not appear in the Home panel. For example:

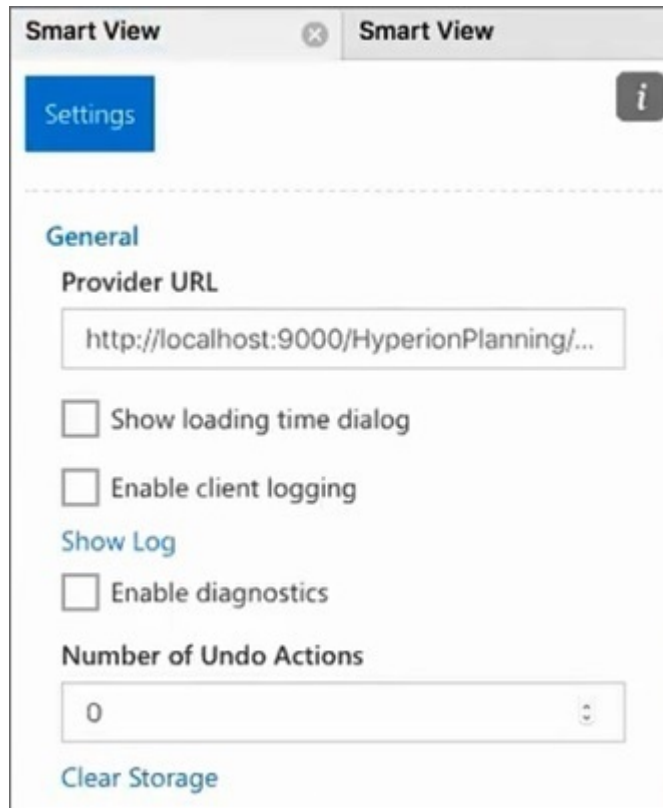


If the Library folder for your application does not display in the Home panel after logging in, try this procedure to clear Smart View cache:

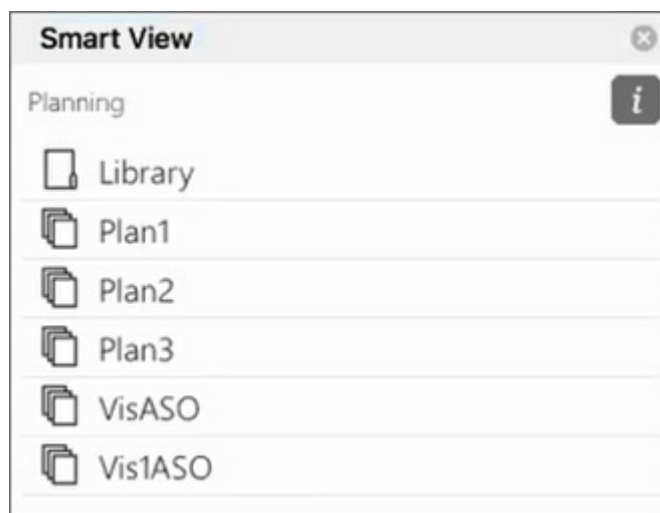
1. In the Smart View ribbon, click the **Options** button:



2. In the **Settings** tab of the **Options** panel, click **Clear Storage**.






3. Exit and then relaunch Excel 365 on the Mac or browser.
If you have sideloaded the Smart View add-in on Excel 365 on the Mac, then you must perform the sideload again. See [Sideload and Logging In](#).
4. Select the Smart View ribbon, and then select **Home**.
The Library folder is displayed in the Home panel along with the application cubes.



Disabling the Popup Blocker on Chrome

To use drill-through, you must disable the Chrome popup blocker for your environment.

To disable the Chrome popup blocker:

1. Click the Chrome menu (the three dots icon, ) on the browser toolbar.
2. Select **Settings**.
3. Scroll down the page and click **Advanced** to see more settings.
4. In the **Privacy and security** section, click , for **Site Settings**.
5. In the **Pop-ups and redirects** section, click .
6. Under **Allow**, click **Add**.

In the **Add a site** dialog, enter the URL for the environment; for example:

```
https://<<your env name>>.oraclecloud.com
```

7. Click **Add**.

The URL should appear in the list under **Allow**.


Clearing the Chrome Browser Cache

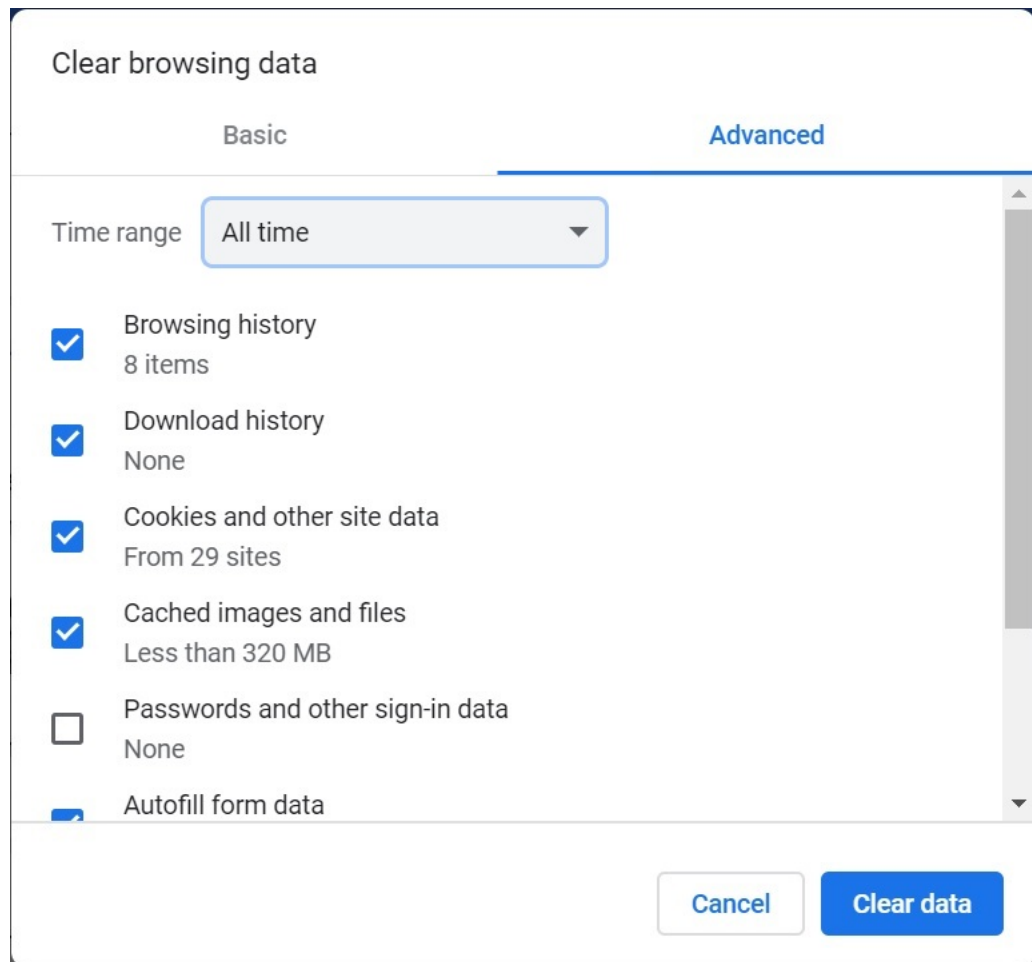
Clear the browser cache, along with the contents of two folders in Windows, before sideloading or deploying a modified or updated manifest file in the following cases:

- If you have previously sideloaded the Oracle Smart View for Office (Mac and Browser) add-in in an earlier session.
- If the "Include Functions support" option is enabled in the manifest file, to avoid seeing this error:

There was an issue installing custom functions in this add-in. Please try to install this add-in again. If this issue persists, please visit: <https://aka.ms/customfunctions-troubleshooting>.

To clear the cache in Chrome:

1. Launch Chrome.
2. Click the Chrome menu (the three dots icon, ) at the right of the Chrome screen.
3. Select **More tools**, and then **Clear browsing data**.
4. Click the **Advanced** tab, and make these selections:
 - In **Time range**, select **All time**
 - Select all check box items except **Passwords and other sign-in data**, which is cleared



5. Click **Clear data**.
6. In Windows File Explorer, perform these tasks:
 - Clear the contents of this folder:
%LOCALAPPDATA%\Microsoft\Office\16.0\Wef\
 - If it exists, clear the contents of this folder:
%userprofile%\AppData\Local\Packages\Microsoft.Win32WebViewHost_cw5n1h2txyew_y\AC\
7. Relaunch Chrome.

Clearing the Office and Web Cache on a Mac

Clear the Office and Web cache for Excel on a Mac in the following cases:

- If the provider you are connecting to has been updated; for example, after a monthly update has been applied.
- Before sideloaded or deploying a new or modified manifest file.
- If you have previously sideloaded the same Oracle Smart View for Office (Mac and Browser) add-in in an earlier session and are experiencing issues, such as login issues.
- If the **Include Functions support** option is enabled in the manifest file.

To clear the Office cache for Excel on a Mac:

1. Clear the Office cache by manually deleting files:

- a. Close all Office applications.
- b. Delete the contents of the following folder:

```
/Users/{your_name_on_the_device}/Library/Containers/  
com.Microsoft.OsfWebHost/Data/
```

If that folder does not exist on your Mac, then check your system for the following folder locations and, if found, delete their contents:

```
~/Library/Containers/com.microsoft.excel/Data/Library/Caches  
  
~/Library/Containers/com.microsoft.excel/Data/Library/Application Support/  
Microsoft/Office/16.0/Wef  
  
com.microsoft.Office365ServiceV2/Data/Caches/  
com.microsoft.Office365ServiceV2/
```

For more information, see [Clear the Office cache](#) on the Microsoft support site and see "Clear the Office cache on Mac."

2. Re-sideload or redeploy the manifest file, launch Excel, and log in to Smart View.

See [Mac: Sideloaded on Excel 365 and Logging In](#) or [Mac: Sideloaded on Excel 365 and Logging In](#).

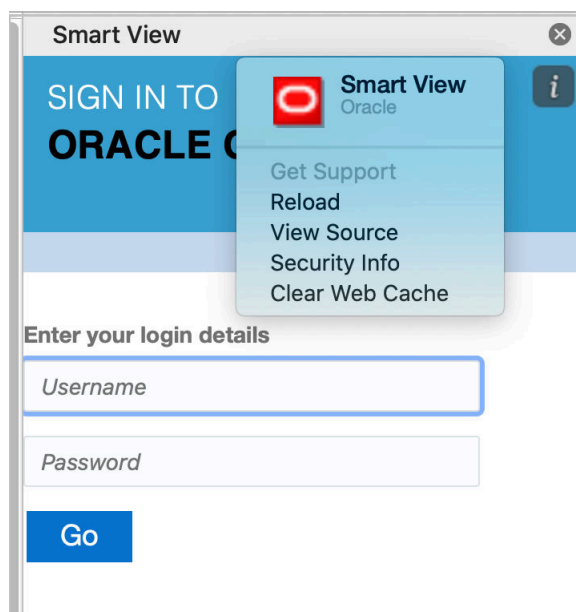
3. Clear the web cache using the **Clear Web Cache** command:

- a. In the Smart View ribbon, select **Home**.
- b. Click the *i* icon in the upper-right corner of the Login dialog or the Home panel to display the "personality" menu.



- c. From the personality menu, select **Clear Web Cache**.

In this example, the personality menu is accessed from the Login screen:



For more information, see [Clear the Office cache](#) on the Microsoft support site and see "Clear the Office cache on Mac."

4. Continue working in Smart View.

Connection Issue in Chrome after Clearing Cache

If, after clearing the Chrome browser cache and re-sideloading or redeploying, you still have issues connecting, then Chrome users should disable the **SameSite by default cookies** flag.

To disable the **SameSite by default cookies** flag in Chrome:

1. Open Chrome, and in the URL address bar, type:
`chrome://flags`
2. Locate the **SameSite by default cookies** option and set it to **Disabled**.
3. Restart Chrome for the change to take effect.

Note:

Beginning with Chrome 91, the **SameSite by default cookies** option in `chrome://flags` is no longer available and is enabled by default.

The workaround, which will be available until Chrome 95 is released, is to launch Chrome via the command prompt with the `--disable-SameSiteByDefaultCookies` parameter:

```
C:\Program Files (x86)\Google\Chrome\Application>chrome.exe --disable-features=SameSiteByDefaultCookies
```

Task List Display Issue

The current logged-on user must be assigned to at least two task lists in order to display them in the Task List panel.

If there is only one task list assigned to the current logged-on user, then the following message is displayed in the Task List panel:

- Chrome:
"TypeError: e is not iterable Please close this panel"
- Mac:
"TypeError:undefined is not a function (near '...t of e...')Please close this panel"

Workaround: Create another task list for the user.

Making Smart View (Mac and Browser) Work after Enabling SSO

After you set up SSO with an identity provider, Oracle Smart View for Office (Mac and Browser) will not work until you complete these tasks:

- Create a new manifest file with the domain of the identity provider
- Redeploy the manifest file

For detailed information, see these topics in *Oracle® Smart View for Office (Mac and Browser) Deployment and Administration Guide*:

- [Creating and Saving the Manifest File](#)
- [Deploying the Manifest File to Office 365 Users](#)

Fixing Strategic Modeling Smart View Connection Issues

Use the information in this topic to troubleshoot if the Strategic Modeling ribbon does not appear in Smart View (Microsoft Excel).

Related Topics

- [Strategic Modeling Ribbon is not Displayed](#)
- [Even after Reinstalling Strategic Modeling, the Ribbon is not Displayed](#)
- [Strategic Modeling Node is Not Displayed in Shared Connections](#)
- [I have Other Problems](#)

Strategic Modeling Ribbon is not Displayed

To ensure that the Strategic Modeling ribbon appears in Microsoft Excel:

1. Uninstall Strategic Modeling using Windows Control Center (Add or Remove Programs).
2. Reinstall Strategic Modeling installer. Right-click `StrategicModeling.exe` and select **Run as administrator**.

If you do not have the installer handy, you can download it from your environment. For instructions, see *Downloading and Installing Clients in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

3. Verify whether the Strategic Modeling ribbon appears in Microsoft Excel.

Even after Reinstalling Strategic Modeling, the Ribbon is not Displayed

This happens if your computer did not correctly register the Strategic Modeling extension `SMEExtension.dll`. Check the Windows Registry to ensure that the path of `SMEExtension.dll` is valid.

Note:

The following instructions are for Windows 10. Procedures for other Windows versions may be slightly different.

1. Open the Registry Editor application. Type `Registry Editor` in **Windows Search** and then click **Registry Editor**.
2. Click **Yes** to confirm that you want the application to make changes to your device.
3. Navigate to the appropriate entry:

64 Bit Operating Systems:
`HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\SmartView\extensions\{2AB4F430-ED75-4dad-A8A5-6AA2FB9D35DF}`

32 Bit Operating Systems:
`HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\ORACLE\SmartView\extensions\{2AB4F430-ED75-4dad-A8A5-6AA2FB9D35DF}`
4. Make sure that the default string data points to the location where `SMEExtension.dll` stored, generally,

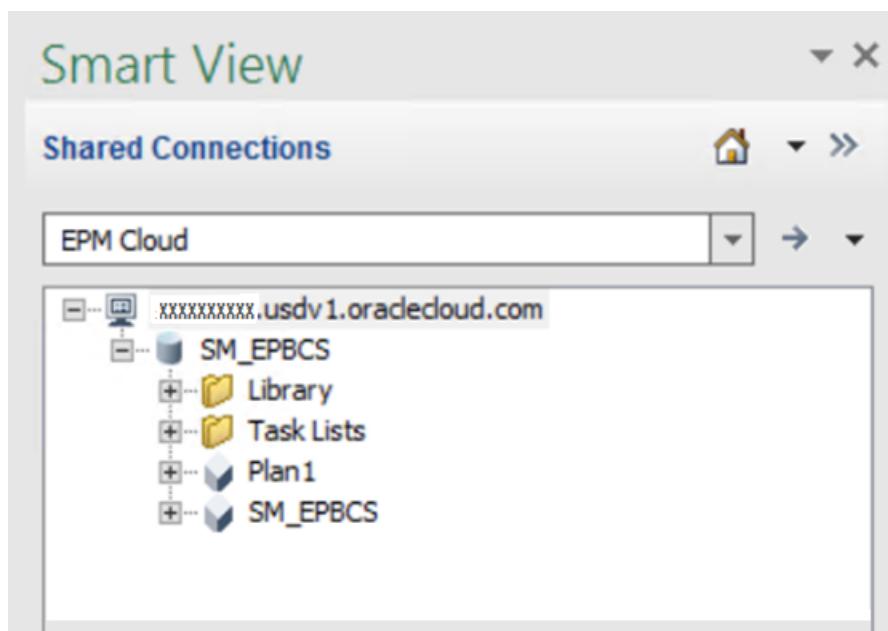
`C:\Oracle\Middleware\EPMSys11R1\products\hsf\Client\bin-64\smextension.dll`
 (64 bit computer) or
`C:\Oracle\Middleware\EPMSys11R1\products\hsf\Client\bin\smextension.dll` (32 bit computer). See the following illustration:

Name	Type	Data
 (Default)	REG_SZ	C:\Oracle\Middleware\EPMSys11R1\products\hsf\Client\bin-64\SMEExtension.dll

5. Close the Registry Editor.
6. Restart your computer.

Strategic Modeling Node is Not Displayed in Shared Connections

The Strategic Modeling node does not appear as a selectable option (see the following illustration) if the Strategic Modeling server is not properly registered on your computer.



To correctly register the Strategic Modeling provider:

1. Start a Windows Command Prompt as an Administrator.
2. Change directory to the Strategic Modeling binaries folder, generally:
64 Bit Operating Systems:
`C:\Oracle\Middleware\EPMSys11R1\products\hsf\Client\bin-64`
32 Bit Operating Systems:
`C:\Oracle\Middleware\EPMSys11R1\products\hsf\Client\bin`
3. Run the following command to unregister the Strategic Modeling server:

```
HSFSVProvider.exe /UnRegServer
```

4. Run the following command to register the Strategic Modeling server:

```
HSFSVProvider.exe /UnRegServer
```

I have Other Problems

The following problems may occur if the `EPM_ORACLE_HOME` system environment variable is not defined or points to an invalid location.

- Models are not visible under the Models node
- An error is displayed when you open a model
- Models open, but you experience an Excel crash
- Reports are not formatted correctly

Verify that `EPM_ORACLE_HOME` system environment variable is defined on your computer and that it points to the Strategic Modeling installation folder, generally,

`C:\Oracle\Middleware\EPMSys11R1`. You must be an Administrator user to add or modify Windows system environment variables.

Getting Help

If the preceding information fails to resolve your issue, seek help from Oracle.

1. Generate a Fiddler trace file of your session while performing the activity that results in a functional or performance issue. See [Using Fiddler to Capture Diagnostic Information](#). Watch this overview video for information on configuring Fiddler to capture HTTPS traffic.



Overview Video

If you are unable to generate a Fiddler trace file of your session, see [Collecting Network Performance Trace Using a Browser](#) for information on collecting network trace using a browser.

2. Create a Provide Feedback submission, which includes the steps (and screenshots) leading up to the occurrence of this issue. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
3. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Fiddler trace or network diagnostic HAR file that you created in Step 1.
 - Microsoft Windows version.
 - Microsoft Office version being used.
 - Smart View version being used.
 - Detailed steps to reproduce the issue.
 - Is the language setting the same across the Operating System, Microsoft Excel, Smart View, and User Preferences?
 - If the issue is with Enterprise Journals, is the Smart View connection to Enterprise Journal successful?
 - Did this issue start after the latest monthly update?
 - If the performance was acceptable previously, but is not now, the date, time, and time zone when performance was acceptable.
 - Snapshot of the environment, if available, from the last time when the performance was acceptable.
 - Changes that you made to the application since the last time when the performance was acceptable.
 - Whether this is a critical outage.

Fixing Workforce Issues

Applies to

Planning Modules and Strategic Workforce Planning

In this Section

- [Resolving the Assignment of Double Benefits in Workforce](#)

- [Resolving HSP_ID_XXXX Errors while Running Rules in Workforce](#)
- [Troubleshooting New Hire Requisition being Added to Existing Requisition Issue](#)

Resolving the Assignment of Double Benefits in Workforce

In Workforce, sometimes, benefits are assigned twice to employees.

This issue occurs when you assign employee records to All Union Code, which is meant to only capture the defaults applicable to multiple union codes. All Union Code is not meant to be assigned as a property of an employee.

In Workforce, employee records should be assigned to a specific Union Code and not to All Union Code. If you load Applicable Union Code as the out-of-the-box OWP_All Union Code, additional earnings, benefits, and taxes get doubled. To resolve this issue, ensure that you do not load data to the members such as OWP_All Union Code, OWP_All Jobs, and OPW_All Pay Type, which are pre-seeded depending on the chosen level of granularity.

Resolving HSP_ID_XXXX Errors while Running Rules in Workforce

What Causes HSP_ID_XXXX Errors

HSP_ID_XXXX errors can be caused by the following:

- Migrating only the Oracle Essbase data from one environment to another.
- Deleting members from a component, account (for example, options and tiers) or driver dimension (for example, union code and employee type) which is already assigned to employees as smart list values.
- Deleting members from the financials cube used as smart list values in *wfp financial* mappings.

Fixing HSP_ID_XXXX Errors

The easiest method to fix HSP_ID_XXXX errors is to perform a complete migration of the application using an application snapshot. If this is not possible, use the following instructions to fix invalid data and correct HSP_ID_XXXX errors.

Fix Invalid Data

Using Oracle Smart View for Office, perform an ad hoc analysis on the **Identify invalid data** form. Change the form definition to arrange all lev0 entities (employees, jobs, and periods) in rows and OWP_Financial Account (if enabled) in columns so that you can easily identify invalid data.

Fix any invalid data present in the application.

Correct HSP_IDs

If you find no invalid data in the application, use the following procedure to find HSP_ids that cause the error and fix them.

1. Using a browser, sign into your Workforce environment.
2. Export data to a CSV file.
 - a. From the **Home** page, select **Application** and then **Overview**.
 - b. From **Actions**, select **Export Data**.
 - c. In **Export Data**, click **Create**.

- d. In **Export Data**, for **Dynamic Members** option, select **Exclude**.
 - e. In **Slice Definition**, select lev0 accounts in **Row**, lev 0 period in **Column**, and other dimensions in **Point of View** for data export.
 - f. Click **Export**.
3. Open the CSV file that you created by exporting application data.
 4. Using the error number as the search string, search the CSV file to locate the intersection that is causing the error. For example, if the error is *HSP_ID_1234*, search for *1234*.
 5. In Workforce, review and correct the data as needed until all reported errors are fixed.

Fixing HSP_ID_0 Error

Load all mandatory fields in Workforce.

Troubleshooting New Hire Requisition being Added to Existing Requisition Issue

This issue occurs under the following conditions:

- You cleared the `OWP_IsEmpty` flag, which determines the next member to be added, using a custom rule.
- You added new hires using Data Integration, but did not set the value for the `OWP_IsEmpty` flag.

To fix this issue, set the `OWP_IsEmpty` flag to yes again at the intersection of new hire employee member and/or job, any other sparse dimension member, and at specific members of the following dimensions:

Account: `OWP_IsEmpty`

Year: "No Year"

Property: "No Property"

Period: "BegBalance"

Getting Help

If your issue persists after trying the preceding tips, seek help from Oracle Support. See [Getting Help From Oracle](#).

Submit the following:

- Create a Provide Feedback submission. See [Creating a Provide Feedback Submission](#) for information on providing feedback from Oracle Enterprise Performance Management Cloud screens.
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#) for instructions. In the service request:
 - Detailed steps to reproduce the issue.
 - Did this issue start after the latest monthly update?
 - If the issue was not occurring previously, the date, time, and time zone when the issue was first noticed.

- A snapshot of the environment, if available, from prior to the last time the issue occurred.
- Application changes that you made since the last time issue was not occurring.
- Whether this is a critical outage.

Fixing Strategic Modeling Issues

Applies to

Oracle Hyperion Planning and Planning Modules

In this Section

- [Fixing General Issues](#)
- [Fixing Smart View Extension Issues](#)
- [Fixing Strategic Modeling Web Issues](#)
- [Getting Help](#)

Fixing General Issues

- Imports fail if the snapshot being imported contains models, consolidations, or templates that have the same name as those in the existing Strategic Modeling model. To correct this issue, delete duplicate artifacts from the target environment before starting the import process.
- If the data map does not reflect the changes that were made to the Strategic Modeling model, use one of these synchronize actions:
 - Click **Synchronize** on the data maps listing page to refresh the data map to reflect changes made to the Oracle Hyperion Planning cube referenced in the data map.
 - Click **Synchronize** after opening the data map to refresh the data map to reflect the changes that were made to the Strategic Modeling model referenced in the data map.
- To improve data map performance, consider these options:
 - Reduce the number of entities used in the data map
 - If Planning is the source for the data map, be sure to follow Oracle Essbase best practices. For example, because a member containing a complex formula that takes time to execute may create performance issues for the data map execution, Oracle recommends that you not use members which have such complex formulas as part of a data map.

Fixing Smart View Extension Issues

- Ensure that the version of the Strategic Modeling Oracle Smart View for Office extension is the same as the Oracle Enterprise Performance Management Cloud version of the environment. To check the version of Strategic Modeling Smart View extension, in Smart View, select **Options** and then **Extensions**.
- To improve performance, reduce the number of accounts in the Account View by creating account groups with smaller number of accounts and checking in the model. The model, when checked out or reopened, defaults to the Account View it was checked in with.

- In some cases, turning off formatting in **User Preferences** improves performance. To access formatting preference setting:
 1. Click **Start** on the Strategic Modeling ribbon and select **User Preferences**.
 2. Click **Accounts**.
- For Freestyle reports, better performance may be achieved by assigning cell attributes by sheet, row, or column instead of assigning attributes for each cell.
- If a calculation reports a circular error, load the file in Smart View and troubleshoot the issue using the **Where Used** dialog box, which allows you to see where an account is used. You may also use the audit trail to track down this information. For example, the report may show that v0385:397/e in the first forecast period in May 2021 requires v0385:401/e in the same period. Repeated use of the **Where Used** dialog box may show the following information ending with v0385:397/e, which is where the calculation started:

```
v0385:397/e is used by
v0385:399/e is used by
v1680:100/e is used by
v0360:419/e is used by
v0360:499 is used by
v0360:500 is used by
v0360:750 is used by
v0360:999 is used by
v0385:401/e is used by
v0385:397/e
```

Fixing Strategic Modeling Web Issues

Note that not all Microsoft Excel charts and graphs are supported on Strategic Modeling web. Currently, only two-dimensional versions of the following chart types are supported:

- Bar
- Line
- Pie

When designing Freestyle reports in Excel, avoid the unsupported artifacts and layouts. For example, embedded images such as logos are not supported.

Getting Help

If your issue persists after trying the preceding tips, seek help from Oracle Support. See [Getting Help From Oracle](#).

1. Create a Provide Feedback submission. Optionally, authorize Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Submit a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#) for instructions. In the service request:
 - Detailed steps to reproduce the issue.
 - Did this issue start after the latest monthly update?

- If the issue was not occurring previously, the date, time, and time zone when issue was first noticed.
- A snapshot of the environment, if available, from prior to the last time the issue occurred.
- Application changes that you made since the last time issue was not occurring.
- Specify whether this is a critical outage.

Diagnosing Consolidation Failures and Performance Issues in Financial Consolidation and Close

Financial Consolidation and Close performance issues may be caused by poor application design, use of unnecessary calculations, suboptimal customizations, lack of regular housekeeping, or a software bug. It may also be caused by functional issues.

Applies to

Financial Consolidation and Close

Reasons for Performance Degradation and Functional Issues

To identify and correct factors that cause performance degradation, complete these steps:

- [Use the Dense Sparse Optimization Option](#)
- [Poor Application Design](#)
- [Identify Unnecessary Calculations](#)
- [Optimize Configurations and Extensions](#)
- [Perform Regular Housekeeping](#)
- [Diagnosing Performance Issues After Deploying Configurable Consolidation Rules](#)
- [Consider Using Control To-Date View Storage](#)
- [Diagnosing Performance Issues After Deploying Configurable Calculation \(Insertion Point\) Rules](#)
- [Enable Consolidation Rules Logs and Submit Feedback to Oracle](#)
- [Address Functional Issues](#)
- [Get Help from Oracle](#)

Use the Dense Sparse Optimization Option

All new Financial Consolidation and Close applications, by default, are created to use the Dense Sparse Optimization option that uses Period and Movement as the dense dimensions. Older applications used the Standard option of Account as the dense dimension.

Unless you have a valid business requirement to use the Standard option, migrate existing applications to use the Dense Sparse Optimization option to improve consolidation performance.

The Dense Sparse Optimization option is available only if your environment is on Hybrid-enabled Oracle Essbase. If your environment is not on hybrid-enabled Essbase, see these sources for more information:

- About Essbase in EPM Cloud in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*
- recreate command in *Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud*

To update existing applications to use the Dense Sparse Optimization option, use the migration utility, which is available from the Application Overview screen. When you create or migrate an application with Period and Movement as dense dimensions, Financial Consolidation and Close makes the required changes to seeded members and member formulas.

Prerequisites

Before converting an existing application to use the Dense Sparse Optimization option:

- Ensure there are no metadata validation errors.
- Ensure there are no pending metadata changes and that Refresh Database has run successfully.
- Make a backup of the application.
- Disable scheduled jobs and reschedule daily maintenance so that it does not interfere with the migration.

Migration Steps

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application**, and then **Overview**.
3. From **Actions**, select **Make Period and Movement Dense** to launch the Migration wizard.
4. Confirm that you already completed the pre-conversion actions, then click **Next** and follow the prompts in the Migration wizard.
5. Wait for the migration process to finish, then log out of the application and log back in.

Post-Migration Steps

1. Review all member formulas that you created, insertion points, and on demand rules to ensure that they are written following the best practices.
2. Ensure that the solve order for all parent account members is set to 58. You must set the solve order of any new parent Account member to 58.
3. Recreate Data Export jobs. Because Period and Movement are now dense dimensions, put either of them in the column instead of Account.
4. Make these changes to saved metadata load files (csvs) so that they can be used to import metadata into the migrated application:
 - **Account.csv:** Set the solve order of all parent accounts to 58.
 - **Movement.csv:** Set all parent movements to Dynamic Calc. Remove the solve order for all members.
 - **Data Source.csv:** Remove solve order for all members.

Poor Application Design



Faced with performance issues, a Service Administrator must review the application design and validate metadata to ensure that the application will yield optimal performance.

Using the Simplified Dimension Editor to Review and Fix Errors

Optimal consolidation performance requires that metadata properties of each dimension in the application are set correctly. Incorrect metadata properties may cause consolidation errors, leading to poor performance. Use the **Simplified Dimension Editor** to verify that your metadata abides by the best practices for consolidation.

Review application dimensions to ensure that they are defined with the correct member properties. For information on reviewing member properties, see *Editing Member Properties in the Simplified Dimension Editor in Financial Consolidation and Close Administrator's Guide*.

To review and fix errors:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Overview**.
3. On the **Dimensions** tab, click the name of the dimension, for example, **Account**, that you want to evaluate.
The **Edit Member Properties** screen for the selected dimension is displayed.
 - a. Click **Zoom In All Levels** .
 - b. Click **Validate Metadata Definition** .
 - A validation pane, which lists the validation errors in the current dimension, is displayed at the bottom of the screen.
 - c. Use **Fix Validation Errors** to select and fix each validation error. Click **Apply** to apply changes to the metadata property value.
 - d. Click **Save** after fixing all validation errors.
 - e. Click **Cancel** to return to the **Dimensions** tab.
4. Repeat Step 3 for each dimension.
5. Refresh the database.
 - a. From **Actions**, select **Refresh Database**.
 - b. Click **Create**.
 - c. In **Refresh the database**, set actions that are to be completed before and after refreshing the database.
 - d. Click **Refresh Database**.
6. Run Consolidation to check if performance has improved.

Validating Metadata

Use the Metadata Validator to ensure that metadata properties, such as assigned default and consol cube data storage, consolidation operator, and parent member are valid. Invalid metadata property assignment may cause errors during consolidation, leading to poor performance.

To validate metadata using the Metadata Validator:

1. Sign in to Financial Consolidation and Close as a Service Administrator.

2. On the **Home** page, click **Application** and then **Overview**.
3. From **Actions**, select **Validate Metadata**.
4. In **Validate Metadata**, click **Run**.
Errors, if any, are displayed in [Parent].[Child] format, along with an error description. For detailed information on error messages, see Metadata Validation Messages in *Financial Consolidation and Close Administrator's Guide*.
5. Open the Dimension Editor and correct the reported metadata errors. See About Editing Dimensions in the Simplified Dimension Editor in *Financial Consolidation and Close Administrator's Guide*.

Identify Unnecessary Calculations


Financial Consolidation and Close performs many default calculations during the consolidation process. A Service Administrator must ensure that the process runs only calculations that are necessary for the organization's needs. Turning off unnecessary calculations could yield performance improvements.

See Consolidation Process in *Financial Consolidation and Close Administrator's Guide* for a detailed discussion of the consolidation process.

Consider Turning Off Automatic Calculation of Balance Seeded Account

If the Balance Sheet is out of balance, a balancing amount is calculated and posted to Balance, a seeded account. You may disable this calculation if you do not want the application to automatically balance the Balance Sheet for a scenario.

To stop automatic calculation of Balance seeded account:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Consolidation**.
3. Click **Balance the Balance Sheet** on **Local Currency** tab.
4. Add an exclusion for one or more scenarios:
 - a. Under **Disabled Scenarios**, click **Add Scenario** and select the scenario for which you do not want automatically calculate the Balance seeded account. You may disable this calculation for all scenarios, if you so want.
 - b. Click **Save and Deploy**  to save and activate the exclusion rule.
5. Run Consolidation.

Consider Turning Off Ratio Calculations

Most ratios, including Liquidity Ratios, Asset Management Ratios, Profitability Ratios, and Leverage Ratios, are dynamically calculated as needed. The two performance ratios, Days Sales in Inventory, and Days Sales in Receivables, are calculated as part of the consolidation process. If you do not use these ratio calculations, consider excluding them from selected scenarios to improve performance. This option is available only if the Asset Management feature is enabled. See Ratio Calculation in *Financial Consolidation and Close Administrator's Guide* for instructions to disable ratio calculations.

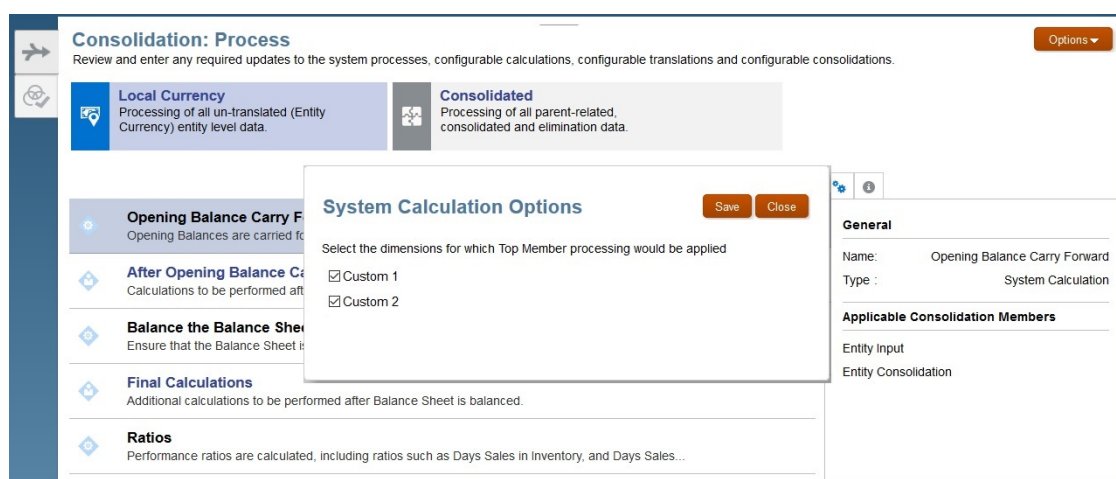
Consider Processing System Calculations on Custom Dimensions Using Top Member

By default, Financial Consolidation and Close performs system calculations for all level 0 members of the custom dimensions in the application. Consider processing system

calculations using Top Member instead of level 0 members if your application does not require the level of detail provided by system calculations on level 0 members.

 **Note:**

This suggestion does not apply to extended dimension-based applications.



To process system calculations on custom dimensions using Top Member:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Consolidation**.
3. Click **Options**.
The **System Calculation Options** dialog box, listing the custom dimensions in the application, is displayed.
4. Select the custom dimensions for which Top Member processing is to be activated.
5. Click **Save**.

Optimize Configurations and Extensions

Use of suboptimal logic in consolidation extensions and configurations can adversely impact performance.

You can extend the default consolidation logic of Financial Consolidation and Close applications. Methods that can be used to extend the consolidation logic include the following:

- Member formulas
- Calculation logic
- Translation or consolidation overrides

Use the information in the Activity Report, specifically, the information in the following sections, to identify scripts that take considerable time to run:

- Top 10 Worst Performing Business Rules over 30 Seconds
- Top 5 Worst Performing Calc Scripts Commands over 1 Min

- Top 10 Worst Performing Essbase Queries over 15 seconds


See About the Activity Report in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

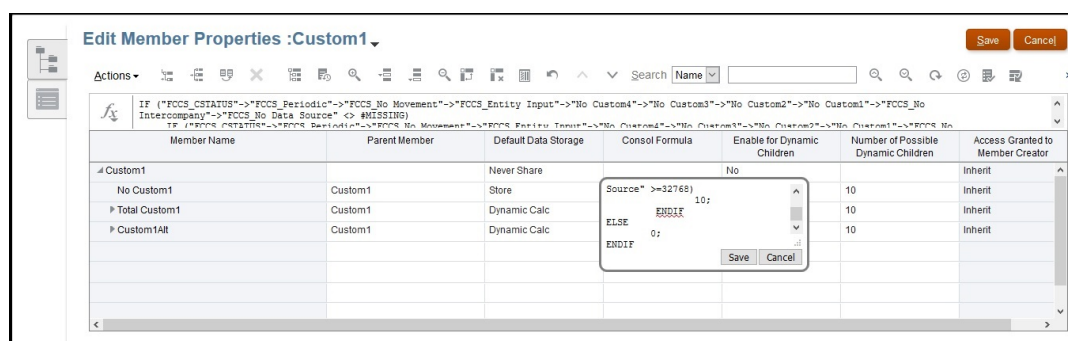
Review Member Formulas

Review member formulas to optimize calculations and logic and to remove unnecessary formulas. You can review member formulas using Oracle Smart View for Office.

Use the **Edit Member Properties** screen to review, edit, and remove formulas from a dimension. You can remove formulas only from custom dimensions. Seeded formulas on default (out-of-the-box) dimensions, for example, YTD, cannot be removed.

To edit or remove formulas from custom dimensions:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Overview**.
3. Click **Dimensions** to open the **Simplified Dimension Editor**.
4. Click the name of the dimension that you want to work with.
5. Click **Zoom in All Levels** .
6. In the **Console Formula** column, locate the formula that you want to edit or remove.



You may remove columns from the current view to declutter the screen by right-clicking in the column header and deselecting some columns.

7. Edit or delete the formula, as needed, and then click **Save** to preserve your changes.
8. Click **Save** and then **Cancel** in **Edit Member Properties**.

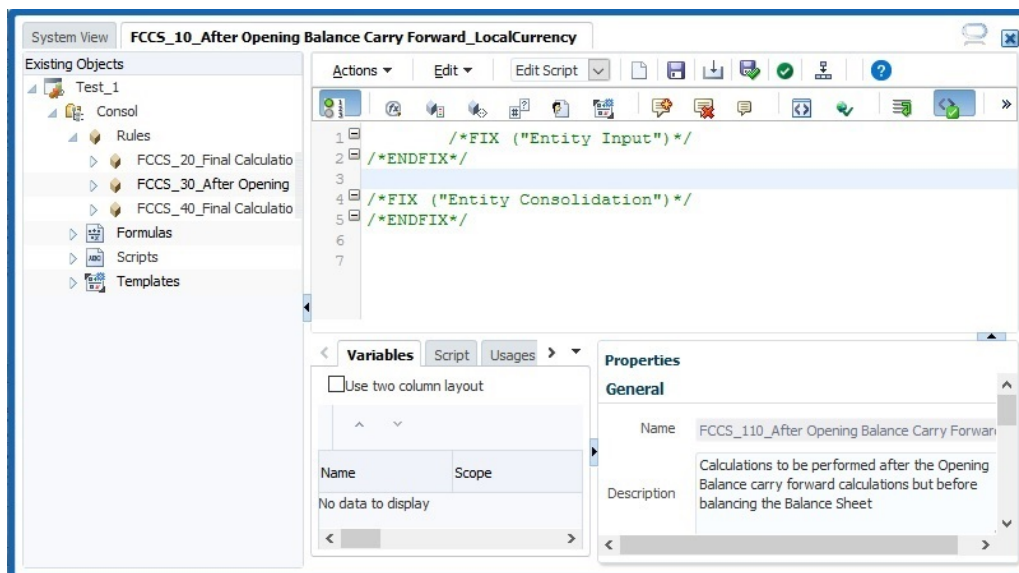
Disable Custom Calculations Deployed to the Application

Financial Consolidation and Close uses many predefined rules templates to assist in the local currency or multi-currency calculation process. You may have modified these by including custom scripts and redeploying them to the application. To verify that custom calculation scripts are not affecting performance, disable (comment) out the custom scripts, redeploy them to the application, and then perform the consolidation.

To disable custom calculations:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Consolidation**.
3. On the **Consolidation Process** tab, click **Local Currency**.

4. Click **After Opening Balance Carry Forward** or **Final Calculations** to open Oracle Hyperion Calculation Manager.
5. In Calculation Manager, display available rules by expanding **EPM Cloud**, then the node for your application, then **Consol**, and then **Rules**.
6. Comment out the custom script and redeploy the rule:
 - a. Right-click a rule, for example, **FCCS_10_After Opening Balance Carry Forward_Local_Currency**, and select **Open**.
 - b. Comment out any custom script to revert the rule to its default state, as shown in the following illustration:



- c. Redeploy the rule and then run consolidation to check performance. If performance improves, revise and optimize the script, paying special attention to roll ups and ad hoc calculations that may affect performance. You should then redeploy the rule to the application.

If performance does not improve, you can assume that this rule is not contributing to performance degradation. You should restore the custom script and then redeploy the rule to the application.

7. Perform Step 6 for each rule.

Undeploy Consolidation Rules

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Consolidation**.
3. On the **Consolidation Process** tab, click **Consolidated**.
4. Click **Configurable Consolidation**. **Manage Consolidation Rules** opens.
5. Undeploy the consolidation rule set, one at a time, and then run consolidation to assess performance.

Manage Consolidation Rules			
Search	Status	All Rules	Close
<input type="checkbox"/>		Deploy	Undeploy
<input checked="" type="checkbox"/>	De	Investment rule set Investment rule set	2/22/2018 admin
<input checked="" type="checkbox"/>	De	Owner's Equity (Subsidiary / Proportional) rule set Owner's Equity (Subsidiary / Proportional) rule set	2/22/2018 admin
<input checked="" type="checkbox"/>	De	Owner's Equity (Holding) rule set Owner's Equity (Holding) rule set	2/22/2018 admin

If performance improves, revise and optimize the rules in the rule set. You should then redeploy the rules and rule sets to the application.

If performance does not improve, you can assume that this rule set is not contributing to performance degradation. You should redeploy the rule set to the application.

Add Substitution Variables

Consider adding these substitution variables to evaluate whether they increase the consolidation performance.



Note:

These substitution variables are not created by default; you must manually create them and enable them. For each substitution variable, use the setting `Cube = Consol` to enable the variable and `Value = true` to utilize it during Consolidations.

- `EnableSimpleAggregation`

Create this substitution variable and set its value to `true` to optimize consolidation performance during roll-up.



Note:

`EnableSimpleAggregation` and `EnableOptimalBlockCreation` are mutually exclusive. When `EnableSimpleAggregation` is set to `true`, the consolidation process treats `EnableOptimalBlockCreation` value as `false`, whether or not a value is set in the application.

- `OptimizeDBRefresh`

Create this substitution variable and set its value to `true` to optimize performance while pushing exchange rates from Rates to the Consolidation cube.

- `OptimizeYTDCalculation`

Create this substitution variable and set its value to `true` to optimize the performance of YTD calculations during Consolidations.

 **Note:**

`OptimizeYTDCalculation` shows optimized consolidation performance for extended dimensionality application only.

- `OptimizeConcurrency`

Create and enable this substitution variable and set its value to `true` to take advantage of higher concurrency during Consolidations.

The Consolidate and Translate business rules in Financial Consolidation and Close execute on multiple entities. Oracle Essbase can execute business rules calculations concurrently using multi-threading. Using the `OptimizeConcurrency` variable forces Financial Consolidation and Close calculations to make judicious use of multiple Essbase process threads so that calculations run faster.

Perform Regular Housekeeping

A Service Administrator must perform needed housekeeping tasks on a regular basis to guard against performance degradation. Tuning the Oracle Essbase by regularly removing unnecessary data blocks and ensuring that data block structure is stored efficiently are essential for optimal consolidation performance.


 **Note:**

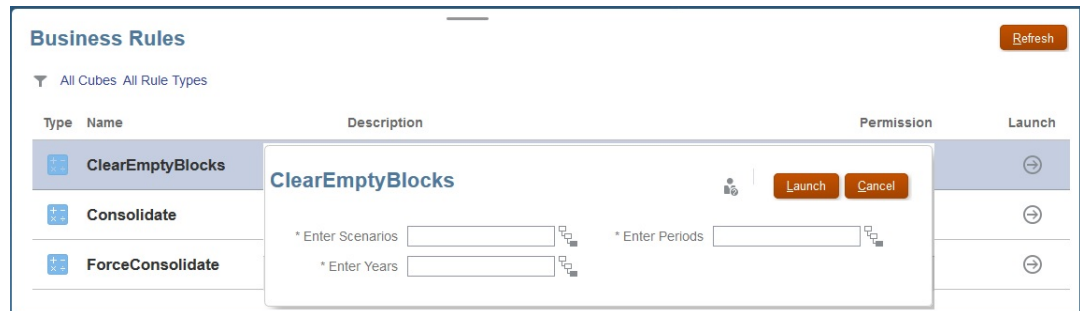
You may run the `restructureCube EPM Automate` command to remove empty blocks and restructure the cube.

Clear Empty Blocks

Clearing empty blocks helps optimize database calculation speed. For example, if an initial calculation creates numerous consolidated level blocks, subsequent recalculations take longer, because the calculation must pass through the additional blocks.

To clear empty blocks:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. In the Home page, click **Rules**.
3. In the **Business Rules** tab, click **Launch**  in the **ClearEmptyBlocks** row.
4. In **Business Rules**, select the scenario, year, and period for which empty blocks are to be cleared.




5. Click **Launch**.
6. Run consolidation.

Restructure Dense Cubes

Data fragmentation occurs naturally in Block Storage (BSO) databases as a result of end user data updates, incremental data loads, and executing calculations. The performance of Financial Consolidation and Close application will be impacted if the database is fragmented.

To check if a cube restructuring is required:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Consolidation**.
3. Launch Oracle Hyperion Calculation Manager by clicking **Final Calculations**.
4. In Calculation Manager, click **Database Properties** .
5. In the left pane of **Database Properties**, expand **EPM Cloud**, then the node of your application, and then click **Consol**.
6. In the right pane, click **Statistics**.
7. Check the value of **Average clustering ratio**. If the displayed value is 1.00 (maximum) or close to it, a restructuring is not required. If the value is much lower, for example, 0.01032828, you must restructure the cube to defragment it.

Before running this command, ensure that no one is using the application.

To restructure a cube:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Jobs**.
3. Schedule and run the Restructure Cube job.
 - a. Click **Schedule Jobs**.

The screenshot displays the 'Schedule Job' interface. On the left, a sidebar lists job types: Export Data, Export Metadata, Refresh Database, Invalid Intersection Reports, Restructure Cube (selected), and Import Journal. The main area has a 'Schedule Job' title and a progress bar with 'General', 'Job Details', and 'Review' tabs. Below the title, there are two sections: 'When do you want to run this job?' with options for 'Run Now' and 'Schedule starting from' (with a date and time picker set to 7/10/19 6:20 PM), and 'How often do you want to run this job?' with a 'Recurrence pattern' dropdown set to 'Daily' and an 'End Date' field set to 7/10/19 6:20 PM. Navigation buttons like 'Schedule Jobs', 'Delete', 'Refresh', 'Cancel', 'Previous', 'Next', and 'Finish' are visible at the top.

- b. From **What type of job is this?**, select **Restructure Cube**.
- c. Select **Run Now** to start the restructuring immediately. Click **Next**, and then **Finish**. Alternatively, you can schedule the job to start at a later time.

Diagnosing Performance Issues After Deploying Configurable Consolidation Rules

Performance of configurable consolidation rules in Financial Consolidation and Close may be caused by not limiting the scope of the calculation (poor selection of source members in custom rules) or by the use of multiple stored members from a dense dimension, for example, as the source of the rule.

You can use an automated or manual approach to resolve performance issues:

- [Automated Approach to Resolve Performance Issues](#)
- [Manual Approach to Resolve Performance Issues](#)

Automated Approach to Resolve Performance Issues



Note:

This approach to resolving performance issues is not applicable to Dense Storage Option (DSO) applications.

This approach to resolving performance issues is implemented as a part of consolidation and involves these steps:

- Executing the Create System Accounts configuration task
- Setting optimizeConfigConsol substitution variable

Executing the Create System Accounts Configuration Task

As a part of executing the Create System Accounts configuration task, Financial Consolidation and Close creates these temporary system accounts under FCCS_System Accounts.

- FCCS_ConsoleAccount1

- FCCS_ConsolAccount2

These temporary accounts are used internally as a part of consolidation. The data storage type of these accounts should be set to `Never Share`. For `FCCS_ConsolAccount1`, the account type should be `Asset` while for `FCCS_ConsolAccount2` the account type should be `Revenue`.

Financial Consolidation and Close handles six account types that fall into two buckets:

- Bucket 1: Asset, Expense
- Bucket 2: Revenue, Liability, Equity, Saved Assumption

Data values must be reversed if source and target selections belong to different buckets. For instance, if the source selection of a configuration rule has multiple accounts from Bucket 1 and Bucket 2, you must check the account type of target selection and use either `FCCS_ConsolAccount1` or `FCCS_ConsolAccount2` as the source temporary account.

Setting optimizeConfigConsol Substitution Variable


Set the value of the substitution variable `optimizeConfigConsol` to true to enable the automated approach to resolving performance issues.

Manual Approach to Resolve Performance Issues


Checking for Poor Rules Design

To ensure correct results and optimal performance, as a best practice, always specify dimensions and members against which calculations are to be run.


Optimal consolidation rules performance requires the scope of calculation be restricted to the required dimensions and members. Not adding the necessary dimensions and members to a calculation forces the rule to run against all the possible member combinations. For example, the following sample rule requires that calculations be run only against the custom dimension member `No Department`. Adding the dimension member in the source results in faster execution by making the rule run only against `No Department`.


Sample Ruleset  Save and Close Save and Continue Cancel







Transfers the minority owner's share of on-going post-acquisition income

Condition `Entity Current Method = Equity AND FCCS_Total Data Source <> 0`  Factor `Current` `Entity Ownership %`

Dataset `Current Scenario` `Current Year` `Current Period` `Current Entity` `FCCS_Entity Total` `Parent Currency` `FCCS_Period`

 **Scope**
Define the base member intersections to apply this consolidation rule against. The consolidation rule will apply to all members of any valid dimension with no specified source.

 Redirect Members

Account		
ILv10Descendants(FCCS_Retained Earnings Current)		
Intercompany		
ILv10Descendants(FCCS_Intercompany Top)		
Department		
[Department].[No Department]		

Checking for Multiple Stored Members in the Source of the Rule (Account Dimension)

Performance degradation may occur when many level 0 stored accounts in a source of consolidation rule are redirected to a single destination account. In such scenarios, Oracle recommends that you create a place holder account member with stored data storage and write an insertion rule in FCCS_110 (single currency applications) or FCCS_30 (multicurrency applications) to redirect the children amount into it. You can then use the place holder account in the source of the consolidation rules in place of the dynamic parent to ensure faster execution of the rule.

Use Case: Resolving Performance Issues After Deploying Configurable Consolidation Rules

This example assumes that 100 P/L accounts (Acc_001 through Acc_100) exist under the dynamic parent `Retained Earnings Current`, which is one of the many P/L accounts in an application. See the following graphic.

Edit Member Properties :Account Save Cancel

Actions Search Name

FCCS_Retained Earnings Current

Member Name	Parent Member	Default Data Storage	Consol Data Storage	Rates Data Storage	Data Type
FCCS_Retained Earnings Currel	FCCS_Retained Earnings	Store	Store	Store	Currency
▲ FCCS_Retained Earnings Currel	FCCS_Retained Earnings	Dynamic Calc	Dynamic Calc	Dynamic Calc	Currency
▲ FCCS_Owners Income	FCCS_Retained Earnings Current	Dynamic Calc	Dynamic Calc	Dynamic Calc	Currency
▲ Acc_001	FCCS_Owners Income	Dynamic Calc	Dynamic Calc	Dynamic Calc	Currency
▲ Acc_004	Acc_001	Dynamic Calc	Dynamic Calc	Dynamic Calc	Currency
▲ Acc_005	Acc_004	Dynamic Calc	Dynamic Calc	Dynamic Calc	Currency
▲ Acc_006	Acc_005	Dynamic Calc	Dynamic Calc	Dynamic Calc	Currency
Acc_007	Acc_006	Store	Store	Store	Currency
Acc_008	Acc_006	Store	Store	Store	Currency
Acc_009	Acc_006	Store	Store	Store	Currency
Acc_010	Acc_006	Store	Store	Store	Currency
Acc_011	Acc_006	Store	Store	Store	Currency
Acc_100	Acc_006	Store	Store	Store	Currency
Acc_002	FCCS_Owners Income	Store	Store	Store	Currency

The rules that use `Retained Earnings Current` as a source either directly or indirectly through references are illustrated in the following graphic.

Direct reference ruleset Save and Close Save and Continue Cancel

Transfers the Minority Interest share of on-going post-acquisition incon

Condition Entity Current Method = Subsidiary AND FCCS_Total Data Source <-> 0 ✕ Factor Current Entity Minority Interest

Dataset Current Scenario Current Year Current Period Current Entity FCCS_Entity Total Parent Currency FCCS_Periodic

Scope
Define the base member intersections to apply this consolidation rule against. The consolidation rule will apply to all members of any valid dimension with no specified source.

Redirect Members

Account		
ILV0Descendants(Retained Earnings Current)		***
Intercompany		
ILV0Descendants(Intercompany Top)		***
Movement		
Opening Balance		***
Data Source		
ILV0Descendants(Total Data Source)		***

Indirect reference ruleset Save and Close Save and Continue Cancel

Applies to Opening Balance of all Owner's Equity accounts to split ovr

Condition FCCS_Total Data Source <-> 0 AND ((Entity Current Method = Subsidiary, Proportional AND Entity Ownership % change < 0) OR (Entity Prior Method = Subsidiary, Proportional AND Entity Consolidation % = 0)) ✕ Factor None

Dataset Current Scenario Current Year Current Period Current Entity FCCS_Entity Total Parent Currency FCCS_Periodic

Scope
Define the base member intersections to apply this consolidation rule against. The consolidation rule will apply to all members of any valid dimension with no specified source.

Redirect Members

Account		
ILV0Descendants((Total Liabilities and Equity) [Total Equity])		***
Intercompany		
ILV0Descendants(Intercompany Top)		***
Movement		
Opening Balance		***
Data Source		
ILV0Descendants(Total Data Source)		***

In the preceding indirect reference, all the Level 0 children of Retained Earnings Current are indirectly a part of the source because it comes under Total Equity.

The following steps are involved in changing the rule definition and adding a redirection script to make the rule execution faster:

1. Create a placeholder account.
Create a memo account named Retained Earning_Memo under FCCS_BalanceSheet. Set the consolidation operator to ignore (-) and data storage to Store. All other properties will be identical to those of the dynamic parent. As shown in the following illustration, the Retained Earning_Memo place holder account will hold values for Retained Earnings Current.

Edit Member Properties :Account Save Cancel

Actions Search Name

Member Name	Parent Member	Default Data Storage	Consol Data Storage	Rates Data Storage	Data Type	Consol Consol op.	Rates Consol op.
Account		Never Share	Never Share	Never Share	Currency	Ignore	Ignore
▶ FCCS_System Account	Account	Label only	Label only	Label only	Non-Currency	Ignore	Not used for Cube
▶ Exchange Rates	Account	Label only	Label only	Label only	Unspecified	Ignore	Ignore
▶ Entered Exchange Rates	Account	Label only	Label only	Label only	Unspecified	Not used for Cube	Ignore
▶ Exchange Rates System Members	Account	Label only	Label only	Label only	Unspecified	Not used for Cube	Ignore
▶ FCCS_Balance Sheet	Account	Dynamic Calc	Dynamic Calc	Dynamic Calc	Currency	Ignore	Not used for Cube
Retained Earning_Memo	FCCS_Balance Sheet	Store	Store	Store	Currency	Ignore	Not used for Cube
▶ FCCS_Total Balance Sheet-Traditiona	FCCS_Balance Sheet	Dynamic Calc	Dynamic Calc	Dynamic Calc	Currency	Addition	Not used for Cube
▶ FCCS_Total Balance Sheet-Cash and	FCCS_Balance Sheet	Dynamic Calc	Dynamic Calc	Dynamic Calc	Currency	Ignore	Not used for Cube
▶ FCCS_Income Statement	Account	Dynamic Calc	Dynamic Calc	Dynamic Calc	Currency	Ignore	Not used for Cube
▶ FCCS_Historical Accounts	Account	Label only	Label only	Label only	Non-Currency	Ignore	Not used for Cube
▶ FCCS_Ratios	Account	Label only	Label only	Label only	Unspecified	Ignore	Not used for Cube
▶ FCCS_Drivers	Account	Label only	Label only	Label only	Non-Currency	Never	Not used for Cube

2. Refresh the cube.
3. In FCCS_30, copy source income values to the Retained Earning_Memo. You may use the following sample script to copy the children values to Retained Earning_Memo. Be sure to modify the script as needed to fit your requirements. See Configurable Calculations Best Practices in *Financial Consolidation and Close Administrator's Guide* for information on best practices for performance of configurable calculations.

```
SET HYBRIDBSOINCALCSCRIPT NONE;// Use with Hybrid environments only.
FIX("FCCS_Entity Input", "Parent Currency", "Opening Balance",
@RELATIVE("FCCS_Total Data Source", 0), @RELATIVE("FCCS_Intercompany Top",
0))
    "Retained Earning_Memo" (
        @CALCMODE (BOTTOMUP);
        @SUM(@RELATIVE("FCCS_Retained Earnings Current", 0) AND
@LIST(@UDA("Account", "REVENUE") OR @UDA("Account", "LIABILITY") OR
@UDA("Account", "EQUITY") OR @UDA("Account", "SAVED ASSUMPTION"))) -
@SUM(@RELATIVE("FCCS_Retained Earnings Current", 0) AND
@LIST(@UDA("Account", "EXPENSE") OR @UDA("Account", "ASSET")));
    )
ENDFIX
```

4. Use Retained Earning_Memo as the source in configurable consolidation rules where Retained Earnings Current is used.
 - a. **If ILVL0Descendants(Retained Earnings Current) is directly used in source:** The following illustration shows the rule before implementing the recommendations in this use case.

Direct reference ruleset Save and Close Save and Continue Cancel

Transfers the Minority Interest share of on-going post-acquisition inc on

Condition Entity Current Method = Subsidiary AND FCCS_Total Data Source <> 0 X Factor Current Entity Minority Interest

Dataset Current Scenario Current Year Current Period Current Entity FCCS_Entity Total Parent Currency FCCS_Periodic

Scope
Define the base member intersections to apply this consolidation rule against. The consolidation rule will apply to all members of any valid dimension with no specified source.

Redirect Members

Account			
ILVl0Descendants(Retained Earnings Current)			***
Intercompany			
ILVl0Descendants(Intercompany Top)			***
Movement			
Opening Balance			***
Data Source			
ILVl0Descendants(Total Data Source)			***

The following illustration shows the rule after implementing the recommendations in this use case.

Direct reference ruleset Save and Close Save and Continue Cancel

Transfers the Minority Interest share of on-going post-acquisition inc on

Condition Entity Current Method = Subsidiary AND FCCS_Total Data Source <> 0 X Factor Current Entity Minority Interest

Dataset Current Scenario Current Year Current Period Current Entity FCCS_Entity Total Parent Currency FCCS_Periodic

Scope
Define the base member intersections to apply this consolidation rule against. The consolidation rule will apply to all members of any valid dimension with no specified source.

Redirect Members

Account			
Retained Earning_Memo			***
Intercompany			
ILVl0Descendants(Intercompany Top)			***
Movement			
Opening Balance			***
Data Source			
ILVl0Descendants(Total Data Source)			***

b. If ILVl0Descendants(Retained Earnings Current) is indirectly used: The following illustration shows the rule before implementing the recommendations in this use case.

Indirect reference ruleset Save and Close Save and Continue Cancel

Applies to Opening Balance of all Owner's Equity accounts to split owr

Condition FCCS_Total Data Source <> 0 AND ((Entity Current Method = Subsidiary, Proportional AND Entity Ownership % change < 0) OR (Entity Prior Method = Subsidiary, Proportional AND Entity Consolidation % = 0)) X Factor None

Dataset Current Scenario Current Year Current Period Current Entity FCCS_Entity Total Parent Currency FCCS_Periodic

Scope
Define the base member intersections to apply this consolidation rule against. The consolidation rule will apply to all members of any valid dimension with no specified source.

Redirect Members

Account			
ILVl0Descendants([Total Liabilities and Equity] [Total Equity])			***
Intercompany			
ILVl0Descendants(Intercompany Top)			***
Movement			
Opening Balance			***
Data Source			
ILVl0Descendants(Total Data Source)			***

The following illustration shows the rule after implementing the recommendations in this use case.

Indirect reference ruleset Save and Close Save and Continue Cancel

Applies to Opening Balance of all Owner's Equity accounts to split over

Condition FCCS_Total Data Source <=> 0 AND ((Entity Current Method = Subsidiary, Proportional AND Entity Ownership % change $\neq 0$) OR (Entity Prior Method = Subsidiary, Proportional AND Entity Consolidation % = 0)) Factor None

Dataset Current Scenario Current Year Current Period Current Entity FCCS_Entity Total Parent Currency FCCS_Periodic

Scope
Define the base member intersections to apply this consolidation rule against. The consolidation rule will apply to all members of any valid dimension with no specified source.

Redirect Members

Account		
ILV0Descendants(Total Liabilities and Equity) (Total Equity), Retained Earning_Memo		***
ILV0Descendants(Retained Earnings Current)		***
Intercompany		
ILV0Descendants(Intercompany Top)		***
Movement		
Opening Balance		***
Data Source		
ILV0Descendants(Total Data Source)		***

Consider Using Control To-Date View Storage

If you have a very large application leading to increased consolidation time, consider enabling the Control To-Date View Storage feature. For a description of this feature and how to enable it, see Using the Control To-Date View Storage Option in *Financial Consolidation and Close Administrator's Guide*.

Diagnosing Performance Issues After Deploying Configurable Calculation (Insertion Point) Rules

Configurable calculations can be used to implement the use-cases that are not provided by the out of the box consolidation process.

- **Multi-currency applications:** Configurable calculations can be written for the processing of Local Currency (untranslated entity level data), Translated (translated entity level data), and Consolidated data.
- **Single currency applications:** Configurable calculations can be written for the processing of Local Currency (untranslated entity level data) and Consolidated data.

These calculations, invoked by Financial Consolidation and Close when a consolidation process is run, cannot be invoked as standalone calculations. Poorly written configurable calculations can severely impact the run time performance of the consolidation process. The **Recommendations** card of Financial Consolidation and Close displays warnings about rules that can cause performance degradation during consolidation. These warnings, which are pointers to the best practices that you should follow while writing configurable calculation scripts, could, potentially, improve the consolidation performance. For detailed information, see Resolving Calc Script Validation Warnings in *Financial Consolidation and Close Administrator's Guide*.

Additionally, use the following suggestions to improve the performance of configurable calculations.

- Run Local Currency configurable calculations as on demand rules
- Disable CALC DIM logic
- Set HYBRIDBSOINCALCSCRIPT
- Run configurable calculations in BOTTOMUP manner
- Use BLOCK mode calculations
- Consider the total members on right hand side of the expression

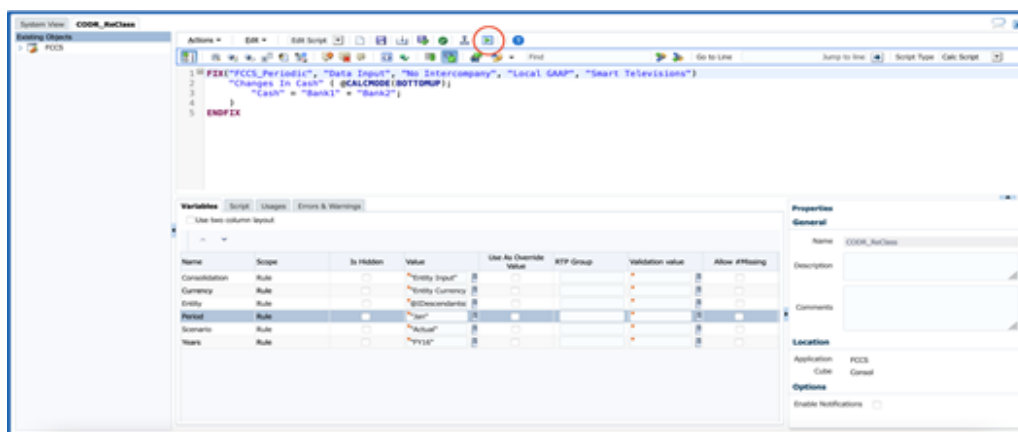
Running Local Currency Configurable Calculations as On Demand Rules

Configurable calculations written for Local Currency are run for Entity Currency and Entity Input members from Currency and Consolidation dimensions respectively. With some changes, Local Currency configurable calculations can be written as On Demand Rules (ODRs).

Benefits to this approach include:

- Shortens consolidation time.
Assume that it takes five minutes for a user to copy prior period (locked) values to current period at Entity Currency and Entity Input level. This task has to be done only one because the prior period value is not likely to change. Including this calculation in Local Currency configurable calculations will cause it to run every time consolidation is invoked causing the consolidation time to increase. Moving such calculations as ODRs allows you to invoke them when required, saving time. In this scenario, by avoiding the copying of prior period data saves you five minutes of consolidation time per period.
- Helps debug Local Currency configurable calculations.
Consider a use-case where you need to execute calculation logic at Local Currency and Entity Input level during every consolidation. Because such rules have to be a part of Local Currency configurable calculations, each attempt to debug performance issues with rules requires you to run consolidation, which is a time consuming process. To save time, you can move Local Currency configurable calculations as ODRs, debug and fine tune them, and then move them back in as Local Currency configurable calculations.
- Provides easy run-time access and statistics.
ODRs can be invoked from the Financial Consolidation and Close **Rules** card or directly from Oracle Hyperion Calculation Manager. ODRs run from Calculation Manager generate statistics that help identify where the processing time is being spent and the members on which the calculation is run. Follow these steps to collect run time statistics:

1. Access Calculation Manager and launch an ODR.



2. Select run time prompts.

3. Click **OK** in Launch Status.
The **Log Messages** tab is displayed. This tab displays run time statistics.

Moving a Configurable Calculation to ODR

When configurable calculations are written for Local Currency, you cannot use members from Scenario, Year, Period, and Entity dimensions in FIX, as the anchor, or on the left side of an expression; you can only use members from Currency and Consolidation dimensions. As Local Currency rules are invoked during consolidation process, members of Scenario, Year, Period and Entities dimensions that are supplied to consolidation process as Run Time Prompts (RTPs) are considered.

You cannot use Scenario, Year, Period, Entity, Currency, and Consolidation dimension members in ODRs. Relevant dimension members are provided as RTPs to initiate the ODR run.

Disabling CALC DIM Logic

When you create configurable calculation scripts for an insertion point, Financial Consolidation and Close automatically generates data at parent levels so that these parent members are available in the next insertion point. Financial Consolidation and Close adds CALC DIM logic to roll up the data that you populate. Processing this added CALC DIM logic is a time-consuming process depending upon the complexity of your hierarchy. If you do not need to refer to recalculated parent members in later insertion points, you may speed up the overall consolidation process by disabling the CALC DIM logic that Financial Consolidation and Close adds for insertion points.



Note:

Disabling CALC DIM logic affects the consolidation script generation. Carefully check your consolidation results after Disabling CALC DIM logic.

To prevent Financial Consolidation and Close from generating unnecessary CALC DIM logic in multi-currency applications, define the appropriate Substitution Variables from the following list and set them to `True`

- CONFCALC_FCCS10_DISABLECALCDIM
- CONFCALC_FCCS20_DISABLECALCDIM
- CONFCALC_FCCS25_DISABLECALCDIM
- CONFCALC_FCCS30_DISABLECALCDIM
- CONFCALC_FCCS40_DISABLECALCDIM
- CONFCALC_FCCS50_DISABLECALCDIM
- CONFCALC_FCCS60_DISABLECALCDIM
- CONFCALC_FCCS70_DISABLECALCDIM

For example, assume that you have written custom logic in the FCCS_10 and FCCS_20 configurable calculation rules. If you want to disable CALC DIM logic for FCCS_20, but not for FCCS_10, you should define a Substitution Variable named `CONFCALC_FCCS20_DISABLECALCDIM` and set it to `True`.

To prevent Financial Consolidation and Close from generating unnecessary CALC DIM logic in single currency applications, define the appropriate Substitution Variables from the following list and set them to `True`

- CONFALC_FCCS110_DISABLECALCDIM
- CONFALC_FCCS120_DISABLECALCDIM
- CONFALC_FCCS130_DISABLECALCDIM
- CONFALC_FCCS140_DISABLECALCDIM
- CONFALC_FCCS150_DISABLECALCDIM

SET HYBRIDBSOINCALCSCRIPT

The SET HYBRIDBSOINCALCSCRIPT command controls whether or not the specific block in a calculation script execute in hybrid mode.

Consider the following configurable calculations script in Local Currency, After Opening Balance Carry Forward rule:

```
FIX("Entity Currency", "Entity Input")
    FIX("Data Input", "No Intercompany", "Local GAAP", "No Intercompany",
        "No Products")
        "Changes In Cash" (
            "Cash" = "Bank" -> "Total Product";
        )
    ENDFIX
ENDFIX
```

On initiating consolidation, for configurable calculations, Financial Consolidation and Close enables hybrid mode by encapsulating the rule with SET HYBRIDBSOINCALCSCRIPT FULL; and the SET HYBRIDBSOINCALCSCRIPT NONE; commands, which are not visible in Calculation Manager. These commands are not added for ODRs.

```
SET HYBRIDBSOINCALCSCRIPT FULL;
FIX("Entity Currency", "Entity Input")
    FIX("Data Input", "No Intercompany", "Local GAAP", "No Intercompany",
        "No Products")
        "Changes In Cash" (
            "Cash" = "Bank" -> "Total Product";
        )
    ENDFIX
ENDFIX
```

```
SET HYBRIDBSOINCALCSCRIPT NONE;
```

To ensure that switching-on hybrid mode during consolidation for configurable calculations is not impeding performance, turn off hybrid mode (see the following sample) and then run the consolidation.

```
SET HYBRIDBSOINCALCSCRIPT FULL;

SET HYBRIDBSOINCALCSCRIPT NONE;
FIX("Entity Currency", "Entity Input")
    FIX("Data Input", "No Intercompany", "Local GAAP", "No Intercompany",
        "No Products")
        "Changes In Cash" (
            "Cash" = "Bank" -> "Total Product";
```

```

    )
    ENDFIX
ENDFIX

SET HYBRIDBSOINCALCSCRIPT NONE;

```

Run Configurable Calculations in a BOTTOMUP Manner

Running configurable calculations in TOPDOWN manner may slow them down. Consequently the consolidation process that invokes the calculations slows down. To avoid this issue, make sure to run configurable calculations in a BOTTOMUP manner. For more information, see [@CALCMODE](#) in *Essbase Technical Reference*.

While switching to BOTTOMUP calculations, ensure that destination blocks exist and that the data is calculated correctly.

Use BLOCK Mode Calculations

Because CELL mode calculations may slow down configurable calculations, be sure to run them in BLOCK mode. For more information, see [@CALCMODE](#) in *Essbase Technical Reference*.

While switching to BLOCK mode calculations, carefully consider data dependencies within the block to ensure that the resulting data is accurate.

Consider the Number of Members on the Right Hand Side of the Expression

Some times, you may need to pull aggregated data to No members as in the following example:

```

"Target_Account_Stored" -> "Mvmt_None" = "FCCS_Mvmts_Subtotal"
-> "Source_Account_DynamicCalc" -> "Total Custom1" -> "Total Custom2";

```

This example tries to store the result of the dynamic calculation on the right side into a stored dense member. Financial Consolidation and Close, by default, encapsulates this configurable calculation within `SET HYBRIDBSOINCALCSCRIPT FULL;` and `SET HYBRIDBSOINCALCSCRIPT NONE;` commands. However, even after encapsulation, this calculation may not perform well because it is reading from top members. To improve performance, you can rewrite such calculations to iterate over the level 0 members of required dimensions instead of reading from top members as illustrated in the following example:

```

SET HYBRIDBSOINCALCSCRIPT NONE; /*Turn off hybrid mode */
FIX(@RELATIVE( "Total Custom1", 0 ), @RELATIVE( "Total Custom2", 0 ), <other
dimension members of FIX> )
    "FCCS_Mvmts_Subtotal" ( @CALCMODE( BOTTOMUP );
        "Target_Account_Stored" -> "Mvmt_None" =
"Target_Account_Stored" -> "Mvmt_None" + "Source_Account_DynamicCalc";
    )
ENDFIX

```

Enable Consolidation Rules Logs and Submit Feedback to Oracle

If the corrective steps suggested in the preceding sections failed to resolve your performance issues, submit a technical service request to Oracle Support.

Before creating a service request, turn on consolidation log files, run consolidation, and then use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem.

Turn on Consolidation Log Files

To turn on consolidation rules log files:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Settings**.
3. In **Application Settings**, under **Other Options**, select **Yes** as the value for **Enable Consolidation Rules Logging**.
4. Click **Save**.
5. Run consolidation.

Restart Financial Consolidation and Close

Consolidation rules log files are analyzed when you restart Financial Consolidation and Close.

To restart the Financial Consolidation and Close environment:

1. Using the login EPM Automate command, sign in to the environment as a Service Administrator.
2. Run the resetService command. For example:

```
epmautomate resetService "Some Comment" -f
```
3. Review the Top 5 Consolidation and Translation Jobs by Duration table in the Activity Report to determine if you can troubleshoot consolidation issues on your own. See Top 5 Consolidation and Translation Jobs by Duration in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Address Functional Issues

Functional issues, such as the following, are not addressed by the preceding steps:

- The application displays `Essbase Data Cache Full` error and terminates consolidation.
- The application displays `The following value is not valid for the runtime prompt <ENTITY_NAME>` error when users select an entity for consolidation.

Journals posted to FX members

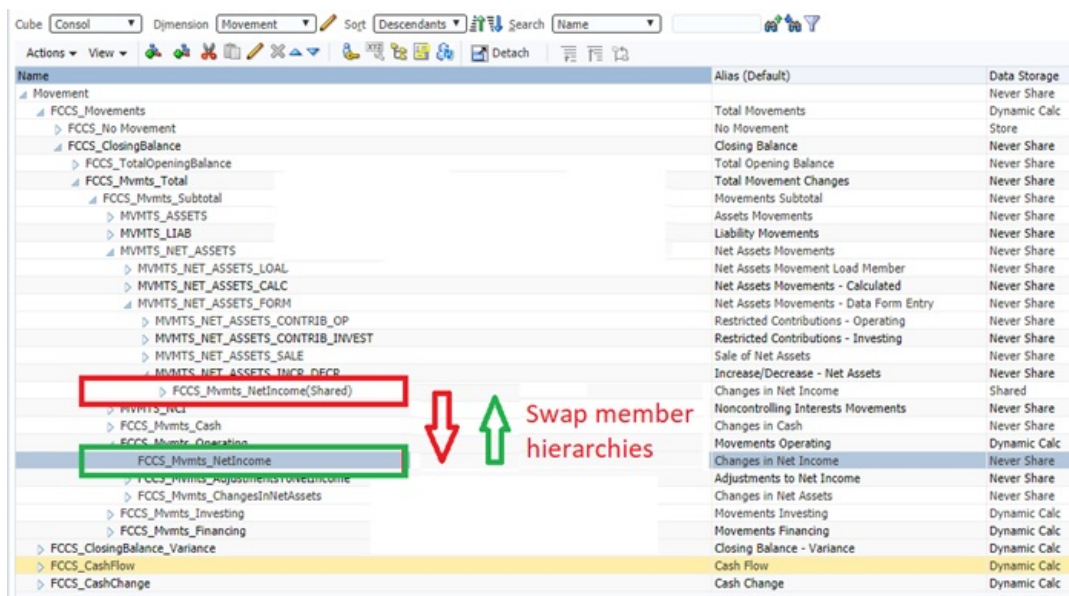
The consolidation process clears the journals posted to `FCCS_Mvmts_FX_Movement` member. You should not manually enter or post data or journals to the FX members in the Movement dimension.

Resolving *Essbase Data Cache Full* Error

Generally, the Financial Consolidation and Close application displays the `Essbase Data Cache Full` error because a shared member appears ahead of the primary member in the metadata hierarchy.

Corrective Actions

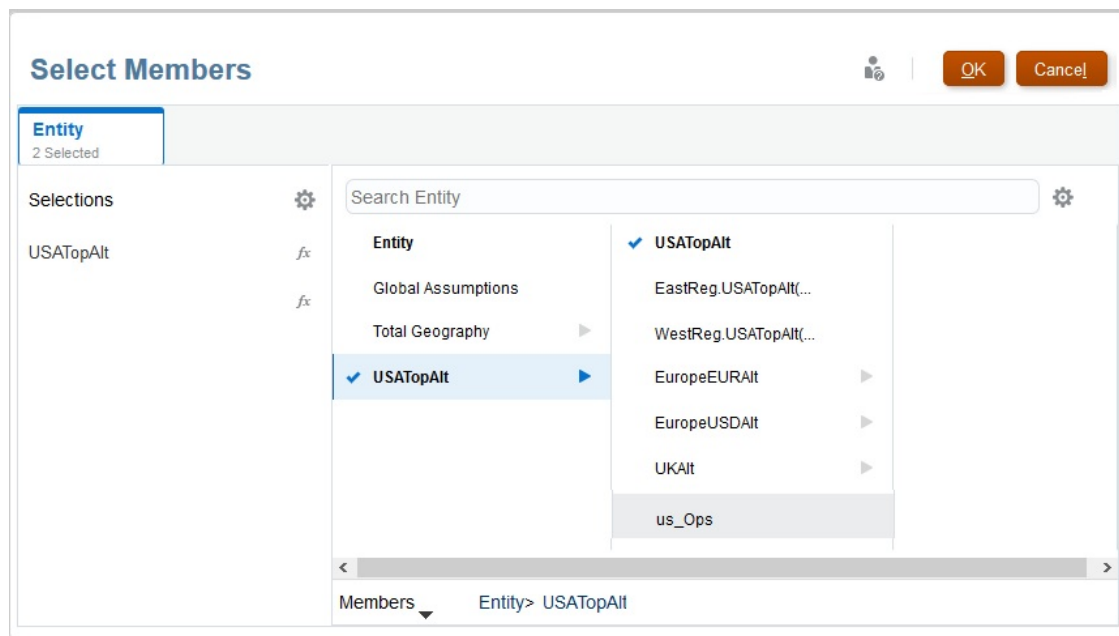
1. Use Oracle Smart View for Office or the Dimension Editor to view the hierarchy and locate the shared member that appears ahead of the primary member in the hierarchy.



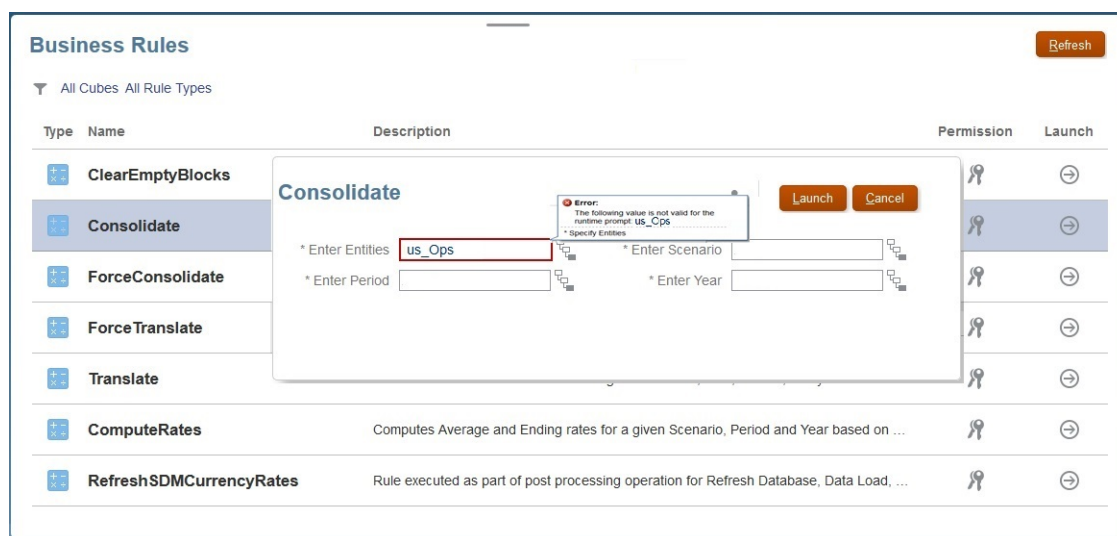
2. Move the primary member ahead of the shared member in the hierarchy.
3. Refresh the database.
4. Run the consolidation rule that failed.

Resolving the *Unable to select an entity for consolidation* Error

You cannot launch consolidations for an entity that cannot be calculated correctly. In the illustration, **us_Ops** cannot be selected because it does not have a check mark for POV selector.

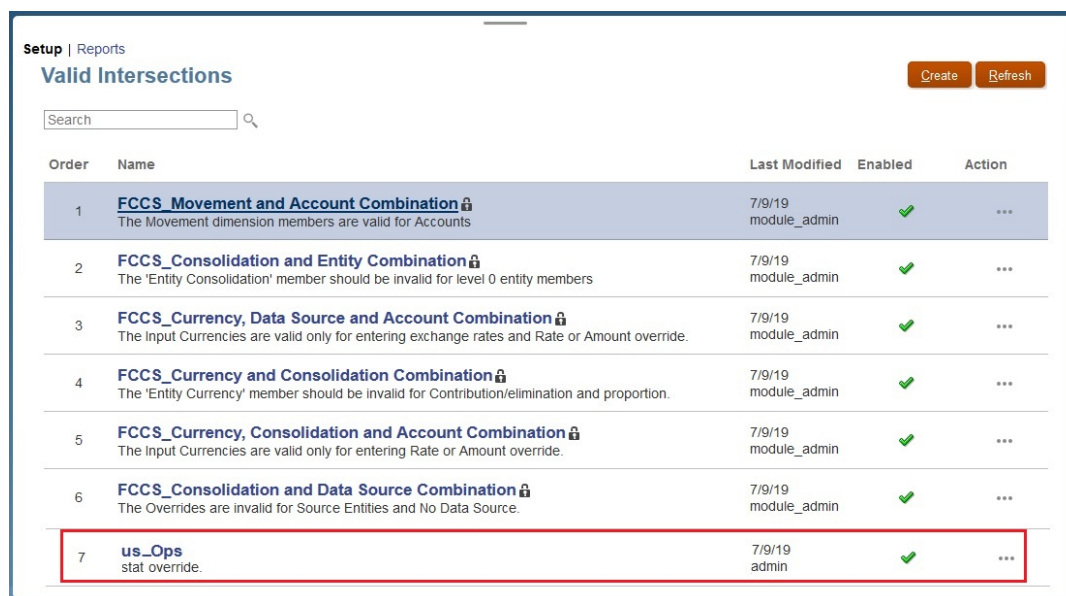


Additionally, typing in the name of an unselectable entity into the **Consolidate** screen displays the following error: `us_Ops` error.



To resolve the Unable to select an entity for consolidation error:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Valid Intersections**.
3. Disable the valid intersection rule for the entity that cannot be selected for consolidation.



Understanding Consolidation Effects on Journals

Consolidation clears manually entered journal input, parent input, and parent currency data that journals post against the `FCCS_Mvmts_FX_Movement` member.

You cannot manually enter or post data or journals to the FX members in the Movement dimension. Because FCCS_Mvmts_FX_Movement members are calculated members, Financial Consolidation and Close clears manually entered data during the consolidation process.

Get Help from Oracle

After completing the preceding troubleshooting steps, if the issue is not fixed, review these factors and then seek help from Oracle:

- Recent changes to the application.
Compare the following tables in the Activity Report with the information available in an Activity Report from a previous date when the rule was working well. This comparison will help you identify application design changes that have taken place between the two dates:
 - Application Size
 - Essbase BSO Cube Statistics
 - Top 5 Consolidation and Translation Jobs by Duration
- Recent changes in the use of calculations (for example, different values of run-time prompts and change in user or substitution variables), and rules (for example, more concurrent users).
- Use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem. Optionally, consent to submitting the snapshot to Oracle. See [Creating a Provide Feedback Submission](#).
- Submit a technical service request indicating the reference number that the Provide Feedback utility created. See [Submitting a Technical Service Request](#).
In the service request, answer these questions:
 1. Did this issue start after the latest monthly update?
 2. When was the issue first observed? (required)
 3. Was there any recent application or usage change that could have caused this issue?
 4. Are there any remaining metadata validation errors? If yes, why are you unable to clear them?
 5. Did you fix all the Insertion Rules warnings listed in Resolving Calc Script Validation Warnings in *Financial Consolidation and Close Administrator's Guide*?
 6. How many users are experiencing the problem (all, one, some)? If only some users are experiencing this problem, what distinguishes them from those that are not facing this issue (access level, security assignments, etc., if known)?
 7. Are you migrating from Oracle Hyperion Financial Management?
 8. Is this a critical outage?

Provide the following to Oracle in the service request:

- A document identifying the outcome of the troubleshooting steps that you performed based on the sections in this guide.
- Snapshot of the environment, if available, from the last time when the consolidation was working or performing as expected.
- POVs
- User and substitution variables

- Expected and actual performance parameters (for example, expected time for consolidation versus actual time)

Troubleshooting Financial Consolidation and Close Approval Process Issues

Applies to

Financial Consolidation and Close

This section lists some of the most common reasons that cause errors in the Financial Consolidation and Close approval process.

Invalid Data Error While Locking an Entity

You may receive the `Invalid Data` error while locking an entity. This error can occur because of these reasons:

- You did not lock the prior period of the target entity or its descendants.
- You did not lock the previous periods of the current year of this target entity or its descendants.

If you are using the **Approval** card to lock an entity, click the error message to view error details.

Invalid Data Error While Unlocking an Entity

You may receive the `Invalid Data` error while unlocking an entity. This error can occur if any of the future periods of the current year of this target entity or its descendants is locked.

If you are using the **Approval** card to unlock an entity, click the error message to view error details.

Intermittent Failure During the Approval Process

Sometimes, approval process such as Lock, Unlock, Promote, and Approve fails intermittently.

Workaround: After initiating the action from the **Approval** card, do not refresh the page repeatedly. Wait for a while for the action to complete and then refresh the page.

Failed: Ambiguous Automatic User Error While Starting an Entity

Only a Service Administrators can start an entity for the approval process. The approval Start process assigns the owner for entity and places it in the correct location of the promotional path. The Start process will not assign an owner to the target entity if both the following conditions are true:

- You did not assign an owner to the root level of the Approval Unit Hierarchy
- You did not assign an owner to the descendant entity within the root level

To avoid this error, ensure that at least one owner is assigned to the root level entity of the Approval Unit Hierarchy. This allows all descendants that does not have an assigned owner to inherit the owner assignment from the root entity.

Getting Help

After completing the preceding troubleshooting steps, if the issue is not fixed, review these factors and then seek help from Oracle:

- Use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem. Optionally, consent to submitting the snapshot to Oracle. See [Creating a Provide Feedback Submission](#).
- Submit a technical service request indicating the reference number that the Provide Feedback utility created. See [Submitting a Technical Service Request](#). In the service request, answer these questions:
 1. Did this issue start after the latest monthly update?
 2. When was the issue first observed? (required)
 3. Was there any recent application or usage change that could have caused this issue?
 4. Are there any remaining metadata validation errors? If yes, why are you unable to clear them?
 5. Are you migrating from Oracle Hyperion Financial Management?
 6. Is this is a critical outage?

Troubleshooting Financial Consolidation and Close Enterprise Journal Issues

Applies to

Financial Consolidation and Close

If you face an Enterprise Journals creation or posting issue, contact Oracle Support for assistance. Follow these steps:

- Use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem. Optionally, consent to submitting the snapshot to Oracle. See [Creating a Provide Feedback Submission](#).
- Submit a technical service request indicating the reference number that the Provide Feedback utility created. See [Submitting a Technical Service Request](#). In the service request, answer these questions:

For ad hoc creation issues:

 1. Is the journal template deployed successfully to the selected period?
 2. Is the logged in user listed as ad hoc user in the Journal Template?
 3. Which screen (Financial Consolidation and Close screen or Oracle Smart View for Office) did you use to create the ad hoc?
 4. Is the issue happening for all users?
 5. Did this issue start after the latest monthly update?
 6. When was the issue first observed?
 7. Was there any recent application or usage change that could have caused this issue?
 8. Is this is a critical outage?

For posting issues:

 1. The type of ERP posting (direct, using REST API, or using EPM Automate) being used.
 2. The ERP system being used (Oracle Fusion ERP, Oracle NetSuite, Oracle E-business Suite (EBS), SAP, or other).
 3. If other, the name of the ERP system.

4. Does the issue occur for all Journals?
5. If you attempted to post the journal, what is the Posting Status (Not Posted, Ready To Post, Posting In Progress, Posted, or Failed).
6. Is there a notified downtime of the target ERP?
7. Did this issue start after the latest monthly update?
8. When was the issue first observed?
9. Was there any recent application or usage change that could have caused this issue?
10. Is this is a critical outage?

Troubleshooting Profitability and Cost Management Issues

Applies to

Enterprise Profitability and Cost Management, and Profitability and Cost Management.

In this Section

- [Application Design Best Practices](#)
- [Troubleshooting Calculation Issues](#)
- [Getting Help](#)

Application Design Best Practices

Related Topics

- [Managing Application Scalability](#)
Allocation processes are capable of expanding the size of the initial data many times over.
- [Managing Dimension Design](#)
Dimension design can have a big impact on reporting and calculation performance.
- [Managing Application Logic Design](#)
Create a map of your application design before creating rules.
- [Maintaining an Optimized Calculation System](#)
An optimized calculation system requires you to manage historical data volumes and application rule growth, and test enhancements to optional calculation methods.

Managing Application Scalability

Allocation processes are capable of expanding the size of the initial data many times over.

Allocation rules take the original data values at the leaf level and split them across all destination cells. It is not unusual to find that, after executing allocation rules, your data has increased to hundreds of times its original size. A waterfall of allocation rules can split these smaller amounts into many smaller values.

Thinking about the data scale early in the design process is required to avoid dealing with millions of microscopic data points at the end of the model calculations. Expanded data can severely complicate integrating results from Oracle Hyperion Profitability and Cost Management with downstream reporting systems or generating data extracts for sending back to the GL.

Dimension Count

The best means of keeping data growth under control is to consider factors early in the design phase that will impact data scale, especially in a post allocated state. The number of dimensions used in the application is the first scalability consideration.

Be cautious about adding more dimensions to the data without a solid reason. Data growth in Oracle Hyperion Profitability and Cost Management is mostly impacted by the number of splits of data into smaller and smaller values. Before adding new dimensions, verify that a new physical dimension is required. First time Profitability and Cost Management designers commonly adopt all of the dimensions present in the source data simply because they are there and might, someday, be needed.

Consider if the dimension is required for either *reporting final results* or *differentiating data in order to support an allocation process*. If neither of these are true, you should strongly consider eliminating the dimension.

If the additional dimension is really an alternate expression of an existing dimension, consider using an alternate hierarchy or attribute dimension instead. This will provide the means for reporting on the desired categories without increasing data size.

While limiting dimensions is strongly advised, adding a dimension for future growth is a good idea. As long as the dimension is only using a single "nomember" selection in all model artifacts, the "spare" dimension will have little impact on performance.

Dimension Member Count

Data scale in Oracle Hyperion Profitability and Cost Management is a function of the number of dimensions and the size (member count) of those dimensions. The range sizes for rules are impacted by both *dimension count* and *member count*.

When designing the application, it is wise to be judicious in the use of very large dimensions. Profitability and Cost Management applications work best when the dimensions are fewer and smaller. This is not to say that Profitability and Cost Management cannot handle large and sparse dimensions, but that using many large dimensions can cause performance issues in calculation once you start design rules to work across the vast and sparse ranges that are caused by using many large dimensions.

Use the same rationale for member detail within a dimension as you do for choosing dimensions in the first place:

- Will the detail be needed for reporting?
- Is it needed to differentiate data to support allocation logic?

If the answer to both questions is no, you should consider using a more aggregated level of members in the dimension. For example, use Cost Pools instead of the lowest level account or Product Family instead of SKU.

Attributes and UDAs

Attributes are powerful tools for both reporting and allocation logic; however, the management of the associations between base members and Attribute members can sometimes become cumbersome. Using UDAs instead of Attributes is advisable when you are working with very large base dimensions (10,000+) or a large number of unique attribute values.

Data Scale Management

Being aware of the possible negative impacts of uncontrolled data growth early in the design cycle is important. It is important to resist the urge to add every last bit of detail to the application in the quest to support any reporting need that might ever occur. Know the reporting requirements of the application before you start designing it. This is the only way the designer will be able to answer the question "do we really need that level of detail....?"

With this knowledge in hand, there are two key design methods for limiting growth:

- [Summarize Starting Data](#)
- [Summarize Allocation Midpoints](#)

Summarize Starting Data

Not all data is truly needed. As discussed earlier, the use of summarization points in data *before* it is loaded is one of the best tools. Account detail is a common example. Rather than loading expenses at the lowest level of detail, use aggregate cost pools instead. Use this strategy for every dimension where possible in your data. Refer to the earlier questions regarding detail needed for reporting or allocation process.

Ask these questions to determine whether details are needed for the reporting or allocation process:

- Is the detail needed for reporting?
- Is the detail needed to differentiate data to support allocation logic?

This step alone can shrink starting data size by one or more orders of scale.

Summarize Allocation Midpoints

Similar to starting data points, there are natural funnel points in an application where detail levels used in previous allocations step are no longer required. In these cases, using a pooling strategy in the middle stages of an application can help reshrink data down to a more manageable size.

This is especially useful in a stage immediately prior to allocating financial data out to market facing dimensions like Customer, Region/Territory, Product/SKU. Market facing dimensions are usually the largest dimensions in an application, and are the stage where data explosion commonly happens.

If you can slim down the data scale after operational center allocations, you will have fewer data points to allocate across market intersections, and the end result will be a smaller data set.

Managing Dimension Design

Dimension design can have a big impact on reporting and calculation performance.

Oracle Hyperion Profitability and Cost Management uses an Oracle Essbase Aggregate Storage (ASO) Database. ASO databases have different performance characteristics and optimization methods than the block storage (BSO) databases used by other Oracle EPM business processes.

Dimension Types

Oracle Essbase ASO offers three dimension types:

- [Stored](#)
- [Dynamic](#)
- [Hierarchies Enabled](#)

Stored

In general, stored dimensions offer the best performance for both calculation and reporting.

Stored Dimensions Support

- Fastest aggregation
- Shared members
- Attributes and UDAs

Limitations

- Members may only use the Addition (+) consolidation operator
- No member formulas
- Shared members must appear after the base member of the share

Dynamic

Dynamic dimensions offer the most design flexibility, but at the cost of limiting calculation and reporting performance.

Dynamic Dimensions Support

- Any consolidation operator (+, -, *, /, ~)
- Member formula
- Shared members
- Attributes and UDAs

Dynamic Dimensions Limitations

- Slowest aggregation
This has an impact on both calculation and reporting performance. Using multiple dynamic dimensions in an application compounds this problem.
- Shared members must appear after the base member of the share

Hierarchies Enabled

Hierarchies Enabled dimensions offer a hybrid of Stored and Dynamic hierarchies that allow parts of the dimension to act and perform similar to Stored dimensions and other hierarchies to act and perform similar to Dynamic dimensions

Hierarchies Enabled Dimensions Support

- A combination of multiple Stored and Dynamic Hierarchies
- Stored hierarchies have the same feature support and limitations as the Stored Dimension type.
- Dynamic hierarchies have the same feature support and limitations as the Dynamic Dimension type.

Hierarchies' Enabled Dimension Limitations

- The first Generation 2 member hierarchy must be a Stored hierarchy type.
- The root member must have data storage of *Label Only*

Hierarchy Top Levels

The top levels of dimensions can have an impact on usability in reporting tools and in Oracle Hyperion Profitability and Cost Management screens like Rule Balancing that use a Model View. In general, setting up the dimension so that data rolls up to the root member naturally will make the dimension easier to use in reports.

Rollup and Reporting

Whenever possible, ensure that all data in the main hierarchy rolls up to the top member in the dimension. This enables users to skip making an explicit member selection in reports if they want to see *all* data for that dimension. This also simplifies the use of Rule Balancing and other reporting tools used in an ad hoc fashion.

No Member

A common approach to mixing data with irregular dimensionality is to use members that designate the data point to not have a reference in the dimension. Using a "No" member such as "NoProduct" supports storing data that has not yet been designated to a specific product.

When using a "No" member in a Hierarchies Enabled dimension, it is advisable to place the "No" member in the 1st generation 2 hierarchy. This helps simplify reporting by ensuring that all data points for the dimension, including data not yet attributed in that dimension, aggregate to the top of the dimension.

Best Practice Example

Using a Product hierarchy as an example:

Single Hierarchy Dimension

Dimension Root Member (Product) Data Storage: Store Data

1st Generation 2 Hierarchy (Total Product) Aggregation Operator: Addition

- 1st Child (All Products) Aggregation Operator: Addition. The rest of the Product hierarchy is placed under this member.
- 2nd Child (NoProduct) Aggregation Operator: Addition. This is the member used if data points don't have an associated Product member.

Multiple Hierarchy Dimension

Dimension Root Member (Product) Data Storage: Label Only

- 1st Generation 2 Hierarchy (Total Product) Aggregation Operator: Addition.
 - 1st Child (All Products) Aggregation Operator: Addition. The rest of the Product hierarchy is placed under this member.
 - 2nd Child (NoProduct) Aggregation Operator: Addition. This is the member used if data points don't have an associated Product member.
- 2nd Generation 2 Hierarchy (Alternate Hierarchy) Aggregation Operator: Ignore.

- 3rd Generation 2 Hierarchy (Alternate Hierarchy) Aggregation Operator: Ignore.
- ...Nth Generation 2 Hierarchy (Alternate Hierarchy) Aggregation Operator: Ignore.

Shared Members

Shared members are copies of base members that appear in an alternate hierarchy. Alternate hierarchies are useful for reporting as well as for controlling allocation rule logic. When using shared members in rules, or using the parents of shared members in rules, you can only use level 0 shares. This means that the base member of the shared member is level 0. Using an upper level share can cause calculation failures.

Duplicate Members

Duplicate members are base members (not shared members) that store data and have identical names. Oracle Hyperion Profitability and Cost Management supports duplicate members across different dimensions but not duplicate members within the same dimension.

Duplicate dimension members are useful in cases where costs are tracked as they move from a source organization unit to a destination organizational unit, and it is necessary to report on the costs moved between the sources and targets.

While Profitability and Cost Management supports duplicate members, there are challenges created by using them. In Oracle Essbase, the data cells containing data must be uniquely identified. When no duplicate members are used, the system uses the member name combination to identify a cell.

With duplicate members, a further qualification is required. For example, instead of referring to a data cell organization member (for example, "Marketing") the reference must also include the dimension (for example, "Entity.TotalEntity.Administration.Marketing"). The finer qualification required for duplicate members can cause issues when creating reports and modifying dimensions, particularly in moving members. When a duplicate member is moved, its fully qualified name has changed. This causes the Database Redeploy process to be unable to find a proper cell for data after modifying the dimension, and will result in dropped data values.

Rather than creating duplicate dimensions, you should prefix the members of one or both dimensions to avoid creating duplicates.

Managing Application Logic Design

Create a map of your application design before creating rules.

Related Topics

- [Simple Strategies for Managing Rule Count](#)
- [Major Allocation Rule Types](#)
- [Rule Ranges](#)
- [Using Parallel Execution in Rulesets](#)
- [Custom Calculation Rules](#)

Simple Strategies for Managing Rule Count

It is best to create a map of your application design before beginning to create rules. Many users dive into replicating allocations from a legacy system before looking at the total scope of allocation rules and trying to rationalize the entire process. In many cases, if you can take a fresh look at the process and consider many of the tools that Oracle Hyperion Profitability and

Cost Management provides, you can find ways to reduce steps in the process and make the process easier to understand – and easier to explain to others.

- [Identify Where Common Logic Can be Applied Using a Single Rule](#)
- [Use the Absence of Driver Data as an Allocation Filter](#)

Identify Where Common Logic Can be Applied Using a Single Rule

This is usually the place where migrations of legacy allocation rules to Oracle Hyperion Profitability and Cost Management first encounter challenges and where there are easy solutions. If you identify allocation patterns that are common among many departments or entities, it is likely that you can combine many steps from a legacy process into a single rule in Profitability and Cost Management.

Check for cases where many areas of your logic require allocation to the same set of destinations using the same driver value. In these cases, the Same as Source option on the Destination tab will allow you to run many parallel allocation steps in a single rule.

Use the Absence of Driver Data as an Allocation Filter

In cases where members in your destination range that should receive an allocation are scattered among members that should not receive an allocation, keep in mind that just because a member is part of the destination it does not automatically receive an allocated amount. The allocations are only sent to destinations that have a driver value.

Using this behavior of the allocation engine to your advantage, you can create a single rule that crosses a wider range of sources and destinations but will only allocate to the intersections where it finds driver data. This allows you to create a single rule, where in a legacy system, you may have had to create many rules.

Major Allocation Rule Types

Allocation rules move data from one or more sources to targets. Allocation rules spread data based on an allocation driver; they determine the flow of allocated data and allocation amounts. They have a defined source and destination with options for defining a driver basis and accounting offset.

The allocation relationships in each rule impact the methods that Oracle Hyperion Profitability and Cost Management uses to construct calculation logic and how the Oracle Essbase engine executes it. Not all rule types are equal in terms of performance. The major allocation rule types in order of performance (best performing first) are as follows:

- Simple Dimension Extension (SDE)
- Complex Dimension Extension (CDE)
- Simple Reclassification (SR)
- Complex Reclassification (CR)
- Same as Source, Different Dimension (SAD)

Allocation Rule Types and Options

The following table identifies allocation rules in order of performance, It identifies the member selection options allowed for each rule type.

Generally, to comply with the requirements of each rule type, you must abide by certain conditions while selecting the source, destination, and driver options as listed in the following table. For example, for SDE rule type, source selection can be one level 0 member or any

other member. If the source is a level 0 member for an SDE rule type, the destination can be one of the following:

- A level 0 member
- Any other member if no Driver selection is made for that dimension

If the source of an SDE rule type is any member other than a level 0 member, condition for source dimension selection requires that the destination property be set to **Same As Source**. Consider this SDE rule definition where Source is **Currency (USD)**: The destination must be set as **Same As Source(Currency)** so that the source currency is used in the destination.

Table 4-1 Allocation Rule Type and Allowed Member Selection Options

	Member Selection Options Allowed for each Rule Type		
Rule Type	Source Dimensions	Destination Dimensions	Driver Dimensions
Simple Dimension Extension	<ul style="list-style-type: none"> • A single level 0 member • Any other member selection if the Destination Dimension is Same as Source for the same dimension 	<ul style="list-style-type: none"> • At least one Same as Source • A single level 0 member • Any other member selection if no Driver selection made for same dimension 	<ul style="list-style-type: none"> • Allocate evenly • Specified Driver Location is a Level 0 Tuple
Complex Dimension Extension	<ul style="list-style-type: none"> • A single level 0 member • Any other member selection if the Destination Dimension is Same as Source for the same dimension 	<ul style="list-style-type: none"> • At least one Same as Source • A single level 0 member • Any other member selection 	<ul style="list-style-type: none"> • Allocate evenly • Specified Driver Location is a Level 0 Tuple • Specified Driver Location is not a Level 0 Tuple
Simple Reclassification	<ul style="list-style-type: none"> • A single level 0 member • Any other member selection 	<ul style="list-style-type: none"> • Same as Source • A single level 0 member • Any other member selection of no Driver selection made for the same dimension 	<ul style="list-style-type: none"> • Allocate evenly • Specified Driver Location is a Level 0 Tuple
Complex Reclassification	<ul style="list-style-type: none"> • A single level 0 member • Any other member selection 	<ul style="list-style-type: none"> • Same as Source • A single level 0 member • Any other member selection 	<ul style="list-style-type: none"> • Allocate evenly • Specified Driver Location is a Level 0 Tuple • Specified Driver Location is not a Level 0 Tuple
Same as Source, Different Dimension	<ul style="list-style-type: none"> • A single level 0 member • Any other member selection 	<ul style="list-style-type: none"> • Same as Source • Same as Source, Different Dimension • Any other member selection 	<ul style="list-style-type: none"> • Allocate evenly • Specified Driver Location is a Level 0 Tuple • Specified Driver Location is not a Level 0 Tuple

Rule Ranges

Another aspect of rule design that impacts performance are source and destination or target ranges. Careful management of the rule ranges can boost performance.

- [Range Size and Sparsity](#)
- [Using Source Segmentation](#)
- [Using Filters or Alternate Hierarchies](#)
- [Avoiding Multiple Member Selections for a Dimension in Source and Destination](#)
- [Avoiding Using Negative Driver Data Values](#)
- [Avoiding Using Dynamic Members as Drivers](#)

Range Size and Sparsity

In general, the larger the source, destination, or target range is, the longer the rule takes to execute. Some rules are able to execute across extremely large ranges, but some are not. The rule type has a larger impact on calculation time; however, for a given rule/rule type, a smaller source and destination range executes faster. Be wary of creating rules with extremely large ranges. You can review ranges on the Rule Definition screen or in the Execution statistics report.

Using Source Segmentation

One option for reducing source range is to split a rule into several smaller rules by using the same destination and driver basis definitions, and splitting the source range into smaller parts. You may do this manually using several rules, or you can use the Source Segmentation option on the rule's source tab to have the system split execution into smaller segments automatically.

Using Filters or Alternate Hierarchies

In some cases, the members that need to be included in either the source or the destination are not naturally housed together in the native hierarchy. Using alternate hierarchies to group members in a way that makes them more "rule friendly" is one way to limit rule ranges and make rule logic easier to understand. Another option is using attribute filters.

Avoiding Multiple Member Selections for a Dimension in Source and Destination

Source and destination member selections for dimensions can impact calculation performance depending on how they are specified. In general, calculation performance is improved when the members desired for a dimension are specified with fewer upper level member selections instead of many lower level or level 0 member selections.

Using a single upper level member provides the best performance. In cases where the natural hierarchy doesn't easily support groupings needed for allocations, consider creating alternate hierarchies that allow you to select fewer (ideally one) upper level member to specify the group of level 0 members you want to include in the source or destination.

Avoiding Using Negative Driver Data Values

Driver data with negative values can create challenges for the allocation engine that can result in unexpected and unusable results. The allocation engine uses the driver values found at each destination location as a numerator in the ratio $\text{Driver Value} / \text{Sum of All Driver Values}$. This allocation ratio is multiplied by the source value to determine the *AllocationIn* amount to apply to the destination. Using a mix of positive and negative driver values creates cases

where the denominator is no longer accurate and can cause inflation and deflation of *AllocationIn* amounts in the rule results. These results are very difficult to explain and justify, so it is best practice to avoid this situation entirely.

Avoiding Using Dynamic Members as Drivers

If a driver value requires a formula, it is best to calculate the value before allocation rules are executed. During rule execution, every possible destination location is reviewed by the rule to determine what the driver value is at that location. If a calculated member is referenced as the driver, then the system must execute the member formula for every possible location. This can result in potentially billions of unnecessary computations which severely impact rule performance.

A better solution is to prepare driver data for the rule by preceding it with a custom calculation rule to execute the formula needed and *store* the driver value in a stored member. This allows the allocation rule to execute normally and quickly skip locations without any driver data.

Using Parallel Execution in Rulesets

In some cases, executing rules in a parallel fashion can help overall performance in Oracle Hyperion Profitability and Cost Management. Calculation options are set at the Ruleset level and affect all rules in the Ruleset. The default option for all Rulesets is *sequential processing*. This means that every rule is executed individually, and all rules in the Ruleset are executed one by one.

Ensure that Your Rules are Parallel Safe

Rules often have an impact on the execution of other rules. If one rule allocates into the source range of another rule, the sequence of running the rules can have a dramatic impact on the final result. This is why the default calculation option is sequential.

If there are rules that can safely be executed in parallel, then using the parallel calculation option can help improve performance. Set the parallel processing option on the Ruleset or Rulesets you want to enable. You also need to set the Maximum Concurrent Threads option on the Application Properties screen.

Experiment with the Number of Threads

Finding the right level of concurrent threads is a matter of experimentation. There is a point at which performance improvements cease, and the use of additional threads to launch additional rules is counterproductive. The best practice for parallel calculation is to test Rulesets starting with four concurrent threads and gradually increase the number of threads until performance improvements stop. While rules that do not mix source ranges are good candidates for parallel processing, their destination ranges may still share common locations. In these cases, Oracle Essbase will still have to pause one rule until the other one has finished writing destination data. For this reason, you will see a point at which increasing the thread count no longer helps with performance.

Custom Calculation Rules

Custom Calculation Rules are impacted by large target ranges in the same way as Allocation rules. In general, smaller ranges execute faster. In almost all cases, using the `NONEMPTYTUPLE` statement in your rule formula helps performance, especially if the target range for the rule is very large.

Maintaining an Optimized Calculation System

An optimized calculation system requires you to manage historical data volumes and application rule growth, and test enhancements to optional calculation methods.

Related Topics

- [Managing Historical Data Volumes with a Reporting System](#)
- [Managing Application Rule Growth](#)
- [Testing Optional Calculation Method Enhancements](#)

Managing Historical Data Volumes with a Reporting System

Calculation processes in Oracle Hyperion Profitability and Cost Management require a high volume of data reads, writes, and clears during the processing of rules. The overall size of data in the calculation database can impact the speed of clearing data. Data clears occur during the initial stages of a calculation job when previously calculated values are being cleared as well as during the processing of rules as the system writes and clear temporary data storage used for processing individual rules. Profitability and Cost Management clears data of previously calculated values during the initial stages of a calculation job. During the processing of rules, the system writes and clears temporary data storage used for processing individual rules.

Minimizing the overall database size helps the calculation system maintain optimal calculation run times.

A common strategy to minimize data volumes in the calculation system is to create a Profitability and Cost Management reporting archive system to house the historical results required for reporting but not required for processing the current periodic results. Once calculations result validations are completed for current periodic data, the data can be migrated to the reporting system and the calculation system can be cleared in preparation for the next periodic cycle.

Managing Application Rule Growth

System interaction, backup, and migration performance can be affected by the growth in the number of rules across all POVs in the application. As part of system startup, rule definitions for all rules in all POVs are loaded into memory. This cache of rule definition data helps Oracle Hyperion Profitability and Cost Management maintain fast response times in the interface as well as in creating calculation commands when rules are run.

Over time, the normal project processes may lead to the creation of many copies of rules. Eventually, the proliferation of rules will impact performance. Service Administrators should track the growth of rules to maintain optimal performance.

Rule growth can be minimized by removing unnecessary rules from POVs and by adopting a Model POV concept instead of copying rules to every POV.

Remove Unnecessary Rules from POVs

When rules in a POV are no longer required for calculation, use one of the following methods to remove the rules:

- **Clear POV** option in the **Manage POV** screen of Profitability and Cost Management
- clearPOVEPM Automate command
- Run ML Clear POV REST API

Clearing rules may be done independently of clearing data.

Adopt a Model POV Concept Instead of Copying Rules to Every POV

A better option to manage rule growth is to adopt the Model POV concept. Because Profitability and Cost Management allows the use of rules in one POV to be executed against one or more other POVs, you can manage one approved set of rules in a reference or Model POV and execute them against other POVs. This practice is particularly useful in cases where the rules do not change or change infrequently; for example, for actuals or for multi period budgeting or forecasting where the same rules are used for many periods.

Testing Optional Calculation Method Enhancements

Standard Oracle Hyperion Profitability and Cost Management calculation processes are designed to yield consistent and reliable calculation results. Profitability and Cost Management offers **Logical Clear Enhancement** and **Allocation Rule Non Tuple Enhancement** optional calculation settings that may help enhance performance in some cases. These should be carefully tested for possible regressions of both performance and validity of the calculated results before promoting them to a production environment.

Logical Clear Enhancement

The Logical Clear Enhancement can help improve the overall calculation times when the data growth in the database impacts database clear processes. For detailed information, see [Managing Historical Data Volumes with a Reporting System](#).

Oracle recommends enabling this calculation enhancement if the application starts to demonstrate an overall slowdown in calculation times for all rules and minimizing the data volumes does not improve performance.

Tip:

You can use the `EPCM_CALC_CLEAR_TYPE` substitution variable to specify whether to use Physical or Logical clear. The valid values for this substitution variable are `Logical` or `Physical`. When this variable is not present, the default is `Logical`. See *Defining Logical Versus Physical Clear* in *Enterprise Profitability and Cost Management Administering and Working with Enterprise Profitability and Cost Management*.

Allocation Rule Non Empty Tuple Enhancement

The Allocation Rule Non Empty Tuple (NET) enhancement can improve the calculation times for Simple Reclassification (SR) rules. This enhancement may be the solution if you experience long run times for SR rules with very large and very sparse source or destination ranges. In some cases the allocation logic of the affected rules is conducive to improvements while in others it is not. Regression testing is critical before promoting this calculation enhancement to a production environment.

 **Tip:**

You can use the EPCM_CALC_NET_ENABLE substitution variable to enable Allocation Rule Non Empty Tuple (NET). The valid values for this substitution variable are Yes or No. When this variable is not present, the default is No. See *Enabling Allocation Rule Non Empty Tuple in Enterprise Profitability and Cost Management Administering and Working with Enterprise Profitability and Cost Management*.

Troubleshooting Calculation Issues

Related Topics

- [Reviewing Calculation Results](#)
Oracle Hyperion Profitability and Cost Management provides a number of tools for monitoring and reviewing calculation results.
- [Validating Rule Results](#)
If you need to investigate the outputs of specific rules, there are multiple tools to assist you.
- [Reviewing Metadata Impacts on Rules](#)
Modification of the application dimensions can have a significant impact on rules.
- [Terminating Long Running Jobs](#)

Reviewing Calculation Results

Oracle Hyperion Profitability and Cost Management provides a number of tools for monitoring and reviewing calculation results.

Related Topics

- [Job Library](#)
- [Execution Statistics](#)
- [Point of View \(POV\) Statistics](#)

Job Library

The Job Library provides a history of all jobs run and the characteristics of each job:

- POVs run and calculation options selected
- Job Comments entered by the user that can provide insight on any special characteristics of the job, such as which rule or rules were changed for a test run, or other details that can help the user differentiate or recognize specific jobs
- Execution times

Execution Statistics

The Execution Statistics report provides a greater level of detail about a calculation run than the Job Library. Use the Execution Statistics report to investigate all job warnings and errors, rule by rule execution times, rule range sizes, script generation effort and total cells updated.

- **Review Job Warnings:** The job warnings and errors section can provide direction on issues that were found with specific rules or errors that caused a job to fail.

- **Find Long Running Rules:** When diagnosing performance, the rule execution times in the Execution Statistics report make it easy to find the rules that take the longest to execute. These rules should be the first option in looking for optimization through alternate rule designs.
- **Compare Rule Performance to Past Runs:** When investigating performance, it is very useful to compare the performance of the calc run to a baseline run. Using the Excel option in generating the Execution Statistics report makes it possible to create spreadsheet with execution times for two runs side by side.
- **Review the Model Design Best Practices:** If the rules are not performing as expected, review the Design Best Practices to optimize performance. See [Application Design Best Practices](#).

Point of View (POV) Statistics

The Point of View Statistics report provides a larger view of the entire application by listing all of the POVs and the details of the last calculation event for each.

Validating Rule Results

If you need to investigate the outputs of specific rules, there are multiple tools to assist you.

Related Topics

- [Job Library Warnings](#)
- [Rule Balancing Screen](#)
- [Rule Data Report](#)
- [Execution Statistics Report](#)

Job Library Warnings

The job warnings and errors section can provide direction on issues that were found with specific rules or errors that caused to job to fail or caused a rule to succeed but produce no outputs.

Rule Balancing Screen

The Rule Balancing screen provides a dynamic report that shows the calculation impacts of every rule, and an aggregate amount of the calculated amounts sent and received by each rule. Rule values on the Rule Balancing screen are dynamic and can launch Oracle Smart View for Office to investigate the rule values in more detail.

Combine the Model View with the Rule Balancing screen to gauge the impact of all rules on a range of the application. This can be useful for validating that all data in a specific range has been allocated. By setting a model view correctly, you can see that allocation rules combine to reduce the total balance to 0.

Rule Data Report

In the System Reports, the Rule Data Report shows the source values and driver values, as well as sample data values from source and driver range. This report helps confirm what data the rule is working with when it is run.

Execution Statistics Report

The Execution Statistics report includes a count of updated cells, which can be useful to review or compare with prior runs to evaluate if the rule is working to produce the expected number of output cells.

Reviewing Metadata Impacts on Rules

Modification of the application dimensions can have a significant impact on rules.

Related Topics

- [Adding Members](#)
- [Deleting Members](#)
- [Renaming Members](#)
- [Moving Members](#)
- [Troubleshooting Metadata Related Issues](#)

Adding Members

New members added as descendants of members referenced in rules are automatically included in the source or destination of rules that reference the ancestor member. This is generally a useful feature, but users should be aware of this behavior.

Deleting Members

Deleted members that are descendants of members referenced in rules decrease the number of source or destinations affected by rules. If a member that is referenced directly in a rule is deleted, the rule becomes invalid and is disabled if it is run in a calculation. Deleting a member does not remove the reference to that member in application artifacts. To prevent problems, run the Model Validation reports after every dimension update.

To repair rules that are invalid due to deleted members, open the rule for editing and save it. This removes the reference to the deleted member. Users can also choose to add another member reference and save the rule.

Renaming Members

Renaming a member impacts rules in the same way as deleting a member.

Moving Members

Moving a member can cause it and its descendants to be part of rule source and destinations ranges if it is moved under a member that is directly referenced by a rule source or destination. This is the same as when adding a new member.

In most cases, there are no other impacts of moving a member except when there are duplicate members in the database. In this case, moving a member acts in the same way as deleting the member and then later adding it in a new location. This causes data loss during metadata deploy.

Troubleshooting Metadata Related Issues

Use these tools to find metadata related issues:

- **Dimension Update Impact Analysis**
During the load of a dimension file, the Impact Analysis option allows you to see the number of artifacts that will be impacted by changes in the dimensions being loaded before you load them.
- **Model Validation Screen**
After dimension changes are made, use the Model Validation screen to find all model artifacts with dimension references that are invalid due to dimension changes.

Terminating Long Running Jobs

If a calculation run is taking a long time to complete, you can use the Stop Job option in the Job Library to end the job. Oracle Hyperion Profitability and Cost Management will stop the job after the currently-running rule is completed.

If a specific rule is taking a long time to complete and you want to terminate the job immediately, you can restart the Oracle Essbase database using the Restart option on the Manage Database screen.

Use the calculation screen's Clear Calculated Data option to clear partially calculated data that results from terminating a rule.

Getting Help

If the corrective actions in the preceding sections do not resolve the issue, seek help from Oracle.

1. Create a Provide Feedback submission. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the information identified in the following sections.

Precise Description of Issue or Failure

This should be a concise description the attempted calculation run, the calculation options selected, and a quick summary of the result. In addition, you should provide:

- **Job Details**
Stating the specific Job Number, Date, and Time of execution in the SR description will assist support in reviewing log files and supporting reports to review the exact point of failure.
- **Error Messages from Job Library**
Copy and paste the specific errors and warnings from the Job Library screen into the text of the SR. If there are several warning messages, you can attach a text file or simply paste only the errors.
- **Rule or Rules with the Observed Issue**
If you have already identified specific rules with an issue, detail these in the SR description by referring to both Rule Name and Rule Number, and include any relevant observations. This helps Oracle to quickly see the same behavior in the system reports and logs that you observe on your environment.

Historical Context

Provide the following information:

- **User Steps Immediately Preceding Calculation**

Detail the steps taken or the calculation runs just prior to the calculation run that has an issue. Actions that may have an impact on the diagnosis include:

 - Previous calculation run of the same POV to calculate or clear data
 - Method of launching the calculation, UI, or automation
 - Other calculations running at the same time
 - System restarts preceding the calculation run
 - Oracle Essbase restarts
 - Metadata deploys
- **Comparison to a Successful Run**

If the application has successfully calculated or performed better in the past, this is a useful fact for diagnosing issues. Comparing a successful calculation run and the supporting documentation to an unsuccessful or poorly performing run is very helpful to investigate calculation issues.
- **Updates or Changes Since the Previous Successful Calculation**

Comparing differences in the application from the point in time where it was working well to the current state can help pinpoint the cause of performance changes or failures. Provide the following:

 - Did this issue start after the latest monthly update?
 - The date, time, and time zone when the issue was first noticed.
 - A snapshot of the environment, if available, from prior to the last time the issue occurred.

List all metadata updates, changes in data, and changes in rules to help Oracle Support narrow down the areas for investigation.

Supporting Details

When reporting a calculation issue in an SR, the supporting details provided can help accelerate diagnosis of the issue. Whenever reporting a calculation issue, it is a best practice to provide the following details:

- **Model Validation Results**

Run the Model Validation for Rules and Rulesets to identify rules with metadata update issues. Confirm in the SR if this step has been done.
- **System Reports**

Run the following reports and attach them to the SR:

 - **Execution Statistics:** Shows the details of the calculation run, execution times, range sizes, and other details for every rule processed during the calculation run.
 - **Dimension Statistics:** Shows the relative sizes of dimensions and dimension types.
 - **Program Documentation:** Provides the exact definition of the rules being investigated.

- **POV Statistics:** Shows the overall count of periods with data in the application and the calculation times for other periods.
- **Additional Detail that May be Requested by Support**
 - **Oracle Essbase Debug Scripts**

Essbase Debug Scripts show the exact commands being submitted to Essbase for the rules executed during a calculation run. Debug scripts for an entire calculation run can be very large, so it is not advisable to provide debug scripts unless requested and only for a run that isolates the specific rule or rules being investigated.
 - Whether this is a critical outage.

Troubleshooting Account Reconciliation Issues

Applies to

Account Reconciliation

In this Section

- [Impact of Loading Balances on Active Status of Profiles](#)
- [Restricting Amount Value to Two Decimal Places in FDMEE for Custom File Export](#)
- [Reasons why Transaction Matching Reopen Reconciliations](#)
- [Resolving Reopening of Reconciliations After Partial Source \(General Ledger\) or Subsystem \(Subledger\) Balance Reload](#)

Impact of Loading Balances on Active Status of Profiles

Account Reconciliation sets *Active* as the status of profiles that you manually enter. Clear the **Active** check box if you do not want to create a reconciliation for that profile in the period. The status is automatically switched from *Inactive* to *Active* if an updated balance is loaded to an inactive profile. If the balance does not change then the profile will remain inactive.

Restricting Amount Value to Two Decimal Places in FDMEE for Custom File Export

While exporting data to a custom flat file, Oracle Hyperion Financial Data Quality Management, Enterprise Edition may, some times, not restrict data to two decimal places although the required source parameters are correctly set to restrict data to two decimal places.

Use one of the following options to resolve this issue.

- Set the values of **Data Precision** and **Data Number of Decimal** properties to 2. These FDMEE properties can be set in **Source Parameters** under **Data Load Rule**.

Note:

These settings works only in BSO cubes; they do not work in ASO cubes.

- Create an SQL mapping in data load maps to round the **amountx** column to 2 decimal places. To round to two decimals, you may use an SQL mapping similar to the following:
`amountx = round(amount,2)`

Reasons why Transaction Matching Reopen Reconciliations

Performing any of the following actions on closed transactions while the Accounting Date of Transaction Matching transactions is between the *Locked Through Date* and the *Closed Through Date* (closed reconciliations period end date) results in Account Reconciliation displaying a warning message and prompting you to confirm if you want to reopen the reconciliation:

- Delete Transaction Matching transactions
- Unmatch a matched set that has an adjustment
- Delete support details from a transaction
- Edit a transaction's Accounting Date or Balancing Amount

Reconciliations can also be reopened when Importing Transactions. This happens automatically, without a warning message, since the importing of transactions is, typically, a scheduled job performed after business hours.

Resolving Reopening of Reconciliations After Partial Source (General Ledger) or Subsystem (Subledger) Balance Reload

By default, Oracle Hyperion Financial Data Quality Management, Enterprise Edition requires that reloads be full loads of the previously loaded balances through a particular Location, Category, and Period. If you reload partial balances, Account Reconciliation may reopen reconciliations.

For example, assume that 1,000 general ledger balances for the January 2021 period were loaded on February 1 using Location 1 in the Entered Currency bucket. If some January 2021 balances change and must be reloaded on February 2, then all 1,000 balances must be reloaded on February 2; you should not reload only the balances that have changed. If any of the 1,000 balances loaded on February 1 load are not included in the February 2 reload, then reconciliations may be reopened because they now have missing balances.

To avoid this issue, use the Merge feature, which allows partial balance re-loads. This feature ensures that balances included in subsequent loads only update the previously loaded balances with the same Merge ID. Any balances not included in the subsequent load would be left as is and will not reopen associated reconciliations. For more information, see these information sources:

- Define and Save a Data Load Definition in *Account Reconciliation Administering Account Reconciliation*
- Adding an Account Reconciliation Merge Balance Dimension

Getting Help

If the suggested corrective actions do not resolve the issue, seek help from Oracle.

1. Create a Provide Feedback submission. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:

- Detailed steps to reproduce the issue.
- Did this issue start after the latest monthly update?
- If the issue was not occurring previously, the date, time, and time zone when issue was first noticed.
- A snapshot of the environment, if available, from prior to the last time the issue occurred.
- Application changes that you made since the last time issue was not occurring.
- Whether this is a critical outage.

Troubleshooting FDMEE and Data Integration Issues

Use this section if you encounter issues while importing or exporting data using Data Integration or Oracle Hyperion Financial Data Quality Management, Enterprise Edition.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

In this Section

- [Required Roles for Loading Data](#)
- [Handling Data Integration Errors](#)
- [Troubleshooting Data Load Performance Issues in Data Management](#)
- [Handling Data Load Failures in Account Reconciliation](#)
- [Resolving Error: 3335 During FDMEE Data Export](#)
- [Getting Help](#)

Required Roles for Loading Data

If you have an issue with loading data to Oracle Enterprise Performance Management Cloud using Data Integration, Oracle Hyperion Financial Data Quality Management, Enterprise Edition, EPM Automate or REST APIs, make sure that the user loading the data has one of the following roles:

- Service Administrator predefined role
- Power User predefined role and Run Integration application role

Handling Data Integration Errors

Oracle Enterprise Performance Management Cloud data integration (export or import) errors, if any, are written to a log file in `outbox/logs`. The name of the file is `ApplicationName_ProcessID.log`; for example, `outbox/logs/Vision_108.log`. Additionally, Data Integration creates an output file named `ApplicationName_ProcessID.out`; for example, `outbox/reports/Vision_108.out` that records errors associated while loading data to an EPM Cloud business process. You can download these file from the **Process Details** page of Data Integration.

Process Details X Close

Search 🔍 ↶

Process ID	Status	Log	Output	Location	Type	Process Name	Source System	Target Application	Process By	Error Message	Execution Date
43	✘			Vision	Data Load	delimited	File	Vision	john.doe@example.com	Process Detail Failed	Nov 06, 2020, 4:11 PM
42	✔				Custom Script Execution				john.doe@example.com		Nov 06, 2020, 4:07 PM
41	✘				Data Load		EPM	Vision	jane.doe@example.com	Process Detail Failed	Nov 06, 2020, 4:06 PM

Status	Process Step	Process Start Time	Process End Time
✔	Import data from file ColonDelimitedFile_May14.txt for Period	Nov 06, 2020, 4:11 PM	Nov 06, 2020, 4:11 PM
⚠	Transform and stage balance data to export for period Dec-20	Nov 06, 2020, 4:11 PM	Nov 06, 2020, 4:11 PM
✔	Export data to Planning application Vision	Nov 06, 2020, 4:11 PM	Nov 06, 2020, 4:11 PM
✘	Create drill region HPL_DRILL_REGIONS	Nov 06, 2020, 4:11 PM	Nov 06, 2020, 4:11 PM

This page lists detailed information on each step involved in the integration process and identifies the steps that failed or generated warnings to help you troubleshoot integration issues.

The output file identifies Oracle Essbase errors, if any, that occurred during data imports. See [Essbase Error Messages Generated During Data Loads](#) for descriptions of Essbase error codes. Reviewing the output file helps you identify and correct issues in the data integration process, which can then be rerun.

To download data integration log files:

1. Access your environment as a user with privileges to perform data integration-related operations. See [Required Roles for Loading Data](#).
2. Select **Application**, and then **Data Exchange**.
3. On **Data Integration**, select **Actions**, and then **Process Details**.
4. Click (Download).
5. Open or save the file to your computer.

Troubleshooting Data Load Performance Issues in Data Management

Integration of large number of records using data load rules may sometimes take an unexpectedly long time to complete. In such scenarios, consider these options to improve performance:

- Use quick mode for high volume data loads that do not require complex transformations. See Simple Workflow Mode in *Data Integration Administering Data Integration for Oracle Enterprise Performance Management Cloud*
- Use Simple Workflow mode to load data directly to the target. See Quick Mode in *Data Integration Administering Data Integration for Oracle Enterprise Performance Management Cloud*

Handling Data Load Failures in Account Reconciliation

Unexpected data load failures may occur in Account Reconciliation while loading the data or during post-processing of loaded data. When a data load or post-processing fails unexpectedly, Account Reconciliation attempts to clean up balances. However, because it does not store old values, Account Reconciliation is unable to revert the modified balances for the failed data load.

If the failure occurs during the data load or post-processing phase, run Auto-Reconcile to allow Account Reconciliation to automatically complete reconciliations. Running Auto-Reconcile

corrects unexplained data deviation occurring after data load failures. See *Account Reconciliation Administering Account Reconciliation* for information to run Auto-Reconcile.

If data load failure occurs at the staging phase, you do not need to run Auto-Reconcile. Instead, check the data integration process logs to resolve the failure.

Resolving Error: 3335 During FDMEE Data Export

Cause

Oracle Hyperion Financial Data Quality Management, Enterprise Edition data export from Planning Modules may fail with the following error:

```
ERROR
-----
21 04:18:34,392 DEBUG [AIF]: Fetching rule file from essbase server for data
loading: AIF0061
2018-05-21 04:18:34,401 INFO [AIF]: Starting executeDataRuleFile...
2018-05-21 04:18:34,402 DEBUG [AIF]: Locked rule file: AIF0061
2018-05-21 04:18:34,410 INFO [AIF]: Loading data into cube using data file...
2018-05-21 04:18:35,655 INFO [AIF]: Load data encountered the following
errors:

| Error: 3335 | 100 |
"100","110","Working","BaseData","P_000","Actual","FY18","Jan",1111 |
```

This issue exists in the following situations:

- The mapped target dimension member does not exist
- The same member name exists in more than one dimension

Solution

- Ensure that the target dimension member included in the mapping exists in the target application.
- Ensure that the mapping is properly defined.
- Make sure that member names are unique across dimensions. Identical member names should not be present in more than one dimension.

Getting Help

If you were unable to resolve the issue, get help from Oracle.

1. Create a Provide Feedback submission that captures the actions that you perform to load data.
Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Detailed steps to reproduce the issue.
 - Did this issue start after the latest monthly update?

- If the process was working previously, the date, time, and time zone when the process was performing as expected.
- Snapshot of the environment, if available, from the last time when the process was working properly.
- Application changes or data load rule changes that you made since the last time the process was working as expected.
- Whether this is a critical outage.

Managing Content Upgrade Issues

Oracle Hyperion Planning Modules, Account Reconciliation, Financial Consolidation and Close, and Tax Reporting business processes may perform content upgrade after the monthly update process is complete. This section explains on how to manage content upgrade issues.

Applies to

Planning Modules, Account Reconciliation, Financial Consolidation and Close, and Tax Reporting.

Content upgrade, which propagates the changes introduced during the daily maintenance of an environment, coincides with the monthly update of the environment. If a content upgrade is required, Oracle creates, schedules, and executes a content upgrade job.

If a content upgrade fails, the environment becomes inaccessible to everyone other than using REST APIs and EPM Automate.

Best Practice

Run a database refresh prior to scheduled monthly updates.

Monthly updates are scheduled, typically, on the first Friday for Test environments and on the third Friday for production environments. Ensuring that a clean database refresh is completed prior to monthly updates reduces content upgrade issues.

Resolving Database Refresh Failures

Oracle refreshes the database as a part of the content upgrade. Separate cube refresh jobs may be executed during database refresh. Application customizations, for example, incomplete changes to the outline and metadata, may cause the cube refresh job to fail. If the content upgrade fails because of an inability to complete a database refresh, review the failed Cube Refresh job to identify why the refresh failed. After fixing the underlying reason for the cube refresh failure, rerun the failed job to complete the database refresh.

To resolve database refresh failures during content upgrade:

1. Sign in to the environment as a Service Administrator.
2. From the Application card on the Home page, select **Jobs**. The **Job Console** is displayed.
3. In **Recent Activity**, click the failed **Refresh Database** job, for example, the **RefreshDataBase_PostProcess_Rates** of Financial Consolidation and Close. The **Job Details** screen displays information on the cube for which the refresh failed and indicates the reason for the failure.
4. Correct the issue that caused the cube refresh to fail. If the failure is caused by an incomplete customization, remove or complete it.
5. In the **Job Console**, click **Actions** **...** in the row of the failed job and select **Run**.

Resolving Conflicts with Other Scheduled Activities

Generally, the content upgrade job is executed 12 hours after the daily maintenance is completed. The start time, however, can be customized. See *Setting Content Upgrade Start Time* in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Do not schedule other activities, such as activities initiated using REST APIs, EPM Automate, and Groovy scripts, during the period when content upgrade is scheduled on the first and third Fridays of the month.

How to Get Help

If the information in the preceding sections fails to resolve your issue, contact Oracle for help.

1. Create a Provide Feedback submission, which includes screenshots of the actions, and errors, if any displayed during the upgrade process. Optionally, authorize Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). Attach additional screenshots, if needed, to the service request. In the service request, specify:
 - Did this issue start after the latest monthly update?
 - Whether this is a critical outage.

Handling Issues with Navigation Flows

This section details information on fixing common errors while working with Navigation Flows (cross-environment connections).

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

Navigation Flows enable Service Administrators to establish cross-environment connections so that users of multiple Oracle Enterprise Performance Management Cloud environments can sign in to one environment and then seamlessly navigate to others without going through additional authentication processes. Service Administrators can create mashups of artifacts from various environments into a single unified business process flow of clusters, cards, and tabs.

Common Errors and Steps to Resolve Them

The following errors are commonly reported:

- The target connection does not belong to the same identity domain as the source. Ensure that the target connection is in the same domain as the source.
- The product version of the target is different from that of the source. Before creating a connection, ensure that both the source and target product versions are the same. For example, you cannot set up connections between 20.04 Planning and a 20.03 Financial Consolidation and Close.

- You are not able to create a connection.
Ensure that you are assigned to the Service Administrator predefined role. Only a Service Administrator can create connections.
- The target connection does not have a business process or application.
Create a business process in the target environment and try again.
- The user name or password is invalid.
 - If you are designing a connection, ensure that you are signed in as a Service Administrator.
 - **Classic environments only:** Ensure that the value in the **Service Administrator** field is prefixed with the domain name (format, `DOMAIN_NAME.USERNAME`).
 - **OCI environment only:** Ensure that the value in the **Service Administrator** field contains only the user name (not prefixed with the domain name).
 - Ensure that the password used in the connection definition has not expired.
 - Do not edit the **Domain** field. The domain is automatically populated from the URL. If there is no domain in the URL, then the **Domain** field is left blank.
- The URL provided is not for a business process of type `<selected provider type name>`.
The URL is not for a business process supported by the selected provider. For example, the user has selected a provider type of Sales Planning but the URL is for a Financial Consolidation and Close business process, which uses the EPM Cloud provider.
- The target you are trying to reach could not be found.
 - Ensure that the URL is valid.
 - Ensure that the URL does not have a context (for example, `https://epm-idDomain.epm.dataCenterRegion.oraclecloud.com`, and not `https://epm-idDomain.epm.dataCenterRegion.oraclecloud.com/epmcloud`).
- Unable to establish a connection due to an unexpected error.
For additional information, see "Connecting Subscriptions in EPM Cloud" in your Administering guide at [Cloud Documentation](#).
 - The target environment is down.
 - The target environment is in maintenance mode.
 - The target environment is performing daily maintenance and will not be available until the maintenance process is complete.
 - The target environment URL is not a trusted website and is denied access.

Other Errors and Resolution

You do not see a card, tab or cluster.

To check if you have access to the card, tab or cluster, complete these operations in the remote environment.


- Click the **Data** card and verify that you can access and launch the associated form.
- Click the **Dashboard** card and verify that you can access and launch the dashboard.
- Click the **Report** card and verify that you can access and launch the report.

When customizing navigation flows to connect EPM Cloud environments, at times the connected artifacts may not be visible. Here are some common reasons why:



- The target environment is down; for example, to perform routine daily maintenance.
- The password provided in the connection definition has expired.

- The user name provided in the connection no longer is assigned to the Service Administrator predefined role.
- The product version of one of the environments has changed; for example, 20.03.xxx and 20.04.xxx versions of EPM Cloud environments don't communicate; both environments must be at the same version.
Note the following:
 - This version restriction only applies to the first four digits of the version number.
 - This version restriction impacts customers who have multiple EPM Cloud environments and who might have stopped taking monthly updates for a given environment.
- The referenced navigation flow was deleted on the target environment, or one of the following occurred:
 - The referenced navigation flow artifact (card, tab, or cluster) was deleted.
 - The referenced artifact from the target flow was deleted or renamed.
 - The currently logged in user's access to the given artifact was revoked.

Resolving Navigation Flows that Display a Warning Icon

While viewing the Navigation Flow listing, you might see a navigation flow displaying a warning icon  and the navigation flow is inactive. This occurs because a group that was associated with the navigation flow was deleted. You'll need to edit the navigation flow to associate it with another group or role before you can activate the navigation flow.

To resolve the navigation flow:

1. Open the **Navigation Flow** page. See *Viewing and Working with Navigation Flows in Oracle Hyperion Planning Administrator's Guide*.
2. Click the name of the navigation flow displaying the warning icon .
3.
 - a. For **Assign To**, click  to assign the navigation flow to a group of users or to a role, then click **Save and Close**.
 - b. Activate the navigation flow. See *Activating and Deactivating Navigation Flows in Oracle Hyperion Planning Administrator's Guide*.

To reload a navigation flow and view design time changes, see *Reloading a Navigation Flow in Oracle Hyperion Planning Administrator's Guide*.

Resolving Navigation Flow Failures in IP Allowlist-Enabled Environments

If the target environment has IP allowlist configured, you may get an error while connecting from the source environment. To fix this issue, refer to [Outbound IP Addresses of EPM Cloud Data Centers and Regions](#) to identify the outbound IP address of the source environment and add it to the allowlist of the target environment.

How to Get Help

If the information in the preceding sections fails to resolve your issue, contact Oracle for help.

1. Create Provide Feedback submissions from both the source and the target environments defined in the cross-environment connection.
Optionally, authorize Oracle to access the maintenance snapshot of both environments by consenting to the application snapshot submission. See [Creating a Provide Feedback Submission](#).

2. Create a technical service request that identifies the reference numbers of both Provide Feedback submissions. See [Submitting a Technical Service Request](#). Ensure to attach additional screenshots, if needed, to explain the issue in the service request, and specify the following:
 - Did this issue start after the latest monthly update?
 - Whether this is a critical outage.

Troubleshooting ERP Integration Functional Issues

This section describes the troubleshooting tips for issues with integrating Oracle Fusion General Ledger with Oracle Enterprise Performance Management Cloud.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

In this Section

- [Required Oracle ERP Cloud Predefined Roles](#)
- [Required Oracle ERP Cloud Privileges If Using a Custom Role](#)
- [IP Allowlist](#)
- [Troubleshooting Tips for ERP Integration](#)
- [Integration of EPM Cloud UI into ERP Instance](#)
- [Integration of EPM Cloud UI into an Oracle ERP Cloud Instance](#)
- [Getting Help](#)

Required Oracle ERP Cloud Predefined Roles

If using predefined roles to integrate Oracle Fusion General Ledger with Oracle Enterprise Performance Management Cloud, ensure that the integration user is assigned to the following Oracle ERP Cloud predefined roles to import and write back data:

- General Accountant (to import and write back data)
- Journal Management (to import data only)
- Period Close Management (to import data only)

Required Oracle ERP Cloud Privileges If Using a Custom Role

If you are not using predefined roles to integrate Oracle Fusion General Ledger with Oracle Enterprise Performance Management Cloud, assign the following privileges in Oracle ERP Cloud to the integration user.

- `GL_RUN_TRIAL_BALANCE_REPORT_PRIV`
This privilege permits the user to import data from General Ledger to EPM Cloud and write back data.
- `GL_ENTER_BUDGET_AMOUNTS_FOR_FINANCIAL_REPORTING_PRIV`

This privilege permits the user to import data from General Ledger to EPM Cloud and write back data.

- FUN_FSCM_REST_SERVICE_ACCESS_INTEGRATION_PRIV

This privilege allows the user to execute the REST APIs used to perform the integration and is required to import data from General Ledger to EPM Cloud and write back data.

IP Allowlist

If your Oracle ERP Cloud environment has enabled an IP allowlist, you must add the outbound IP address of the data center or region in which the Oracle Enterprise Performance Management Cloud environment is located to the allowlist in Oracle ERP Cloud.

See [Outbound IP Addresses of EPM Cloud Data Centers and Regions](#) to verify that the allowlist of the Oracle ERP Cloud environment contains the required IP addresses to enable connection.

Troubleshooting Tips for ERP Integration

When an ERP data integration process is executed, Oracle Enterprise Performance Management Cloud submits an Enterprise Service Scheduler (ESS) job in EPM Cloud. When this job is completed, the data is transferred and integrated into EPM Cloud.

If failures occur during the Extract phase of the integration, review the Data Management process log. Identify the ESS Process ID from the log. The log for the ESS job is appended to the process log. Identify and fix the errors as follows:

- **Error:** Invalid member specified in the query
Solution: Typically, this error is caused by an invalid member or a partially qualified member. Edit the source filters to specify fully qualified member names.
- **Error:** Query fails due to number of cells exceeding the governor limit
Solution: Adjust the source filters to query smaller data slices. Alternatively, create multiple integrations and include them in a batch to automate the execution.
- **Error:** Query did not produce any data
Solution: Review the source filter and correct the condition that caused the data retrieval to fail.
- **Error:** System timed out due to batch timeout settings
Solution: Increase the batch time out. If ERP Cloud has many jobs in the queue, reschedule the integration for a time when the ERP Cloud job queue is empty or has only a few jobs.

Integration of EPM Cloud UI into ERP Instance

Recommendations

- Using Page Composer, include only one Oracle Enterprise Performance Management Cloud URL in a page.
- Honor the aesthetics of the host UI.

Common Causes of Errors and Solutions

Some times, EPM Cloud pages integrated into an Oracle ERP Cloud instance may not be accessible and display an error. The following are the common causes for such errors and solutions to resolve them.

- Insufficient security assignments.
Check if the ERP Cloud user is able to access the page directly from EPM Cloud; if not ensure that the ERP user has the appropriate role and access in EPM Cloud.
- The referred page has been deleted from the navigation flow.
Add the referred page to the navigation flow again and then export the URL. Use the new URL in the ERP Cloud instance.
- The referred page is visible but its parent card or tab has not been made visible in the navigation flow.
Make the appropriate parent tab or card visible.
- The referred page is linked to an artifact that is either deleted or not enabled in the navigation flow.
Make sure that the linked artifact is present and is enabled in the navigation flow.
- The referred page path may have changed due to one of the following reasons:
 - The tab or sub-tab was moved to another card
 - The tab orientation in the card was changed (from vertical to horizontal or conversely)
 - The card was moved to another cluster
 - The card was moved out of the cluster as a top-level cardReexport the URL. Use the new URL in the ERP Cloud instance.
- A navigation flow does not exist; it has been deleted.
Add the navigation flow. Export the URL and use the new URL in the ERP Cloud instance.
See [Handling Issues with Navigation Flows](#) for resolving issues with remotely referenced nodes.

These issues may result in a page that is visible but does not have complete information:

- The ERP user attempting to access the page is not assigned an appropriate role in EPM Cloud.
Verify that the ERP Cloud user is able to see complete information when directly accessing it in EPM Cloud.
- SSO is not setup correctly.
Ensure that SSO is setup correctly.

Integration of EPM Cloud UI into an Oracle ERP Cloud Instance

Navigation flows give business process designers control over how various roles, or groups, interact with the business process.

The following issues may cause an artifact embedded in navigation flows to be not available from an ERP Cloud instance.

Issue: The ERP Cloud user is able to access the same artifact in Oracle Enterprise Performance Management Cloud, but not from the navigation flow.

Steps to Resolve:

- Ensure that the user has the appropriate security access.
- Ensure that the referred artifact is enabled in the navigation flow.
- Ensure that the navigation flow has not been deleted or renamed. Also ensure that the artifact has not been deleted from the navigation flow.
- If a referred artifact is visible, ensure that its parent tab or card are also visible. There may be situations where a a card is not visible in a navigation flow, but is tabs or sub tabs are. In these situations, the visible tabs or sub tabs cannot be accessed from the navigation flow even though the business process designer exported them as visible.

For remotely referenced nodes, see [Handling Issues with Navigation Flows](#)

Issue: Navigation Flow shows a broken page to the ERP Cloud user.

Steps to Resolve:

- Make sure that the ERP Cloud user is assigned the required predefined role in EPM Cloud.
- Ensure that federated SSO is working correctly.
- If the preceding steps do not resolve the issue, create a technical service request. See [Submitting a Technical Service Request](#).

Best Practices

- Add only one URL in a page.
- Honor the aesthetics of the user interface.

Getting Help

If the preceding tips do not resolve your issue, seek help from Oracle by creating a technical service request that describes the problem and the steps you completed to resolve it. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:

- Screenshots of any errors displayed.
- A list of the roles and privileges assigned to the Integration User.
- Did this issue start after the latest monthly update?
- Specify whether this is a critical outage.

Dealing with FastConnect Issues

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

Oracle Cloud Infrastructure FastConnect provides an easy way to create a dedicated private connection between your data center and the Oracle Cloud Infrastructure. FastConnect provides higher-bandwidth options and a more reliable and consistent networking experience compared to Internet-based connections. Oracle Enterprise Performance Management Cloud supports FastConnect. See [Fast Connect](#) in *Oracle Cloud Infrastructure Documentation* for detailed information including requirements and best practices.

FastConnect Support for OCI (Gen 2) Environments

OCI (Gen 2) customers can keep the traffic within the private OCI network by configuring private access through Oracle Virtual Cloud Network (VCN) with FastConnect, which can then be used to connect to EPM Cloud environments through the Service Gateway. For more information, see [Private Access to Oracle Services](#) in *Oracle Cloud Infrastructure Documentation*.

FastConnect for Classic Environments

Oracle no longer provisions new FastConnect configurations in Classic data centers. However, because Classic data centers are interconnected to the OCI backbone, you can leverage public peering FastConnect in OCI (Gen 2) to reach the public IP endpoints of Classic data centers. The public IP addresses of the following Classic data centers are available from public peering FastConnect in OCI: Amsterdam (EM2), Ashburn (US6), Chicago (US2), and Sydney (AP1). For information on the Classic prefixes available through OCI Fast Connect public peering, see [Oracle Cloud Infrastructure Classic Regional Routes](#) in "FastConnect Public Peering Advertised Routes" in *Oracle Cloud Infrastructure Documentation*.

Troubleshooting FastConnect Issues

For detailed troubleshooting information, see [FastConnect Troubleshooting](#) in *Oracle Cloud Infrastructure Documentation*.

Getting Help

If the preceding information does not resolve FastConnect issues, contact Oracle for assistance. Follow these steps:

- Create a Provide Feedback submission.
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following:
 - Detailed description of the issue.
 - Did this issue start after the latest monthly update?
 - If the issue was not occurring previously, the date, time, and time zone when issue was first noticed.
 - Whether this is a critical outage.

Troubleshooting NetSuite Planning and Budgeting Issues

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Sales Planning, and Strategic Workforce Planning.

If you encounter any issues in your NetSuite Planning and Budgeting environment, use the Planning sections of this guide to troubleshoot them. For example, if you encounter issues with business rules, refer to the section [Troubleshooting Business Rules and Member Formula Errors and Performance](#).

Getting Help

If the issue is not resolved, use the [NetSuite Support](#) process.

Resolving IP Allowlist Functional Issues

Connections from environments that have been configured to use IP allowlist may fail with the `Your access is forbidden` error. This sections provides steps on what to do if you encounter this error.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

Generally, this error is caused by an error in configuring IP allowlist. If you are faced with this error, get help from Oracle Support.

- Create a Provide Feedback Submission.
- Create a service request describing the issue. See [Submitting a Technical Service Request](#). The service request must contain the following:
 - The submission number from the Provide Feedback that you created in the preceding step.
 - A screenshot of the firewall configuration in My Services (Classic Environments only).
 - The IP addresses from which you are connecting to Oracle Enterprise Performance Management Cloud.
 - Did this issue start after the latest monthly update?
 - Whether this is a critical outage.

Managing Patching Issues

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

Oracle applies monthly updates on the test environments on the first Friday of the month, and on the production environments on the third Friday of the month. In addition, weekly patches may be applied on the test environments on the second Friday of the month. One-off patches can be applied on the test and production environments at any time based on your request. For detailed patching information see [Understanding Oracle Release Change Management Process](#).

In this Section

- [Why Monthly or Patch Updates Fail](#)
- [Getting Help](#)

Why Monthly or Patch Updates Fail

If you have an issue with the patching or updating of Oracle Enterprise Performance Management Cloud environments (for example, a patch is not applied on a specific date when

you expected it to be applied, a patch was applied when you expected it to be not applied, or an update fail), perform these checks:

- Make sure that you did not skip the update by running the skipUpdate EPM Automate command.
- Make sure that you did not submit a skip automatic update request to Oracle to skip the update.
- Make sure that you did not submit a request to upgrade or merge back the environment.
- Make sure that the environment is not on a one-off patch for which the fix is not yet available on the main code line.
- Make sure that the environment is not on a specific (temporary) configuration and cannot go through updates until the configuration for your environment is added in the main code line. Oracle would have notified you if your environment has a special configuration that is not in the main code line.
- Make sure that you did not run runDailyMaintenance EPM Automate command with the skipNext=true option to skip the next daily maintenance causing the patch to be not applied.

Getting Help

If all the checks listed in the preceding section pass and the patch or update is still not applied or it is applied when not expected, follow these steps:

1. Create a Provide Feedback submission from the environment with the patching issue. See [Creating a Provide Feedback Submission](#).
2. Submit a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Detailed description of the issue.
 - The current Oracle Enterprise Performance Management Cloud version of the environment. To identify the version number, from the **Settings and Actions** menu on the **Home** page, select **About**, and then **Version**.

Managing Other Functional Issues

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

If you face a functional issue that is not explored in this guide, contact Oracle Support for assistance. Follow these steps:

- Create a Provide Feedback submission. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Detailed steps to reproduce the issue.

- Did this issue start after the latest monthly update?
- If the issue was not occurring previously, the date, time, and time zone when issue was first noticed.
- A snapshot of the environment, if available, from prior to the last time the issue occurred.
- Application changes that you made since the last time issue was not occurring.
- Whether this is a critical outage.

Resolving Other Performance Issues

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

Use this process to resolve performance issues, especially overall performance issues that cause all activities in the environment to be slower than expected.

Correcting Network Latency and User Load Issues

Begin by eliminating network latency as a reason for slow login performance. Slow performance of internal and external networks may lead to slow connections.

Review the Activity Report to identify areas for improvement. The information you must evaluate includes the following tables. See *About the Activity Report in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

- **Top 10 Users with Poor Network Latency**
This table, which identifies users who have the worst access performance, provides you a starting point to identify network latency issues.
- **Number of Users**
Use this table to identify whether the user load on the environment may be a contributing factor to slow performance. Generally, more concurrent user actions within an environment lead to slower performance.
- **Top 30 Worst Performing User Interface Actions over 10 Seconds**
Use this table to identify whether performance is impacted by slow performing user actions. Understanding the user operations that cause the environment to be busy helps you evaluate and streamline them.
- **Business Rules Attached to a Form Taking Longer than 3 Seconds**
Long running business rules may impact performance. Analyze the rules in this table to make them more efficient. See [Resolving Form Functional and Performance Issues](#).
- **Top 5 Worst Performing Calc Script Commands over 1 Min and Top 10 Worst Performing Business Rules**. See [Troubleshooting Business Rules and Member Formula Errors and Performance](#).

Identifying Browser Performance Issues

The Activity Report tracks the versions of the browsers that are used to access the environment and the number of users who use them. The use of Google Chrome, Microsoft Edge, or Firefox browsers are likely to provide better performance for accessing Oracle

Enterprise Performance Management Cloud environments than other browsers. Also, encourage your users to use the latest published versions of these browsers. See *Setting Up Browsers for EPM Cloud in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Restarting the Environment (Optional) to Improve Performance

If all activities are slower than expected and you are certain that poor performance is not caused by user actions and network latency, restart the environment. This is a self-service operation that you can complete using the `resetService EPM Automate` command.

Before running this command, make sure that critical user initiated actions, including administrative and operational tasks being run using scripts, are not in progress. Restarting the environment terminates all ongoing processing in the environment.

Seeking Help

If the preceding information does not resolve your issues, contact Oracle Support for help.

1. Optional: Generate a Fiddler trace.

If overall performance is slower than expected, even after restarting the environment, generate a Fiddler trace of your session.

See [Using Fiddler to Capture Diagnostic Information](#).

Watch this overview video for information on configuring Fiddler to capture HTTPS traffic.



[Overview Video](#)

If you are unable to generate a Fiddler trace file of your session, see [Collecting Network Performance Trace Using a Browser](#) for information on collecting network trace using a browser.

- 2.** Create a Provide Feedback submission. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
- 3.** Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Details of the activities that take more time than expected.
 - Fiddler trace file or network diagnostic HAR file.
 - Did this issue start after the latest monthly update?
 - If the activities were previously performing to expectation, the date, time, and time zone when performance was acceptable.
 - A snapshot of the environment, if available, from the last time when performance was acceptable.
 - Application changes that you made since the performance was acceptable.
 - Whether this is a critical outage.

Handling Financial Consolidation Data Inaccuracies

Use the information in this section to analyze why you see data discrepancies (deviation from expected numbers) during the financial consolidation process.

Applies to

Financial Consolidation and Close, and Tax Reporting.

These steps are involved in investigating why the consolidation numbers you expect to see are not coming up during consolidation:

- [Check for Poor Application Design](#)
- [Remove Customizations](#)
- [Check Known Consolidation Issues](#)
- [Use Data Discovery to Self-Diagnose Data Inaccuracies](#)
- [Get Help from Oracle](#)

Check for Poor Application Design

Incorrect metadata property settings in Financial Consolidation and Close are primary responsible for numbers mismatch. A Service Administrator must review the consolidation application design and identify and fix metadata errors to ensure the accuracy of numbers during consolidation.

Review and Fix Metadata Errors



Accuracy during consolidation is predicated on the metadata properties of each dimension in the application being accurate. Use the **Simplified Dimension Editor** to verify that your metadata abides by the best practices for consolidation.

Review application dimensions to ensure that they are defined with the correct member properties. For information on reviewing member properties, see Editing Member Properties in the Simplified Dimension Editor in *Financial Consolidation and Close Administrator's Guide*.

To review and fix errors using the **Simplified Dimension Editor**:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Overview**.
3. On the **Dimensions** tab, click the name of the dimension, for example, Account, that you want to evaluate.

The **Edit Member Properties** screen for the selected dimension is displayed.

- a. Click **Zoom In All Levels** .
- b. Click **Validate Metadata Definition** .
A validation pane, which lists the validation errors in the current dimension, is displayed at the bottom of the screen.
- c. Use **Fix Validation Errors** to select and fix each validation error. Click **Apply** to apply changes to the metadata property value.
- d. Click **Save** after fixing all validation errors.
- e. Click **Cancel** to return to the **Dimensions** tab.

4. Repeat Step 3 for each dimension.
5. Refresh the database.
 - a. From **Actions**, select **Refresh Database**.
 - b. Click **Create**.
 - c. In **Refresh the database**, set actions that are to be completed before and after refreshing the database.

Validating Metadata

Use the Metadata Validator to ensure that metadata properties, such as assigned default and consol cube data storage, consolidation operator, and parent member are valid. Invalid metadata property assignment may cause errors during consolidation.

To validate metadata using the Metadata Validator:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Overview**.
3. From **Actions**, select **Validate Metadata**.
4. In **Validate Metadata**, click **Run**.

Errors, if any, are displayed in [Parent].[Child] format along with an error description. For detailed information on error messages, see Metadata Validation Messages in *Financial Consolidation and Close Administrator's Guide*.
5. Open the Dimension Editor and correct all reported metadata errors. See About Editing Dimensions in the Simplified Dimension Editor in *Financial Consolidation and Close Administrator's Guide*.
6. Rerun consolidation and check results.

If data inaccuracies are not resolved, you can assume that metadata definitions are not responsible for inaccurate consolidation results.

Remove Customizations

Remove (undeploy) customized translation rules, consolidation rules, calculations, and dimension member formulas in the application to verify that consolidation accuracy is not compromised by customizations.

Undeploy Translation Rules

You undeploy translation rules from the **Translation Override Rules** screen.

To undeploy custom translation rules:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. Select **Application** and then **Consolidation**.
3. Open **Consolidation Process**, then select **Translated**, and then select **Translation Overrides**.
4. Click **Show All Rules** to list all deployed rules.
5. Select the translation rules with customizations and undeploy them.
6. Rerun consolidation and check results.

If data inaccuracies are not resolved, you can assume that translation rules are not responsible for inaccurate consolidation results. You can now redeploy the rules. If

inaccuracies are resolved, review the translation rules to identify and correct the rule that caused the consolidation results to be inaccurate.

Undeploy Configurable Consolidation Rules

You undeploy configurable consolidation rules from the **Manage Consolidation Rules** screen. Configurable consolidation rules are enabled only if the Ownership Management feature is enabled.

To undeploy custom consolidation rules:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. Select **Application** and then **Consolidation**.
3. Open **Consolidation Process**, then select **Consolidated**, and then select **Configurable Consolidation**.
4. For each customized consolidation rule, select the rule and then click **Undeploy**.
5. Rerun consolidation and check results.

If data inaccuracies are not resolved, you can assume that configurable consolidation rules are not responsible for inaccurate results. You can now redeploy the rules. If inaccuracies are resolved, review the consolidation rules that you removed to identify and correct the rule that caused the consolidation results to be inaccurate.

Delete Custom Calculation Logic

Customizations to the predefined Financial Consolidation and Close rules (FCCS_10 to FCCS_60 for multicurrency applications and FCCS_110 to FCCS_160 for single currency applications) may cause consolidation to be inaccurate. You remove custom logic by editing the rule in Oracle Hyperion Calculation Manager.

To remove customizations of predefined rules:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. Select **Application** and then **Consolidation**.
3. Open **Consolidation Process**, then select **Local Currency**, and then select **After Opening Balance Carry Forward**.
Calculation Manager is displayed.
4. In Calculation Manager, expand **Planning**, then the application, then **Consol**, and then **Rules**.
5. For each rule:
 - a. Right-click the rule, then select **Open**.
 - b. Comment out or delete any custom rule definition.
 - c. Click **Save**.
 - d. Select **Actions**, and then **Validate and Deploy**.
6. Rerun consolidation and check results.


If data inaccuracies are not resolved, you can assume that calculation logic is not responsible for inaccurate consolidation results. You can now reinstate the logic. If inaccuracies are resolved, review the calculation logic to identify and correct the logic that caused the consolidation results to be inaccurate.

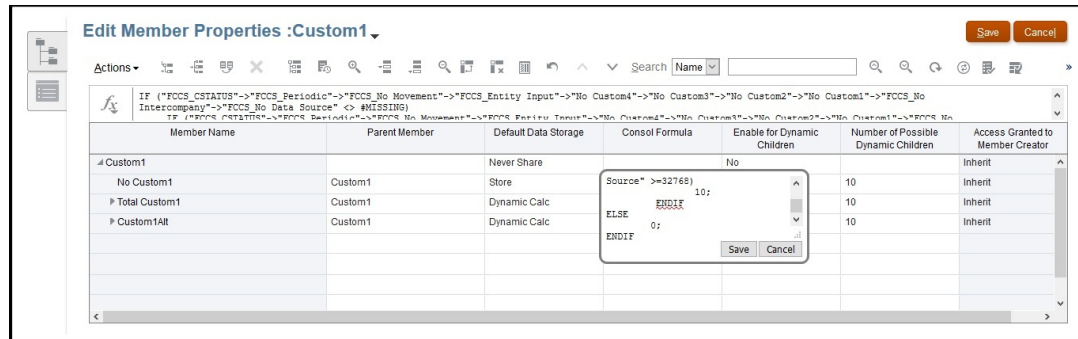
Review and Remove Formulas

Review member formulas to optimize calculations and logic and to remove unnecessary formulas. You can review member formulas using the **Simplified Dimension Editor** or Oracle Smart View for Office.

Use the **Edit Member Properties** screen to review, edit, and remove formulas from a dimension. You can remove formulas only from custom dimensions; seeded formulas, for example, YTD, on default (out-of-the-box) dimensions cannot be removed.

To edit or remove formulas from custom dimensions:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Overview**.
3. Click **Dimensions** to open the **Simplified Dimension Editor**.
4. Click the name of the dimension that you want to work with.
5. Click **Zoom in All Levels** .
6. In the **Console Formula** column, find the formula that you want to edit or remove.



You may remove columns from the current view to declutter the screen by right-clicking in the column header and deselecting some columns.

7. Edit or delete the formula as needed and then click **Save** to preserve your changes.
8. Click **Save** and then **Cancel** in **Edit Member Properties**.
9. Rerun consolidation and check results.

If data inaccuracies are not resolved, you can assume that formulas are not responsible for inaccurate consolidation results. You can now redeploy the formulas.

If inaccuracies are resolved, review the formulas that you deleted to identify and correct the formula that caused the consolidation results to be inaccurate.

Check Known Consolidation Issues

This section lists solutions for common consolidation issues such as retained earnings not rolling over for a period, Cumulative Translation Adjustment (CTA) not being calculated, opening balance and foreign exchange calculation inaccuracies, and custom member formulas being defined under Total Balance Sheet hierarchy.

Before contacting Oracle for help, verify that these issues are not causing you to see unexpected consolidated numbers.

Issue 1: Retained Earnings not Rolling Over for Period 1

FCCS_REC_OBFXCTA is a system member that stores the Opening Balance and FX calculation for Net Income/Owners Income members. The Net Income/Owners Income parent member is referred in Opening Balance and FX calculations. The Net Income/Owners Income hierarchy must always be within the Retained Earnings hierarchy.

Ensure that the Net Income/Owners Income hierarchy is within the Retained Earnings hierarchy

Similar Issues: Other seeded system members that should not be moved from their original position include the following:

- **Account:**
 - FCCS_Total Balance Sheet XXX (Balance sheet top member), FCCS_Balance (valid only if balance calculation is valid)
 - FCCS_Total Assets, FCCS_Total Liabilities, FCCS_Total Equity (for balance calculation only)
 - FCCS_Retained Earnings, FCCS_Retained Earnings Prior, FCCS_Net Income, FCCS_Owners Income, FCCS_REC_OBFXCTA
 - FCCS_CTA (valid only when Balance Sheet under CTA is enabled)
 - FCCS_CICTA, FCCS_Total Other Comprehensive Income, FCCS_OR_OBFXCICTA
- **Movement:**
 - FCCS_ClosingBalance, FCCS_Mvmts_Subtotal, and members under FCCS_Mvmts_FX_Total
 - FCCS_Total OpeningBalance, FCCS_OpeningBalance
 - FCCS_Mvmts_Subtotal
 - Members under FCCS_Mvmts_FX_Total

Issue 2: CTA is not Calculated (Multicurrency Applications)

CTA is calculated as sum of foreign exchange to CTA values for historical accounts under balance Sheet top member (FCCS_Total Balance Sheet - Traditional Approach, FCCS_Total Balance Sheet Net Asset Approach). Historical accounts outside top balance sheet members are ignored for CTA calculation.

- Check if historical accounts (accounts with Exchange Rate Type property set to Historical, Historical Rate Override, Historical Amount Override) have FX to CTA movement member data in FCCS_Mvmts_FX_to_CTA.
- If data is not present in FCCS_Mvmts_FX_to_CTA for historical accounts, check if historical accounts are outside balance sheet top member hierarchy.
- Verify that all the historical accounts are within the balance sheet top member hierarchy.

Issue 3: OB and FX for Revenue and Expense Accounts Outside FCCS_Net Income, FCCS_Owners Income, and FCCS_Total Other Comprehensive Income Hierarchy

Revenue and expense accounts outside FCCS_Net Income, FCCS_Owners Income, and FCCS_Total Other Comprehensive Income hierarchy are not considered for opening Balance or FX calculations and leads to out of balance issues. This is a known issue; which Oracle is working on fixing.

Workaround: Move revenue and expense accounts under FCCS_Net Income, FCCS_Owners Income, or FCCS_Total Other Comprehensive Income hierarchy.

Issue 4: OB and FX for Equity, Liability, and Asset Accounts Under FCCS_Net Income or FCCS_Owners Income

OB and FX should not be calculated for equity, liability, and asset accounts under FCCS_Net Income or FCCS_Owners Income. However, if OB and FX for equity, liability, and asset accounts are in FCCS_Net Income or FCCS_Owners Income hierarchy, OB and FX are currently calculated for these accounts, leading to out of balance issues. This is a known issue, which Oracle is working on fixing.

Workaround: Move equity, liability, and asset accounts outside the FCCS_Net Income or FCCS_Owners Income hierarchy.

Issue 5: OB and FX for Accounts Outside FCCS_Balance Sheet Hierarchy

Although Financial Consolidation and Close should calculate OB and FX also for all financial accounts outside FCCS_Balance sheet, it does so only for accounts under FCCS_Balance Sheet, which results in customers not getting the expected results. This is a known issue, which Oracle is working on fixing.

Workaround: Move all the financial accounts under the FCCS_Balance Sheet hierarchy.

Issue 6: Member Formula Defined Under Total Balance Sheet Hierarchy for Custom Accounts

For custom accounts, member formulas defined under Total Balance Sheet hierarchy causes unexpected results or calculations.

Corrective Actions:

- Remove formulas defined under Total Balance Sheet hierarchy
- Refresh the database
- Run consolidation or translation for the impacted period or year
- Verify that the issue is resolved

Issue 7: Shared Members Created in Alternate Hierarchy in Period Dimension

Shared members created in alternate hierarchy in Period dimension cause unexpected results or calculations.

Corrective Actions:

- Remove Shared members created in alternate hierarchy in Period dimension
- Refresh the database
- Run consolidation or translation for the impacted period or year
- Verify that the issue is resolved

Issue 8: Parents of Shared Members Created in Alternate Hierarchy of Period Dimension Cannot be Removed

Parents of shared members created in alternate hierarchy of Period dimension cannot be removed. This may cause performance issues during spreadsheet retrievals when referencing Dynamic Calc To Date View members.

Corrective Actions:

- Avoid creating alternate hierarchy in Period dimension
- If shared members are present in alternate hierarchy of Period dimension, recreate the application while avoiding alternate hierarchy in Period dimension. This is the only solution to resolve retrieval performance issues in such a situation.

Use Data Discovery to Self-Diagnose Data Inaccuracies

Financial Consolidation and Close provides the Data Discovery tool, which helps you to identify data inaccuracies. See these resources for detailed information on using this tool:

- Working with Data Discovery in *Financial Consolidation and Close Administrator's Guide*
- Oracle Customer Connect event recording: [Financial Consolidation and Close Tips and Tricks](#)

Get Help from Oracle

If the corrective steps suggested in the preceding sections fail to resolve inaccuracies in consolidation results, seek help from Oracle.

Before creating a service request, turn on consolidation log files, restart Financial Consolidation and Close, run consolidation, and then use the Provide Feedback utility to gather the information that Oracle needs to identify and fix your problem. See [Enable Consolidation Rules Logs and Submit Feedback to Oracle](#) for instructions.

To seek help from Oracle:

1. Create a Provide Feedback submission, which includes screenshots of the consolidation results.
Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - An explanation of the expected consolidation results and how they differ from the actual result. A document identifying the outcome of the troubleshooting steps that you performed based on the sections in this guide.
 - A list of any remaining metadata validation errors and an explanation of why are you unable to clear them.
 - The Oracle Smart View for Office sheets or web forms that show inaccurate data.
 - POV with no dynamic calc members where data is inaccurate.
 - If data is inaccurate for a POV member that is a parent member, a drill down to the specific child member where the data is inaccurate. This drill down is critical for faster diagnosis.
 - Did this issue start after the latest monthly update?
 - If the consolidation results were accurate previously, but are no longer, the date, time, and time zone when results were accurate.
 - A snapshot of the environment, if available, from the last time when the consolidation numbers were accurate.
 - Changes that you made since the last time consolidation results were accurate.

- Specify whether you are migrating from Oracle Hyperion Financial Management.
- Specify whether this is a critical outage.

Handling Data Loss in an Environment

If you are faced with data loss in an environment, seek immediate help from Oracle.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

To prevent data loss, do not combine operations to move, delete, and rename members in one transaction. Perform these operations separately.

Consider upgrading Oracle Essbase if appropriate. Upgrading Essbase allows you to use Hybrid BSO cubes for your application and reduces the possibility of data loss. See *About Essbase in EPM Cloud in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators* for detailed information.

If you are faced with data loss in an environment, attempt to find the root cause as follows:

- Check if you have performed move, delete, and rename members operations followed by a data refresh. This may result in a data loss.
- Check if you have run a calculation script that results in clearing of data blocks.
- Check if you ran a data load rule in REPLACE mode using a data load file that did not contain all members of one or more dimensions.

In this case, if you use the default REPLACE option, the created CLEARDATA script only builds a FIX statement for members of Entity, Year, Period, Scenario, and Version dimensions. If a dimension is not included in the FIX statement, all members of that dimension are included in the CLEARDATA. If you are, for example, loading a specific account without updating the clear filter, the clear script clears all members of accounts, and other dimensions, not specifically cleared by CLEARDATA.

To avoid this scenario, define clear regions with appropriate dimension filters. For information on defining a clear region, see *Defining A Clear Region in Administering Data Integration for Oracle Enterprise Performance Management Cloud*.

Check the job console to find the jobs run from when the data was present to when the data was lost to determine if there were jobs that could have resulted in data loss. You may also review the audit log to identify why the data loss occurred.

If the preceding suggestions do not work, contact Oracle for help.

- Create a Provide Feedback submission that identifies the actions, if any, that you performed in the environment. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following:
 - Detailed steps to reproduce the issue.
 - The last known date and time when the missing data was present in the environment.

- Application changes, if any, that you made after the last time the data was present.
- A snapshot of the environment, if available, from the last time data was present in the environment.
- Specify whether this is a critical outage.

Resolving Order Processing Issues

This section lists troubleshooting tips for issues related to processing Oracle Enterprise Performance Management Cloud orders.

Applies to

Oracle Hyperion Planning, Planning Modules, FreeForm, Financial Consolidation and Close, Tax Reporting, Account Reconciliation, Oracle Hyperion Profitability and Cost Management, Enterprise Profitability and Cost Management, Oracle Enterprise Data Management Cloud, Narrative Reporting, Sales Planning, and Strategic Workforce Planning.

Generally, order processing issues revolve around the notification email that Oracle sends upon fulfilling your order to provision an EPM Cloud subscription.

To resolve order processing issues, create a technical service request and provide the following information. See [Submitting a Technical Service Request](#).

- The sales order number. This number is available in your communications with Oracle.
- A detailed description of the issue. For example, "Acme Corporation has not received a confirmation email with URLs of the environments purchased with sales order 12345678."

5

Making EPM Cloud-Related Requests

Related Topics

- [Requesting to Skip Automatic Updates for Environments](#)
- [Requesting a One-Off Patch](#)

Oracle creates one-off patches to fix regression bugs and customer blocking bugs, or to introduce new features. You can request a one-off patch to be applied to your test environment.
- [Requesting a Rollback of Production or Test Environments](#)
- [Requesting Merge Back of Environments](#)
- [Requesting Oracle to Apply Monthly Update to Production Environments Prior to the Third Friday](#)
- [Requesting a Temporary Loaner Environment](#)

Oracle Enterprise Performance Management Cloud customers or partners can request a temporary loaner environment for familiarizing themselves with EPM Cloud or for developing a proof of concept. Customers or partners can also request a temporary loaner environment to familiarize themselves with OCI (Gen 2) EPM Cloud environments. Loaner environments can be used for up to three months.
- [EPM Cloud Classic to Oracle Cloud Infrastructure \(OCI\) Migration](#)
- [Enrolling in the Implementation Success Program](#)

The Implementation Success Program (ISP) is a customer-focused initiative that strives to significantly increase the success rate of Oracle Enterprise Performance Management Cloud implementations.
- [Requesting Performance Validation for Planning, Planning Modules, and Financial Consolidation and Close](#)

Performance validation aims to ensure that your Oracle Enterprise Performance Management Cloud business process is performing as expected. You can complete the performance validation when the application is ready for user acceptance testing or any time you have concerns about the business process performance.
- [Requesting Automated Regression Testing](#)

In the Regression Testing Program, Oracle helps customers build EPM Automate-based scripts to facilitate the adoption of an automated regression testing process that reduces the time it takes to complete regression testing each month.
- [Requesting Essbase Block Analysis Report](#)
- [Requesting Design Comparison for On-Premises Planning Application Migrated to EPM Cloud](#)

The performance of some on-premises Planning applications that you migrate to Oracle Enterprise Performance Management Cloud may not match their on-premises performance.
- [Requesting Custom Sender Email Address for OCI \(Gen 2\) Environments](#)

- [Submitting an Enhancement Request](#)
Oracle actively listens to enhancement requests from Oracle Enterprise Performance Management Cloud subscribers as a part of its commitment to providing best-of-breed functionalities to users.
- [Requesting an Increase in Planning Dimension Governor Limits](#)
- [Requesting an Increase in Financial Consolidation and Close Dimension Governor Limits](#)
Financial Consolidation and Close uses default dimension governor limits to ensure optimal performance. These limits are enforced when you create objects in each dimension.
- [Requesting an Increase in Profitability and Cost Management and Enterprise Profitability and Cost Management Governor Limits](#)
Oracle Hyperion Profitability and Cost Management and Enterprise Profitability and Cost Management use default artifact and dimension governor limits to ensure optimal performance. These limits are enforced when you create rules and objects in each dimension.
- [Requesting an Increase in Oracle Enterprise Data Management Cloud Governor Limits](#)
Oracle Enterprise Data Management Cloud uses default governor limits to ensure optimal performance. In some cases, Oracle will increase the limit on these governors at your request through a technical service request.
- [Requesting an Increase in Account Reconciliation Governor Limits](#)
Account Reconciliation enforces many governor limits that can be increased.
- [Requesting Root Cause Analysis \(RCA\) for a Resolved Issue](#)
Oracle proactively sends Event Summary and Root Cause Analysis (RCA) notifications, and official documents for resolved issues. These notifications contain information related to a specific service outage or performance degradation.
- [Requesting an Old Backup Snapshot of an Environment](#)
You are responsible for creating backup snapshots by downloading and storing the maintenance snapshot (`Artifact Snapshot` for environments other than Narrative Reporting or `EPRCS_Backup.tar.gz` for Narrative Reporting) every day.
- [Requesting an Increase in Capacity](#)
When you have a performance issue, always refer to the appropriate sections in this document to troubleshoot them. If you cannot fix the issue by yourself, seek help from Oracle.
- [Requesting a Health Check for an Environment](#)
Questions about the stability and health of an environment may arise especially if you were faced with a number of recent issues.
- [Requesting the Migration of Environments to Another Data Center](#)
A valid business justification; for example, a legal or security requirement to host data in a specific data center region or latency issues with the current data center region, is required to migrate EPM Cloud subscriptions to a new domain in another data center.
- [Requesting the Configuration of IP Allowlist](#)
- [Requesting to Disallow Service Administrators to Assign Predefined Roles in OCI \(Gen 2\) Environments](#)
- [Requesting Additional Environments for EPM Enterprise Cloud Service Subscriptions](#)
- [Requesting Infrastructure Maintenance Delay](#)
- [Requesting EPM Cloud Roadmap Information](#)
You may have questions about when an upcoming enhancement, especially, critical functionality, may be available in Oracle Enterprise Performance Management Cloud.

Oracle Cloud Customer Connect Forums provide avenues to seek roadmap information from Oracle.

- [Responding to Customer Diagnostic Alerts](#)
Oracle Enterprise Performance Management Cloud uses a diagnostic alert (an email addressed to Service Administrators of an environment) to communicate issues that impact the uptime, performance, or usage of an environment, which require customer action.
- [Making Other Requests](#)

Requesting to Skip Automatic Updates for Environments

A customer, citing a justification for the request, may seek to skip automatic updates of an environment for a maximum of three upcoming monthly update cycles. You must specify an skip update for each monthly cycle. You can seek to skip the automatic updates of environments in the following scenarios:

- You identified a regressive bug in the test environment. In this scenario, Oracle will fix the bug and then update your environment without further delay. No customer approval is necessary for updating to the main code line.
- You are in the critical phase of your implementation project. In this scenario, Oracle will postpone the update to the date that you agreed upon when requesting the delay. If you do not make an additional skip automatic update request, Oracle automatically updates the environment on the date that you agreed upon when requesting the skip update.
- You want to skip this month's update because you do not have the time to test the monthly update. In this scenario, Oracle automatically updates the environment in the next monthly update cycle.
- You want to skip the update for the next three months to complete a quarter close or year end close. In this scenario, Oracle automatically updates the environment on the monthly cycle after the skipped cycles.

Generally, customers migrating from on-premises to Oracle Enterprise Performance Management Cloud use the skip update process. After they are comfortable with the update cadence, they update to the main line and then do not skip automatic updates.



Note:

Monthly update notifications will still be sent to the Service Administrators of the environments for which an update has been put on hold.

Repercussions of a Skip Update

The negative impacts of a skip update include the following:

- An environment that has not been updated in one or more monthly cycles requires a longer time to update to the main line.
- After the environment is brought to the main code line, you will incur more time to test (you will need to test features and changes from multiple monthly updates).
- Security updates and bug fixes are applied to environments only when they are updated to the main code line.

How to Specify a Skip Update

Setting a skip update is a self-service operation that is performed using the skipUpdate EPM Automate command.

Using this command, you can skip one, two, or three of the upcoming monthly updates. For example, if the environment is on the 24.01 update, you can skip the 24.02, 24.03, and 24.04 monthly updates, but not the 24.05 update. In this case, you need to issue the command thrice, once each for 24.02, 24.03, and 24.04. Your environment will be updated to the main code line in the 24.05 monthly update cycle. You run the skipUpdate command as follows to skip the updates in this example scenario:

```
epmautomate skipupdate add version=24.02 comment="Example comment"  
epmautomate skipupdate add version=24.03 comment="Example comment"  
epmautomate skipupdate add version=24.04 comment="Example comment"
```

 **Note:**

If you skip updates using the skipUpdate EPM Automate command, weekly and emergency patches, if any, for the current month will continue to be applied to the environment. No updates will be made for the months for which the skip update is requested.

You cannot use skipUpdate command for an environment that is on a one-off patch. Additionally, you cannot use this command to skip monthly updates that are more than three months apart from the update that the environment is currently on. In these cases, you can ask for an exemption:

- Create a Provide Feedback submission from the environment for which the automatic update is to be skipped. See [Creating a Provide Feedback Submission](#).
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Reason (for example, regressive bug information, critical phase of implementation project, test environment not tested, quarter or year-end close) why skip update is being requested.
 - If the skip update is not because of a regressive bug, the date or month when Oracle can merge the environment back to the main code line.
 - A formal request in the following format:
I, <Your name>, request Oracle to skip the automatic update of the environment <URL of the environment>.

 **Note:**

If you requested Oracle to skip automatic updates using a service request, no weekly or emergency patches (including those for the rest of the month) will be applied to the environment after the request is fulfilled.

Requesting a One-Off Patch

Oracle creates one-off patches to fix regression bugs and customer blocking bugs, or to introduce new features. You can request a one-off patch to be applied to your test environment.

After testing the fix or new feature in the test environment, you can request that the one-off patch be applied to your production environment.

Before submitting a request to apply a one-off patch to an environment, note that the environment to which a one-off patch is applied will not be updated with a monthly update until Oracle merges the environment back to the main code line. The merge back occurs in the monthly cycle in which the issue is fixed in the main code line. See [Understanding EPM Cloud Change Management Process](#)

See these topics for information on how Oracle handles regression bugs:

- [Resolving Regression or Blocking Bugs in Production Environments](#)
- [Resolving Regression Bugs in Test Environments](#)

There are three situations in which a request to apply a one-off patch to an environment is appropriate. You don't need to submit a new technical service request for any of these requests.:

1. When Oracle creates a fix for a functional or performance issue for which you submitted a service request, and you want Oracle to apply the fix to your test environment as a one-off patch before Oracle includes it in the main code line.
2. When Oracle informs you that a fix for a functional or performance issue for which you submit a service request is already available as a one-off patch and you want Oracle to apply it to your test environment.
3. After testing the one-off patch in your test environment, complete these steps if you want to apply it to your production environment or additional test environments.
 - Submit a Provide Feedback from each environment to which patch should be applied. See [Creating a Provide Feedback Submission](#).
The service request must contain a formal request in the following format:

```
I, <your name>, request Oracle to apply the one-off patch <one-off patch number> to the environment <URL of the environment>.
```
 - Include each Provide Feedback reference number in the existing technical service request. See [Submitting a Technical Service Request](#).

Note:

Oracle makes the patch available to the environment at the earliest opportunity after you submit a technical service request. Oracle cannot guarantee to honor a request to apply the one-off patch on a future date. If you want the one-off patch to be applied on a specific date, submit the service request on that date. Choose *Critical Outage* as the Issue Type in the service request.

After applying a one-off patch, Oracle will merge the environment back to the main code line without seeking your approval. The merge back will occur in the monthly cycle in which the issue is fixed in the main code line. Then the environment will get updated as per the regular cadence.

 **Note:**

If you are testing a one-off patch that you plan to apply to other environments, a peculiar situation that causes the environments to be on different monthly updates, may arise. For example, assume that you are testing a one-off patch built on top of the 24.03 monthly update on an environment that is on the 24.03 monthly update and plan to have it applied on other 24.03 environments. While testing is in progress, the environments on which you want to have the tested one-off patch deployed may be updated with the 24.04 monthly update. To prevent this from happening, use the `skipUpdate` EPM Automate command to skip updates to the environments where you anticipate to have the one-off patch applied.

Requesting a Rollback of Production or Test Environments

Except for Narrative Reporting environments, if a fix for a critical issue in an updated production or test environment is not immediately available, Oracle may revert the environment to the state it was in before the monthly update. Reverting environments involves cleaning the environment, applying the last monthly update, and then reloading the backup from the previous month. Additionally, Oracle will provide a loaner test environment to customers who request an additional test environment.

How to Request a Rollback

To request a rollback:

- Create a Provide Feedback submission from the environment that needs to be rolled back. See [Creating a Provide Feedback Submission](#).
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Detailed information on the regressive bug that necessitates the rollback
 - Information (date, time, and timezone) on when the environment will be free to be rolled back.
 - A formal request in the following format:

```
I, <your name>, request Oracle to roll back the environment <URL of the environment> to <previous version>.
```

In the request, `<previous version>` should identify the previous Oracle Enterprise Performance Management Cloud version, for example Update 20.03.

Requesting Merge Back of Environments

If you requested to skip the automatic update of an environment, Oracle merges the environment back to the main code line based on the version you provided while skipping the update using the `skipUpdate` EPM Automate command or in the skip update service request. Similarly, if your environment is on a one-off patch, Oracle automatically updates it to the main code line patch after the regression for which the one-off patch was created is fixed in a monthly update.

When an environment is merged back to the main code line, the daily maintenance process applies all required monthly updates to the environment including the latest monthly update. Because of this, the daily maintenance process takes more time during the merge back

process. Content upgrade, if required, is skipped during intermediate monthly updates; it is executed only with the latest monthly update. Note that content update is automatically executed on merging back to the main code line even if it has been defined to be a self-service operation.

Removing Skip Update

If you used the skipUpdate EPM Automate command to skip an automatic update, removing it is also a self-service operation performed using the skipUpdate command with the remove parameter as follows:

```
epmautomate skipupdate remove
```

If you skip automatic updates through a technical service request and you want to request Oracle to merge such environments to the main code line before Oracle automatically merges it back:

- Create a Provide Feedback submission from the environment that needs to be merged back. See [Creating a Provide Feedback Submission](#).
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Reason (for example, need to get a new functionality available in the main code line patch, completion of quarter or year end close) why the merge back is being requested.
 - A request to merge back the environment in the following format:
I, <your name>, request Oracle to merge the environment <URL of the environment> to the main code line.

Requesting Oracle to Apply Monthly Update to Production Environments Prior to the Third Friday

Oracle applies the monthly update to test environments on the first Friday of the month and to production environments on the third Friday of the month. This schedule gives you a two-week period to test the monthly update in your test environments. However, you can ask Oracle to update your production environment before the third Friday of the month.

To request Oracle to apply monthly update before the third Friday:

- Create a Provide Feedback submission from the production environment. See [Creating a Provide Feedback Submission](#).
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information.
 - The reason (for example, need to get a new functionality available in the monthly update) why you want the production environment to be updated earlier than scheduled.
 - A formal request in the following format:
I, <your name>, request Oracle to apply the monthly update <UPDTE_NUMBER> (for example, 20.07) to the environment <URL of the environment> now before the scheduled date of third Friday of the month.

Requesting a Temporary Loaner Environment

Oracle Enterprise Performance Management Cloud customers or partners can request a temporary loaner environment for familiarizing themselves with EPM Cloud or for developing a proof of concept. Customers or partners can also request a temporary loaner environment to familiarize themselves with OCI (Gen 2) EPM Cloud environments. Loaner environments can be used for up to three months.

Loaner environments are made available after an Oracle SVP-level review and approval and is made solely at the discretion of Oracle.

Note:

If you have an EPM Enterprise Cloud Service subscription, you don't need to request a loaner environment. Instead, work with your Sales team to enable you to create another pair of environments using My Services. See *Creating an EPM Cloud Instance in Getting Started with Oracle Enterprise Performance Management Cloud for Administrators* for details.

To request a loaner environment, create a technical service request. See [Submitting a Technical Service Request](#).

Note:

Create the service request against the appropriate Service Type; for example, PBCS or FCCS. Be sure to select either **Application** or **Application Setup and Migration** as the Problem Type to ensure that the service request is routed correctly to product support. Do not select **Hosting Services** as the problem type.

The service request must contain the following information:

- Required number of loaner environments.
- Business justification for the request, for example, testing with OCI (Gen 2).
- Start date of the loan period.
- Duration of the loan period.
- Preferred geographical region of the data center (example, North America, Europe, Asia).
- Email addresses of the users who are to be created and assigned the role of Identity Domain Administrator of the loaner environment. These users can then add other users and assign them predefined roles as needed.

Note:

The loaner environments come with a preseeded user named `loaneradmin_ww@oracle.com`, who is assigned to the Identity Domain Administrator role. Do not remove this user.

EPM Cloud Classic to Oracle Cloud Infrastructure (OCI) Migration

Oracle has a longstanding reputation for providing innovative technologies that empower organizations to meet their most demanding business needs. One of Oracle's latest advancements is Oracle Cloud Infrastructure (OCI). As the foundation of Oracle's second generation cloud, OCI is purpose-built, best-in-class platform for running enterprise applications. OCI is engineered from the ground up to run mission-critical databases, workloads, and applications while providing end-to-end security. Oracle's data centers around the globe are standardizing on the new OCI architecture which delivers even greater performance and reliability. Many Oracle Enterprise Performance Management Cloud features are available only in OCI. See *Features Available only in OCI EPM Cloud Environments in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

For information on where Oracle provisions new orders from existing customers, see [Location of the New Environments](#).

Oracle has finished migrating all EPM Cloud environments in Classic commercial data centers to OCI, and is now planning to migrate all environments in Classic UK Government data centers to OCI using [Oracle-Managed Migration](#).

Oracle-Managed Migration

Oracle will migrate all Classic UK Government Oracle Enterprise Performance Management Cloud environments to OCI in Wave 9. Oracle will migrate your Classic environments in a seamless manner on a predefined schedule. Oracle has sent a notification to the Service Administrators of these environments with the following information:

- A list of the Service URLs of the current Classic environments.
- Domain names of the new environments in OCI (in most cases, the current domain names are used).
- Location of OCI data centers where the environments will be created.
- The default Domain Administrator and Service Administrator email addresses on record with Oracle. These will be used as the Domain Administrator and Service Administrator for the new OCI environments.

As specified in this notification sent in the beginning of April 2024, OCI environments will be available in May 2024. You can request Oracle to change the Domain Administrator and Service Administrator emails by creating a service request containing the updated information by the date provided in the notification. You cannot change the new domain name or the OCI data center location.

In May 2024, Oracle provides OCI environments equaling the current number of Classic environments. These OCI environments use the domain names and OCI data centers provided earlier and do not have any application or users on them. The default Domain Administrator and Service Administrator specified in the notification email get the *Activate Your Account* email.

 **Note:**

Because your OCI environments may be provisioned at different times, you may not receive notification emails for all the environments at the same time.

When you receive the OCI environments, complete these optional activities before July 2024.

- Configure Single Sign On (SSO) with your Identity Provider if you utilize SSO in your Classic environments
- Configure IP Allowlists for the OCI Environments if you use allowlists with your Classic environments
- If you want to perform tests in OCI environments:

 **Note:**

You need not clone and test every Classic environment. For example, if you have the same application on a test and production environment, test it only in one of the environments. Additionally, it is not necessary to clone environments that you do not plan to test.

- Clone the applications from Classic environments to the corresponding OCI environments using these information sources:
 - * *Cloning EPM Cloud Environments in Oracle Enterprise Performance Management System Lifecycle Management Guide.*
 - * *cloneEnvironment in Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud.*
- Complete any test you want to run. Testing is optional. During this testing period, production updates and changes must be performed on the Classic environments.

 **Note:**

If you attempt to create a service request at this stage, Oracle Support shows only the OCI accounts and environments corresponding to the Classic accounts and environments that are in the process of being migrated. In this scenario, to create a service request for a Classic environment that is in the process of being migrated:

- * Select an OCI environment in Oracle Support
- * In service request **Summary** and **Description**, specify the service URL of the Classic environment for which you are creating the service request.
- * Include the Provide Feedback reference number from the Classic environment.

In July 2024, while applying the monthly update 24.07 during the daily maintenance window, Oracle automatically clones your OCI environments from Classic environments (this will override any test applications you already have on the OCI environments) and change the DNS configuration so that the existing Classic service URLs are routed to the OCI

environments. Cloning of test environments is done on the first Friday of July 2024. Cloning of production environments takes place on the third Friday of July 2024. Oracle will terminate your Classic environments by August 31, 2024.

Daily Maintenance on the Data Migration Day

The daily maintenance duration on the day of the data migration will be much longer than the duration of daily maintenance on other days. Use the following general guidelines to plan for the daily maintenance on the day of the data migration

- If the total data size on the Classic environment is 100 GB or less, the daily maintenance will take up to six hours.
- If the total data size on the Classic environment is more than 100 GB, the daily maintenance will take up to 12 hours.

The total data size in the environment is identified in the Activity Report of the Classic environment as **Customer Data on Disk in GB** in the **Application Size** table. The total data size is also displayed in the My Services portal as the value of the **Size of Data (GB)** metric.

Note:

1. The migration from Classic to OCI environment will occur on the scheduled date even if you have requested to skip the 24.07 update (using the skipUpdate EPM Automate command or by raising a service request). In this scenario, the OCI environment will have the same monthly update as the corresponding Classic environment, and skip update for 24.07 will be active on the OCI environment.
2. If your Classic environment is on a one-off patch not to be merged back in 24.07, the migration from Classic to OCI environment will still occur on the scheduled date. In this scenario, the OCI environment will have the same one-off patch as the corresponding Classic environment.
3. If you requested Oracle to apply the monthly update 24.07 on your Classic production environment before the third Friday of July 2024, the migration will occur during the daily maintenance when your Classic production environment is updated with the monthly update (before third Friday of July 2024) .
4. If your Classic environment is going through a scheduled or unscheduled maintenance at the time of the daily maintenance when your migration is scheduled, since the scheduled daily maintenance is skipped, the migration will occur during the daily maintenance on the next day.

This migration is seamless; Oracle migrates your application data, users, custom governor limits, and other artifacts to the new OCI environments. From this point, the OCI URLs that you've been using for testing do not work. Instead, current URLs of Classic environments are routed to the OCI environments. However, you still use new URLs to access the My Services portal.

Important Considerations

- Users migrated from Classic to OCI environments will receive password reset emails prompting them to sign into OCI environments. This is the same *Activate Your Account* email indicated previously. If Classic passwords are compliant with the Identity Cloud Services password policy, which can be customized by an Identity Domain Administrator, users can set their OCI passwords to be the same as their Classic passwords.

If users with Service Administrator predefined role change their OCI passwords, update the passwords used in areas including the following:

- EPM Automate scripts
- REST API-based scripts
- EPM Agent configuration
- Navigation Flow configuration. To update Navigation Flows, complete tasks using these resources:
 - * "Editing a Navigation Flow" in the Administration guide of your business process to use the Navigation Flows screens
 - * Update a Connection in *Oracle® Fusion Cloud EPM REST API for Oracle Enterprise Performance Management Cloud*
- The Identity Domain Administrator role assignment is not cloned. Users with only the Identity Domain Administrator role assignment are not cloned to the OCI environment. Users assigned to a combination of Identity Domain Administrator role and predefined roles in the Classic environment are cloned, but assigned only to the respective predefined roles in the OCI environment. These users will not have the Identity Domain Administrator role in the OCI environment.
- The OCI environments are always created in the primordial stripe of Identity Cloud Services. However, if your production and test Classic environments are not in the same identity domain because you had relocated one of them to a different domain, your production OCI environment is created in the primordial stripe while the test environment is created in the secondary stripe of the same domain. You still can manage them separately as before. Also, because of DNS configuration change, the URLs of the production and test environments will stay the same as they were for Classic environments.
- The domain names of the existing Classic environments are preserved unless they contain characters not supported by OCI. In OCI, domain names must:
 - Contain only lower-case English letters and numbers
 - Start with a letter
 - Not exceed 32 characters

If the Classic domain name contains a hyphen, it is updated to remove the hyphen. For example, the Classic domain name *acme-test*, is changed to *acmetest*. However, the domain name in the URL remains the same.

- After the migration is complete, Oracle changes the DNS configuration to route traffic to the Classic environment URLs to the corresponding OCI environments. If these OCI environments are deleted for any reason (for example, to change the service name or to move to a different data center), the routing of Classic URLs will fail because the DNS configuration will continue to route to the original OCI environments that were deleted. Because the newly recreated environments will use different URLs than those of the migrated OCI environments, you must update the URLs used in EPM Automate and REST API scripts, Navigation Flow configurations, bookmarks, shared and private connections in Oracle Smart View for Office, and so on, with the new OCI URLs as needed. You must also announce the new URLs to all users who need to access the recreated environments.
- If you are using IP address of the source EPM Cloud environment anywhere (for example, in proxy configuration as an allowed outgoing IP address), find the new IP address of the environment using nslookup or ping after the migration and update the configuration with the new IP address.
Similarly, if you have added the outbound IP address of the Classic data center in the allow list of any other environment (for example, in a Fusion ERP environment), change it to the outbound IP address of the new OCI region. See [Outbound IP Addresses of EPM Cloud](#)

[Data Centers and Regions](#) to identify the outbound IP address of the OCI region of your environment.

- If you use EPM Agent to communicate with EPM Cloud, ensure that you are using EPM Agent version 22.07 or higher. If the EPM Agent is older than version 22.07, you may get a certificate error while connecting to EPM Cloud after the OCI data migration is complete.

Mapping of Current Classic Data Centers to OCI Regions

Classic environments will be migrated to OCI regions based on the following mapping:

Table 5-1 Mapping of Classic Data Centers to OCI Regions

Current Classic Data Center	New OCI Region
Slough (EM6)	uk-gov-london-1
Chessington (EM7)	uk-gov-cardiff-1

Enrolling in the Implementation Success Program

The Implementation Success Program (ISP) is a customer-focused initiative that strives to significantly increase the success rate of Oracle Enterprise Performance Management Cloud implementations.

ISP strives to bring the expertise of EPM Cloud Development Teams in application design to customers' implementation in an efficient manner through an expedited evaluation of application design document review. The review ensures that the application design adheres to Oracle recommended best practices.

Supported Business Processes

ISP is available to all customers of the following business processes. Oracle enforces no entry criteria for enrolling in this program.

- Planning
- Planning Modules
- Financial Consolidation and Close
- Enterprise Profitability and Cost Management
- Account Reconciliation
- Oracle Enterprise Data Management Cloud

The Process for Enrolling and Using the Program

1. An Oracle representative (Product Manager or a member of the Sales Team) discusses the program with customers, who then make a formal request to participate in the program. Customers who already know about the program may contact their Oracle representative and request to participate in it.
2. Oracle schedules an online kick off meeting involving customer and implementation partner representatives, the required Oracle representatives (Sales Team member or Product Manager, as needed), and the ISP Lead. In addition to explaining Oracle's commitments to the program, the meeting helps Oracle understand customer requirements in terms of the business processes being implemented,

milestones, and customer background. Additionally, the meeting discusses how to create a service request for coordinating activities and communicating with the customer or partner.

3. The customer signs in to the [Oracle Support](#) web site and creates a technical service request for each business process that is to be enrolled into the ISP program. Use *Enroll in Implementation Success Program* as the title of the service request, which must provide the following business process-specific information.

Oracle Hyperion Planning, Planning Modules, Enterprise Profitability and Cost Management, and Oracle Enterprise Data Management Cloud

- a. The email address of your Oracle sales representative.
- b. The email address of your Oracle Customer Success Manager.
- c. The email address of your implementation partner.
- d. The planned User Acceptance Test (UAT) date.
- e. The planned Go Live date.

Financial Consolidation and Close

- a. The email address of your Oracle sales representative.
- b. The email address of your Oracle Customer Success Manager.
- c. The email address of your implementation partner.
- d. The planned User Acceptance Test (UAT) date.
- e. The planned Go Live date.
- f. Are you are a current Oracle Hyperion Financial Management (HFM) customer?
- g. If you are a current HFM customer, have you utilized Oracle's Financial Management analysis program?

Account Reconciliation

- a. The email address of your Oracle sales representative.
 - b. The email address of your Oracle Customer Success Manager.
 - c. The email address of your implementation partner.
 - d. The planned User Acceptance Test (UAT) date.
 - e. The planned Go Live date.
 - f. The name of the Enterprise Resource Planning (ERP) system that will be used as the data source.
 - g. The name of the competitor's account reconciliation product, if any, you are replacing with Account Reconciliation.
4. An Oracle Customer Support Representative updates the service request with the ISP checklist for the business process. You must fill out this checklist and upload it to the service request as indicated in step 6.
 5. Based on customer request, Oracle sets up regular weekly or fortnightly meetings to track progress and to address questions. Customer and implementation partner representatives, required Oracle representatives (for example, the Sales Team member and Product Manager), Oracle Support Lead, and the ISP Lead participate in these meetings as needed.
 6. When the final copies of the following are ready, the customer uploads them to the service request:
 - Application design document.

This document should detail how customer requirements translate to EPM Cloud functionalities. It should indicate the EPM Cloud business processes that will be used (either out of the box or custom built). The design document must include metadata details for dimensions, forms, rules, reports, data maps, data sync, security, and so on.

- The ISP checklist with detailed information entered for each item.
 - Application architecture diagram.
The application architecture diagram should show all the components of the EPM Cloud business process and their interactions with other processes.
7. Oracle reviews the submitted documents and creates a feedback document. Oracle makes the feedback document available to the customer through the service request, usually within two weeks.
 8. Oracle discusses design review feedback with the customer or partner and addresses questions, if any.
 9. After the customer goes live with the business process, Oracle completes these steps:
 - For a period of one week, monitors user activity in the environment by reviewing Activity Reports.
Oracle discusses anomalies, if any, with the customer's contacts or partners in an online meeting and provides solutions.
 - Seeks feedback on the program.
 - Closes ISP engagement.
 10. If help with performance validation testing is required, the customer enrolls in the Performance Validation Program. See [Requesting Performance Validation for Planning, Planning Modules, and Financial Consolidation and Close](#).
 11. If help with regression testing is required, the customer enrolls in the Regression Testing Program. See [Requesting Automated Regression Testing](#).

Requesting Performance Validation for Planning, Planning Modules, and Financial Consolidation and Close

Performance validation aims to ensure that your Oracle Enterprise Performance Management Cloud business process is performing as expected. You can complete the performance validation when the application is ready for user acceptance testing or any time you have concerns about the business process performance.

Supported Business Processes

Performance validation is available to all customers of the following business processes. Oracle enforces no entry criteria for requesting this service.

- Planning
- Planning Modules
- Financial Consolidation and Close

How this Program Works

This service can be initiated only after you functionally build your business process and load test data (similar to production data).

1. If the customer is an ISP participant (see [Enrolling in the Implementation Success Program](#)), the ISP Lead offers performance validation as a part of the program. If the

customer is not an ISP participant, an Oracle contact (Product Manager or a member of the Sales Team) introduces performance validation to the customer, who then makes a formal request to participate in the program.

2. If the customer is not an ISP participant, Oracle formally approves the request to participate in the program. ISP participants do not require a formal Oracle approval.
3. Complete the steps included in the following section.

Steps to Request Performance Validation

These two options are available to validate performance:

1. A self-service load testing using the `simulateConcurrentUsage` EPM Automate command. This command validates the performance of an environment to verify that the response time is acceptable when the service is under load during specific operations run by a specific number of users. It allows you to perform self-service load testing when ever needed.
2. Ask Oracle to execute a performance validation by running the `simulateConcurrentUsage` EPM Automate command.
To request Oracle to validate performance:
 - a. If you are requesting performance validation as a part of the implementation success program, use the service request created for the Implementation success program and attach the following information, which Oracle needs to perform load testing. Otherwise, create a new technical service request and attach the following information. See [Submitting a Technical Service Request](#).
 - An input zip file that identifies your use cases.
 - The lag time, which is the number of seconds (5 seconds or more) that the command should wait between the execution of each use case. Default is 5 seconds. After initiating the execution of a use case by one user, the command waits for the number of seconds specified by this value to initiate the execution of the use case by the next user. Because user activities are not usually initiated simultaneously, setting this parameter helps to create a more realistic simulation of load on an environment.

The input zip file must contain these files:

- The `requirement.csv` file that specifies the details of the use cases that you want Oracle to test. See [Creating the requirement.csv File](#).
 - Input files that contain the details of the use cases identified in `requirement.csv`. See [Creating the Input Files](#).
 - `UserVarMemberMapping.csv` file if load testing includes Open Form or Save Form use cases and the forms to be tested require user variables to be set. See [Creating the UserVarMemberMapping.csv File](#).
- b. Oracle reviews the submitted information and executes the simulation.
 - c. Oracle attaches the simulation results to the service request.

Requesting Automated Regression Testing

In the Regression Testing Program, Oracle helps customers build EPM Automate-based scripts to facilitate the adoption of an automated regression testing process that reduces the time it takes to complete regression testing each month.

In this program, Oracle builds test scripts based on the customer's application use cases and data. The custom scripts are then made available to the customer for integration into the monthly test cycle.

How this Program Works

This service can be initiated only after you functionally build your Oracle Enterprise Performance Management Cloud business process and load test data (similar to production data).

- If the customer is an ISP participant (see [Enrolling in the Implementation Success Program](#)), the ISP Lead introduces the regression testing automation program to customer. If the customer is not an ISP participant, an Oracle contact (Product Manager or a member of the Sales Team) may introduce the program to the customer, who then makes a formal request to participate in the program.
- If the customer is not an ISP participant, Oracle formally approves the request to participate in the program. ISP participants do not require a formal Oracle approval.
- Customer creates a Provide Feedback submission and allows Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
- If the customer is not an ISP participant, the customer creates a technical service request that identifies the Provide Feedback reference number and attaches the most common use cases (three to five) that are to be tested for regression. See [Submitting a Technical Service Request](#).

ISP participants attach the use cases to the service request that is being used for ISP.

For each use case, the customer provides the steps to perform the use case (for example, open a specific form, set the POV/UDV, update the data, and submit the form).

- Open the form.
- Select the POV.
- Refresh the form.
- Update the cells.
- Submit data.

User Role	Form	POV	Cells to be Updated	
			Rows	Columns
User	Plan - Dept Income Statement - Plan	Sales Central	OpEx before Allocations, Operating Expenses	Q1
User	Plan - Operating Expenses - Plan	Sales East	7110: Advertising, 7120: Public Relations	Driver Rate for Jan, Feb, Mar
User	Revenue Plan - Products	International Sales, Sentinel Standard Notebook	4001: Total Revenue, 5000: Total Cost of Sales and Service	Jan, Feb, Mar

- Select the business rule.
- Provide the run-time prompt.
- Run the business rule.

User Role	Business Rule	Run-time Prompt Values
User	Allocate Plan Targets	Version = Acquisition
Admin	Copy Plan Drivers and Rates	Department = Facility Resources, and Computer Resources
User	Income Statement – Plan	N/A

- Open the report.
- Select the POV.
- Create the report.

User Role	Form	POV
Viewer	<i>Vision->Account Summary Report</i>	<i>6000: Total Employee Expenses</i>
Viewer	<i>Vision->Account Summary Report - Forecast</i>	Operating Expenses

 **Note:**

Oracle may provide a templates to help you gather and provide the required information.

- Oracle develops a test script that runs for one hour (approximately). The test script loops through the use cases to ensure that all operations can be performed without user errors.
- Oracle reviews the Activity Report to ensure that the test results match customer's requirement.
- Oracle hands over the scripts to the customer through the service request.

 **Note:**

You can use the test script for ongoing validation when new updates are applied to EPM Cloud environments. Oracle reserves the right to add the test script to future regression test suites without making the results available to you.

Requesting Essbase Block Analysis Report

The size of BSO cubes is an important factor in Oracle Essbase performance. Usually, a bigger size cube performs less efficiently than a smaller cube. It is not easy to determine the data patterns in a BSO cube to clear unnecessary data.

To identify data patterns in BSO cubes, you can request Oracle to provide you an Essbase Block Analysis Report that shows the patterns of your data (for example, 0s, repeating numbers, and so on). Such a report will help you clear the unnecessary data and reduce the size of BSO cubes.

To request the Essbase Block Analysis Report:

- Create a Provide Feedback submission from the environment for which the report is required. See [Creating a Provide Feedback Submission](#).
- Create a technical service request. See [Submitting a Technical Service Request](#). In the service request, specify the Provide Feedback reference number.

Requesting Design Comparison for On-Premises Planning Application Migrated to EPM Cloud

The performance of some on-premises Planning applications that you migrate to Oracle Enterprise Performance Management Cloud may not match their on-premises performance.

Oracle, at your request, creates a report that compares the design and configuration of EPM Cloud application with the corresponding on-premises Planning application, which helps you understand the reason for the variance in performance.

About the Report

The report lists only the differences in metrics or configurations that affect the performance of the Cloud application; you can use it as a guide to fine-tune the application for better performance.

Metric/Configuration	On-premise	EPM Cloud
Plan1 – Entity Type	Sparse	Dense
Plan1 – Account Stored Members	206	312
Plan1 – Block Size (KB)	24	34
Plan1 – Number of Blocks	185,858,400	506,789,256
Plan1 – Level 0 Blocks	108,345,859	412,567,930
Plan1 – Index cache (MB)	250	500
Vis1ASO – Input-level Cells	502	914
Vis1ASO – Aggregate Views	2	0

How to Request Design Comparison for On-Premises Planning Application Migrated to EPM Cloud

To engage Oracle in identifying the differences between an on-premises Planning application and the corresponding EPM Cloud application, do the following:

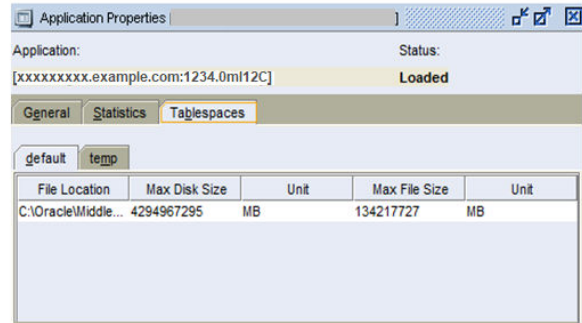
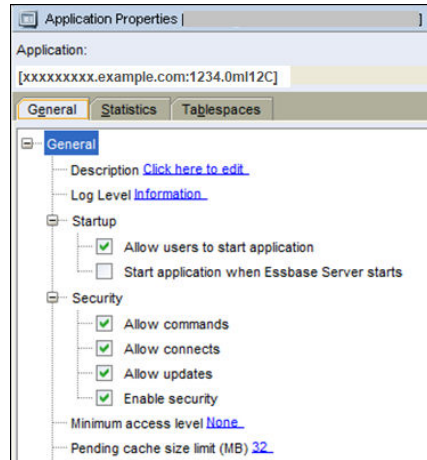
- Create a Provide Feedback submission. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
- Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). Additionally, provide all the required information detailed in the following section.

Information You Must Provide Oracle About the On-Premises Application

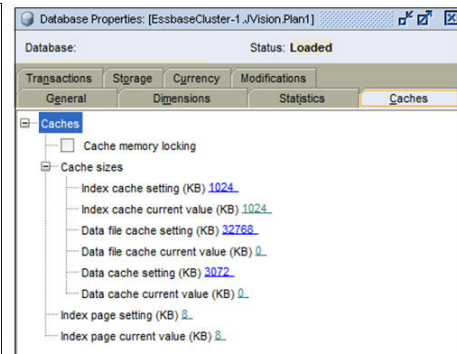
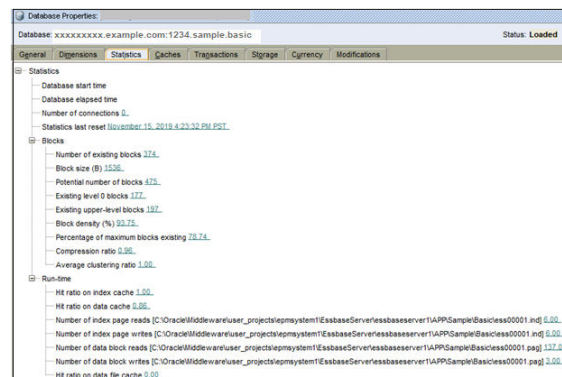
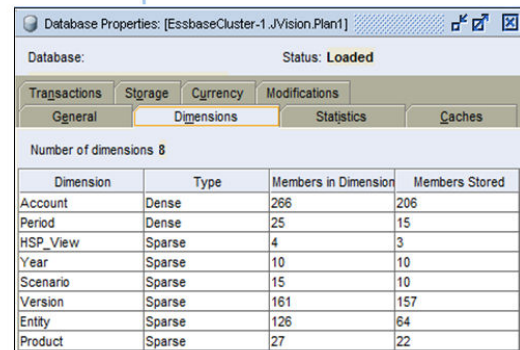
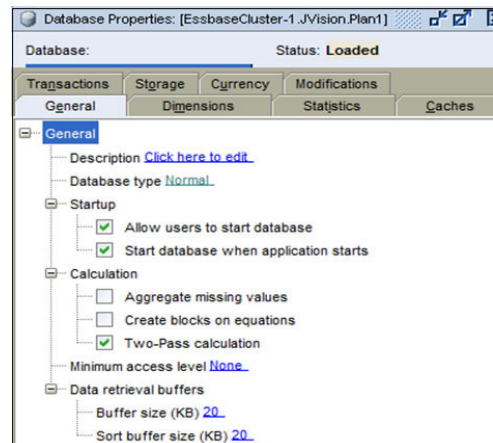
To perform application comparison, Oracle requires the following information about your on-premises Planning application:

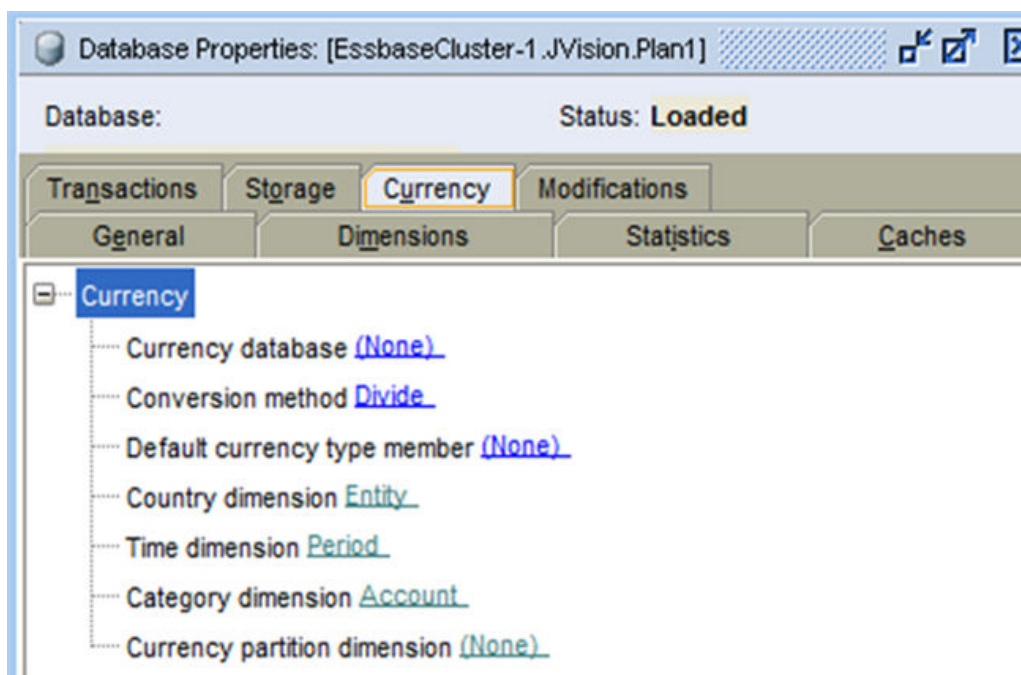
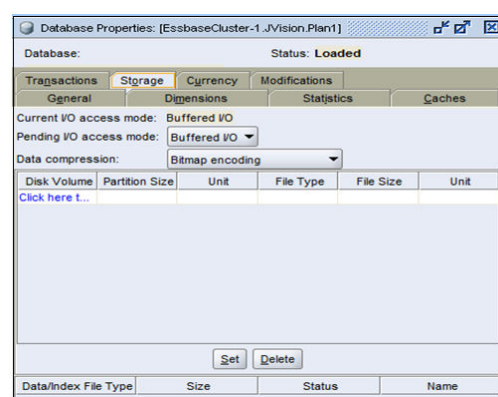
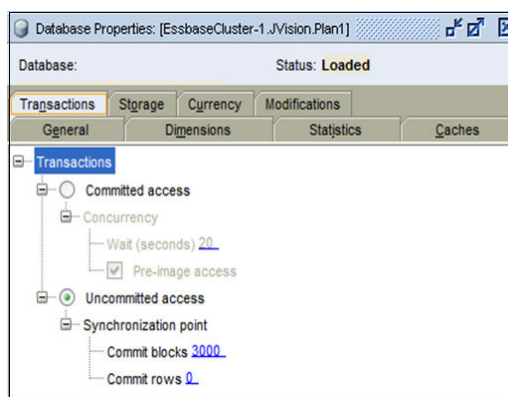
- Oracle Essbase configuration file `Oracle/Middleware/user_projects/epmsystem1 / EssbaseServer/ essbaseserver1/bin/essbase.cfg`. This file is located on the computer that hosts the Essbase Server.
- Screenshot of the following from Essbase Oracle Essbase Administration Services:

- **Application Properties: General and Tablespace** tabs.

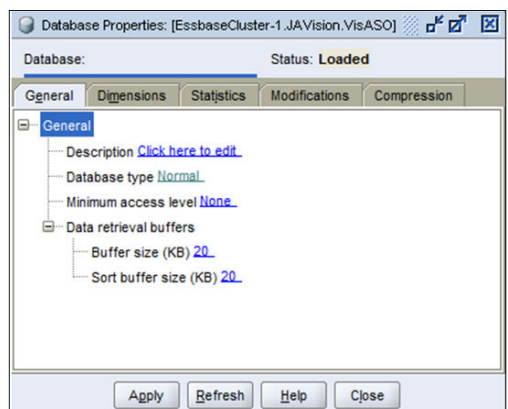


- **All Database Properties** tabs other than the **Modifications** tab for every BSO cube.

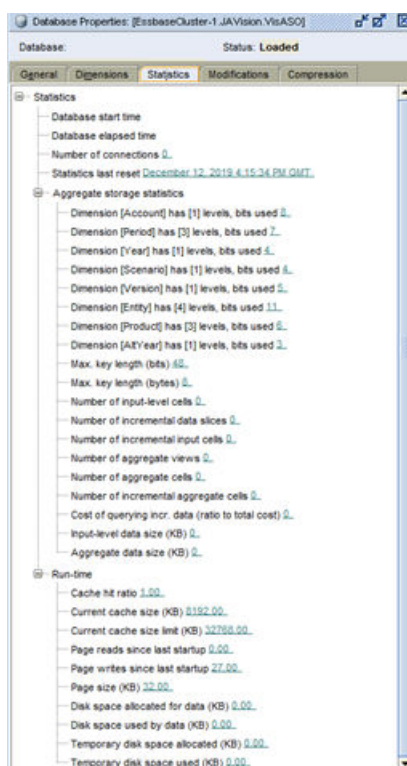




- Database Properties General, Dimensions, and Statistics tabs of every ASO cube.



Dimension	Members in Dimension	Members Stored
Account	176	168
Period	23	22
Year	10	9
Scenario	15	14
Version	28	27
Entity	64	63
Product	26	25
AltYear	6	5



Requesting Custom Sender Email Address for OCI (Gen 2) Environments

Oracle Enterprise Performance Management Cloud uses `no.reply@epm.oraclecloud.com` as the default sender address for the emails sent from OCI (Gen 2) environments. If you want a custom sender email address, follow this process:

1. Create a Provide Feedback submission from one of the environments for which you want the custom email sender. See [Creating a Provide Feedback Submission](#).
2. Submit a technical service request that identifies both the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain:
 - Service URLs of all EPM Cloud environments for which you want the custom sender email address.
 - The custom email address that you want to use as the sender email address.

After processing the service request, Oracle will provide you a CNAME record through the service request. On receiving the CNAME record, update your DNS configuration with it and then update the service request to let Oracle know that the DNS configuration has been updated. After receiving your confirmation through the updated service request, Oracle will change the sender email address and notify you that the process is complete.

Submitting an Enhancement Request

Oracle actively listens to enhancement requests from Oracle Enterprise Performance Management Cloud subscribers as a part of its commitment to providing best-of-breed functionalities to users.

To collaborate with the user community, Oracle has established Idea Labs, online forums for each EPM Cloud business process and a separate EPM Platform forum for common components, in [Oracle Cloud Customer Connect](#), where you can share product ideas with Oracle. Idea Labs empower you to shape roadmaps of EPM Cloud business processes by providing central idea repositories where you can share ideas that are important to you, view enhancements that others have suggested, and gauge the collective demand for suggested enhancements.

All enhancement requests must be submitted through Idea Labs. If you have an enhancement request that was originally filed as a defect through My Oracle Support, Oracle will instruct you to file it as a request in Idea Labs by copying information from the existing service request.

How Do I File an Enhancement Request?

To file an enhancement request:

1. Sign in to [Oracle Cloud Customer Connect](#).
2. Hover the mouse over **Ideas**, then **Enterprise Resource Planning** under **Applications**, and then from under **Enterprise Resource Management**, click the appropriate EPM Cloud business process for which you want to create the enhancement request. The **Welcome** page opens. From this page, you can complete these tasks:
 - Click **Submit an idea** and create an enhancement request.
 - Use the **Search this idea lab** section to locate and view an enhancement idea that has already been submitted. This page also view a chronological list of ideas and review them or bookmark them for easy access.

What Guidelines are Available for Using Idea Labs?

The guidelines for effectively using the Idea Labs are available on the [Idea Labs Guidelines](#) web site.

How Do I Track an Enhancement Request?

Ideas for enhancement are managed in Idea Labs until Oracle is ready to act on them. You can track an idea by marking it as a favorite or by subscribing to the idea.

How do I Escalate an Enhancement Request?

To escalate an enhancement request, create a technical service request (see [Submitting a Technical Service Request](#)), which identifies the enhancement request number allocated to your idea in the Idea Labs, asking the appropriate Oracle team to evaluate idea. You should resort to this process only in very unique situations. Oracle Product Development will evaluate the request and move it forward if the enhancement is urgent.

How do I Know that an Idea was Implemented?

Oracle updates the status of the enhancement idea to *Delivered* and indicates the monthly update number (for example, 20.07) in which the enhancement is included. Additionally, the enhancement is described in the appropriate [Oracle Cloud Readiness](#) document.

Requesting an Increase in Planning Dimension Governor Limits

Planning, Planning Modules, Strategic Workforce Planning, and Sales Planning use default dimension governor limits to ensure optimal performance. In some cases, Oracle will increase the limit on the governors at your request through a technical service request.

Governors exist in various parts of the application. The approval process detailed in this section applies to the governors for dimension limits that are enforced when you create objects in each dimension in the application.

If you determine that you need to increase the governors in your environment, Oracle requires you to test the impact of the governor limit increase on the overall performance of the application. To run such tests, Oracle will provide a loaner environment from which governor limits have been removed. You are responsible for designing and executing test plans to determine the performance implications of your application design (data loads, integrations, refreshes, restructures, Oracle Smart View for Office retrievals, form loads, form saves, report loads, business rules execution times, Smart Push, Data Maps, daily maintenance time, and so on). After adequate testing, you can request that Oracle increase the governor limits on specific dimensions in your environments.

 **Note:**

This discussion does not apply to the following:

1. Increasing the limits of the number of cells in forms and reports (before and after suppression).
2. Increasing the Oracle Essbase block size and number of blocks.
3. Increasing the limits of best practices governors in Planning Modules.

To increase governor limits:

1. Get a temporary loaner environment from Oracle by submitting a technical service request. In the service request, specify the business justification for requesting the loaner environment. See these topics:
 - [Requesting a Temporary Loaner Environment](#).
 - [Submitting a Technical Service Request](#).The service request must contain the following additional information:
 - A list of 10 or less users (first name, last name, and email address) of the loaner environment. These users will be created as Service Administrators.
 - Expected number of dimension members for each application dimension.
 - The earliest date when the loaner environment is to be available for testing.Generally, Oracle makes loaner environments available within one week after you submit a service request containing the required information. You have a maximum of three months to complete testing.
2. Test your application design (data loads, integrations, reports, refreshes, restructures, Smart View retrievals, form loads, form saves, business rules execution times, Smart Push, Data Maps, daily maintenance time, and so on) to ensure that performance is acceptable.
3. Ask Oracle to increase the governor limits on your production environments by updating the service request that you submitted to request the loaner environment. Complete the following steps:
 - Create a Provide Feedback submission from the loaner environment that was used for testing. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).

- Add the Provide Feedback reference number to the technical service request.
- Provide the following additional information:
 - Confirmation that you completed performance tests with acceptable results. It is important that the performance tests are executed with similar user load as expected when using the system in production.
 - A list of the activities that were tested for performance.
 - A list of the specific application dimensions for which the governor limits should be increased, and the new values to which governor limits are to be set.
 - URLs of all the environments where the governor limits are to be increased.
 - Written approval permitting Oracle to apply the increased governor limits.

 **Note:**

Generally, governor limits are increased during the next monthly update cycle of each environment that you identify. Depending on the monthly update development cycle, it may take up to six weeks for Oracle to increase the governor limits. Oracle may provide a one-off patch with the governor limit increase if you need it urgently because the current governor limit is blocking a critical milestone.

Requesting an Increase in Financial Consolidation and Close Dimension Governor Limits

Financial Consolidation and Close uses default dimension governor limits to ensure optimal performance. These limits are enforced when you create objects in each dimension.

If you realize that you need to have the governors increased in your Financial Consolidation and Close environment, Oracle requires you to test the impact of the increase in governor limits on the overall performance of the application. To run such tests, Oracle will provide you a loaner environment from which governor limits have been removed. You are responsible for designing and executing test plans to determine the performance implications of your application design (data loads, integrations, consolidations, refreshes, restructures, Oracle Smart View for Office retrievals, and so on). After adequate testing, request Oracle to increase the governor limits on specific dimensions in your environments.

To increase governor limits:

1. Get a temporary loaner environment from Oracle by submitting a technical service request. In the service request specify the business justification for requesting the loaner environment. For detailed information, see [Requesting a Temporary Loaner Environment](#). The service request must contain the following additional information:
 - A list of 10 or less users (first name, last name, and email address) of the loaner environment. These users will be created as Service Administrators.
 - Expected number of dimension members for each application dimension.
 - The earliest date when the loaner environment is to be available for testing.

Generally, Oracle makes loaner environments available within one week after a service request containing the required information is submitted. You have a maximum of three months to complete testing.

2. Test your application design (data loads, integrations, consolidations, refreshes, restructures, Smart View retrievals, and so on) to ensure that performance is acceptable.
3. Ask Oracle to increase the governor limit on your production environments by updating the service request that you submitted to request the loaner environment. Complete the following steps:
 - Create a Provide Feedback submission from the loaner environment that was used for testing. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
 - Add the Provide Feedback reference number to the technical service request.
 - Provide the following additional information:
 - Confirmation that you completed performance tests with acceptable results.
 - A list of the activities that were tested for performance.
 - A list of the specific application dimensions for which the governor limits should be increased, and the amount to which the limit should be increased.
 - URLs of all the environments where the governor limits are to be increased.
 - Written approval permitting Oracle to apply the increased governor limits.

 **Note:**

Generally, governor limits are increased during the next monthly update cycle of each environment that you identify. Depending on the monthly update development cycle, it may take up to six weeks for Oracle to increase the governor limits. Oracle may provide a one-off patch with the governor limit increase if you need it urgently because the current governor limit is blocking a critical milestone.

Requesting an Increase in Profitability and Cost Management and Enterprise Profitability and Cost Management Governor Limits

Oracle Hyperion Profitability and Cost Management and Enterprise Profitability and Cost Management use default artifact and dimension governor limits to ensure optimal performance. These limits are enforced when you create rules and objects in each dimension.

If you realize that you need to have the governors increased in your Profitability and Cost Management or Enterprise Profitability and Cost Management environment, Oracle requires you to test the impact of the increase in governor limits on the overall performance of the application. To run such tests, Oracle provides you a loaner environment from which governor limits have been removed. You are responsible for designing and executing test plans to determine the performance implications of your application design (data loads, integrations, calculations, extraction, migration, Oracle Smart View for Office retrievals, and so on). After adequate testing, request Oracle to increase the governor limits on specific dimensions in your environments.

To increase governor limits:

1. Get a temporary loaner environment from Oracle by submitting a technical service request. In the service request specify the business justification for requesting the loaner environment. For detailed information, see [Requesting a Temporary Loaner Environment](#). The Service Request must contain the following additional information:
 - A list of 10 or less users (first name, last name, and email address) of the loaner environment. These users will be created as Service Administrators.
 - A list of each governor limit that will be exceeded in testing and the number of artifacts, dimension members, or other counts specific to the limit expansions being tested.
 - The earliest date when the loaner environment is to be available for testing.

Generally, Oracle makes loaner environments available within one week after a service request containing the required information is submitted. You have a maximum of three months to complete testing.
2. Test your application design (data loads, integrations, calculations, extraction, migration, Smart View retrievals, and so on) to ensure that performance is acceptable.
3. Ask Oracle to increase the governor limit on your production environments by updating the technical service request that you submitted to request the loaner environment. Complete the following steps:
 - Create a Provide Feedback submission from the loaner environment that was used for testing. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
 - Add the Provide Feedback reference number to the service request.
 - Provide the following additional information:
 - Confirmation that you completed performance tests with acceptable results.
 - A list of the activities that were tested for performance.
 - A list of the specific governor limits that should be increased, and the amount to which each limit should be increased.
 - URLs of all the environments where the governor limits are to be increased.
 - Written approval permitting Oracle to apply the increased governor limits.

 **Note:**

Generally, governor limits are increased during the next monthly update cycle of each environment that you identify. Depending on the monthly update development cycle, it may take up to six weeks for Oracle to increase the governor limits. Oracle may provide a one-off patch with the governor limit increase if you need it urgently because the current governor limit is blocking a critical milestone.

Requesting an Increase in Oracle Enterprise Data Management Cloud Governor Limits

Oracle Enterprise Data Management Cloud uses default governor limits to ensure optimal performance. In some cases, Oracle will increase the limit on these governors at your request through a technical service request.

You can submit a technical service request to increase the following governor limits:

- Maximum number of request items for specific types of requests:
 - Subscription
 - Import
 - Load
 - Interactive
 - Consolidation
- Maximum number of rows that can be added to a request attachment via the public API

If you determine that you need to have the governors increased in your environment, Oracle requires you to test the impact of the increase in governor limits on the overall performance of the application. To run such tests, Oracle will provide you a loaner environment from which governor limits have been removed. You are responsible for designing and executing test plans to determine the performance implications of the new governor limits. After adequate testing, request Oracle to increase the governor limits in your environments.

To increase governor limits:

1. Get a temporary loaner environment from Oracle by submitting a technical service request. In the service request specify the business justification for requesting the loaner environment. See these topics:

- [Requesting a Temporary Loaner Environment](#)
- [Submitting a Technical Service Request](#)

The service request must contain the following additional information:

- A list of 10 or less users (first name, last name, and email address) of the loaner environment. These users will be created as Service Administrators.
- The number of request items for these request types that you want your environment to process, and the business justification for each type:
 - Subscription
 - Import
 - Load
 - Interactive
 - Consolidation
- The earliest date when the loaner environment is to be available for testing.

Generally, Oracle makes loaner environments available within one week after a service request containing the required information is submitted. You have a maximum of three months to complete testing.

2. Test the new maximum request sizes in your environment to ensure that performance is acceptable.
3. Ask Oracle to increase the governor limit on your production environments by updating the service request that you submitted to request the loaner environment. Complete the following steps:
 - Create a Provide Feedback submission from the loaner environment that was used for testing. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).

- Add the Provide Feedback reference number to the technical service request.
- Provide the following additional information:
 - Confirmation that you completed performance tests with acceptable results.
 - A list of the activities that were tested for performance.
 - A list of the specific governor limits which should be increased, and the increase amount for each governor.
 - URLs of all the environments where the governor limits are to be increased.
 - Written approval permitting Oracle to apply the increased governor limits.

 **Note:**

Generally, governor limits are increased during the next monthly update cycle of each environment that you identify. Depending on the monthly update development cycle, it may take up to six weeks for Oracle to increase the governor limits. Oracle may provide a one-off patch with the governor limit increase if you need it urgently because the current governor limit is blocking a critical milestone.

Requesting an Increase in Account Reconciliation Governor Limits

Account Reconciliation enforces many governor limits that can be increased.

See *Setting Governor Limits in Account Reconciliation* in *Account Reconciliation Setting Up and Configuring Account Reconciliation* for a list of governors that can be increased.

If you realize that you need to have the governors increased in your Account Reconciliation environment, Oracle requires you to test the impact of the increase in governor limits on the overall performance of the application. To run such tests, Oracle will provide you a loaner environment from which governor limits have been removed. You are responsible for designing and executing test plans to determine the performance implications of your application design (data loads, transaction loads, Reconciliation deployments, and so on). After adequate testing, request Oracle to increase specific governor limits in your environments.

To increase governor limits:

1. Get a temporary loaner environment from Oracle by submitting a technical service request. In the service request specify the business justification for requesting the loaner environment. For detailed information, see [Requesting a Temporary Loaner Environment](#). The service request must contain the following additional information:
 - A list of 10 or less users (first name, last name, and email address) of the loaner environment. These users will be created as Service Administrators.
 - Expected governor values.
 - The earliest date when the loaner environment is to be available for testing.

Generally, Oracle makes loaner environments available within one week after you submit the service request containing the required information. You have a maximum of three months to complete testing.

2. Test your application design (data loads, transaction loads, Reconciliation deployments, and so on) to ensure that performance is acceptable with the increased governor limits.
3. Ask Oracle to increase the governor limit on your production environments by updating the service request that you submitted to request the loaner environment. Complete the following steps:
 - Create a Provide Feedback submission from the loaner environment that was used for testing. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
 - Add the Provide Feedback reference number to the technical service request.
 - Provide the following additional information:
 - Confirmation that you completed performance tests with acceptable results.
 - A list of the activities that were tested for performance.
 - A list of the specific governor limits that should be increased, and the amount to which the limit should be increased.
 - URLs of all the environments where the governor limits are to be increased.
 - Written approval permitting Oracle to apply the increased governor limits.

 **Note:**

Generally, governor limits are increased during the next monthly update cycle of each environment that you identify. Depending on the monthly update development cycle, it may take up to six weeks for Oracle to increase the governor limits. Oracle may provide a one-off patch with the governor limit increase if you need it urgently because the current governor limit is blocking a critical milestone.

Requesting Root Cause Analysis (RCA) for a Resolved Issue

Oracle proactively sends Event Summary and Root Cause Analysis (RCA) notifications, and official documents for resolved issues. These notifications contain information related to a specific service outage or performance degradation.

An Event Summary is provided if an environment (production or test) experienced an outage or performance degradation for more than 15 minutes. The Event Summary, which provides a synopsis of a service outage or performance degradation, is created and distributed soon after the event is closed and the service is restored. It includes the following information:

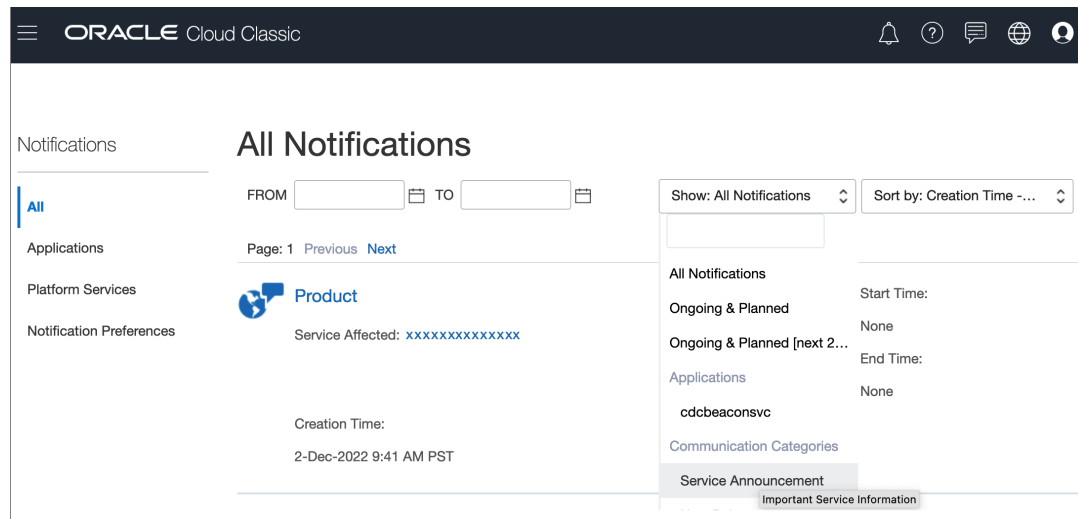
- Brief description of the event
- Type of event (outage, performance degradation, or other)
- Event timeline, including impact start and service restoration time
- Affected services, applications and systems

An RCA is made available if a production or test environment experienced an outage or performance degradation for more than 60 minutes. It is developed in the days following the event, after Oracle has completed a thorough technical investigation. The RCA describes what caused the issue and the corrective actions that Oracle identified to reduce the likelihood of recurrence. It includes the following information:

- Detailed description of the event
- Type of event (outage, performance degradation, or other)
- Event timeline, including impact start and service restoration time
- Services impacted
- Affected applications and systems
- Root cause analysis
- Corrective and preventative actions

Complete these steps to access Event Summaries and RCAs for your environments:

1. Access **My Services**.
2. Complete one of these steps to access **All Notifications**:
 - Click **View Notifications** on the **Dashboard**.
 - Click the bell icon to view all notifications for the selected domain or account.
 - In the Navigation drawer, select **Account Management** and then **Notifications**.
3. **Optional:** Apply a filter (for example, Service Announcement) to show only the notifications you want to view.
4. Click a notification to view details.



If you did not receive the RCA for an issue or you want additional information about an RCA you received, you can make a request. Complete the following steps to request Oracle to perform an RCA for a resolved issue or to get more information for an RCA you already received:

1. Create a Provide Feedback submission if you did not create one when you first reported the issue. The Provide Feedback submission must include screenshots of the steps that led to the error and error messages. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Update the technical service request that you submitted while reporting the issue to initiate the RCA. See [Submitting a Technical Service Request](#). Unless previously included, the service request must contain the following:

- The Provide Feedback reference number.
- Detailed steps to reproduce the issue.
- If the environment did not have this issue previously, the date, time, and time zone when the environment was working as expected.
- Snapshot of the environment, if available, from the last time when the environment was working properly.
- Application changes, if any, that you made since the last time the environment was working without this issue.

Requesting an Old Backup Snapshot of an Environment

You are responsible for creating backup snapshots by downloading and storing the maintenance snapshot (`Artifact Snapshot` for environments other than Narrative Reporting or `EPRCS_Backup.tar.gz` for Narrative Reporting) every day.

Your responsibilities in maintaining your subscriptions are detailed in [Oracle Cloud Hosting and Delivery Policies](#).

You can set up your backup process using EPM Automate. See [Back up Application Snapshot to a Computer in Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud](#) for information on automating the process of backing up the daily maintenance snapshot.

Oracle may be able to provide an old backup in rare cases.

Note:

- **Classic Environments:** Oracle can provide you production and test environment backups from specific dates only from the last three days. Only for production environments, Oracle can provide you backup snapshots from the last 60 days. However, backups from specific dates within that period may not be available (except for the last three days). Once every week, Oracle archives backup snapshots older than three days. These archives are maintained for the last 60 days.
- **OCI (Gen 2) Environments:** Artifact snapshots created by the daily maintenance of OCI (Gen 2) environments are archived every day to Oracle Object Storage. Production and test environment backups are retained for 60 days. OCI (Gen 2) environments support self-service operations using the `listBackups` and `restoreBackup` EPM Automate commands to check for and copy available backup snapshots from Object Storage to your environment. If you are unable to use EPM Automate to copy the backup snapshot, Oracle can provide you production environment backups from specific dates only from the last sixty days. Oracle can provide you test environment backups from specific dates only from the last thirty days.

To request Oracle for a backup snapshot:

- Create a Provide Feedback submission from the environment for which the backup snapshot is required. See [Creating a Provide Feedback Submission](#).
- Create a technical service request. See [Submitting a Technical Service Request](#). In the service request, specify:

- The Provide Feedback reference number
- The date from which backup snapshot is required.
- The reason why you need the backup snapshot.

If the snapshot from the requested date is available, Oracle copies it to your production environment. You can use EPM Automate commands or equivalent Oracle Hyperion Enterprise Performance Management System Lifecycle Management screens to complete these tasks:

- View the backup snapshot (use the listFiles command).
- Download the snapshot to a local computer (use the downloadFile command).
- Recreate the environment and restore it using the backup snapshot.
 - Use `epmAutomate recreate -f` to ensure that the snapshot is retained after recreating the environment. Do not use the `removeAll=true` option, which deletes the snapshot. See recreate command for detailed information
 - **For Business Processes other than Narrative Reporting:** Use `epmAutomate importSnapshot SNAPSHOT_NAME` to import the snapshot. See importSnapshot command for detailed information.
 - **For Narrative Reporting only:**
 1. Rename the downloaded snapshot as `EPRCS_Backup.tar.gz`.
 2. Upload the snapshot to the `to_be_imported` location of Narrative Reporting. Use `epmAutomate uploadFile EPRCS_Backup.tar.gz to_be_imported` to upload `EPRCS_Backup.tar.gz`. See uploadFile command for detailed information.

The uploaded `EPRCS_Backup.tar.gz` will be imported during the next maintenance of the environment.

Requesting an Increase in Capacity

When you have a performance issue, always refer to the appropriate sections in this document to troubleshoot them. If you cannot fix the issue by yourself, seek help from Oracle.

For example, if business rules are not performing to your expectations, follow the instructions in [Troubleshooting Business Rules and Member Formula Errors and Performance](#) to fix the issue or to report it to Oracle. In rare cases, where the issue is because of shortage of resources (for example, processing units, memory, or cache) on your environment, Oracle will increase the resources if a review of your environment determines that it already adheres to best practices.

In most cases, increasing resources does not help the performance of your environment. Close to 100% utilization of CPU and memory identified in the Activity Report does not necessarily mean that adding more CPU and memory will make the performance better, for example, if your design creates a prohibitively high CPU thread count request.

If you believe that increasing resources will help, request Oracle to increase the resources for your environment

1. **Optional:** Generate a Fiddler trace.

If overall performance is slower than expected, generate a Fiddler trace of your session. See [Using Fiddler to Capture Diagnostic Information](#).

Watch this overview video for information on configuring Fiddler to capture HTTPS traffic.



[Overview Video](#)

If you are unable to generate a Fiddler trace file of your session, see [Collecting Network Performance Trace Using a Browser](#) for information on collecting network trace using a browser.

2. Create a Provide Feedback submission. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
3. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following additional information:
 - Details of the activities that take more time than expected.
 - Fiddler trace file or network diagnostic HAR file, if you created one in step 1.
 - If the activities were previously performing to expectation, the date, time, and time zone when performance was acceptable.
 - A snapshot of the environment, if available, from the last time when performance was acceptable.
 - Application changes that you made since the performance was acceptable.
 - Whether this is a critical outage.

Oracle will increase the capacity of your environment if a review of your environment determines that the issue is caused by capacity shortage. Because increasing the capacity requires a reboot of the Operating System that hosts the environment, Oracle will work with you, through the service request, to coordinate the date and time when the capacity can be increased.

Requesting a Health Check for an Environment

Questions about the stability and health of an environment may arise especially if you were faced with a number of recent issues.

For a self evaluation of the health of an environment, check the Activity Report. See *About the Activity Report* in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators* for detailed information. The Activity Report can answer most questions about resources, performance, and application design or size. If the Activity Report does not answer all your questions, you can create a Health Check Request to ask Oracle to confirm the health and stability of an environment.

After you create a Health Check Request, Oracle will analyze your environment, create a report of the analysis, and make the report available to you. The report will cover the following areas:

- Resource constraints
- Performance issues
- Application design or size-related issues
- Oracle change management and Support process, the Provide Feedback processes, and resources available in *Oracle Enterprise Performance Management Cloud Oracle Enterprise Performance Management Cloud Operations Guide*

Complete these steps to create a Health Check Request:

1. Create a Provide Feedback submission from the environment for which the health check is being requested. See [Creating a Provide Feedback Submission](#).

2. Submit a technical service request, which includes the Provide Feedback reference number. Be sure to add any specific requests besides the health check on system, performance, and application to the service request. See [Submitting a Technical Service Request](#).

Requesting the Migration of Environments to Another Data Center

A valid business justification; for example, a legal or security requirement to host data in a specific data center region or latency issues with the current data center region, is required to migrate EPM Cloud subscriptions to a new domain in another data center.

For information on relocating an environment to a different identity domain within the same data center, see *Relocating an EPM Cloud Environment to a Different Identity Domain in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

Considerations

- Generally, it takes over two weeks, from the time your request is approved and all required information is made available to Oracle, for Oracle to migrate EPM Cloud environments to a different data center.
- Your data is not moved as part of the migration. You are responsible for moving data after the new environments have been set up. Data migration is a self-service process. See *Cloning EPM Cloud Environments in Oracle Enterprise Performance Management System Lifecycle Management Guide*

Steps to Request a Data Center Migration

Complete these steps to create a request to migrate environments to another data center:

1. Create a Provide Feedback submission from the environment that you want to migrate to another data center. See [Creating a Provide Feedback Submission](#).
2. Submit a technical service request, which includes the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following:
 - The business justification for migrating the environment.
 - The data center to which you want the environment to be migrated.
 - The name of the identity domain in the new data center.

Requesting the Configuration of IP Allowlist

Configuring an allowlist and modifying an existing allowlist by adding or removing IP addresses and CIDRs is a self-service operation.

Classic EPM Cloud

You use the Service Details screen of My Services to configure or remove an allowlist. See these information sources:

- *Setting up Network Restricted Access in Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*

- Managing Internet Protocol Allowlist and Blocklist Rules in *Managing and Monitoring Oracle Cloud*

OCI (Gen2) EPM Cloud

You use the `getIPAllowlist` and `setIPAllowlist` EPM Automate commands to create and manage an allowlist for your Oracle Enterprise Performance Management Cloud instances. See these information sources:

- `getIPAllowlist` in *Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud*
- `setIPAllowlist` in *Oracle Enterprise Performance Management Cloud Working with EPM Automate for Oracle Enterprise Performance Management Cloud*
- Setting up Network Restricted Access in *Oracle Enterprise Performance Management Cloud Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*
- Managing Internet Protocol Allowlist and Blocklist Rules in *Managing and Monitoring Oracle Cloud*

Use of Dedicated VPN Connection to Restrict Access

Oracle does not support Virtual Private Network (VPN) between customer network and Oracle Enterprise Performance Management Cloud environments. You should use the IP allowlist functionality to set up restricted connections to your environments.

For OCI (Gen2) EPM Cloud Only:

Customers who have an OCI IaaS subscription in the same region as their EPM Cloud environments can use the Service Gateway Service to avoid having their traffic go over internet. Refer to [Access to Oracle Services: Service Gateway](#) in *Oracle Cloud Infrastructure Documentation* for more information on Service Gateway.

Customers can also have private access through Oracle Virtual Cloud Network (VCN) with FastConnect, which can then connect to EPM Cloud environments through the Service Gateway thus keeping the traffic within the private OCI network. Refer to [Private Access to Oracle Services](#) in *Oracle Cloud Infrastructure Documentation* for more information.

Requesting to Disallow Service Administrators to Assign Predefined Roles in OCI (Gen 2) Environments

By default, the Service Administrator of an Oracle Enterprise Performance Management Cloud environment can assign predefined roles to the users of that environment.

If you want to allow only Identity Domain Administrators to be able to assign predefined roles in the OCI (Gen 2) environments belonging to a cloud account, you can request Oracle to prevent Service Administrators from assigning and unassigning predefined roles. After Oracle implements this request, only Identity Domain Administrators will be able to assign and unassign predefined roles to users on any environment in that cloud account.

To request Oracle to prevent Service Administrators from assigning predefined roles:

- Create a Provide Feedback submission from an environment in the cloud account in which you want to disallow Service Administrators from assigning predefined roles. See [Creating a Provide Feedback Submission](#).

- Create a technical service request that includes the Provide Feedback reference number. See [Submitting a Technical Service Request](#).

Requesting Additional Environments for EPM Enterprise Cloud Service Subscriptions

Each EPM Enterprise Cloud Service subscription allows you to create business processes as detailed in the [Oracle Fusion Service Descriptions](#).

If additional business processes are necessary to meet your business needs, please contact your Account Representative for assistance. Please do not create a service request for this purpose because Oracle Support will not be able to offer assistance in this regard.

Requesting Infrastructure Maintenance Delay

Oracle sends you a notification email when an infrastructure maintenance that affects your environment is scheduled. This email contains the date and time of the start and end of the planned maintenance. Oracle always attempts to schedule these maintenances during weekends when the effect on the environments would be minimal.

However, if the date or time of the planned maintenance affects your production environment (for example, if you are going through close cycle), you may request Oracle to delay the infrastructure maintenance. Note that Oracle may not always be able to delay maintenance, especially if it is a data center-wide infrastructure maintenance.

To request infrastructure maintenance delay:

1. Create a Provide Feedback submission from the environment for which the maintenance is to be delayed. See [Creating a Provide Feedback Submission](#).
2. Submit a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain the following:
 - Reason (for example, quarter or year-end close) why infrastructure maintenance delay is being requested.
 - Screenshot of the notification email that you received. The date, start time, and the end time of the planned maintenance must be clearly visible in the screenshot.
 - Proposed date and time (with time zone) when Oracle can perform the planned maintenance without affecting your operations.

Requesting EPM Cloud Roadmap Information

You may have questions about when an upcoming enhancement, especially, critical functionality, may be available in Oracle Enterprise Performance Management Cloud. Oracle Cloud Customer Connect Forums provide avenues to seek roadmap information from Oracle.

The primary information source for EPM Cloud roadmap is Cloud Customer Connect.

Viewing EPM Cloud Roadmap in Oracle Cloud Customer Connect

To view the roadmap:

1. Sign in to [Oracle Cloud Customer Connect](#).
2. Hover the mouse over **Customer Success**.

3. Select **Application Roadmaps** under **Update Readiness & Planning**.
4. In **Oracle Fusion Cloud Applications Suite** section, click **Enterprise Performance Management Update** under **Enterprise Resource Planning** to download a PDF version of the roadmap.

Using the Idea Lab to Elicit Roadmap Information

If you still have questions about the direction of EPM Cloud, post them on [Oracle Cloud Customer Connect](#). This site is monitored by Oracle Product Managers, who can answer your roadmap-related questions. Any comment or response from a Product Manager should not be construed as a firm commitment to pursuing a particular direction.

To post an idea on an Idea Lab, see [Submitting an Enhancement Request](#).

Accessing EPM Business Process Forums and Idea Lab to Discuss a Possible Enhancement or Ask a Question

To access a discussion in an Idea Lab:

1. Sign in to [Oracle Cloud Customer Connect](#).
2. Hover the mouse over **Categories**, then **Enterprise Resource Planning** under **Applications**, and then from under **Enterprise Resource Management**, click the appropriate EPM Cloud business process about which you want to post a question. The **Welcome** page opens. Activities that you can complete on this page include the following:
 - Open the Idea Lab by clicking **Idea Lab** to contribute your suggestions to Oracle product roadmap.
 - Open the discussion forum by clicking **Post a new topic** to ask a roadmap-related question to the community. You can also create tags to easily find your question by searching the forum.

If you do not receive a response to a specific question, ask Oracle Support to create a service request that details your request.

Responding to Customer Diagnostic Alerts

Oracle Enterprise Performance Management Cloud uses a diagnostic alert (an email addressed to Service Administrators of an environment) to communicate issues that impact the uptime, performance, or usage of an environment, which require customer action.

Generally, a diagnostic alert indicates that Oracle's automated diagnostics system detected an issue specific to your environment that requires your intervention. This section details what to do if you receive an email titled Diagnostic Alert.

1. Upon receiving a diagnostic alert, create a Provide Feedback submission. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission.
2. Create a technical service request using the subject `Enterprise Performance Management (EPM) Cloud Diagnostic Alert`. See [Submitting a Technical Service Request](#). Include the following in the service request:
 - Provide Feedback reference number.
 - The full content of the diagnostic alert email that you received.

Making Other Requests

Create a service request to make a request that is not covered in this guide.

1. From the environment about which you are making a request, create a Provide Feedback submission. Optionally, allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).
2. Create a technical service request that identifies the Provide Feedback reference number. See [Submitting a Technical Service Request](#). The service request must contain a clear explanation of your request and why you are making it.

6

Asking Questions About EPM Cloud

A search using a search engine (such as Google or DuckDuckGo) or the inbuilt search available from within the Oracle Enterprise Performance Management Cloud Help Center of a business process should answer most questions about EPM Cloud.

In this Section

- [Asking How-to Questions](#)
- [Asking Other Questions](#)

Asking How-to Questions

Perform an Internet search using appropriate key words to get answers to your questions about Oracle Enterprise Performance Management Cloud. An Internet search is likely to bring up the latest information from EPM Cloud Help Centers, which provide access to the latest EPM Cloud documents, videos, and tutorials that guide you through the process of administering and using business processes.

Looking for Answers in a Help Center

Help Center resources are updated on a monthly basis usually on the first Friday of the month. Much of the information in EPM Cloud Help Centers could be accessed through Internet searches as well.

Watch this overview video to get answers, learn more, and stay current using EPM Cloud Help Centers.



[Overview video](#)

To access a Help Center:

1. Go to <https://docs.oracle.com> and click **Cloud Applications**.
2. Click **Enterprise Performance Management** from **Enterprise Resource Planning**.
3. Open the appropriate Help Center by selecting the business process about which you want to learn.

What if I Still Have Questions?

If you are unable to find answers using an Internet search or using the resources in the Help Center, posing your questions on [Oracle Customer Connect](#) forums may generate helpful suggestions. To use forums:

1. Sign in to [Oracle Cloud Customer Connect](#).
2. Hover the mouse over **Forums**, then **Enterprise Resource Planning** under **Applications (SaaS)**, and click the appropriate EPM Cloud business process about which you want to ask a question.
The **Welcome** page opens. Activities that you can complete on this page include the following:

- Click **Post a new topic** to create a topic to post your usage-related question.
- Select one or more tags and then click **Search** to find discussions referencing your usage issue.

Getting Help from Oracle

If you are unable to find answers to your questions using the preceding sources, seek help from Oracle by creating a technical service request that includes all your questions.

Asking Other Questions

If you are unable to find answers to your questions using the information in this guide, seek help from Oracle by creating a technical service request that details your question.