

Oracle® Communications Unified Inventory Management

Release Notes

Release 7.5.1

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Release Notes

This document provides information about Oracle Communications Unified Inventory Management (UIM) Release 7.5.1. The document includes information about the following topics:

- [Software Compatibility](#)
- [UIM Software Development Kit](#)
- [UIM 7.5.1.2 New Features](#)
- [UIM 7.5.1.1 New Features](#)
- [UIM 7.5.1 New Features](#)
- [Fixed and Known Issues](#)
- [Deprecated and Removed Features](#)

Software Compatibility

See *UIM Compatibility Matrix* for a full list of software requirements.

UIM Software Development Kit

You must use the Software Development Kit (SDK) delivered with UIM 7.5.1.

UIM 7.5.1.2 New Features

This release includes the following features and enhancements:

- [Enhancements in UIM](#)
- [Enhancements in UTIA, Message Bus, and Common Authentication](#)
- [Tech Stack Updates](#)
- [Enhancements in Unified Topology and Inventory and UIM Cloud Native Deployments](#)

Enhancements in UIM

This release includes the following enhancements in UIM:

- [Support to Assign Flow Identifier to Packet and Service Connectivity for Undefined Technology](#)
- [Support to Update Identifier for VLAN Specification](#)
- [Support for Purging Connectivity and Connectivity Design Version](#)
- [Support to Create New Customized UI Pages in UIM](#)
- [Viewing Assigned Connectivities from Flow Identifier Summary Page](#)
- [Support to Search Physical Ports from UIM Landing Page](#)
- [Enhancements in Network Visualization](#)
- [Support to Export Reports for Primary and Secondary Path Enablements](#)
- [Support to Search Flow Identifiers using Connectivity Identifier and Network Elements](#)
- [Support to Filter Specifications from Business Interactions Search Page](#)
- [Support to Switch Between Business Interaction Context and Current Context while Switching the Pages](#)
- [Enhancements in Search Criteria for all Entities](#)
- [Support for Geographically Redundant Deployment in UIM Cloud Native Environment](#)
- [Adding Filtering Capability in UIM](#)
- [Support to Create Multiple Pending Configurations on the Same Day, Hour, Minute, and Second](#)

Support to Assign Flow Identifier to Packet and Service Connectivity for Undefined Technology

For undefined technology, you can now assign a flow identifier to packet-based or service connectivity. You can assign the flow identifier to an undefined technology from the Service Connectivity Design page. See *UIM Online Help* for more information.

Support to Update Identifier for VLAN Specification

While adding a flow identifier with VLAN specification to a connectivity design, you can update or change the identifier value that is in **Update** phase. The identifier must be a unique value. If the connectivity design already has an identifier with same value, system prompts an error to select a unique value. A new ruleset is available and you can set the identifier value by updating the corresponding property in `system_config.properties` file. See Table 5-12 in *System Administrator's Guide* for more information.

Support for Purging Connectivity and Connectivity Design Version

You can purge Connectivities that have inventory status as **Unavailable**. You can purge Connectivities with Design Versions in **Canceled** or **Completed** states.

See **Purging UIM Entities** section in *UIM System Administrator's Guide* for more information.

Support to Create New Customized UI Pages in UIM

You can now create new customized UI pages in UIM. A new ruleset is created that enables you to create custom UI pages.

See **Customizing the User Interface** in *UIM Developer's Guide* for more information.

Viewing Assigned Connectivities from Flow Identifier Summary Page

In UIM, from the **Assignments** tab of the Flow Identifier Summary page, you can now view the list of connectivities that are assigned to the identifier. You can click on a connectivity ID from the list of assignments to view the corresponding connectivity summary page.

See the **Flow Identifier - Summary Page** section from *UIM Online Help* for more information.

Support to Search Physical Ports from UIM Landing Page

You can now search for Physical Ports from the left navigation pane of UIM Landing Page. You use this Physical Ports Search page to search the list of physical ports by entering the required search criteria and view the corresponding summary pages.

See **Viewing Information About Ports and Connectors** from *UIM Online Help* for more information.

Enhancements in Network Visualization

An enhanced UI for Network Visualization is available within UIM for viewing, managing, and updating UIM networks. You can access this new UI by navigating to the **Visualization** tab from the Network Summary page.

Using the new UI, you can have a modern view of network topologies and also achieve quicker search results. An advanced filter is available that enables you to customize your networks search and view. This new UI is more suitable for large networks and also while dealing with bulk data.

See **About Network Visualization Page** in *UIM Online Help* for more information on using the new enhanced Networks UI.

You can view the new UI by enabling a canvas view parameter within system configurations. See **Table 5-12** in *UIM System Administrator's Guide* for enabling the canvas view parameter. If you do not enable this parameter, you can still view the existing Network Topological View page.

Support to Export Reports for Primary and Secondary Path Enablements

From the **Manual Configuration** page of Pipe summary, you can now export primary and secondary path enablement reports into an Excel sheet. A new **Export** button is added to the **Manual Configuration** page to export the reports. See **Exporting Pipe Enablement Information** in *UIM Online Help* for more information.

You can customize the columns you need in the reports from Service Catalog and Design - Design Studio.

Support to Search Flow Identifiers using Connectivity Identifier and Network Elements

From Flow Identifier Search page, you can now search for Flow Identifiers using **Connectivity Identifier** and **Network Element** (A and Z). After you perform the search, Search Results display a list of flow identifiers that can be sorted using the **Connectivity Identifier**, **Network Element A**, and **Network Element Z** columns. These columns will appear in the search results if you set the **uim.ui.showConnectivityInFlowIdentifierSearchResult** parameter to **true**. See **Table 5-12** in *UIM System Administrator's Guide* for more information on the parameter.

Support to Filter Specifications from Business Interactions Search Page

Business Interactions search page has an option **Cluster** to filter the specifications. Clusters are a group of specifications and you can customize these clusters in Service Catalog and Design - Design Studio.

See **Filtering Specifications while Searching Business Interactions** in *UIM Online Help* for more information.

Support to Switch Between Business Interaction Context and Current Context while Switching the Pages

When you switch from BI context to any entity's search page, the context now switches from BI context to the corresponding entity's Current context. Similarly, you can go back to previously opened BI context from Recent Items on the UIM home page. See *UIM Online Help* for more information.

Enhancements in Search Criteria for all Entities

While searching for any entity from the corresponding entity's Search page, Oracle recommends you to select at least one value (Specification) from the search criteria. If no search criteria is entered, you receive a warning to select the required specification value. See *UIM Online Help* for more information.

Support for Geographically Redundant Deployment in UIM Cloud Native Environment

UIM cloud native environment is now equipped to deal with Disaster Recovery using Geographically Redundant deployment. See **Support for Geo Redundancy and**

Disaster Recovery within Data Center in *Unified Inventory and Topology Deployment Guide* for more information.

Adding Filtering Capability in UIM

In UIM, you can now filter according to nodes, city, technology, and edges from **Search and Filter Topology** to customize your topology graph.

See **Searching and Filtering Nodes or Edges in Network Visualization Page** in *UIM Online Help* for more information.

Support to Create Multiple Pending Configurations on the Same Day, Hour, Minute, and Second

You can now create multiple pending configurations on the same day, hour, minute, and second as the Start Date format supports hours, minutes, and seconds.

See *UIM Online Help* for more information.

Enhancements in UTIA, Message Bus, and Common Authentication

This release includes the following enhancements in UTIA, Message Bus, and Common Authentication:

- [Handling Topology Fallout Events](#)
- [Support to Customize Edge Colors and Node Icons in UTIA](#)
- [Adding Filtering Capability in UTIA](#)
- [Displaying Ring in UTIA](#)
- [Support to Open UIM Pipe or Connectivity Summary Pages from UTIA](#)
- [Support to Open Connectivity or Pipe Summary Page from Service Topology Page in UTIA](#)
- [OAM is Packaged in Common Cloud Native Toolkit](#)
- [Unified Topology API is Split to Support Consumer Topology Events under a New Consumer Service API](#)

Handling Topology Fallout Events

When there is a failure while processing or re-processing (from retry topic), the topology events are published into a **dead-letter** topic. These fallout topology events from the topic are persisted into Topology Fallout Events table for further analysis. On these fallout topology events the following manual actions can be taken by using REST APIs:

- **ReBuild:** Fixes the missing dependencies
- **ReSubmit:** Resubmits the event to retry topic for reprocessing

- **Delete:** Deletes the event from table

See the corresponding product documentation for more details.

Support to Customize Edge Colors and Node Icons in UTIA

In UTIA, you can perform the following:

- Customize the colors for edges using **Advanced Settings > Customize Colors**. See **Customizing Node Icons in the Topology** in *UTIA User's Guide* for more information.
- Customize the icons for nodes using **Advanced Settings > Customize Icons**. See **Customizing Edge Colors in the Topology** in *UTIA User's Guide* for more information.

Adding Filtering Capability in UTIA

In UTIA, you can now filter according to nodes, city, technology, and edges from **Search and Filter Topology** to customize your topology graph.

See **Adding Advanced Filters for Searching Topology Graphs** in *Unified Topology for Inventory and Automation User's Guide* for more information.

Displaying Ring in UTIA

In UTIA, you can now search and display rings in a topology using **Ring Search**.

See **Using Ring Search** in *Unified Topology for Inventory and Automation User's Guide* for more information.

Support to Open UIM Pipe or Connectivity Summary Pages from UTIA

In UTIA, when you click on a pipe or a connectivity, the corresponding overview page appears. You can navigate to the corresponding summary page within UTIA using **More Info** button. Using the link provided for the corresponding pipe or connectivity ID, you can open the corresponding UIM summary page.

See **Accessing UIM from UTIA** in *Unified Topology for Inventory and Automation User's Guide* for more information.

Support to Open Connectivity or Pipe Summary Page from Service Topology Page in UTIA

In UTIA, you can navigate to a Pipe or Connectivity summary page from Service Topology page by opening **Overview > More Info** and then clicking on the associated Connectivity ID for a specific Service Topology. See **Viewing the Details of a Topology Component** in *Unified Topology for Inventory and Automation* for more information.

OAM is Packaged in Common Cloud Native Toolkit

In Unified Inventory and Topology, OAM, which is used to achieve Common Authentication, is now packaged within Common Cloud Native toolkit. See **Deploying Common Authentication Service** in *Unified Inventory and Topology Deployment Guide* for more information.

Unified Topology API is Split to Support Consumer Topology Events under a New Consumer Service API

The Unified Topology API is now split to support consumer topology events under a new Unified Topology Consumer Service API to improve the performance.

Tech Stack Updates

The technology stack updates are included in this release. Oracle recommends you to use the software versions mentioned in *UIM Compatibility Matrix*.

Enhancements in Unified Topology and Inventory and UIM Cloud Native Deployments

You can find the following enhancements in Unified Inventory and Topology and UIM cloud native deployments:

- Enabling SSL certificates for all services.
- Updates in the scripts by removing hard-coded Traefik and Helm chart versions.
- Updates in UTIA UI from Helidon SE to Helidon MP.
- Including GC log rotation for all Unified Inventory and Topology services and within UIM.

See *Unified Inventory and Topology Deployment Guide* and *UIM Cloud Native Deployment Guide* for more information.

UIM 7.5.1.1 New Features

This release includes the following features and enhancements:

- [Support for Exclude Option in Entity Search Criteria](#)
- [Viewing the Referencing Service Details on Connectivity Details Page](#)
- [Support for Downloading Topology Data](#)
- [Support for Service Connectivity in Topology](#)
- [Platform Upgrade](#)
- [Support for Developing Custom Restful Web Services in UIM](#)
- [Support for New Rate Codes in OTN Technology](#)
- [Working with Paths in UTIA](#)

- [Support to Apply Transport and Endpoint Terminations Filter in Connectivity Design](#)
- [Support for Accepting Purge Script Database Credentials through .sh File](#)

Support for Exclude Option in Entity Search Criteria

In the corresponding entity search criteria, you can now choose an option to exclude the entered value while searching. To support this, a new option **Not Equals** is added to the drop down list of the corresponding field conditions.

For example: While searching for an entity using **Vendor Name**, if you choose the condition as **Not Equals**, the search result displays the list of all entities for all vendors except the entered vendor.

Note:

The **Not Equals** option is available only for independent drop down lists and for String type characteristics.

Viewing the Referencing Service Details on Connectivity Details Page

In the Connectivity Details page, you can now view the referencing service details under the **References** section. This section displays all services that are referenced by the connectivity.

Support for Downloading Topology Data

In UTIA, you can now download the topology data that consists of details of all nodes and edges present in a topology graph. The data can be downloaded as a **CSV** or **XSLX** file.

To download the topology data:

1. On the UTIA home page, click the **Networks** icon in the top-left corner.
2. (Optional) Type the name or description of a topology graph in the **Search** field. A list of related search results appears.
3. Choose a topology graph and select **Export** in the ellipsis options.
4. Choose **CSV** or **XSLX**.

The topology details are downloaded into your local system, in the selected format.

Support for Service Connectivity in Topology

In UTIA, you can view topology graphs for a service connectivity with **Undefined** technology.

In UIM, you can view the topology in Map View for a service connectivity with **Undefined** technology.

Platform Upgrade

Unified Inventory and Topology services now support upgraded software versions. See *UIM Compatibility Matrix* for more information.

Support for Developing Custom Restful Web Services in UIM

You can now integrate UIM with external systems using the custom Restful web services. You can build your own Restful web services using the Restful web service SDK that is packaged inside UIM SDK.

Support for New Rate Codes in OTN Technology

The following new rate codes are available for channelized connectivity in OTN technology:

- **ODUFlex**
- **ODUCn** where $1 \leq n \leq 10$
- **OTUCn** where $1 \leq n \leq 10$

The **ODUFlex** rate code enables you to customize channels by choosing the required capacity. To support ODUFlex, new rate codes are added in the **Ethernet** technology that have capacities ranging between 1.25 Gbps and 100 Gbps.

Working with Paths in UTIA

In UTIA, you can view all working and protected paths within a topology graph. You can also view the number of working and production paths available and each type of path is displayed in a different color.

You can select for Path View while creating a topology search for connectivity by selecting **Path view** in the **Create New** page. The topology graph displays all paths available in the topology graph and the corresponding number against each type of path. Optionally, you can change the layout to path view by right-clicking on the topology graph and selecting **Show Paths**.

To view the paths available on a connectivity:

1. Open UTIA.
2. Select a topology graph or create a new search.
3. Open the required topology graph.
4. Go to **Settings** and then navigate to **Others**.
5. Enable **Path Indicator**.

You can also view the types of paths available within a topology graph from the collapsible legend available on the bottom-left corner of the topology canvas.

You can perform the following actions on paths under Path View:

- You can click on an edge and select the required path from the corresponding Overview section.
- You can click on an edge and view the list of channels available.
- You can right-click on an edge and click **Highlight Path** to highlight its path.
- In Path View, you can customize settings from **Path Settings** section.
- The Path Settings section has the following options:
 - Select a path or show all paths to view the corresponding topology graph using **Show Paths**.
 - Select a layout for the path view using **Layouts**.
 - Show interface, link, and node labels by enabling the corresponding options under **Others**.

Support to Apply Transport and Endpoint Terminations Filter in Connectivity Design

You can view the transport and endpoint terminations of a connectivity by applying the **Transport and Endpoint Terminations** filter.

To use this filter:

1. In UIM, open the required connectivity summary page.
2. Go to the **Connectivity Design** tab.
3. Open the **Design** subtab and click the Filter icon under the required path table.
4. Select **Transport and Endpoint Terminations** option.
The list displays the transport and endpoint terminations of the connectivity.

Support for Accepting Purge Script Database Credentials through .sh File

You can provide the Purge script database credentials through a .sh shell script file.

UIM 7.5.1 New Features

This release includes the following features and enhancements:

- [Unified Inventory and Topology](#)
- [Unified Topology for Inventory and Automation \(UTIA\)](#)
- [Unified Operations Message Bus](#)
- [Common Authentication](#)

- [Enhancements in UIM Path Analysis](#)
- [Performance Enhancements](#)

Unified Inventory and Topology

UIM 7.5.1 release introduces integration of the following services that are collectively called as Unified Inventory and Topology:

- Unified Inventory Management (UIM)
- Unified Topology for Inventory and Automation (UTIA)
- Unified Operations Message Bus
- Common Authentication

Oracle Communications Unified Topology for Inventory and Automation is an optional component and requires a license for accessing it. Contact Oracle Customer Support for acquiring the license.

UTIA, Unified Operations Message Bus, and Common Authentication are cloud native containerized applications that are supported on the Kubernetes environment. UIM is supported as both traditional application and cloud native instance.

The embedded topology within UIM 7.5.1 is now available as an individual service called UTIA. The communication between UIM and UTIA is asynchronous and this is maintained by using Unified Operations Message Bus. Common Authentication leverages OAM which is used as OAuth 2.0 Authentication provider that provides single sign-on for UIM, UTIA, and Message Bus.

For more information on these services, see:

- [Unified Topology for Inventory and Automation \(UTIA\)](#)
- [Unified Operations Message Bus](#)
- [Common Authentication](#)

Unified Topology for Inventory and Automation (UTIA)

Oracle Communications Unified Topology for Inventory and Automation (UTIA) helps you to view and analyze the network and service data in the form of topology graphs.

You use UTIA for the following:

- Viewing networks, services, corresponding resources, and their inter-relationships in the form of topology graphs and geographical maps.
- Planning the network capacity.
- Tracking networks.
- Finding problematic hotspots within the network by viewing fault and performance information with a feed from an assurance system.
- Filtering topology graphs to desired information using various search criteria.

UTIA is a cloud native application that is supported on a Kubernetes environment. See *Unified Inventory and Topology Deployment Guide* to deploy and configure UTIA.

See *UTIA User's Guide* for information on using the UTIA application.

UTIA Uses Oracle Spatial Graph

UTIA uses Oracle Spatial Graph, which includes the Oracle Property Graph feature. The property graph feature offers powerful graph support for the Oracle database, to explore and discover complex relationships within your network.

See *Unified Inventory and Topology Deployment Guide* for more information on installing Oracle Property Graph.

Support for Real-Time Synchronization of Fault Data

UTIA supports the real-time synchronization of fault data from UIM. You can view this fault data in the form of alarms. This alarm information includes the alarm type and its cause.

These alarm details help you in understanding and analyzing impacts to networks and customer services.

Unified Operations Message Bus

Unified Operations Message Bus is a distributed event store and stream-processing service that enables asynchronous sharing of data, events, or messages between UIM and UTIA. This service enables you to achieve faster communication between any two applications or services.

Unified Operations Message Bus, through its asynchronous data model, provides improved scalability. It stores messages and retries the communication in case of a failed transaction. The messages are shared immediately and do not require the target service or application to be running. As this stores the messages, the data will be delivered after the target service or application becomes active.

This service uses Apache Kafka as a messaging platform and Strimzi for deploying or packaging the data.

See *Unified Inventory and Topology Deployment Guide* for installing and configuring this service.

Common Authentication

The **Common Authentication** service leverages the Oracle Access Manager (OAM) tool, which is used for achieving the single sign-on (SSO) authentication solution among various services (UIM, UTIA, and Message Bus) offered by UIM 7.5.1. This enables you to seamlessly access multiple applications without being prompted to authenticate for each application separately. The main advantage of SSO is that you are authenticated only once, which is when you log in to the first application; you are not required to authenticate again when you subsequently access different applications within the same web browser session.

See *Unified Inventory and Topology Deployment Guide* for configuring OAM service.

Enhancements in UIM Path Analysis

UIM Path Analysis is now enhanced to support the following:

- Viewing Path Analysis data in a geographical map.
- Filtering paths according to the vendors.
- Excluding the selected alarm types while performing path analysis.
- Searching for paths based on the cost-effective routing.
- Filtering paths based on Assurance parameters such as distance, jitter, and latency.
- Supporting a new set of algorithms that vary according to the cost-effective routing.

See *UIM Online Help* for more information.

Performance Enhancements

UIM, in convergence with UTIA, Unified Operations Message Bus, and OAM, provides an enhanced performance that includes:

- Higher availability
- Faster usability
- Support for large and extra-large networks
- More concurrent users than before

Fixed and Known Issues

This section provides you with details on fixed and known issues.

Fixed and Known Issues in 7.5.1.x

For the list of fixed and known issues in 7.5.1.x (x>=1) patch releases, see the corresponding patch Readme document.

Fixed Issues in UIM 7.5.1

[Table 1-1](#) lists and describes the fixed issue in UIM 7.5.1.

Table 1-1 Fixed Issues in 7.5.1

Bug Number	Issue	Resolution
34918088	Validation Exception is thrown while trying to change the ChildBI's Effective date earlier than ParentBI's effective date.	Fixed code to prevent the validation exception.
34918080	Wrong context validation exception during BaseConfigurationManager.updateConfigurationItem(..) API call with multiple pending orders.	Fixed code to prevent the Wrong context validation exception.

Deprecated and Removed Features

The Topology visualization is no longer available within UIM and is available as an enhanced visualization in the new Unified Topology for Inventory and Automation (UTIA) application. Migration scripts are provided that will transform the data in the current Topology model to the new Topology model. The data in the previous UIM Topology model will be retained and can be purged after the data verification in the new model is completed. See *Unified Inventory and Topology Deployment Guide* for migration related information.

Documentation Accessibility

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

Access to Oracle Support

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