Oracle Endeca Platform Services

Migration Guide

Version 6.1.3 • January 2013 • Revision B

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Contents

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Preface

The Oracle Endeca Commerce solution enables your company to deliver a personalized, consistent customer buying experience across all channels — online, in-store, mobile, or social. Whenever and wherever customers engage with your business, the Oracle Endeca Commerce solution delivers, analyzes, and targets just the right content to just the right customer to encourage clicks and drive business results.

Oracle Endeca Commerce is the most effective way for your customers to dynamically explore your storefront and find relevant and desired items quickly. An industry-leading faceted search and Guided Navigation solution, Oracle Endeca Commerce enables businesses to help guide and influence customers in each step of their search experience. At the core of Oracle Endeca Commerce is the MDEX Engine™, a hybrid search-analytical database specifically designed for high-performance exploration and discovery. The Endeca Content Acquisition System provides a set of extensible mechanisms to bring both structured data and unstructured content into the MDEX Engine from a variety of source systems. Endeca Assembler dynamically assembles content from any resource and seamlessly combines it with results from the MDEX Engine.

Oracle Endeca Experience Manager is a single, flexible solution that enables you to create, deliver, and manage content-rich, cross-channel customer experiences. It also enables non-technical business users to deliver targeted, user-centric online experiences in a scalable way — creating always-relevant customer interactions that increase conversion rates and accelerate cross-channel sales. Non-technical users can control how, where, when, and what type of content is presented in response to any search, category selection, or facet refinement.

These components — along with additional modules for SEO, Social, and Mobile channel support — make up the core of Oracle Endeca Experience Manager, a customer experience management platform focused on delivering the most relevant, targeted, and optimized experience for every customer, at every step, across all customer touch points.

About this guide

This guide helps you upgrade your Oracle Endeca Guided Search implementation by describing the major tasks necessary to upgrade to Endeca Platform Services 6.1.x from either Platform Services 6.0.1 or IAP 5.1.x.

Who should use this guide

This guide is intended for developers who are upgrading Oracle Endeca Guided Search, as well as for system administrators managing Oracle Endeca Guided Search on Windows, UNIX, or Linux.

> **Note:** Unless otherwise indicated, whenever this document specifies UNIX, it applies to Linux as well.

Conventions used in this guide

This guide uses the following typographical conventions:

Code examples, inline references to code elements, file names, and user input are set in `monospace` font. In the case of long lines of code, or when inline monospace text occurs at the end of a line, the following symbol is used to show that the content continues on to the next line: ¬

When copying and pasting such examples, ensure that any occurrences of the symbol and the corresponding line break are deleted and any remaining space is closed up.

Contacting Oracle Support

Oracle Support provides registered users with important information regarding Oracle Endeca software, implementation questions, product and solution help, as well as overall news and updates.

You can contact Oracle Support through Oracle's Support portal, My Oracle Support at *https://support.oracle.com*.

Chapter 1

Upgrading Endeca Platform Services to Version 6.1.x

This section describes the steps you need to take to upgrade the Endeca software to Oracle Endeca Guided Search 6 with Endeca Platform Services version 6.1.x. It is critical that, after you follow the upgrade procedures in this section, you also review this guide for additional changes required to upgrade your specific Endeca implementation.

About Oracle Endeca Guided Search components

Oracle Endeca Guided Search is available in three separately-installed components.

These components are as follows:

- Endeca MDEX Engine
- Endeca Platform Services
- Oracle Endeca Workbench

Each package can be installed on a separate machine or server as necessary, and each component can be upgraded individually. For more information on each package, see the *Oracle Endeca Commerce Getting Started Guide* available on the Oracle Technology Network.

About the documentation packaging

Documentation for all Endeca components is available on the Oracle Technology Network (OTN) for viewing or download.

The documents shipped with the Endeca Platform Services 6.1 component are:

- *Oracle Endeca Commerce Third-Party Software Usage and Licenses*
- *Oracle Endeca Platform Services Release Notes*

For a complete list of available documentation associated with each Endeca product, refer to the *Oracle Endeca Commerce Getting Started Guide* available on the Oracle Technology Network (OTN).

> **Note:** If you are working with the Presentation API, keep in mind that the Endeca Javadoc and the *Endeca .NET Reference Guide* are part of the documentation set on the Oracle Technology Network.

About Oracle Endeca Guided Search Administrator's Guide

The *Oracle Endeca Commerce Administrator's Guide* is available on the Oracle Technology Network. This guide describes tasks involved in administering and maintaining applications built upon Oracle Endeca Commerce. It bridges the gap between the work performed by the Endeca Services team when your Endeca implementation was being initially deployed, and the issues that you, as a system administrator, may need to address to maintain the system.

Recommended reading

In addition to reading this document, Oracle recommends that you read the following documents for important information about the release.

Release Announcement for Oracle Endeca Guided Search 6.1

The *Release Announcement* provides a brief explanation of the new features that were added in Version 6.1.x. The *Release Announcement* is available for download from the Oracle Technology Network.

Release Notes

The release notes for each package provide information about new features, changed features, and bug fixes for this release. You can download the release notes (`README.txt`) from the Oracle Technology Network. After installation, release notes are also available in the following location:

- Windows: `C:\Endeca\PlatformServices\<version>\README.txt`
- UNIX: `usr/local/endeca/PlatformServices/<version>/README.txt`

On Windows, you can also access the release notes from **Start** > **Programs** > **Endeca** > **Platform Services** > **Release Notes**.

Getting Started Guide

The *Oracle Endeca Commerce Getting Started Guide* gives an overview of Endeca components and includes information about configuration scenarios. After installing all the components in your Endeca deployment, read this guide for information on verifying your installation.

Identifying your upgrade scenario

Because this guide describes several upgrade scenarios, you should identify your upgrade path before you begin your upgrade procedure.

This guide assumes that your upgrade scenario is one in which your current Endeca software is on a 64-bit machine and that you are also using the Endeca Application Controller environment.

The following table lists versions and environments you may have, and provides information about upgrading from your current version to Platform Services 6.1.

Your current version and environment	To upgrade to Platform Services 6.1.x
Endeca Platform Services 6.0.1	See *Upgrading from Platform Services 6.0.1* on page 12.
IAP 5.1.x with EAC on a 64-bit machine	See *Upgrading an Endeca 5.1 platform* on page 13.

Your current version and environment	To upgrade to Platform Services 6.1.x
IAP 5.1 on a platform NOT supported by IAP 6	Install Oracle Endeca Guided Search 6.1 components on a supported platform. For a complete list of supported platforms, see the *Oracle Endeca Platform Services Installation Guide* and the *Oracle Endeca MDEX Engine Installation Guide* for version 6.1.
IAP 5.1 with control scripts	Upgrade to an EAC environment. Control scripts were deprecated in Oracle Endeca Guided Search version 5.0.
Oracle Endeca Guided Search prior to 5.1	Upgrade incrementally, one version at a time. For upgrade instructions, see the corresponding Installation Guide. For example, if you are upgrading from version 4.8, see the Installation Guide for version 5.0; if you are upgrading from version 5.0, see the Installation Guide for version 5.1. In addition, you must read the Installation Guide for each corresponding software version to which you are upgrading, and make the required changes for each version.

Avoiding problems during an upgrade

To avoid problems when you upgrade from a previous version, it is important that you follow the recommendations below. This way, you can isolate problems during an upgrade.

- Before installing the version 6.1 software, read this entire guide and make sure you know which migration changes you need to make after you upgrade to the new software.
- After you upgrade your software based on the instructions in this chapter, make the migration changes in your Endeca implementation.
- If you are upgrading from IAP 5.1, before you add any new 6.1 features, test your Endeca implementation with the version 6.1 software to make sure that it runs properly with the migration changes you have made.
- When you are satisfied that your implementation is running as expected, you can start adding the new version 6.1 features that you require.

Package compatibilities

To determine the compatibility of Platform Services with other Endeca installation packages, see the *Oracle Endeca Commerce Compatibility Matrix*, available on the Oracle Technology Network.

Upgrading from Platform Services 6.0.1

This procedure provides high-level steps needed to upgrade from Platform Services 6.0.1 to Platform Services 6.1.x.

The high-level procedure of upgrading a Platform Services 6.0.1 platform is:

1. Back up your EAC store.
2. Uninstall Platform Services 6.0.1.
3. Install Platform Services 6.1.x.
4. Restore the backed-up EAC store.
5. Upgrade other Endeca components as required.

Before installing upgraded versions of Endeca components, check the appropriate Installation Guide for the version that you are uninstalling for a list of environment variables used by all Endeca components, and ensure that any environment variables from previous installations are removed from your servers. This is because, on UNIX, when you uninstall the previous versions, the environment variables from the previous installations are not removed automatically.

Step 1: Back up your existing configuration

The EAC store contains application configuration.

> ✎ **Note:** This step is only necessary if you are using EAC scripts to provision your application. Implementations relying on the Deployment Template do not need to back up the EAC store because the information is stored in the Deployment Template's `AppConfig.xml` file.

To back up the EAC store:

1. Stop the Endeca HTTP service if it is running.
2. Copy the `eacstore` directory from `%ENDECA_CONF%\state` (on Windows) or `$ENDECA_CONF/state/` (on UNIX) to another location.

Step 2: Uninstall Platform Services 6.0.1

Uninstall the software as documented in the 6.0.1 version of the *Oracle Endeca Platform Services Installation Guide*.

> ✎ **Note:** If you have the Endeca Document Conversion module, uninstall it before uninstalling Platform Services.

Step 3: Install Platform Services 6.1.x

Install Platform Services 6.1.x as documented in the 6.1.x version of the *Oracle Endeca Platform Services Installation Guide*.

If you have purchased the Endeca Document Conversion module, install version 6.1.

Step 4: Restore the backed-up EAC store

To restore a backup of the EAC store on the Platform Services 6.1 location:

1. Stop the Endeca HTTP service if it is running.
2. If there is an `eacstore` directory in `%ENDECA_CONF%\state` (on Windows) or `$ENDECA_CONF/state/` (on UNIX), delete the directory.

3. Copy the backup `eacstore` directory into `%ENDECA_CONF%\state` (on Windows) or `$ENDECA_CONF/state/` (on UNIX).
4. Start the Endeca HTTP service.

Keep in mind that this step is necessary only if you used EAC scripts to provision your application in 6.0. Implementations relying on the Deployment Template do not need to back up or restore the EAC store.

Step 5: Upgrade other Endeca components

After you have upgraded to Platform Services 6.1, check your other Endeca components and upgrade them as necessary:

1. Upgrade the Endeca MDEX Engine to the latest 6.1 version (which is 6.1.3 as of the publishing date of this guide). For details, see the *Oracle Endeca MDEX Engine Migration Guide* and the *Oracle Endeca MDEX Engine Installation Guide*.
2. Upgrade Endeca Workbench to version 2.1. For details, see the *Oracle Endeca Workbench Migration Guide* and *Oracle Endeca Workbench Installation Guide*.
3. Upgrade Endeca Developer Studio to version 6.1. For details, see the section "Upgrading a Developer Studio project" in this chapter.
4. Upgrade Deployment Template to version 3.2. For details, see the *Oracle Endeca Deployment Template Usage Guide*.
5. Upgrade any other Endeca packages to maintain compatibility among the components.

Upgrading an Endeca 5.1 platform

This procedure provides high-level steps needed to upgrade your Endeca 5.1.x platform to Endeca Platform Services 6.1.

After you back up your configuration and source data, uninstall the 5.1.x version of Oracle Endeca Guided Search, then install the Oracle Endeca Guided Search 6.1.x components.

When installing, ensure that you point Endeca Workbench to the machine on which you are installing the EAC Central Server. Also, you need to run your existing scripts (the provisioning script that you used for your application in version 5.1 and the baseline update script) in Endeca Workbench 2.1. Ensure that your baseline update script can communicate with the EAC Central Server in this version. Oracle recommends using the Oracle Endeca Deployment Template, which is available from the Oracle Software Delivery Cloud.

Note: If you were using the Endeca Application Controller environment in version 5.1, you can continue using your EAC scripts after you upgrade.

The high-level procedure of upgrading a 5.1 platform is:

1. Back up your existing configurations.
2. Uninstall IAP version 5.1.
3. Install and configure the MDEX Engine, Platform Services, Workbench, Developer Studio, and the Deployment Template.
4. Restore your configurations.
5. Start the Endeca processes.

For detailed information on each of the steps, see the corresponding sections below.

Backing up your existing configurations

The backup process allows you to take a snapshot of your project including its users, rule groups, and permissions data.

To back up your Oracle Endeca Guided Search configuration, back up the following pieces:

- Instance configuration — this consists of your pipeline components, Endeca properties and dimensions, precedence rules, dynamic business rules, and user profiles.
- Web Studio store — a directory that contains a database of users, rule groups, and associated permission information.
- Configuration files — XML and properties files that customize the behavior of a Workbench installation.
- EAC store — a directory that contains a database of your provisioning information.

Backing up your instance configuration

First, you must obtain and back up your project's most recent configuration information, either from your local version of the configuration files, or from Endeca Workbench.

To back up a project:

1. On your Windows machine, open the 5.1 version of Developer Studio.
2. Open the project that you want to upgrade.
3. From the **Tools** > **Workbench** menu, click **Get Instance Configuration**.

   This step retrieves the latest instance configuration information from Workbench.

4. Save the project and close Developer Studio.
5. Back up your project directory.

   This is the directory that contains the project (.esp) file, the pipeline (.epx) file, the dimension hierarchy, and the index configuration files.

Backing up the Web Studio store

The Web Studio store contains information such as users and permissions, as well as preview application settings used in Workbench.

For implementations not using Workbench in 5.1, this step is unnecessary.

Note: It is not possible to back up and restore the Web Studio store from a version before 5.1.2. If you are upgrading from an earlier version, make a manual record of your Workbench user settings and re-create them in Endeca Workbench.

To back up the Web Studio store:

1. Stop the Endeca HTTP service.
2. Copy the `webstudiostore` directory, including all its subdirectories, from `%ENDECA_CONF%\state` (on Windows) or `$ENDECA_CONF/state` (on UNIX) to another location.

   Recall that the default location of `ENDECA_CONF` in Oracle Endeca Guided Search version 5.1.x is `C:\Endeca\MDEXEngine\workspace` (Windows) and `endeca/workspace` (UNIX).

Backing up the Workbench configuration files

Workbench uses several configuration files that customize the behavior of various aspects of Workbench.

In general, you only need to back up these files if you have made customizations to your Workbench instance.

To back up the Workbench configuration files:

1. Navigate to the directory where the configuration files are located: `%ENDECA_CONF%\conf` (on Windows) or `$ENDECA_CONF/conf` (on UNIX).

   Recall that the default location of `ENDECA_CONF` is `C:\Endeca\MDEXEngine\workspace` (Windows) and `endeca/workspace` (UNIX).

2. To preserve the settings controlled by each of the following files, copy them to another location.

File name	Description
Login.conf	Configuration for user authentication using LDAP.
ws-extensions.xml	Definitions of Workbench extensions.
ws-mainMenu.xml	Definitions of the Workbench navigation menu and launch page.
ws-roles.xml	Definitions of custom Workbench user roles.

Note that there are some configurations that cannot be migrated. For example, if you have configured your Web Studio for SSL, hidden the application drop-down menu in the UI, or made the EAC Admin Console read-only, you must make these configuration changes in the new environment.

Backing up the EAC store

The EAC store contains application configuration.

Note: This step is only necessary if you are using EAC scripts to provision your application. Implementations relying on the Deployment Template in 5.1 do not need to back up the EAC store because the information is stored in the Deployment Template's `AppConfig.xml` file.

To back up the EAC store:

1. Stop the Endeca HTTP service if it is running.

2. Copy the `eacstore` directory from `%ENDECA_CONF%\state` (on Windows) or `$ENDECA_CONF/state/` (on UNIX) to another location.

   Recall that the default location of `ENDECA_CONF` is `C:\Endeca\PlatformServices\workspace` (Windows) or `endeca/workspace` (UNIX).

Uninstalling the earlier version

After backing up the required configuration files, you can uninstall version 5.1.x.

For information about uninstalling version 5.1.x, see the 5.1 version of the *Endeca Installation Guide*.

Installing Oracle Endeca Guided Search 6.1 with Endeca Platform Services 6.1.x

The next step is to install the new versions of the Endeca components.

Because Oracle Endeca Guided Search is now installed as separate components, the directory structures and environment variables have changed from version 5.1. Please consult the *Oracle Endeca Guided Search Getting Started Guide* for detailed information.

Before installing upgraded versions of Endeca components, check the appropriate *Installation Guide* for the version that you are uninstalling for a list of environment variables used by all Endeca components, and ensure that any environment variables from previous installations are removed from your servers. (During uninstall, the environment variables from the previous installations on UNIX are not removed automatically.)

To install the upgrade components:

1. Install the latest 6.2.x version of Endeca MDEX Engine.
    For installation details, see the *Oracle Endeca MDEX Engine Installation Guide*.

2. Install the latest 6.1.x version of Endeca Platform Services.
    For installation details, see the *Oracle Endeca Platform Services Installation Guide*.

3. Install the latest 2.1 version of Oracle Endeca Workbench
    For installation details, see the *Oracle Endeca Workbench Installation Guide*.

4. Install the latest 6.1.x version of Endeca Developer Studio on a Windows machine.
    For installation details, see the *Oracle Endeca Developer Studio Installation Guide*.

5. Install the latest 3.2.x version of the Endeca Deployment Template.
    For installation details, see the *Oracle Endeca Deployment Template Usage Guide*.

Restoring your configurations

To restore your project settings, copy the files that you backed up earlier into the appropriate locations in your upgraded implementation.

Restoring a backup of the Web Studio store

If you are upgrading from Oracle Endeca Guided Search version 5.1.2 or later, you can restore backups of the Web Studio store to an installation of Endeca Workbench.

To restore a backup of the Web Studio store into Endeca Workbench:

1. Stop the Endeca Tools Service if it is running.
2. If there is a `webstudiostore` directory in `%ENDECA_TOOLS_CONF%\state\` (on Windows) or `$ENDECA_TOOLS_CONF/state/` (on UNIX), delete the directory.
    Recall that the default location of `ENDECA_TOOLS_CONF` in Endeca Workbench is `C:\Endeca\Workbench\workspace` (Windows) or `endeca/Workbench/workspace` (UNIX).
3. Copy the `webstudiostore` directory that you backed up earlier from `%ENDECA_CONF%\state\` (on Windows) or `$ENDECA_CONF/state/` (on UNIX).
4. Paste the `webstudiostore` directory into `%ENDECA_TOOLS_CONF%\state\` (on Windows) or `$ENDECA_TOOLS_CONF/state/` (on UNIX).

5. If you have no further customizations to restore to Endeca Workbench, start the Endeca Tools Service.

Restoring a backup of the Oracle Endeca Workbench configuration files

You can now restore the configuration files (that you backed up earlier) to an Endeca Workbench 2.1 installation.

> **Note:** If you have made customizations to `ws-mainMenu.xml` in Workbench that you wish to preserve and you are upgrading your Oracle Endeca Workbench installation to include Experience Manager, you must manually merge the original file that you backed up with the default version in your new Workbench installation.

To restore a backup of the Oracle Endeca Workbench configuration files:

1. Stop the Endeca Tools Service if it is running.
2. Copy the files that you backed up earlier from `%ENDECA_CONF%\conf` (on Windows) or `$ENDECA_CONF/conf` (on UNIX).
3. Paste the backup versions into `%ENDECA_TOOLS_CONF%\conf` (on Windows) or `$ENDECA_TOOLS_CONF/conf` (on UNIX).

   Recall that the default location of `ENDECA_TOOLS_CONF` is `C:\Endeca\Workbench\workspace` (Windows) or `endeca/Workbench/workspace` (UNIX).
4. Start the Endeca Tools Service.

Restoring a backup of the EAC store

You can now restore the EAC store (that you backed up earlier) into the Platform Services 6.1 state directory.

This step is only necessary if you used EAC scripts to provision your application in 5.1. Implementations relying on the Deployment Template do not need to back up or restore the EAC store.

To restore a backup of the EAC store:

1. Stop the Endeca HTTP service if it is running.
2. If there is an `eacstore` directory in `%ENDECA_CONF%\state` (on Windows) or `$ENDECA_CONF/state/` (on UNIX), delete the directory.

   Recall that the default location of `ENDECA_CONF` in Platform Services 6.0 is `C:\Endeca\PlatformServices\workspace` (Windows) or `endeca/PlatformServices/workspace` (UNIX).
3. Copy the backup `eacstore` directory into `%ENDECA_CONF%\state` (on Windows) or `$ENDECA_CONF/state/` (on UNIX).
4. Start the Endeca HTTP service.

Starting the processes

For UNIX, you need to start the Endeca HTTP service that was installed as part of the Platform Services setup, and the Endeca Tools Service that was installed as part of the Endeca Workbench setup.

To start the processes on UNIX:

1. Before starting the processes, follow the installation steps in each installation guide and set the appropriate environment variables.
2. Start the Endeca HTTP service at the command line with:

   ```
   $ENDECA_ROOT/tools/server/bin/startup.sh
   ```

3. Start the Endeca Tools Service at the command line with:

   ```
   $ENDECA_TOOLS_ROOT/server/bin/startup.sh
   ```

On Windows, the services are started automatically after you complete the installation procedures (including restarting the system after the Platform Services installation).

Upgrading a Developer Studio project

This section provides instructions for the basic tasks involved in upgrading a Developer Studio project from 5.1 or 6.0 to 6.1.

However, because Endeca projects are highly configurable, some implementations may require further migration changes. Please review this guide for additional changes required to upgrade your specific Endeca implementation.

Provisioning your system

To provision your application, Oracle recommends using the Deployment Template. However, you can also provision your system using EAC scripts.

To provision your system:

1. If you are upgrading from 5.1, remove all Advanced Crawler components before provisioning your system.
2. Run the provisioning script from your existing application. (This step assumes that you already have an EAC script that you used in version 5.1 or 6.0 for your application's provisioning).

For Deployment Template information, see the *Oracle Endeca Deployment Template Usage Guide*. For information about the Endeca Application Controller, see the *Oracle Endeca Application Controller Guide*. For detailed information about provisioning hosts, components, and scripts in Endeca Workbench, see the *Oracle Endeca Workbench Help*.

✎ **Note:** For implementations upgrading from an earlier version of the Deployment Template, customizations to scripts and components must be migrated to the new version and tested with Oracle Endeca Guided Search 6.1.

Converting your Developer Studio project

If you have installed version 6.1 of Developer Studio, you can upgrade your 5.1 or 6.0 project.

Before converting your project to Developer Studio version 6.1, ensure that you have already provisioned your application.

To convert your Developer Studio project to version 6.1:

1. If you have not already done so, upgrade your Endeca Workbench installation to version 2.1 For details, see the *Oracle Endeca Workbench Migration Guide* and *Oracle Endeca Workbench Installation Guide*.

2. Start Developer Studio version 6.1.

3. Open the project you want to convert. Developer Studio issues a message stating that the project will be converted to the new format. Click **OK**, and specify the location to which you want to save your updated project.

4. There may be further migration necessary before you can process your data in version 6.1. Consult this guide for more information. Do not proceed until you have completed all necessary migration steps.

5. Select **Tools > Oracle Endeca Workbench Settings**. In the Oracle Endeca Workbench Settings dialog box, make sure that the machine name and port information for your Workbench host and port are correct. (The default port number is 8006.) Also make sure you select the appropriate application to associate with this project, because Endeca Workbench can support multiple applications.

   > **Note:** Although the Developer Studio UI reads "Oracle Endeca Workbench," the settings apply to all Endeca Workbench editions.

6. Save your changes.

7. From the **Tools > Oracle Endeca Workbench** menu, select **Set Instance Configuration**. This uploads the instance configuration from Developer Studio to Endeca Workbench.

If you had modified any pre-6.1 XML project files by hand (rather than through Developer Studio), check those files to make sure that the upgrade preserved your changes. For example, if you have a Chinese-language application, check your `languages.xml` and `stemming.xml` files to make sure that they are using the `zh-CN` or `zh-TW` language code (and not the incorrect `zh` code). Note that if you hand-edit the `stemming.xml` file, the order of its `STEM` elements must match the order of the languages listed in the Developer Studio's Stemming Editor.

Running a baseline update

Run a baseline update to start the Dgraphs.

To run a baseline update:

1. You can run a baseline update in the same manner as in your 5.1 or 6.0 implementation. Oracle recommends using the Deployment Template to perform updates.

2. Optionally, start any other Endeca components required by your application, such as the Log Server component (if your baseline update script does not start it for you).

Updating the APIs on the application server

After upgrading, ensure that the server or servers running your front-end application are using the latest versions of the Presentation API and Logging API.

The Presentation and Logging APIs are shipped as part of the Endeca Platform Services package.

After you upgrade

It is recommended that you test the upgrade before adding new features.

After you have provisioned your system (and converted your 5.1 or 6.0 Developer Studio project to version 6.1), it is critical that you read the MDEX Engine and Workbench Migration Guides and complete all required migration changes that may affect your implementation. Before you add any new features, test your Endeca implementation with the Oracle Endeca Guided Search version 6.1 software to make sure that it runs properly with the migration changes you have made.

When you are satisfied that your implementation is running as expected, you can start adding any new features that you require.

Obtaining the Endeca 6.1 documentation set

Documentation for Platform Services 6.1 and all other Endeca components is available on the Oracle Technology Network (OTN). If you have not already done so, you should download the set.

> **Note:** If you are doing development work with the Presentation API, keep in mind that the *Endeca Javadocs* and the *Endeca .NET Reference Guide* are part of the documentation set on the OTN.

Chapter 2
Required Changes

You must make the changes specified in this section, if they apply to your application.

Changes from 6.1.2 to 6.1.3

This section describes changes to Platform Services that occurred between version 6.1.2 and 6.1.3.

The Endeca Control System is not supported

As part of the MDEX Engine 6.2.0 release, support was removed for the Endeca Control System. The Endeca Control System includes the Endeca JCD and the Control Interpreter, both of which have been deprecated since Endeca IAP 5.0.

You should use the Endeca Application Controller to control, manage, and monitor components in your Endeca implementation. For details, see *Endeca Platform Services Application Controller Guide*.

The Platform Services 6.1.3 documentation no longer includes the *Control System Guide* in the documentation set.

The `VOID ID_LANGUAGE` expression is no longer supported

The `VOID ID_LANGUAGE` expression was typically used in a Record Manipulator to identify the language of a specified property and then add a language identifier property to a record.

The expression has been removed *Endeca Data Foundry Expression Reference* and from examples in the Platform Services documentation.

Changes from 6.1.0 to 6.1.1

This section describes changes to the Endeca software that occurred from version 6.1.0 of Platform Services to 6.1.1.

Removal of support for the Endeca Crawler (Spider component)

As part of the July 2011 release, the Endeca Crawler, which has been deprecated for several releases, is no longer supported. (The Endeca Crawler does not run on the SUSE Enterprise Linux 11 operating system).

If your project has Web crawling requirements, Oracle recommends that you use the Endeca Web Crawler, which is a component of the Endeca Content Acquisition System.

Both "Appendix C The Endeca Crawler" and "Appendix D Differential Crawling" have been removed from the *Endeca Forge Guide*. Also, any topics that described the Spider component have been removed from the *XML Reference*.

Changes to the silent installation on UNIX

In release 6.1.1, the silent installer on UNIX no longer prompts for acceptance of the License Agreement. In the text file that you create for the silent installation, remove the line that contains "Y" to accept the agreement.

Changes from 6.0 to 6.1

There are no required general changes from version 6.0.1 of Platform Services to version 6.1.0.

With one exception, Platform Services 6.1.0 contains the same feature set as version 6.0.1. The exception is that support for virtualized operating systems (which was removed in 6.0.1) has been restored in version 6.1.0. See the *Oracle Endeca Platform Services Installation Guide* for the supported platform.

In addition, there have been no further deprecated features (that is, the deprecated features in 6.1.0 are the same as in 6.0.1).

For these reasons, you are not required to make any changes when upgrading to Platform Services 6.1.0 from 6.0.1.

Changes from 5.1 to 6.1

This section describes general changes to the Endeca software when upgrading from IAP 5.1.x.

Removal of deprecated platform support

Starting in version 5.1.0, support for installation of Oracle Endeca Guided Search on the following platforms was deprecated:

- Red Hat Enterprise Linux AS version 3
- Red Hat Enterprise Linux ES version 3
- Windows 2000 Server
- Windows 2000 Advanced Server

Support for installation of Oracle Endeca Guided Search on these platforms was removed in version 6.0.1 and the platforms continue to be unsupported in version 6.1.0.

Removal of the COM API

The COM API, which was deprecated in version 5.1.0 of Oracle Endeca Guided Search, has been removed from version 6.0 and is also absent in 6.1.0.

Removal of support for Microsoft .NET Framework 1.1 for the .NET API

Starting in version 5.1.0, the Microsoft .NET Framework version 1.1 was deprecated for the Endeca Presentation API and the Logging and Reporting API for .NET. Support for version 1.1 of the Microsoft .NET Framework was removed from version 6.0 and is also absent in 6.1.0.

Removal of the Standard Application

The Standard Application has been removed from version 6.0 and is also absent in 6.1.0.

Removal of default SSL certificates

In previous versions, Oracle Endeca Guided Search shipped with a pre-generated set of SSL certificates that you could use to enable basic security. Starting in 6.0 and continuing with 6.1.0, no default certificates are provided.

In order to use certificates, you must either generate them yourself with the enecerts utility that Endeca provides for this purpose, or obtain them elsewhere, for example, from a certificate authority. You may continue to use default certificates obtained from previous versions of Oracle Endeca Guided Search until they expire.

For details about enabling SSL or using Endeca's certificate utility, see the *Endeca Security Guide*.

Removal of the sample baseline update script

The sample baseline update script is no longer part of the Endeca installation.

In previous versions, the `baseline-update.bat` and `baseline-update.sh` scripts were stored in:

- `%ENDECA_ROOT%\bin\baseline-update.bat` (Windows)
- `$ENDECA_ROOT/bin/baseline-update.sh` (UNIX)

The sample baseline update script has also been removed from the sample_wine_data project installed in `ENDECA_REFERENCE_DIR`. Instead, Oracle recommends that you download and install the Oracle Endeca Deployment Template (available on the Oracle Software Delivery Cloud), and use the baseline update script provided and configured by the Deployment Template.

Changes to environment variables

The installation restructuring required changes and additions to the environment variables.

For a complete list of Endeca environment variables please see the section "Endeca environment variables" in the *Oracle Endeca Guided Search Getting Started Guide*.

Changes to the Platform Services installation package

The following required changes pertain to components installed as part of the Platform Services package.These changes apply to customers who are upgrading from IAP 5.1, but do not apply to upgrades from Platform Services 6.0.1.

Term Extractor changes

If you were using the Relationship Discovery feature in 5.1.x, you should be aware of the following two changes.
Enabling relationship discovery
In 6.0 and 6.1.0, Relationship Discovery must be enabled in the Platform Services package, not the MDEX Engine package.

The Relationship Discovery feature is enabled via the `ProductConfig.xml` file in the `ENDECA_ROOT/conf` directory (in the Platform Services package), not the `ProductConfig.xml` that is in the `ENDECA_MDEX_ROOT/conf` directory (which is part of the MDEX Engine package). For details on enabling the feature, refer to the enablement guide for that feature.

Java classpath required for Term Extractor
In version 5.1, the `Class path` setting in the Java manipulator for the Term Extractor class was optional. In versions 6.0 and 6.1.0 of the IAP, the setting is no longer optional.

If you did not specify the setting in previous versions, it used a default classpath of `ENDECA_ROOT/lib/java`. In versions 6.0 and 6.1.0, you must enter the absolute path to the Jar file that contains the class. Because the Term Extractor Jar files are now in the `ENDECA_ROOT/lib/java/te` directory, you just specify the `Class path` setting, as in this UNIX example:

```
/usr/local/endeca/PlatformServices/6.0.1/lib/java/te/termextractor.jar
```

New JKS conversion utility

The Endeca Key Importer is a certificate conversion utility that allows you to convert PEM-format certificates to the standard Java KeyStore (JKS) format.

The utility is provided as a Jar file named `endeca-key-importer.jar` and is located in the `ENDECA_ROOT/lib/java` directory. This converter replaces the PKCS12 key converter that was provided in the JAR file named `endeca_PKCS12ToJKS.jar`.

For details on the new converter, refer to the *Endeca Security Guide*.

Control System Changes

The Endeca Control System, version 6.x, has changed as follows:

By default, the version 6.x Endeca Control System starts up the JCD service in non-SSL mode, unlike in version 5.1.

In addition, you must ensure that the `ENDECA_MDEX_ROOT` environment variable is set in the JCD environment. On Windows, you should manually add `ENDECA_MDEX_ROOT` as a system environment variable so that the JCD Service starts with this variable in its environment. For detailed information about setting this environment variable for the JCD, refer to the *Endeca Control System Guide*.

Removal of Forge hierarchical logging system

The Forge hierarchical logging system, which was deprecated in version 5.1, has been removed from Platform Services 6.x.

Changes to the Endeca Application Controller

The Advanced Crawler is no longer supported by the Endeca Application Controller, and cannot be provisioned or run via the EAC.

It is recommended that you use the Endeca Web Crawler for Web crawls. The Endeca Web Crawler is available in the Endeca CAS package.

Changes to the Presentation API URL query syntax

The `Nl` Analytics parameter has been removed. The parameter was previously used to obtain summary information about sets of records.

Queries containing arguments related to this parameter return a 410 HTTP error code.

The equivalent capabilities exist in the Endeca Analytics module of Oracle Endeca Guided Search.

Chapter 3

Recommended Changes

This section describes changes that are not required for your implementation but that are recommended by Oracle. Oracle strongly recommends that you make the changes specified in this section. Your application will continue to perform correctly if you don't make these changes.

Deprecation of the Endeca Crawler

The Endeca Crawler, which uses the Forge spider component, was deprecated in version 6.0 of Oracle Endeca Guided Search and continues to be deprecated in version 6.1.0.

The Endeca Advanced Crawler is now obsolete and has been replaced by the Endeca Web Crawler.

Iif you are beginning a new project, it is recommended that you use the Endeca Web Crawler for Web crawls and the Endeca CAS Server for file system crawls. Both crawlers are available in the Endeca CAS package.

Chapter 4

Behavioral Changes

This section describes changes that do not require action on the developer's part, but will have an effect on how your Endeca application behaves after you upgrade.

Changes from 6.1.0 to 6.1.1

This section describes behavioral general changes to the Endeca software when upgrading from Platform Services 6.1.0.

DVAL_STATIC_RANK attribute is reinstated in the STATS element

The DVAL_STATIC_RANK attribute has been reinstated in the XML Configuration Reference. This attribute specifies whether every dimension value's static rank should be returned as a property on the dimension value. The default value is FALSE.

Setting this attribute to TRUE causes the MDEX Engine to return the static rank with each dimension value. Like other attributes in the STATS element configuration, the value for this attribute can be specified both at the individual dimension level and at the global level.

> **Note:** This attribute is reinstated starting with the MDEX Engine release 6.1.4. However, this attribute has been deprecated in 6.1.0-6.1.3 releases of MDEX Engine. If this attribute was used in those releases, the MDEX Engine ignored it and issued a warning about its presence in the file.

Changes from 6.0 to 6.1

This section describes behavioral general changes to the Endeca software when upgrading from Platform Services 6.0.1.

Internal infrastucture upgrades

Platform Services 6.1.0 includes upgrades to these internal infrastructure components:

- The Java Platform, Standard Edition Development Kit (JDK) that is part of the Platform Services installation has been upgraded to version 6 (the version is also known as 1.6).
- The Apache Tomcat servlet container has been upgraded to version 6.0.20.

Document Conversion module upgrade

The Endeca Document Conversion module has been upgraded to version 8.3.0 of the Outside In Search Export software.

Upgrade to Corda version used by Endeca Analytics

Endeca Analytics requires the installation of Corda charting software. In the Platform Services 6.1 release, the version of Corda used by Endeca Analytics has been upgraded from version 6.0.597 to version 6.0.727.

This upgrade includes a Corda output format change that might require you to modify your application code.

For details on obtaining and installing the Corda software, see the *Oracle Endeca Platform Services Installation Guide*. For details on Corda itself, see the Corda documentation.

Changes from 5.1 to 6.1

This section describes general changes to the Endeca software when upgrading from IAP 5.1.x.

Changes to the XML configuration files

The default values for the `MAX_NGRAM_LENGTH` and `DICTIONARY_MAX_NGRAM_LENGTH` attributes in the `RECSEARCH_INDEXES` and `DIMSEARCH_INDEX` elements in the XML configuration files were changed in 6.0, and these defaults continue to be used in 6.1.0.

These attributes control the size of substrings that are indexed for wildcard search. The default values are as follows:

- 3 is the default size for the `MAX_NGRAM_LENGTH`. It is the maximum length of substrings that are indexed if direct wildcard search is used for searching records and dimensions.
- 5 is the default size for the `DICTIONARY_MAX_NGRAM_LENGTH`. It is the maximum length of substrings that are indexed if dictionary-based wildcard search is used for searching records and dimensions.

Higher values for `MAX_NGRAM_LENGTH` and `DICTIONARY_MAX_NGRAM_LENGTH` improve runtime performance but cause super-linear growth in indexing time and disk space. Unless you have been specifically advised otherwise by Endeca, avoid values higher than the defaults. Lower values save memory and indexing time, but increase the time required to handle queries for long substrings.

Changes to the Platform Services installation package

The following required changes pertain to components installed as part of the Platform Services package.These changes apply to customers who are upgrading from IAP 5.1, but do not apply to upgrades from Platform Services 6.0.1.

CADK installed with Platform Services

In versions previous to 6.0, the Content Adapter Development Kit (CADK) had its own separate installer. In versions 6.0 and 6.1 of the Platform Services package, the CADK is installed by default as part of the Endeca Platform Services feature. Uninstalling Endeca Platform Services also uninstalls the CADK.

Control System not installed by default on Windows

In version 5.1, the Endeca Control System was installed by default. In version 6.0 and 6.1 of the Platform Services installation (Windows version), the Control System is not installed by default.

To install it, you must select the feature on the **Custom Setup** menu. Note that the Control System is still installed by default on the UNIX version of the Platform Services installer.

Installation Requirement Changes to the Presentation API for .NET

If you are using the bulk records feature and the Presentation API for .NET, you no longer need to install the Visual J# Redistributable Package.

In previous releases, J# was an installation requirement. In 6.0.1, the dependency on J# has been removed.

Eaccmd behavior changes

The following changes have been made to eaccmd.

Change in the way arguments are passed to eaccmd

Starting in version 5.1.1, the syntax of some eaccmd commands that can take passed-in arguments has become more explicit.

The `--cmd` flag on `add-script`, `update-script`, and `start-util` (shell) is followed by one or more arguments.

If `--cmd` is omitted, the first unrecognized argument is taken as the start of the command. This approximates the behavior in earlier releases.

Change in the order of flags

If the `add-script` and `update-script` commands include the `--wd` or `--log-file` flags, they must appear before the `--cmd` flag.

Change to Endeca Developer Studio

If you are upgrading from 5.1., the following behavioral change pertains to Developer Studio.

In version 5.1.x, positional indexing was enabled by default and non-positional indexing was deprecated. Beginning in version 6.0, it is no longer possible to disable positional indexing in Developer Studio.

Chapter 5

Previously Deprecated Features

This section describes features that were deprecated in previous versions and are still deprecated in Endeca Platform Services 6.1.0.

Deprecated method and constants in relevance ranking module

The following method, property, and constants are deprecated:

Starting in version 5.1.2, in the Java version of the Presentation API, the `ENEQuery.setNavRelRankERecSearch()` method has been deprecated. Use the `ENEQuery.setNavRelRankERecRank()` method in its place.

In the .NET version, the `ENEQuery.NavRelRankERecSearch` property has been deprecated. In its place, you should use the `ENEQuery.NavRelRankERecRank` property.

As a result of this change, several constants have been deprecated and replaced, and one new constant has been added. The following table lists constants being deprecated, replaced, and added in the .NET and Java APIs.

Deprecated constant	New constant
`NAV_RELRANK_EREC_SEARCH_KEY_PARAM`	`NAV_RELRANK_EREC_RANK_KEY_PARAM`
`NAV_REL¬` `RANK_EREC_SEARCH_TERMS_PARAM`	`NAV_RELRANK_EREC_RANK_TERMS_PARAM`
`NAV_RELRANK_EREC_SEARCH_STRATE¬` `GY_PARAM`	`NAV_RELRANK_EREC_RANK_STRATEGY_PARAM`
N/A	`NAV_RELRANK_EREC_RANK_MATCHMODE_PARAM`