Oracle® Communications MetaSolv Solution

What's New

Release 6.3

E85637-08

July 2018

This document describes the enhancements that are delivered in Oracle Communications MetaSolv Solution (MSS) 6.3 patches.

Enhancements in Patch 27538212 (6.3.0.733)

The following sections describe the enhancements delivered in this patch.

ASR 57 Support

MSS 6.3.0 patch 27538212 supports ASR 57.

Component Addresses Displayed within Virtual Connection Design

This enhancement improves the usability within Virtual Connection Design by displaying the address next to the **Location Name** and **Network Name** columns within both the Network System/Element Search and Select Terminating Element windows, respectively.

Displaying the address information enables you to more easily select the proper component when using an end user location for a network component, because the name of the location may not always be unique.

You can view the newly added **Address** columns when designing a new virtual connection or when redesigning an existing virtual connection.

Click the **Originating Network** link to open the Network System/Element Search window. A new **Address** column is now available (after the existing **Location Name** column), which displays the concatenated address information for each returned element.

After you have chosen the terminating network, select the **Terminating Element** link to open the Select Terminating Element window, which now also displays a new **Address** column (after the existing **Network Name** column).

In addition, the Network System/Element Search window has also been enhanced to display the results in a more visually appealing manner, which improves its usability.

Capability to Copy Read-Only User Data

This enhancement provides the capability to copy the data from read-only user data fields, which you can paste into another window within MSS, an email, or another application.

This enhancement improves the usability of the application and enhances your productivity by enabling you to copy data easily and more efficiently.

After you have highlighted the data within the read-only user data field, copy the data by using Ctrl+C, or from the **Edit** menu, select **Copy**, which copies the data to the clipboard.

This enhancement supports copying data from numeric, character, and date fields, but does not support copying data from user data fields defined as dropdowns.

Searching for Service Requests by User Data

This enhancement adds the capability to search for service requests by the user data defined for each type of request.

To search for service requests by user data, a new **User Data** option is now available within the secondary list beside the **Search By** list in the Service Request Search window.

The **User Data** option is available only when you select **ASR**, **EWO**, **ISR**, or **PSR** from the **Search By** list, because these are the only service request types for which you can define user data.

When you select the new **User Data** option, the search criteria is updated to display all of the defined user data for the type of order you have selected.

Searching for Circuits by Telecom Service Priority

This enhancement enables you to search for circuits by Telecom Service Priority (TSP) within the Connection Design Search and Connection Hierarchy Search windows.

To enable this capability, a new **Telecom Service Priority (TSP)** right-click option is now available within the Connection Design Search and Connection Hierarchy Search windows.

Selecting the new right-click option displays the following newly added options below the existing criteria within both the Connection Design Search and Connection Hierarchy Search windows:

- **Telecom Service Priority** field: Enables you to search for circuits by specifying the TSP code for the circuits.
- **Include 'Previous' Design Issues** check box: Enables you to search through historical, non-active design issues.

Because each connection design issue can have its own TSP value, searching for circuits by TSP code retrieves all connections with a matching TSP within any of its active design issues, which are in either Current or Pending status. To expand the search to also include all previous design issues, select the **Include 'Previous' Design Issues** check box.

In the Search Results window, you may open a connection that does not have a matching TSP, which means that this connection was retrieved because another design issue for that connection does have a matching TSP. Overridden design issues are not retrieved in the search, because those issues were overridden prior to going into InService status.

UIM-specific Links Now Opened within MSS

Prior to this enhancement, some of the URLs specific to Oracle Communications Unified Inventory Management (UIM) opened within the MSS application, while other UIM-specific URLs opened within an external web browser.

With this enhancement, all the UIM-specific URLs now open within the MSS application.

The UIM-specific URLs are opened within the UIM application whose URL you specified in the **UIM URL** preference under Preferences - Unified Inventory Management, as follows:

`http://hostname:port/Inventory`

where *hostname* is the application server used by UIM and *port* is the port used by UIM.

You can access the UIM-specific URLs by:

- Clicking the **Links** tab in the Product Service Request window
- Selecting the **Add Link** right-click option in the Work Queue Manager window
- Clicking **Maintain Order Links** under Actions in the Connection Design window - Connection Summary View for ordered connections

Ability to View Task Gateway Event Details from the Service Request Search Results Window

This enhancement provides direct access to gateway event notes and error information from the Service Request Search results window.

Previously, when orders were held up due to a gateway event error, you were required to have access to the work queue containing the task to view and understand what was preventing the task from completing.

With this enhancement, you can now access the gateway event error information and populate gateway event notes directly from the Service Request Search results window. Therefore, you are no longer required to figure out which work queue the task belongs to. This capability enables you to resolve the issues more quickly, thus improving your service delivery performance.

You can access this new capability from the **Tasks** tab of the Service Request Search results window. Right-click a task and a new context menu displays up to five gateway events associated to that task, if applicable. The context menu displays the name of each gateway event, followed by its status in parentheses.

For each gateway event listed, there is a secondary right-click menu that contains the **Error Status** and **Gateway Event Notes** options. The **Error Status** option is enabled only when the gateway event has an error, and selecting this option opens the Gateway Event Error List window, which enables you to view the error information for that gateway event.

Selecting the **Gateway Event Notes** option opens the Gateway Event Notes List window, which enables you to view and maintain the notes for that gateway event.

Enhanced Process to Replace Installed Equipment

This enhancement extends the existing capability to replace installed equipment by supporting more user scenarios, and improving the usability of the process. You can now replace equipment having child equipment occupying one or more of its slots, which was not previously supported.

The previous logic validated whether or not the replacement equipment fit into the existing slots occupied by, and adjacent to, the current equipment.

The new logic includes the previous validation logic and, in addition, validates whether the replacement equipment has enough available slots to support all of the child equipment currently mounted within the existing equipment you have chosen to replace.

Additionally, you can now also trigger the replacement process whenever the equipment inventory is opened from the perspective of the Equipment Spec Usage Report. While the functionality is the same, you now have multiple ways to initiate the process.

The replacement process now includes support for Dedicated Plant. When replacing equipment that belongs to one or more defined dedicated plants, the validation logic ensures that the replacement equipment has been configured to support all of the existing services currently assigned to the equipment being replaced, and does not allow the replacement unless the validation is successful. When the equipment is replaced, all equipment belonging to a dedicated plant is updated to the replacement equipment within the dedicated plant definition, as well as all affected dedicated plant DLR blocks.

Initiating the Equipment Replacement Process

To initiate the equipment replacement process:

1. To find the equipment to replace, do one of the following:
   - To find the equipment to replace directly from Equipment Inventory:
     a. On the navigation bar, select **Inventory Management**, and then select **Equipment Inventory**.

        The Equipment Inventory Search window is displayed.

     b. Populate the **Network Location** field with the location of the equipment to be replaced, select the **Installed Status** option, and click **Search**.
   - To find the equipment to replace within the Equipment Spec Usage Report:
     a. On the navigation bar, select **Inventory Management Setup**, and then select **Equipment Specifications**.

        The Equipment Spec Search window is displayed.

     b. Enter the required search criteria and click **Search**.

        The Equipment Spec Search results window is displayed.

     c. Select an equipment specification, and then either right-click and select **Usage Report...**, or from the **Options** menu, select **Usage Report...**.

     d. Open the Equipment Inventory window by double-clicking the required equipment specification.
2. Locate and right-click the equipment that you want to replace within the hierarchy and do one of the following:

- Select the **Replace...** option to initiate the replacement with a new piece of equipment based on your required equipment specification
- Select the **Replace From Spare...** option to initiate the replacement with an existing piece of equipment from spare inventory

The **Replace From Spare...** option opens the Equipment Replacement - Find Spare window, which enables you to search for the spare equipment to be used for the replacement. You can choose the required equipment and close the window to continue.

Both the right-click options allow you to enter and review the required attributes of the replacement equipment in the Equipment - [New/Spare] Replacement maintenance window. The replacement equipment inherits the Net Loc (Equipment), Network Element, Status, and Work Order information from the current equipment, when applicable. Additionally, all of the current equipment user data and common custom attribute values are copied to the new replacement equipment, and you can choose to either keep any values already defined for the spare replacement equipment, or to replace these values with those from the current equipment.

After you have reviewed the replacement equipment's attributes, you automatically launch the Equipment Replacement Assistant (ERA) by closing the Equipment - [New/Spare] Replacement window, which guides you through the remainder of the equipment replacement process. In addition to the previously supported mappings between the port addresses of the current and replacement equipment, the ERA now automatically generates slot mappings, which are used to position all of the child equipment within the replacement equipment’s hierarchy.

While the slot mappings default to 1:1 whenever possible, the application may move the child equipment mounted within the current hierarchy to an available slot whenever a 1:1 slot mapping is not possible. For example, if the current equipment has children installed on slots seven and eight, the application may map them to slots five and six when the replacement equipment has only six defined slots, as long as there is enough capacity to mount all of the child equipment. While you cannot modify the auto-generated slot mappings, you can view the results within the Review Proposed Changes page, where you can review the proposed positioning for all child equipment.

The Select Condition Code(s) page displays all of the condition codes associated to the ports and slots of the current equipment as before, when applicable, and the new auto-generated slot mappings control where the selected slot condition codes are transferred.

As before, you can review your proposed changes in the Before and After equipment hierarchical views on the Review Proposed Changes page. However, a new top-and-bottom orientation is now provided by default, and you have the option to select the previously supported side-by-side orientation, as well as a new layered option if you need additional space to view the content.

After reviewing the proposed changes, you can trigger the completion of the replacement process by clicking the **Finish** button in the ERA. You can subsequently choose to process the resulting DLR Reconciliation in the foreground, send it to the Background Processor, or cancel the entire equipment replacement process. After the replacement process is completed, the Equipment Inventory view is refreshed to display the newly installed equipment, which has inherited the resources of the previously installed equipment.

Current Restriction of the Equipment Replacement Process

You cannot replace equipment having one or more defined virtual ports with associated connections, IP addresses, cross-connects, or reservations. Virtual ports are identified by the checked **Virtual** column on the **Port Address** tab within the Equipment maintenance window.

Ability to Maintain Connection Links

This feature expands upon the existing Maintain Links capability, which enables you to maintain the links defined for an order from within Connection Design, by now enabling you to define and maintain links for the connection itself. A new **Maintain Connection Links** link is now available under Actions in the Connection Summary view of the Connection Design window. However, to more easily differentiate between these two features, the previous Maintain Links feature is now accessed via the renamed **Maintain Order Links** link.

Similar to the existing Maintain Order Links capability, the new Maintain Connection Links feature is available for all connection and order types, but is visible only for design issues associated to an order. All connection links added to a design issue are only in scope for that issue, along with all other design issues for that connection associated to the same order, and are copied to the new issue whenever a new design issue is created. Therefore, it is possible to have unique connection links per design issue for the same connection.

New Custom Extension for Generating and Maintaining Allocation Parameters

A new **Manage Allocation Parameters** action type is now available within the custom extension process point for Connection Design, which allows you to bypass the default auto-generation of allocation parameters in favor of your own custom workflow. This feature enables you to augment the design capabilities of MSS with another application, such as Oracle Communications Unified Inventory Management (UIM), which provides a full logical resource life cycle.

Leveraging this new feature allows you to continue using MSS to design your services, and to maintain a more robust logical resource inventory. While the values are still displayed and stored within MSS, the resource pools may be defined and maintained elsewhere.

While you are only required to configure one extension to enable this capability, it can be triggered while performing the following activities:

- Selecting the new **Generate Virtual Channels** option from the **Options** menu within the schematic design of a virtual connection. The **Generate Virtual Channels** option is enabled only for ordered virtuals when an extension is defined for the new **Manage Allocation Parameters** action type.
- Selecting the **Remove Connection** right-click option within the schematic design of a virtual connection.
- Clicking the **Redesign Connection** link within the schematic design of a virtual connection.
- Selecting the **Group Disconnect** option from the **Options** menu within the Service Request Connections window while working the DLRD task of a Disconnect order.

- Selecting the **Assignment Cancel** option from the **Options** menu within the Service Request Connections window while working the DLRD task for a canceled New order.
- Selecting the **Change Cancel** option from the **Options** menu within the Service Request Connections window while working the DLRD task for a canceled Change order.
- Selecting the **Disconnect Cancel** option from the **Options** menu within the Service Request Connections window while working the DLRD task for a canceled Disconnect order.

The new Generate Virtual Channels feature is designed to enable you to finish your design work prior to generating any allocation parameters. After you have completed your design, selecting this option collects every design segment and passes them to the custom extension, which may then be coded to leverage the entire end-to-end path of the connection in order to properly determine the allocation parameters for each hop of the design.

Enhancements in Patch 27474657 (6.3.0.679)

The following sections describe the enhancements delivered in this patch.

Platform Upgrade

The application platform now supports upgraded software versions.

Certified Software Versions for the Application Server

- Oracle Enterprise Linux Server 6.6 (or later) and 7.1 (or later)
- Red Hat Enterprise Linux Server 6.6 (or later) and 7.1 (or later)
- Oracle Solaris 11.2 or later
- Windows Server 2016

Certified Software Versions for the Workstation Client

- Windows 10 Professional
- Windows Server 2016
- Oracle Database 12cR2 Client (32-bit)
- Microsoft Edge 40 or later

See *MSS Planning Guide* for a full list of compatible software versions.

The following documents have been updated to reflect the Oracle Database 12cR2 and Oracle Fusion Middleware 12.2.1.3 support introduced in MSS 6.3.0.639 and MSS 6.3.0.643.3 respectively:

- *MSS Planning Guide*
- *MSS Installation Guide*
- *MSS System Administrator's Guide*

MSS Now Supports Both JDBC Connect String and Oracle Host, Port, and SID Options for Running an MSS Database Instance as a PDB

Previously, for running an MSS database instance as a pluggable database (PDB), you were required to install the MSS application only by specifying the JDBC connect string in the **JDBC URL** field on the **Oracle Database** tab in the MSS installer.

With this patch, for running an MSS database instance as a PDB, you can now install MSS by specifying the Oracle Host, Port, and SID in the **Oracle Server Name**, **Oracle Port#**, and the **Oracle Service Name** fields respectively or by specifying your own free-form JDBC connect string in the **JDBC URL** field.

See *MSS Installation Guide* for more information.

Enhanced MSS EJB APIs

This release of MSS introduces new and improved features related to MSS EJB APIs.

Enhanced createWorkOrder EJB API to Create EWO With User Data

Prior to this enhancement, to add user data to an Engineering Work Order (EWO), you were required to first create an EWO using the createWorkOrder EJB API, and then add user data to the EWO using the updateWorkOrder API.

In this release, the createWorkOrder EJB API has been enhanced to support the addition of EWO user data as part of the EWO creation process.

Field Length Validations When Calling createWorkOrder EJB API

When calling the createWorkOrder EJB API, validations have been added for the **referenceId** and **responsiblePerson** fields. The createWorkOrder EJB API API now displays an error message in the following situations:

- When the length of the **referenceId** field exceeds 16 characters
- When the length of the **responsiblePerson** field exceeds 60 characters

EJB API Now Generates the documentNumber When Creating an EWO

Earlier, when creating an EWO through API, a non-sequence number was allowed as primary key value (documentNumber), which caused data corruption.

In this release, when creating an EWO through API, the API generates the sequence number for the document number.

See *MSS EJB API Developer's Reference* for more information about the MSS EJB APIs.

MSS Web Service Updates

MSS now includes the Engineering Work Order Web Service, which enables an external system to create and manage engineering work orders.

The Engineering Work Order Web Service includes the following operations:

- createWorkOrder
- updateWorkOrder
- getWorkOrder
- createWorkOrderNote

- updateWorkOrderNote
- processDDChangeSupplement
- associateEquipmentToWorkOrder
- associateConnectionToWorkOrder

In addition, the existing MSS Order Web Service now includes a new operation, addTask, which enables an external system to add a task to an order that is not completed and that has a provisioning plan assigned to it.

See *MSS Web Services Developer's Guide* for more information.

Simplified Process to Reinitiate Gateway Events from Work Queue Manager

This enhancement simplifies the process to reinitiate gateway events from the Work Queue Manager window.

Previously, to reinitiate a gateway event associated with a task, you were required to select the **Reactivate** right-click option first, and then select the **Initiate** right-click option in the **Gateway Events** tab of the Work Queue Manager window.

In this enhancement, a new right-click option, **Re-Initiate**, has been added in the **Gateway Events** tab of the Work Queue Manager window. The **Re-Initiate** right-click option combines the functions of the **Reactivate** and **Initiate** right-click options; therefore, selecting the **Re-Initiate** option reactivates and initiates the gateway event associated with a task.

Reinitiating a Gateway Event

To reinitiate a gateway event:

1. On the navigation bar, select **Home**, and then click **My Work Queue**.

   The Work Queue Manager window is displayed.
2. Select the task with the associated gateway event.
3. Click the **Gateway Events** tab.
4. Select the gateway event you want to reinitiate.

   Ensure that the gateway event is in any status except **Bypassed**.
5. Right-click and select **Re-Initiate**, one of the following occurs:
   - If you selected the **Force Reopen** check box for the gateway event in the Gateway Events window, the Reactivate Gateway Events window is displayed. Select the gateway event that you want to reinitiate and click **OK**, which reinitiates the gateway event.
   - If you did not select the **Force Reopen** check box for the gateway event in the Gateway Events window, the gateway event is reinitiated directly.

MetaSolv Solution 6.3 Database Change Reference Introduced

The MetaSolv Solution 6.3 documentation set includes a new guide entitled *MSS Database Change Reference*, which provides information about the database changes that have been made in the MSS 6.3 patches.

Enhancements in Patch 27555375 (6.3.0.643.3)

The following sections describe the enhancements delivered in this patch.

Support for Oracle Database 12c Multitenant Architecture

MSS now supports the Oracle Database 12c multitenant architecture, which enables you to run the MSS database instance as a pluggable database (PDB) within a container database (CDB).

When running an MSS database instance as a PDB, ensure that you install the MSS application only by specifying the JDBC connect string. To do this, in the **JDBC URL** field on the **Oracle Database** tab, enter your own free-form JDBC connect string.

Support for Oracle Fusion Middleware 12.2.1.3

MSS now supports Oracle Fusion Middleware 12.2.1.3 and continues to support Oracle Fusion Middleware 12.2.1.2.

Enhancements in Patch 26557511 (6.3.0.639)

The following sections describe the enhancements delivered in this patch.

ASR 56 Support

MSS 6.3.0 patch 26557511 supports ASR 56.

Support for Oracle Database 12c R2

MSS now supports Oracle Database 12c Release 2 (12.2.0.1.0).

Table 1 lists the recommended initialization parameter settings for Oracle Database 12c R2.

Table 1 Database Initialization Parameters

Parameter	Value
_enable_secure_sub_role	TRUE
_grant_secure_role	TRUE
O7_DICTIONARY_ACCESSIBILITY	TRUE

Increased the Length of the Expedited Work Interval Bus. Day and Work Interval Bus. Day Fields

Prior to this enhancement, in the **Expedited Work Interval Bus. Day** and **Work Interval Bus. Day** fields on the **Task Assignment** tab of the Provisioning Plan window, you could specify only a two-digit number; that is, you could specify a number only up to 99.

In this enhancement, the length of both the **Expedited Work Interval Bus. Day** and **Work Interval Bus. Day** fields has been increased to accept a three-digit number so that you can now specify any number up to 999.

Enhancements in Patch 26336562 (6.3.0.621)

The following sections describe the enhancements delivered in this patch.

Streamlined Process to Replace Installed Equipment

This enhancement provides a new, simplified method for replacing an installed piece of equipment. Two new right-click options have been added within Equipment Inventory that enable you to replace the current equipment with a compatible part from spare inventory, or to create a new instance from your preferred equipment specification.

Validation logic that considers N/A rate codes and the **Allow Lower Rates** indicator guarantees that the replacement equipment has enough compatible ports to support the provisioned traffic, as well as confirming that it fits into the existing slots occupied by, and adjacent to, the current equipment.

Initiating the New Equipment Replacement Process

To initiate the new equipment replacement process:

1. On the navigation bar, select **Inventory Management**, and then **Equipment Inventory**.
2. Populate the **Network Location** field with the location of the equipment to be replaced, select the **Installed Status** option, and click **Search**.
3. Locate and right-click the equipment that you want to replace within the hierarchy and do one of the following:
   - Select the **Replace** option to initiate the replacement with a new piece of equipment based on your required equipment specification
   - Select the **Replace From Spare** option to initiate the replacement with an existing piece of equipment from spare inventory

The **Replace From Spare** option opens the Equipment Replacement - Find Spare window, which enables you to search for the spare equipment to be used for the replacement. You can choose the required equipment and close the window to continue.

Both the right-click options allow you to enter and review the required attributes of the replacement equipment in the Equipment - [New/Spare] Replacement maintenance window. The replacement equipment inherits the Net Loc (Equipment), Network Element, Status, and Work Order information from the current equipment, when applicable. Additionally, all of the current equipment user data and common custom attribute values are copied to the new replacement equipment, and you can choose to either keep any values already defined for the spare replacement equipment, or to replace these values with those from the current equipment.

After you have reviewed the replacement equipment's attributes, you automatically launch the Equipment Replacement Assistant (ERA) by closing the Equipment - [New/Spare] Replacement window, which guides you through the remainder of the equipment replacement process. The ERA uses mappings between the port addresses of the current and replacement equipment to control the transition of resources to the replacement equipment. For example, if the first port on the current equipment is mapped to the third port on the replacement equipment, then the connections, cross-connects, IP addresses, condition codes, and reservation currently associated to port one, are moved to the third port of the replacement equipment.

The ERA autogenerates default mappings based on the compatibility of the replacement ports with the current ports. You can choose to keep or modify these mappings as necessary, but you can make modifications only to the top-level physical ports. The enabled port hierarchies of each physical port are mapped 1:1 with the enabled port hierarchies of the mapped physical port when they have compatible rate codes, and are not editable. When you manually override the default mappings, the validation logic ensures that each mapped port is compatible, supports any existing traffic, and that all current ports with provisioned traffic have been mapped to a replacement port.

The Select Condition Code(s) page displays all of the condition codes associated to the ports and slots of the current equipment, and allows you to choose which codes to copy to the replacement equipment. All values are selected by default; therefore, you must deselect the condition codes that you do not want to retain after the equipment is replaced. This page is not displayed when there are no condition codes associated to the current equipment.

Before finishing the ERA, review your proposed changes in the Before and After equipment hierarchical views on the Review Proposed Changes page, where you can validate that all of the connections, cross-connects, IP addresses, condition codes, and reservations associated to the current equipment have been moved to the proper replacement ports. If you want to make any changes, you can go back to the previous page and modify the mappings to achieve the required results. You can also indicate to either delete or uninstall the current equipment, as well as choose to clear the equipment name if you choose to uninstall the equipment.

After reviewing the proposed changes, you can trigger the completion of the replacement process by clicking the **Finish** button in the ERA. You can subsequently choose to process the resulting DLR Reconciliation in the foreground, send it to the Background Processor, or cancel the entire equipment replacement process. After the replacement process is completed, the Equipment Inventory view is refreshed to display the newly installed equipment, which has inherited the resources of the previously installed equipment.

Limitations:

The equipment replacement process has the following limitations:

- You can replace only the lowest-level piece of equipment within the hierarchy.
- You cannot replace equipment having one or more defined virtual ports with associated connections, IP addresses, cross-connects, or reservations. Virtual ports are identified by the **Virtual** column on the **Port Address** tab of the Equipment window.

Improved Usability of Cable and Cable Pair Search Windows

This enhancement improves the usability of the Cable and Cable Pair Search windows by enabling you to easily identify pairs/fibers with condition codes.

Similar to the Connection Hierarchy and Equipment Inventory views, either [BLOCKED] or [INFORMATION] is displayed for each pair/fiber with one or more condition codes, depending on the warning type.

A new column, **Warning Type** has been added in the Cable Pair Search results, which displays the type of condition codes to help you select a pair/fiber to assign to.

Existing Cross-Connects Can Now Be Deleted With the Equipment

Prior to this enhancement, you received an error within Equipment Inventory when attempting to delete or uninstall equipment having defined cross-connects, which prevented you from performing this action. To successfully delete or uninstall the equipment, you first had to navigate to the existing cross-connects and manually remove them.

This enhancement streamlines the deletion and uninstallation tasks by providing an option to remove any existing cross-connects as part of the deletion and un-installation processes.

Instead of displaying an error that prevents you from proceeding with the deletion process, the application now displays a message that informs you that one or more defined cross-connects exist for the equipment. You can choose to either continue with the deletion/uninstallation of the equipment (which will also remove the cross-connects) or cancel the process altogether.

Associated Network Area Now Displayed in Telephone Number Search Results and Maintenance Windows

This enhancement improves the usability of the Telephone Number search and maintenance windows by displaying the associated network area in each window.

A new **Network Area** column is now displayed after the existing **Network Location** column in the Telephone Number search results and in the Telephone Number Properties section of the maintenance window.

Maintain Order Links in Connection Design

This enhancement enables you to maintain the links defined for an order in the Connection Design window. For ordered connections, a new **Maintain Links** link has been added under Actions in the Connection Summary view of the Connection Design window. Clicking this link opens the Related Links page for the order associated to the active design issue, which lets you edit or remove an existing link, or add a new one.

The **Maintain Links** link has been added for all connections and order types; however, this link is visible only for the design issues that are associated to an order.

ASR Billing and Additional Circuit Details Added to Work Queue Manager

This enhancement adds two new ASR billing-related tabs, **Billing** and **EVC Billing**, in the Work Queue Manager window. New columns are also available on the existing **Circuits** tab. The new tabs are enabled only for ASR EVC orders, and they display the information from the order. The **Circuits** tab is always enabled, but the new fields are populated only for ASR orders.

The following fields are available on the newly added **Billing** tab:

- SPEC (Admin)
- PNUM (Billing)
- VTA (Billing)
- ICSC (MEC)
- OECVTA
- OECPNUM

The following fields are available on the newly added **EVC Billing** tab:

- UREF
- UACT
- LREF
- LOSACT
- LOS
- SPEC
- BDW

The following fields are now available on the **Circuits** tab:

- Jurisdiction code
- PLU
- PIU

Open Connection Design Directly from Cable Inventory

This enhancement enables you to open the Connection Design window directly from within Cable inventory.

In this enhancement, a new right-click option, **Connection Design**, has been added in the following windows:

- Cable inventory
- Cable Pair Hierarchy within a Reservation
- Cable hierarchy within Dedicated Plant

From the windows listed previously, you can now open the Connection Design window by right-clicking and selecting **Open**, and then selecting **Connection Design**.

The new **Connection Design** right-click option is available only for pairs/fibers that have an assigned connection.

Enhancements in Patch 25541947 (6.3.0.555)

The following sections describe the enhancements delivered in this patch.

ASR 55 Support

MSS 6.3.0 patch 25541947 supports ASR 55.

MSS Database Changes

The following database change has been made in this release:

- **Release:** 6.3.0.555
- **Prodfixsql file:** 25940130.sql
- **Change:** Modify columns
- **SQL:** alter table asap.equipment_spec modify (equipment_acronym varchar2(25))

Increased the Length of the Acronym Field for Equipment

In this enhancement, the length of the **Acronym** field has been increased from 10 to 25 characters at the following MSS GUI locations:

- Equipment Spec Search window
- Equipment Spec window
- Equipment Cross-Connect Report

Ability to Add Links on Orders From Work Queue Manager

In this enhancement, a new option, **Add a Link**, has been added to the **Options** menu of the Work Queue Manager window. You can also access the **Add a Link** option by right-clicking in the Work Queue Manager window.

Selecting an order and then selecting the **Add a Link** option displays the Related Links window, which enables you to add links to useful resources (web pages, spreadsheets, documents, and so on) on the selected order.

Adding New Links on Orders

To add new links on orders:

1. On the navigation bar, click **Home**, and then click **My Work Queue**.

   The Work Queue Manager window is displayed.

2. Select an order and do one of the following:
   - Right-click and select **Add a Link**.
   - From the **Options** menu, select **Add a Link**.

     The Related Links window is displayed.

3. Under the **New Link** section, do the following:
   a. In the **URL** field, enter the URL for the web page or click **Browse** to navigate to the resource to which you want to add a link.
   b. In the **Name** field, enter a name for the resource.
   c. Click **Test Link** to verify whether the link is working or not.
   d. Click **Add**.

      The newly added link is displayed under the **Link** section.

Editing Existing Links on Orders

To edit existing links on orders:

1. On the navigation bar, click **Home**, and then click **My Work Queue**.

   The Work Queue Manager window is displayed.

2. Select an order and do one of the following:
   - Right-click and select **Add a Link**.
   - From the **Option**s menu, select **Add a Link**.

     The Related Links window is displayed.

3. Under the **Link** section, click **Edit** beside the link that you want to edit.

4. Under the **Edit Link** section, do the following:
    a. In the **URL** field, update the URL for the web page or click **Browse** to navigate to the resource to which you want to add a link.
    b. In the **Name** field, enter a name for the resource.
    c. Click **Test Link** to verify whether the link is working or not.
    d. Click **Save**.

Removing Existing Links on Orders

To remove existing links on orders:

1. On the navigation bar, click **Home**, and then click **My Work Queue**.

   The Work Queue Manager window is displayed.
2. Select an order and do one of the following:
    - Right-click and select **Add a Link**.
    - From the **Options** menu, select **Add a Link**.

      The Related Links window is displayed.
3. Under the **Link** section, select the check box beside the link that you want to remove.
4. Click **Remove**.

ISI-DLR Information Now Displayed for Virtual Connections

In this enhancement, a new **ISI-DLR** tab has been added in the Additional Details view of the Connection Design window for virtual connections. The **ISI-DLR** tab displays the following information:

- Interexchange Carrier
- IC Circuit Reference
- PON
- Due Date
- ACTL
- APOT
- NCI
- NC
- SEC NCI

In addition, the ISI-DLR section has been added in the GLR report for virtual connections. The ISI-DLR section displays the following information:

- IC CIRCUIT REFERENCE
- ACTL
- APOT
- NC
- NCI

- SECNCI

You view the GLR report by selecting **GLR** from the **Outputs** menu in the Connection Design window for virtual connections.

Additional Fields in Service Request Search Window When Searching for ASRs

This enhancement improves the process of searching for ASRs in the Service Request Search window by providing additional fields for use in your search criteria.

In the Service Request Search window, the following new lists and fields have been added, which are displayed after you select **ASR** and **Service Request** from the **Search By** lists:

- **PROJECT**: This field enables you to search for ASRs by specifying the project number.
- **CNO**: This field enables you to search for ASR orders by specifying the case number of the ASR order.
- **SPEC**: This field enables you to search for ASRs by specifying the service and product enhancement code.
- **PNUM**: This field enables you to search for ASRs by specifying the promotion number.
- **OECPNUM**: This field enables you to search for ASRs by specifying the other exchange company promotion number.
- **NC**: These lists enable you to search for ASRs by selecting the network channel code.

Operating Company Column Added in Network Location Search Results Window

In this enhancement, a new **Operating Company** column has been added in the Network Location Search Results window. The Operating Company column displays the name of the operating company that owns the CLLI code associated with the network location.

Assigning Contiguous Telephone Numbers

You can now assign contiguous telephone numbers that fall within the specified line range. In this enhancement, a new **Contiguous** check box has been added in the **Search** tab of the Telephone Numbers window. To search for contiguous telephone numbers, select the **Contiguous** check box, select a value from the **NPA** list, and then click **Search**.

For example, suppose that in a telephone number block containing 50 telephone numbers in the line range of 0000 through 0050, the line 0015 has already been assigned and is in InService status. Within this 50-number line range, if you search for 20 contiguous telephone numbers for assignment, the application ignores the lines from 0000 to 0015 (because 0015 is already assigned), and considers the lines that fall within the range from 0016. In this situation, the application retrieves 20 contiguous telephone numbers in the line range of 0016 through 0035.

Additionally, you can now select multiple statuses of telephone numbers in the **Status** field on the **Search** tab of the Telephone Number window. To select multiple telephone number statuses, click the down arrow beside the **Status** field, select the statuses that you want to search for, and then click the down arrow again, which displays the statuses that you selected in the **Statu**s field. After you click **Search**, the application retrieves the telephone numbers having the various statuses based on your search criteria.

Newly Installed Equipment That Are Removed from Engineering Work Orders Are Now Permanently Deleted from the Application

Previously, when you removed newly installed equipment from an Engineering Work Order (EWO), the removed equipment was moved to the spare inventory at that location rather than being deleted.

In this enhancement, when you remove an equipment from an EWO, the following occurs:

- If the equipment was newly created and then installed, it is removed from the EWO and permanently deleted from the application.
- If the equipment was installed from spares storage, the equipment is removed from the EWO and moved back to spare storage.

Updated Confirmation Message When Removing Equipment from an EWO

The existing confirmation message that appears when removing equipment from an EWO has been updated as follows:

```
This action will permanently delete newly installed equipment and move equipment
that was installed from spare back to spare status. Would you like to continue?
```

After you click **Yes** on this confirmation message, the following occurs:

- If the equipment was newly created and then installed, it is removed from the EWO and permanently deleted from the application.
- If the equipment was installed from spares storage, the equipment is removed from the EWO and moved back to spare storage.

Removing Equipment Having Child Equipment on a Different EWO

If the equipment you are removing has child equipment on a different EWO, the application now displays the following confirmation message:

```
The following equipments are open in Engineering Work Orders
EQUIP-1234-CARDEWO1234
Continue with the delete?
```

Clicking **Yes** on this confirmation message deletes both the parent and child equipment from their respective EWOs.

Removing Equipment Having Child Equipment on the Same EWO

If the equipment you are removing has unselected child equipment on the same EWO, the application now displays the following confirmation message:

```
The equipment EQUIP-1234 has the below child(ren) unselected in the order. Please
select the child(ren) also for removal.
EQUIP-ABC,1 NEW CARD
```

Click **OK** on this confirmation message, select the child equipment, and then click **Remove**.

Updated Confirmation Message When Removing Equipment from Equipment Inventory

In addition, the existing confirmation message that appears when removing equipment from the Equipment Inventory window has been updated to display additional information if the equipment you are removing is open on an EWO. The confirmation message now displays information such as vendor name, vendor part number, equipment name, and order number:

```
This delete affects the following equipment tied to an Engineering Work Order:
EXAMPLE CORP,1 NEW CARD Order 1234567
Continue with the delete?
```

Clicking **Yes** on this confirmation message deletes the equipment from both the equipment inventory and the EWO.

Ability to Search for Connections by Project ID

In this enhancement, in the Connection Design Search and Connection Hierarchy Search windows, a new **Project** field has been added that enables you to search for connections by specifying the project ID as a search criterion.

The newly added **Project** field is displayed when you right-click and select **Service Request** in the Connection Design Search or Connection Hierarchy Search windows.

Network Location Code of Equipment Now Displayed in Equipment Description

In this enhancement, in the Equipment Inventory window, the equipment description now displays both the network element (associated with the equipment) and the network location code (CLLI code) of the equipment, provided that you have specified both the values; otherwise, only the value that you have specified is displayed. You specify the network element in the **Network Element** field and the network location code in the **Net Loc (Equipment)** field in the **Equipment** tab of the Equipment window.

Similarly, the Equipment Inventory for Connection Design window has been enhanced to display both the network element and network location code in the equipment description. The Equipment Inventory for Connection Design window is displayed when you open the Equipment Inventory window from within Connection Design.

All information (except network element and network location code) displayed in the equipment description depends on the setting of the **Equipment Description** preference under Preferences - Equipment - Equipment Inventory. For example, suppose that you configure the **Equipment Description** preference as follows:

- Position 1 = manufacturer (for example, EXAMPLE CORP)
- Position 2 = part number (for example, PART567#1)
- Position 3 = acronym (for example, ABCEQUIP)

If you specified only the network element (for example, DLLSTX01#4) for the equipment, the equipment description displays the following:

```
EXAMPLE CORP PART567#1 ABCEQUIP (DLLSTX01#4)
```

If you specified only the network location code (for example, DLLSTX01B01) for the equipment, the equipment description displays the following:

```
EXAMPLE CORP PART567#1 ABCEQUIP (DLLSTX01B01)
```

If you specified both the network element and the network location code (for example, DLLSTX01#4 and DLLSTX01B01) for the equipment, the equipment description displays the following:

```
EXAMPLE CORP PART567#1 ABCEQUIP (DLLSTX01#4 / DLLSTX01B01)
```

Increased the Length of a Few Fields in the Equipment Spec Window

In this enhancement, in the **Equipment Spec** tab of the Equipment Spec window, the length of the following fields has been increased to display all of the data without truncating it:

- Manufacturer
- Part Number
- Mounting Type
- Description
- Notes
- Material Code

Usage Column Added in Equipment Spec Search Results Window

In this enhancement, a new **Usage** column has been added in the Equipment Spec Search Results window. The **Usage** column displays the number of installed instances of each equipment specification.

You can open the Equipment Spec Search Results window from the following MSS GUI locations:

- Inventory Management Setup - Equipment Specifications
- Product Specifications Window - Equipment Spec Tab

New Preference to Choose Whether Child Virtuals Should Inherit the IP Address of the Parent Physical Connection

In MSS, if a parent physical connection already has an IP address assigned to it, you cannot assign an IP address to its child virtual connection because the child virtual connection inherits the IP address of the parent physical connection; consequently, the **Assign IP Address** right-click option is grayed out in the Schematic Design view of the Connection Design window for the child virtual, which prevents you from assigning an IP address to the child virtual.

In this enhancement, a new preference, **Inherit Parent Physical Connection IP Address for Child Virtual**, has been added that enables you to choose whether you want the child virtual to inherit the parent physical connection's IP address.

Treeview Location: Preferences - Inventory Management - Connection Design

The **Inherit Parent Physical Connection IP Address for Child Virtual** preference has the following options:

- **Y** (the default): The child virtual inherits the IP address of the parent physical connection.
- **N**: The child virtual does not inherit the IP address of the parent physical connection. You can assign an IP address to the child virtual connection using the **Assign IP Address** right-click option in the Schematic Design view of the Connection Design window.

The IP address assignment rules are applicable when assigning an IP address to the child virtual. For example, when assigning an IP address to the child virtual's originating element, the application checks whether the terminating element has an IP address assigned; if yes, the Number Inventory Search window retrieves IP addresses from the same subnet as that of the terminating element's IP address.

Enhancements in Patch 25385094 (6.3.0.516)

The following sections describe the enhancements delivered in this patch.

Integration with Oracle Communications Unified Inventory Management to Support Multipoint Carrier Ethernet Services

This enhancement includes a reference implementation that enables you to integrate Oracle Communications MetaSolv Solution (MSS) with Oracle Communications Unified Inventory Management (UIM) to enhance the existing capabilities of MSS to order and design multipoint services, specifically Carrier Ethernet services.

In this reference implementation, UIM enhances the existing capabilities of MSS by providing the following features:

- Support for Carrier Ethernet services, such as E-LAN, E-Tree, E-Access, and E-Line
- A data model that conforms to Metro Ethernet Forum (MEF) Carrier Ethernet 2.0 standards
- VLAN ID lifecycle management
- Logical device management
- Support for designing virtual networks (service networks and multipoint EVCs)
- Design-and-assign logic for service orchestration
- Federation framework to integrate external systems

The reference implementation uses a cooperative design approach that facilitates rapid creation of the Carrier Ethernet service. The provisioning flow of the service order is as follows:

- MSS captures the order information for the Carrier Ethernet (multipoint EVC) service and creates a provisioning plan.
- MSS shares the order information and service fulfillment data with UIM using web services submitted via MSS custom extensions.
- UIM creates a service and designs the service configuration with the resource assignments and displays this information within MSS. You can modify the service design by navigating directly to UIM from within the MSS application.

In this reference implementation, the physical connectivity, equipment, port assignments, and resource network continue to reside within the MSS inventory. Additional entities for service, service and packet virtual networks, service

connectivity, logical devices, and VLAN IDs are managed within UIM, and are used in the service design process. The network entities, such as end user locations (service locations) and network locations are shared between UIM and MSS.

The reference implementation leverages the Product Service Request (PSR) and Work Management capabilities of MSS. Within the MSS application, you can manually enter your requirements for the Carrier Ethernet service via the PSR order or through the PSR API.

A new UIMDSGN task has been added that automates the process of submitting the Carrier Ethernet service requirements (via the PSR order) to UIM. The UIMDSGN task sends the PSR order information to UIM using the UIM Service Order Fulfillment Web Service (SFWS), which is formatted and submitted via a new custom extension UIMServiceDesignAdapter added within the MSS custom extension framework. You can also configure the UIMDSGN task as a system task.

A new UIMVIEW task has been added that enables you to navigate directly from the MSS work queue to the EVC Service Summary page in UIM. Adding the UIMVIEW task is optional. If you choose to add the UIMVIEW task, you must add it after the UIMDSGN task in the provisioning plan.

After you complete the UIMDSGN task, MSS creates the service designs for the EVC service and EVC sites within the PSR order, which is controlled and integrated with UIM using a UIM Business Interaction. The **Order Information - Links** tab contains links that enable you to navigate directly to the EVC service and EVC site designs within UIM, so that you can modify the designs if necessary.

For detailed instructions about installing the required software, setting up MSS and UIM, and integrating MSS with UIM for the reference implementation, see Knowledge Article 2243408.1 on the My Oracle Support website:

`https://support.oracle.com`

MSS EJB API Developer's Guide Introduced

The MetaSolv Solution 6.3 documentation set includes a new guide entitled *MSS EJB API Developer's Guide*. This guide describes the various MSS Enterprise JavaBeans (EJB) APIs that are available, explains how you can use the MSS EJB APIs to perform specific tasks, and provides information about the required input parameters for each MSS EJB API, including sample data values for the input parameters. Specifically, the *MSS EJB API Developer's Guide* provides information about the following MSS EJB APIs:

- **Connection EJB APIs**: You use the connection EJB APIs to create, update, and auto-build connections, and to assign and unassign ports for connections.
- **Engineering Work Order (EWO) EJB APIs**: You use the EWO EJB APIs to create and update work orders (including work order notes), to associate connections and equipment to work orders, and to process due date supplements.

Documentation Accessibility

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Oracle Communications MetaSolv Solution What's New, Release 6.3
E85637-08