Oracle Endeca Commerce 3.1

OVERVIEW

The Oracle Endeca Commerce 3.1 Release introduces new features and architectural enhancements focused on providing merchandisers and business users a Web-based tool set that manages the entire delivery of relevant customer experiences across all digital touch points.

For details on each feature, see the Oracle Endeca Commerce product documentation.

RELEASE COMPONENTS

The Oracle Endeca Commerce 3.1 Release includes new versions of the following components by software license:

Oracle Endeca Guided Search:

- Oracle Endeca MDEX Engine 6.3
- Oracle Endeca Tools and Frameworks 3.1
  This new package should be used for deployments licensed for Oracle Endeca Guided Search only (without Experience Manager) and includes the following:
  - Endeca Workbench (with Rule Manager)
  - Endeca Assembler
  - Deployment Template
  - Reference Applications (Desktop)
  - Product Catalog Integration Deployment Template Module

Oracle Endeca Experience Manager:

- Oracle Endeca Tools and Frameworks with Experience Manager 3.1
  This new package includes the following:
  - Endeca Workbench (with Experience Manager)
  - Endeca Assembler
  - Deployment Template
  - Reference Applications (Desktop & Mobile Web)
  - Deployment Template Module for Product Catalog Integration
  - Experience Manager Extension SDK

Other components used for each software license remain the same. Oracle Endeca MDEX Engine 6.3 is backwards compatible with Oracle Endeca Workbench 2.1. Oracle Endeca MDEX Engine 6.3 is required for all deployments of Tools and Frameworks 3.1.

Please refer to the release Readme for complete information describing which software components satisfy each software license. The Readme is found at the top of each Media Pack listing on the Oracle Software Delivery Cloud.

Please refer to the Oracle Endeca Commerce Compatibility Matrix for detailed compatibility information across all Oracle Endeca Commerce components.

ORACLE ENDECA EXPERIENCE MANAGER

Experience Manager has been renamed from Page Builder and now allows business users to manage dynamic online experiences across all channels and control more granular sections of

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the experience independently from the entire page. This release of Experience Manager includes of the following new features and enhancements:

Pages

Oracle Endeca Experience Manager 3.1 adds the ability to create pages based on a URI path. In addition to the options available in previous releases (search terms, Endeca navigation state, time, and user profile), this provides an additional method to trigger an experience and allows merchandisers, content authors, and other business users to create experiences for any type of page within a single tool. With this feature, pages such as a campaign landing page, the home page, or historically more static pages such as a "Contact Us" or "FAQ" page can be defined and built using any of the dynamic cartridges and then made available for use on pages.

Within Experience Manager, pages are managed within the Pages section of the new left navigation tree.

Content Collections and Dynamic Slots

A Content Collection is a collection of Endeca business rules that define which content should populate a specific section of a page. You create new Content Collections from within Experience Manager to manage Dynamic Slots. Each Content Collection includes a restriction on the type of content that can be defined within it. For example, a Content Collection may be restricted to allow cartridges for only type = “LeftRail”.

Dynamic Slots allow you to manage and trigger different sections of a page independently from the rest of the page. Instead of adding cartridges inline, you can use a slot cartridge to control a page section and configure the slot cartridge to reference a content collection which then at run time dynamically populates the content for that section of the page based on the rules in the content collection. Dynamic Slots provide the following benefits:

1. Content reuse – once a set of rules have been created to manage a specific page section, dynamic slots allow the page section to be reused or shared across multiple pages
2. Variable content – sections of a page can be triggered using a different set of rules from the rules used for the rest of the page, supporting enhanced personalization capabilities.
3. Enhanced cross team collaboration - because different sections of a page can be managed in separate content collections, a business user can make changes to just the rules within a single content collection and update all pages that leverage that collection without needing to coordinate with other users editing the individual pages

Within Experience Manager, Dynamic Slots reference Content Collections managed within the Content section in the new left navigation tree.

Content Collections leverage the MDEX rule zones feature available in prior versions and replace the use of rule zones in the tools and APIs. As noted above, Content Collections can be created directly in Experience Manager. In prior revisions, rule zones were created separately in Developer Studio. Content collections can also be created directly in Rule Manager for deployments that do not include Experience Manager.

Preview and Audit

As you create dynamic experiences for customers, Oracle Endeca Experience Manager 3.1 offers several enhancements to view each experience as is it being built in order to understand

why particular content displays over other content. Preview mode allows business users to specify a preview context (user segment or time) and preview each content item as it will be rendered in an application. Directly from preview mode, business users can audit each page slot to determine which rules were considered and which ones fired to create the experience. From audit mode, you can navigate directly back to Experience Manager to make additional edits to content and configuration.

You can also now preview what your application will look like on multiple devices from within Preview mode by selecting a device as part of the Preview context. Devices are added and managed within the "Manage Devices" section of the "Preview Settings" page in Workbench. . For each device, a developer can set the device display name, the user agent, and assign one of the out-of-the-box skins: iPhone (portrait & landscape), iPad (portrait & landscape), Droid, and Blackberry Bold.

Rich Text Cartridge

A Rich Text cartridge has been added to provide business users with a WYSIWIG tool to create formatted HTML content on a page, so you can more easily create and manage both static and dynamic pages in Experience Manager.

Media Banner Cartridge, Link Editor, and Media MDEX Engine

The release includes a new Media Banner cartridge which allows merchandisers to add images, videos, or other media assets to a page. The cartridge supports selecting a media asset as well as configuring the click-through link for the asset by leveraging a new Link Editor introduced in Oracle Endeca Experience Manager 3.1. The Link Editor allows you to specify a page, external URL, or search and navigate to an Endeca navigation state to configure the link.

The Media Banner cartridge can run in one of two modes. The first mode allows you to select an asset that has been uploaded through scripts to the new Endeca Configuration Repository (described below). Alternatively, the cartridge can run by leveraging a Media MDEX Engine, another new capability in 3.1. The Media MDEX is an instance of the MDEX Engine reserved for Experience Manager and provides the full Endeca search and navigation experience for finding media assets stored in other source systems. A sample Deployment Template application is provided to index the asset's meta-data stored in other systems, such as a DAM or CMS. When the Media Banner cartridge is configured in this mode, the user can search and navigate to select their asset from right within Experience Manager while leaving the assets in their existing source repository.

In future releases, the Media MDEX Engine will include additional data and play an important role in making pages and other content in Experience Manager more accessible.

Guided Navigation Cartridge

The Guided Navigation cartridge has been improved to make it easier to manage the navigation experience for a site. Using the editor for the Guided Navigation cartridge, you can choose from all available dimensions or view just the dimensions relevant for the trigger criteria used on the current page. You can quickly select and de-select from all available dimensions, as well as handpick specific ones for placement on a page. Auto-suggest functionality is also provided to quickly find a dimension.

Once dimensions are selected, the Guided Navigation cartridge now automatically generates a separate cartridge for each dimension. This allows dimension-specific configuration, such as

dimension value boost and bury. The cartridges for each dimension can quickly be re-ordered or removed.

Folders and Copy/Move Feature

In Oracle Endeca Experience Manager 3.1, Folders have been added to replace Rule Groups from previous releases. Within the Content section of the left navigation tree in Experience Manager, folders allow you to organize and manage your content collections as you choose. New folders can be created from within Experience Manager.

New support for copy/move is now included for managing Pages, Folders, and Content Collections within Experience Manager. Within the Page tree, pages can easily be reorganized via drag and drop or copied via the context menu. In the Content tree, folders can be easily moved via drag and drop. Content Collections may also be moved between folders. Any rules managed within a Content Collection can be copied within it or moved or copied across collections as long as both Content Collections allow the same type of content. This allows you to easily reuse or reorganize your site configuration.

User Segments

User Profiles have been renamed to User Segments to better describe that pages and rules can be triggered for just specific user segments.

Multiple User Segments can be specified as a trigger condition in dynamic business rules. For example, a record spotlight can be configured to show only for users that are both part of the Fashionista segment and the Under 30 segment.

Preview now supports Preview by User Segment.

User Segments are now added through Endeca Workbench and no longer require Developer Studio to configure.

Concurrent Workbench Users

In Oracle Endeca Workbench 3.1, two users can now simultaneously make changes to a page, a folder, a content collection, or a rule without using locking behavior of Workbench. If two users are making changes to the same parts of a page leading to conflicts, users are warned when saving to allow them to make a local copy, cancel their changes, or override other changes if appropriate.

Usability Improvements

In addition to eliminating the locking behavior, Oracle Endeca Workbench 3.1 includes additional usability enhancements including the following:

- The Workbench timeout and the time delay before a user is warned that they may be logged out are now both configurable settings
- When a rule or page is saved, it is immediately published to the MDEX Engine without requiring additional clicks to return to the list view
- All pages, rules, and content are available through a navigation pane which can be expanded and collapsed

- The Endeca Workbench menu has been moved in order to provide more screen space for each tool

ARCHITECTURAL ENHANCEMENTS

The Oracle Endeca Commerce 3.1 release includes a series of architectural and operational improvements focused on providing an extensible platform that can scale with growing business demands to deliver relevant customer experiences across all digital channels.

Endeca Configuration Repository

Oracle Endeca Commerce 3.1 includes a new Endeca Configuration Repository that is implemented as a Web application that runs in the Endeca Tools Service. It uses a Java Content Repository to store configuration related to Endeca applications and offers the following benefits:

- Provides a single repository for storing all Endeca application configuration
- Simplifies operations for programmatically moving configuration between environments
- Automatically publishes configuration changes to the MDEX Engine
- Allows future support of additional features, such as programmatic APIs for managing configuration
- Can act as a repository to store media assets

The Endeca Configuration Repository removes the need to merge between configuration that was previously managed separately by Workbench and Developer Studio. Also baseline update scripts no longer need to lock users from making edits in Workbench.

Scripts are provided through the Deployment Template for importing and exporting configuration and content into the Endeca Configuration Repository.

Assembler

Oracle Endeca Commerce 3.1 includes the Endeca Assembler, a new query API and framework that replaces the Java and .NET Content Assembler from previous releases. The Oracle Endeca Assembler provides a component-oriented approach for merchandising catalogs with the following benefits:

- Supports multi-channel natively by serializing responses to multiple formats (JSON, XML and Java objects)
- Centralizes application business logic in one place using cartridge handlers
- Supports multiple deployment modes as an in-process Java library or as a RESTful service
- Provides out-of-the-box, extensible core cartridges for querying the MDEX Engine
- Provides extensible architecture for querying other source systems, allowing business users to assemble the full digital experience using Experience Manager
- Consolidates runtime backend queries when possible
- Includes URL optimization for SEO
- Returns view-ready response models

The Oracle Endeca Assembler is the interface that can now be used for all Endeca deployments, even in cases when Experience Manager is not used.

For details, see the Assembler Application Developer's Guide.

Authoring Environment

This release includes new support for authoring and live environments. Business users can develop and preview content and experiences in the authoring environment and their changes can then be promoted to the live environment.

The default Deployment Template application has been updated to prompt for the location of the authoring and live MDEX Engines and provision scripts to promote content from the authoring to live environments. Each instance of the Endeca Assembler within a deployment can be configured to run in either authoring or live mode.

Assembler Event Logging

The Oracle Endeca Assembler 3.1 includes the capability to collect information on Assembler request events in a modular and extensible manner and replaces the Endeca Logging API. The core cartridges shipped with the 3.1 release are configured to gather search and navigation related data for each request and output the results to a Log Server Adapter, which pushes the events into an Endeca Log Server component. The Log Server can then feed these events into the Report Generation scripts for the construction of reports in Workbench as in previous releases.

The Oracle Endeca Assembler also ships with a Client Adapter that can take the same cartridge request data and injects the results into the JSON or XML response to the client, which can then be used to update 3rd party analytics platforms. The Assembler Request Event interface can be extended to support additional custom adapters.

MDEX ENGINE

Updates to the MDEX Engine 6.3 include performance enhancements for continuous query processing, and landing page triggering updates.

Multiple Generation Merge Improvements

MDEX 6.3 includes improvements to the underlying data storage layer to more efficiently process data generation updates by applying multiple merges in parallel. This update is expected to yield increases in average throughput in deployments with high frequency partial updates.

Post-Update Performance Improvements

MDEX 6.3 includes enhancements to speed query performance by warming internal cache after an update is processed. The `--warmupseconds` flag which instructs MDEX to store a sample of client queries, and after an update is processed, internally re-runs a sample of those queries to warm the cache before processing external queries using the updated data.

Exact Location Triggering Updates

Previously, if a landing page was triggered only by a dimension value and the 'only at this exact location' setting was enabled; the rule would still fire if there was a record search followed by navigation to the target location. Now, for landing pages triggered 'at this exact location' that have no associated trigger keywords, the trigger will only be eligible to fire for queries containing no text search.

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REFERENCE APPLICATION

The Oracle Endeca Commerce 3.1 release includes a new Java-based reference application called Discover Electronics. Discover Electronics demonstrates which out-of-the-box cartridges can be used to implement various site features and includes best-practice reference code for working with the Endeca Assembler. It is built using electronics catalog data and provides front-end references for both the desktop and mobile Web. The reference application is installed automatically as part of the installation.

Discover Electronics also demonstrates recommended approaches for leveraging Dynamic Slots and how cartridges and templates can be organized across a team of merchandisers to manage multiple dynamic end user experiences more easily.

Discover Electronics is also integrated with the Log Server for all out-of-the-box reports offered in Workbench on the Reporting tab.

SUPPORTED CARTRIDGES AND TEMPLATES

Experience Manager 3.1 includes a catalog of supported cartridges and templates to support building dynamic digital experiences. The cartridges and templates include:

- Breadcrumbs
- Guided Navigation
- Refinement Menu
- Results List
- Horizontal Record Spotlight
- Vertical Record Spotlight
- Search Box
- Search Adjustments
- Dimension Search Results
- Auto-Suggest
- Rich Text
- Media Banner
- Three Column Navigation Page
- Two Column Navigation Page
- One Column Navigation Page
- Record Details Page

ORACLE ENDECA FOR MOBILE

Oracle Endeca Commerce 3.1 includes support for Java-based mobile Web within the Endeca Assembler and no longer requires a channel specific API. This release also provides enhancements for sharing configuration across the desktop and mobile Web applications via shared cartridges. For example, the Results List, Guided Navigation and Record Spotlight cartridges can be configured once and shared between channel-specific templates. The mobile Web reference application, installed with Discover Electronics, provides channel specific rendering for all out-of-the-box cartridges.

PLATFORM AND BROWSER SUPPORT

Platform Support

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Oracle Endeca Commerce 3.1 is fully supported on new platforms:

- Oracle Linux 5: Oracle Linux is an open source operating system available under the GNU General Public License (GPL) and is available for free download. Oracle Linux includes two kernels:
  - Unbreakable Enterprise Kernel, which tracks mainline Linux kernel closely, and offers the latest features and tested performance and stability. The Unbreakable Enterprise Kernel is a fast, modern, reliable Linux kernel, optimized for enterprise software and hardware.
  - Red Hat Compatible Kernel, compiled directly from Red Hat Enterprise Linux source

- Oracle Exalogic Elastic Cloud: Exalogic is hardware and software engineered together to provide extreme performance for Java applications, Oracle Applications, and all other enterprise applications

- Oracle Virtualization: Oracle Virtualization is designed to accelerate enterprise application deployment and simplify lifecycle management with fully integrated support from physical to virtual servers including applications. Oracle Virtualization is free to download and distribute.

Browser Support

Oracle Endeca Workbench is supported on the following browsers:

- Firefox 3.6 and higher
- Internet Explorer 8 and higher

The out of the box editors as well as the Experience Manager SDK used to create custom editors in Experience Manager is supported on Flash Player 10.2 and higher.

ADDITIONAL RECENT RELEASES

In addition to the Oracle Endeca Commerce 3.1 release, recent releases of other Oracle Endeca Commerce components include:

Oracle Endeca Relevance Rank Evaluator 2.1.2

The Relevance Rank Evaluator provides business users with an interactive tool for experimenting with and comparing the results of different relevance ranking strategies. The Relevance Rank Evaluator can run multiple searches simultaneously, employing different relevance ranking modules and other search parameters. The application provides comparison of search results and their relevance ranking strategies side-by-side, highlighting the location of records in each strategy.

The Relevance Rank Evaluator 2.1.2 has been released as a product-supported extension module to Oracle Endeca Workbench. Updates to the Relevance Rank Evaluator include:

- Support for the new Stratify relevance rank module enabling side-by-side evaluations of product boost and bury queries.

- Inclusion of new WhyRank results which enables detailed evaluation and insight into MDEX ranking behavior.
- Better management of stored relevance strategies for improved ease of use.
- Improved user interface.

Performance Evaluation Tools

The Request Log Parser and the Request Log Analyzer have been released as components included in the MDEX Engine installation and are available in Oracle Endeca MDEX Engine 6.3, as well as 6.1.5 and higher and 6.2.2 and higher.

Both modules are complementary to the MDEX Engine and are used primarily for performance testing and tuning. The Request Log Parser converts MDEX Engine logs into a simplified format that is used by Eneperf - the MDEX performance testing module. The Request Log Analyzer, formerly known as Cheetah, processes request logs to analyze query load metrics for the MDEX Engine.

For more information on Performance Tuning and the Request Log Parser and Request Log Analyzer please review the MDEX Engine Performance Tuning Guide.

Deployment Template Module for Product Catalog Integration 1.0.0

Released in February 2012, the Deployment Template Module for Product Catalog Integration employs both the Content Acquisition System (CAS) and the Deployment Template to provide support for structured catalog data import and data-driven import and management of configuration including Dimensions.

The module is the backbone of the data and configuration integration with Oracle ATG Commerce. An abstract for the ATG-Endeca integration is on Oracle Support and includes product documentation and a whitepaper named “ATG - Endeca Data Indexing Integration”.

This module replaces previous versions of hyEnd and is also designed to be used as a generic connector to any product catalog system, or any other data-driven source of configuration. This module is intended to replace uses of the Forge Configuration Manager (FCM). As of Oracle Endeca Commerce 3.1, this module is now included in the Tools and Frameworks package and a separate download is no longer necessary.

CHANGES FROM PREVIOUS VERSIONS

Workbench Permissions and Workflow

A point release will be issued to re-introduce the Workflow features in Oracle Endeca Workbench and to support user-level permissions for Experience Manager folders and Content Collections.

Oracle Endeca for Mobile and Oracle Endeca for Social

Point releases of Oracle Endeca for Mobile and Oracle Endeca for Social will be issued to deliver reference iOS native applications and the Endeca for Social components leveraging the new Endeca Assembler.

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Deprecated features

- As of MDEX Engine 6.3, the Agraph has been deprecated. Existing Agraph implementations will continue to be supported. However, new implementations should not require the Agraph - improved storage and scale characteristics of Dgraph deployments, combined with 64-platform support, have made the Agraph effectively unnecessary.
- As of MDEX Engine 6.3, the Endeca Xquery Web Services have been deprecated. Existing Web Services and XQuery implementations will continue to be supported. The deprecated components include: MDEX Web service, MDEX API through XQuery (or MAX API), and any custom Web services based on the above.

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