

Oracle® Communications MetaSolv Solution

What's New

Release 6.3.1

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What's New

This document describes the enhancements that are delivered in Oracle Communications MetaSolv Solution (MSS) 6.3.1 patches.

See the following for information on each patch:

- [Enhancements in Patch 37291891 \(6.3.1.930\)](#)
- [Enhancements in Patch 36961622 \(6.3.1.915\)](#)
- [Enhancements in Patch 36634568 \(6.3.1.879\)](#)
- [Enhancements in Patch 36194128 \(6.3.1.845\)](#)
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Enhancements in Patch 37291891 (6.3.1.930)

The following sections describe the enhancements delivered in this patch.

Display IP Host Address Subnet Mask in Equipment Inventory

In Equipment Inventory, the subnet mask is now displayed for the IPv4 and IPv6 host addresses in the equipment treeview and also in the **IP Addresses** window.

Deprecate Platform Support

The following platforms have been deprecated and may be removed in a future release.

- Oracle Solaris
- IBM AIX
- HP-UX Itanium

Deprecate Support for LSR

The support for LSR has been deprecated and may be removed in a future release.

Enhancements in Patch 36961622 (6.3.1.915)

The following sections describe the enhancements delivered in this patch.

ASR 70 Support

MSS 6.3.1 patch 36961622 supports ASR 70.

Improved Upgrade Process Regarding Custom Stored Procedures

The MSS upgrade process is improved and now the custom logic in the custom stored procedures are not overwritten with the definition of the procedure itself if it already exists. The MSS upgrade process no longer overwrites the following custom stored procedures provided by Oracle, which allow you to customize the application to meet your specific business requirements:

- PKG_PSR_CUSTOM_KEYS
- SP_NL_CUSTOM_VALIDATION
- SP_PSR_CUSTOM_PRE_VALIDATION
- SP_PSR_CUSTOM_SUPP_CANCEL
- SP_PSR_CUSTOM_VALIDATION
- SP_PSR_MSAG_CUSTOM_VALIDATION
- SP_WM_CUSTOM_VALIDATION

Additionally, the upgrade process no longer stamps the application version number within these custom stored procedures, thus no longer requiring you to update this

version within your existing custom procedures to prevent them from being listed as Stored Procedures with Invalid Version on the MetaSolv Solution Application Server Runtime Information page. The custom stored procedures are not displayed as invalid in the **Data Objects Version** in the **System Properties** window. You can navigate to the **System Properties** window in MSS and MSS Utilities from the **Help** menu and then selecting the **About** option.

Support for New From for Engineering Work Orders

You can now create a new Engineering Work Order (EWO) from an existing EWO using the **New From...** option from an existing EWO using the familiar **New From...** menu option within the Service Request Search window. When the **New From...** option is clicked, a new window is opened which allows you to select the connections from the existing order. All the Work Order information including Work Order Number, Organization, Description, Project ID, and Contact are copied to the new EWO order. You can choose to copy the **Links** and **User Data** from the base order to the new order, which are selected to copy by default. EWO Notes from the base order are not copied to the new order, however a new note `Created from Order oldOrderNumber on DateTime by UserId` is auto-generated in the new work order.

You must consider the following information while creating a new EWO using the **New From...** option:

- You must close any open EWO before initiating the **New From...**
- A **Select All** checkbox is provided to allow you to select all the connections excluding the trunk circuits which are not currently supported by this feature.
- Multiple open orders are allowed based on the preference **Allow Multiple Open Orders on Circuits**. When you add a connection that is open on another order, a confirmation message appears listing all the open orders. You can choose to continue with creating an EWO.

The New From EWO feature does not support the following:

- Select Trunk circuits.
- Perform a **New From** from an open groom order.
- Equipment.
- Connections that are in **Disconnected**, **Pending Disconnect**, **Cancelled**, and **Problem** status.

Enhancements in Patch 36634568 (6.3.1.879)

The following sections describe the enhancements delivered in this patch.

Improved Connection Design Usability

By double-clicking the connections in the virtual schematic design, you can now add and update the allocation parameters and description. The double-click functionality opens the same windows that are opened in the right-click menu options. When you double-click a hard connection in schematic design, it now opens the **Virtual Channel**

Assignment window in which you can add or update the allocation parameters for this relationship.

When you double-click a soft connection within virtual schematic design, the **Specify Virtual Description** window is opened that lets you add or update the description.

Improved Network Element Usability

You can now open the **Connection Design** window from the **Network Element Equipment** window. In the **Open** right click menu option, a new **Connection Design...** option is added in the **Network Element Equipment** window. When you select the **Connection Design** menu option, the MSS application opens the **Connection Design** window. Before the **Connection Design** window is opened, a confirmation message is displayed to close all the response windows. Click **Yes** to save all the changes, close all the response windows, and open the connection design for the selected connection. Click **No** to stay in the **Network Element Equipment** window. This option is not available outside of the SONET network.

The **Network Element Equipment** window is now larger, allowing you to easily view the information with minimal to no scrolling required.

Improved Network System Usability

You can now open **Customer Connections**, **Network Connections**, and **Customer Network Connections** windows from a component within an embedded network from the non-graphical canvas. The three existing menu options **Customer Connections...**, **Network Connections...**, and **Customer Network Connections...** within graphical view are now available within the non-graphical, hierarchical view. When you open an embedded network without graphics in **Network Systems Design** window, the following are the available features:

- Customer Connections: Opens **Customer Connections (Extensions)** in **Viewing Extensions** window.
- Network Connections: Opens **Network Connections** in **Viewing Neighbors** window.
- Customer Network Connections: Opens **Customer Network Connections** in **Viewing Neighbors** window.

You can now add the embedded components to the non-graphical treeview.

Enhancements in Patch 36194128 (6.3.1.845)

The following sections describe the enhancements delivered in this patch.

ASR 69 Support

MSS 6.3.1 patch 36194128 supports ASR 69.

MSS Client Software Certification

MetaSolv Solution is now certified to run the client on Windows Server 2022 and Windows 11 Professional, in addition to Windows Servers 2019 and 2016.

Enhancements in Patch 39578616 (6.3.1.818)

The following sections describe the enhancements delivered in this patch.

Ability to Customize Error and Warning Messages

You can now customize the error and warning messages that you see in the MSS application. You can personalize the messages to better direct your users on how to resolve the problem. For example, when users are unable to login to MSS application, you can replace the generic error such as *contact your administrator* with a customized text that points to a self-service portal to reset the password.

You can customize the messages using the MSS database tables for all the messages that you see in the MSS application after you login. You run the **custom_msgs.sql** to prepare the application to support customization and then configure the custom messages to be displayed in place of the standard messages.

A new system preference **Enable Display of Custom Messages** is added in **System Information** to enable customizing the messages. When the preference is set to **Y**, the application displays the customized message in the database tables. When the preference is set to **Y** and there is no corresponding custom message configured in the MSS tables, the application displays the standard error and warning messages.

As there is no database connection prior to logging into the application, you can use **tbs.ini** file to customize the potential errors displayed from the login window. To customize these messages, you must add the customized error messages in the section [Custom Login Messages] in **tbs.ini** file.

For more information on setting up the customized error and warning messages, see "Customizing the Error and Warning Messages" in *MSS System Administrator's Guide*.

Enhancements in Patch 35633140 (6.3.1.788)

The following sections describe the enhancements delivered in this patch.

ASR 68 Support

MSS 6.3.1 patch 35633140 supports ASR 68.

MSS Application Server Certification on Oracle Enterprise Linux Server 9

This release is certified to run the WebLogic application server on Oracle Enterprise Linux Server 9, in addition to the previously certified software that are still under support.

Display Warning Types in Condition Codes Drop-down

For all the condition codes such as IP address, equipment ports, equipment slots, cable pair, equipment specification ports, and equipment specification slots, warning type such as **BLOCKED** and **INFORMATION** is also displayed with the condition codes in the **Condition Codes** drop down.

Improved Equipment Condition Codes Management

You can now manage condition codes from the **Equipment Specs** view in **Equipment Inventory**. You can define condition codes on mounting positions and port addresses in equipment specification which is propagated to all the new and existing instances of the specification. You can add or remove condition codes in equipment specification to update the same in all its instances.

To manage condition codes in the **Equipment Specs** view in the equipment inventory, a new right click menu option **Condition Codes...** is added to the equipment specification, port addresses, and mounting positions in the **Equipment Inventory** tree view.

Clicking **Condition Codes...** on the mounting positions or port addresses open the **Condition Code Assignment - Equipment Specification** window that lets you add or remove condition codes to mounting positions or port addresses in the equipment specification. Click **OK** to automatically propagate the condition code information to all the existing and newly installed instances of that equipment specification.

Clicking **Condition Codes...** on the equipment specification opens the **Condition Code Range Assignment - Equipment Specification** window that lets you add or remove a range of condition codes to port addresses or mounting positions in the selected equipment specification. Clicking **Add** or **Remove** does not save the changes immediately and the application prompts you to save the changes when navigating between **Port Address Condition Codes** and **Mounting Position Condition Codes**. Click **OK** to automatically propagate the condition code information to all the existing and newly installed instances of that equipment specification.

When you define the condition codes for a mounting position that already has an installed equipment in **Equipment Inventory**, a new window **Affected Equipment** appears that displays all the active equipment installed on the selected mounting position in the equipment inventory instances. In case of port address, the **Affected Equipment** window displays the ports that have active assignments in the equipment inventory instances for the selected port address. The **Affected Equipment** window also displays the condition codes that already exist in **Equipment Inventory** that matches the equipment specification condition codes. All the matching equipment inventory condition codes are modified to equipment specification condition codes. Click **OK** to proceed with the condition code modification. You can print or save the affected equipment information by clicking the **Print** button.

In the equipment specification view in the **Equipment Inventory** window and the **Equipment Hierarchy** window, the mounting positions and port addresses provides an indication such as [I], [B] within the **Line** column, if the corresponding mounting position or port address has a condition code assigned. You can see the similar indication in the equipment hierarchy also. By default, it displays **INFORMATION** in the

equipment hierarchy. If any one of the port or the slot has blocked condition code, the equipment displays BLOCKED.

In the **Equipment Spec Search** window, a new right click menu option **View...** is added to view the equipment specification hierarchy. Clicking **View...** opens the **Equipment Spec View** window.

In the **Equipment Spec Search** window and the **Equipment Spec Usage Report**, a new column **Slot/Port Cond Codes** is added to show the number of condition codes defined on slots/ports at the equipment specification and also in the equipment instance. _ indicates zero condition code. **Slot/Port Cond Codes** column is displayed while printing the **Equipment Spec Usage Report**.

Improved Network System Usability

The following are the usability improvements in the Network Systems:

- In the **Customer Connections (Extension)** window, a new radio button **Active Connections** is added to display the active connections.
- The existing **Display Disconnected Connections** is now renamed to **Disconnected Connections** and changed to radio button. The **Disconnected Connections** radio button displays the disconnected connections.

Support for Transport Layer Security 1.3

MSS now supports Transport Layer Security (TLS) 1.3.

Enhancements in Patch 35357586 (6.3.1.750)

The following sections describe the enhancements delivered in this patch.

Support for MSS Application Server on Windows 2022

This release is certified to run the WebLogic application server on Windows 2022, in addition to the previously certified software that are still under support.

Display Multiple Channels for Each Segment in Optical Block Assignment

When a circuit is assigned to multiple channels within an optical network assignment block, all the channel assignments are displayed in **CLR/DLR Design** and **Schematic Design** in **Connection Design** window. This functionality is similar to the facility blocks. Each channel assignment is displayed within the optical assignment.

In the **CLR/DLR Design**, the information such as mileage, network name, parent connection and so on is displayed once for each segment, if applicable, regardless of the number of channel assignments for each segment.

The channel assignment information is displayed in the **System/Position** field in the **Network Assignments** tab in the **Connection Reconciliation** window for all the channel assignments per hop.

Improved Equipment Condition Codes Management

You can now manage condition codes from an equipment specification. You can define condition codes on mounting positions and port addresses in equipment specification which is propagated to all the new and existing instances of the specification. You can add or remove condition codes in equipment specification to update the same in all its instances.

To manage condition codes in equipment specification, a new right click menu option **Condition Codes** is added in the **Mounting Positions** and **Port Addresses** tab in the **Equipment Spec** window. Clicking **Condition Codes** opens the **Condition Code Assignment - Equipment Specification** window that lets you add or remove condition codes to mounting positions or port addresses in the equipment specification. Click **OK** to automatically propagate the condition code information to all the existing and newly installed instances of that equipment specification. When you click the **Condition Codes** menu option immediately after adding a new mounting position or port address, an appropriate message pops up to save the changes before proceeding with defining condition codes.

When the mounting position where you define condition codes in the **Equipment Spec** window already has an installed equipment in the **Equipment Inventory** window, a new window **Affected Equipment** appears that displays all the active equipment installed on the selected mounting position in the equipment inventory instances. In case of port address, the **Affected Equipment** window displays the ports that have active assignments in the equipment inventory instances for the selected port address. The **Affected Equipment** window also displays the condition codes that already exist in the **Equipment Inventory** that matches the equipment specification condition codes. All the matching equipment inventory condition codes are modified to equipment specification condition codes. Click **OK** to proceed with the condition code modification. You can print or save the affected equipment information by clicking the **Print** button.

When you open the **Condition Code Assignment** window and **Condition Code Range Assignment** window from an equipment instance in **Equipment Inventory**, a new column **Eq Spec** is added to identify those condition codes that are propagated from equipment specification. You must manage those condition codes from the equipment specification only. In the **Equipment Specs** view in **Equipment Inventory**, the tree view displays INFORMATION or BLOCKED on the ports or slots having condition codes.

When you replace an equipment in **Equipment Inventory**, the equipment replacement process propagates the condition codes from the current equipment to the replacement equipment. When you replace an equipment, the following rules are applied:

- Only the equipment inventory condition codes for the current equipment is propagated to the replacement equipment and the equipment specification condition codes are not propagated to the replacement equipment.

- If any of the condition codes in the current equipment already exist on the replacement specification, then condition codes in the replacement equipment are retained as equipment specification condition codes.
- If any of the condition codes from the current equipment do not exist on the replacement specification, equipment inventory instance condition codes are added to the replacement equipment.

Enhancements in Patch 35652822 (6.3.1.705.b2)

The following sections describe the enhancements delivered in this patch.

ASR 67 Support

MSS 6.3.1 patch 35652822 supports ASR 67.

Improved Task Management When Marking Tasks Not Required

Prior to this enhancement, when marking tasks as not required, the application created new task dependencies between all predecessor and follower tasks of those being marked as not required, while also retaining the existing task dependencies. Additionally, all task dependencies would also be retained when marking the task required again. This behavior had the potential to dramatically increase the number of task dependencies within an order's provisioning process when multiple tasks were marked as not required, which not only impacted the display of the plan's PERT chart, but also impacted the performance of task related activities such as completing a task, due to the large number of task dependencies.

With this enhancement, when you mark tasks as not required in the **Tasks** window on any order, new additional task dependencies are created from the predecessor tasks to the follower tasks as before, but the existing dependencies to and from the not required tasks are now removed. When marking tasks as required again, the additional task dependencies that were created are now removed and the original task dependencies are restored back to their original state.

For example, consider a linear provisioning plan with tasks and dependencies as Tasks A to B to C to D.

When Task B is marked as not required, a task dependency between Tasks A and C is created and the task dependencies from Tasks A to B and from Tasks B to C are removed. When Task B is marked as required again, the additional task dependency between Tasks A and Task C is removed and the original dependencies from Tasks A to B to C are restored.

In a scenario, when Tasks B and C are marked as not required, a task dependency between Tasks A and D is created and the task dependencies between Tasks A to B to C to D are removed. Tasks B and C stand alone without any dependencies. When Tasks B and C are marked as required again, the additional task dependency between Tasks A and D is removed and the original linear task dependencies from Tasks A, B, C, and D are restored.

In a scenario when multiple tasks are marked as not required and only few tasks are marked as required again, the application creates dependencies to the nearest required predecessor or the follower tasks. If any of the original predecessor tasks or the original follower tasks are still not required, then that particular original dependency is not created. Additional dependencies with the nearest required predecessor tasks or the follower tasks are created.

When you insert a child task after marking a task as not required, the child tasks are added as appropriate. When tasks are marked as required again, new dependencies are created as they were prior to this enhancement.

Consider the prior example of linear provisioning plan with four tasks. After marking Task B as not required, insert a child task named Task Z to Task A. The linear task dependencies are from Tasks A to Z to C to D, while Task B is left as a standalone. When the Task B is marked as required again, the task dependencies are Tasks A to Z to B to C to D. Instead of adding the dependency back to Task A from Task B, it adds the dependency to Task Z as it was inserted as a child task. These task dependencies are same as the existing behavior, when a child task is inserted.

Enhanced Deletion of Network Components

When you delete a network component in a **Network System**, MSS now deletes the network component and all of its associated customer extension components that do not have any active connections associated to them. After deletion, you can now reuse the network element names of these deleted network components.

When deleting a network component, a new **Affected Customer Components** window is now displayed that lists all its related customer components that do not have any active connections. Click the **OK** button to continue the deletion process. The deletion process deletes the selected network component and the listed customer components after it passes the existing validations. Clicking **Cancel** in the **Affected Customer Components** window, stops the deletion process and the selected network component is not deleted.

Improved Network Systems Usability

The following are the improvements in this release:

- The existing **Network Connections**, **Customer Network Connections**, and **Customer Connections** menu options are now available when right-clicking on a component within an embedded network system. Clicking these menu options opens the corresponding windows within the Network System.
- The performance is improved when opening and switching between In Service and Disconnected components within the **Customer Connections (Extensions)** window.

Delete a Range of Spare Equipment

You can now delete a range of spare equipment or delete all the spare equipment from a location in the **Equipment Inventory** window.

A new right-click menu option **Delete Range From** is now available to select the starting spare equipment. Then, select the ending spare equipment by selecting the new right-click menu option **Delete Range To**. After selecting **Delete Range From**, the **Delete Range To** menu option is only available within the same view within **Equipment Inventory**, and only within the same level and hierarchy when initiated from within a parent hierarchy. After you select the ending spare equipment, select **Yes** to the confirmation message to continue with the deletion. All the equipment between the selected range are deleted if all the validations are successful. Every piece of equipment with its child equipment mounted within each parent equipment's hierarchy is validated with all the existing validations such as assigned circuits, reservations, assigned IP Addresses and so on. The validations for deleting the range of spare equipment is the same as that of **Delete** menu option.

If any one of the validations for deleting the spare equipment fails within the range, it skips that spare equipment from deletion and continues with the rest of the spare equipment within that range. Using this feature, you can also delete the equipment which are not contiguous. After the appropriate equipment within the range are deleted, the **Equipment Inventory** window is refreshed to display all the remaining spare equipment.

You can now delete all the spare equipment from the location using the new **Delete All Spare Equipment** menu option. The deletion process follows the similar process as that of deleting the range of spare equipments.

Showing Labels and Values Information in PSR- New From

You can now see the labels and values information in the **PSR- New From** window for the service items when you create a PSR order using **New From** option. The **Values Info** is displayed in the drop-down if any labels are set for the selected service item in the product catalog. The Labels and Values information is displayed based on the radio button selected such as **Newest Order/Inservice**, **Oldest Order/Inservice**, **Newest DD/Inservice**, **Oldest DD/Inservice**, and **Order Order number/Inservice**.

Similarly, when you click **Copy Existing Services** in the **PSR Order- Services** window, the labels and values are displayed on selecting a service item from the tree view.

When you click **Copy Installed Services** in the **PSR Order-Services** window, all the information related to the selected service item is displayed. The information displayed includes Values Info, Circuit Info, PRILOC/SECLOC Info, Trunk Info, Telephone Number Info and so on and is displayed based on the selected service item.

Enhancements in Patch 34782307 (6.3.1.643)

The following sections describe the enhancements delivered in this patch.

Split Equipment on an Engineering Work Order

You can now split the desired Equipment in an Engineering Work Order to a separate order using the **Order Split** process. Similar to the connection split on EWO, you can click the same **Order Split...** menu option within the Service Request Search right-

click menu. The **EWO Order Split Selection** window opens which allows you to select the equipment to be split to a separate order. The **EWO Order Split Selection** window shows the work order information which you can choose to edit for the new order. The desired due date is disabled for edit and defaulted to the existing order's due date. You can copy the Order Elements of User Data, and Links to the new order. On splitting the EWO, the selected equipment is associated to the new split order.

Specifically, the **Order Split...** menu option is disabled in the following cases:

- Order status is Due Date Task Completed or All Tasks Completed.
- Supplement Type is Cancel.
- Order has an associated Gateway Event with a status of Waiting, Sending, In Progress, or Error.

Order split is not allowed and an appropriate error message is displayed in the following cases:

- EWO is open/locked by a user.
- EWO was created by the Network Grooming process.
- Trunk circuits are selected.

Insert Tasks Using Rules and Behaviors on Supplement Cancel through API

You can now insert a task using Rules and Behaviors while supplement canceling an order through API. This process works similar to the GUI. This feature is available for Product Service Request, Access Service Request, Engineering Work Order, and Internal Service Request.

See "[Insert Tasks Using Rules and Behaviors on Supplement Cancel](#)" for more information on setting up Rules and Behaviors in the GUI.

Improved User Interface for Network Systems

In this release, the usability of the **Viewing Extensions Customer Connections (Extensions)** window and **Viewing Neighbors Network Connections** window is improved.

You can open the **Viewing Extensions Customer Connections (Extensions)** by clicking the right-click context menu **Customer Connections** within Network Systems. The following changes are made to improve the usability:

- The window is resized to display more data with minimal scrolling and the customer connections are displayed in alternating colors.
- The General section is removed and the text is added to the bottom of the window.
- The column width can be adjusted by dragging the column header.
- You can filter the customer connections based on the criteria that you specify. The results are dynamically displayed based on the filter criteria. You can use the wildcard character % in the filter criteria.

You can open the **Viewing Neighbors Network Connections** window by clicking the right-click context menu **Network Connections** within Network Systems and double-clicking the **Network Connections** window. The **Viewing Neighbors Network Connections** window is resized to display the connections completely, the **General** section is removed, and the text is displayed at the bottom of the window.

Ability to Add Condition Codes to IP Addresses

You can now add condition codes to IPv4 and IPv6 host addresses irrespective of the status. A new right-click menu option **Condition Codes** on the subnet IP address, opens the **Condition Codes for Hosts** window. The existing condition code ranges can be added to the IP Addresses. You can enter the following fields to add or remove the condition codes:

- **From IP Address**- The start IP Host Address of the IP Address range.
- **To IP Address**- The end IP Host Address of the IP Address range.
- **Condition Code**- Code describing a blocked or informational condition that can be assigned to IP Addresses.
- **Comments**- Free-form field allowing you to describe a particular condition code.
- **Expire Date**- The date by which the condition code expires and the IP Address is available for assignment.

Click the **Add** button to add the condition code to the specified IP Address range. You can click the **Remove** button to remove the condition code from the selected IP Address range. You can assign multiple condition codes to an IP Address. Click **Ok** button to save and close the **Condition Codes for Hosts** window. Click **Cancel** button to close the **Condition Codes for Hosts** window without saving any changes. In the **Subnet Hosts** window, the IP Host addresses with its condition code are displayed. The condition codes are retained throughout the life cycle of the IP Addresses and also when the IP Addresses are recalled.

After adding the condition codes to the IP Addresses, the IP Addresses that have **Blocked** condition code are restricted for assigning it to a physical port of an equipment. An appropriate error message is displayed when you select IP Addresses with **BLOCKED** condition codes.

This enhancement is not applicable for assigning IP Address on a PSR order.

Enhanced Search Criteria for Connections in Engineering Work Order

On change and disconnect Engineering Work Order(EWO), the search criteria for connections is enhanced with a search window similar to the **Connection Design Search** window. You can now search connections in EWO by locations, designation, status, Service Type, capability, Rate Code, Connection Ref, and so on. You cannot search for trunk circuits and by circuit position in the enhanced search criteria. The Trunk Circuits check box and the Circuit Position right-click menu option are disabled. In the **Results** window, a new right-click menu option **Connection Hierarchy** is added, which opens the connection hierarchy of the selected connection.

Enhancements in Patch 34333054 (6.3.1.587)

The following sections describe the enhancements delivered in this patch.

ASR 66 Support

MSS 6.3.1 patch 34333054 supports ASR 66.

Split an Engineering Work Order

You can now split the desired connections in an Engineering Work Order to a separate order using the Order Split process. Similar in functionality to the PSR Order Split process, the EWO Order Split process is initiated by the same **Order Split...** menu option within the Service Request Search right-click menu. A new **EWO Order Split Selection** window opens which allows you to select the connections to be split to a separate order. All the connections except trunk circuits can be split using this new menu option. All the connections with or without pending design changes for the order can be split irrespective of the status. The **EWO Order Split Selection** window shows the work order information which you can choose to edit for the new order. The desired due date is disabled for edit and defaulted to the existing order's due date. You can copy the Order Elements of User Data, and Links to the new order. On splitting the EWO, the selected connections and their pending design changes tied to the existing order are associated to the new split order.

Specifically, the **Order Split...** menu option will be disabled in the following cases:

- Order status is Due Date Task Completed or All Tasks Completed.
- Supplement Type is Cancel.
- Order has an associated Gateway Event with a status of Waiting, Sending, In Progress, or Error.

Order split is not allowed and an appropriate error message is displayed in the following cases:

- EWO is open/locked by a user.
- EWO was created by the Network Grooming process.
- Trunk circuits are selected.

Note:

This new feature currently supports moving connections to another order, while moving ordered equipment is planned for a future release.

Insert Tasks Using Rules and Behaviors on Supplement Cancel

You can now insert a task using Rules and Behaviors while supplement canceling an order. You can define a rule in the **Rules and Behaviors** window to insert a task using

the existing process points **Process Supplement** and **Process Supplement and Task Generation**. The **Process Supplement** and **Process Supplement and Task Generation** process points now include Supplement Cancel along with Supplement Correction and Supplement Due Date. The existing rules for **Process Supplement** and **Process Supplement and Task Generation** process points now works for Supplement Cancel also. The process for defining task behavior for supplement cancel is the same as defining a task behavior for supplement correction and supplement Due date. When you supplement cancel an order, the rule is run and the corresponding task is added in the appropriate place as defined in the **Task Behavior** page in Rules and Behaviors.

When the **Bypass on Cancel** attribute is enabled for the task with the process point as **Process Supplement** or **Process Supplement and Task Generation** and the order is supplement canceled, the defined task is not inserted on the service requests. This feature is available for Product Service Request, Access Service Request, Engineering Work Order, and Internal Service Request.

Delete a Range of Equipment in Equipment Inventory

You can now delete a range of equipment in the **Equipment Inventory** window. A new right-click menu option **Delete Range From** is now available to select the starting equipment. This menu option is enabled only for the child equipment. After you select the starting equipment for the range, select the ending equipment for the range by selecting the new right-click menu option **Delete Range To**. The **Delete Range To** is enabled only for those child equipment within the same parent equipment where the starting equipment is selected. After you select the ending equipment, select **Yes** to the confirmation message to continue with the deletion. All the equipment between the selected range are deleted irrespective of the equipment's status if all the validations are successful. Every piece of equipment with its child equipment mounted within each parent equipment's hierarchy is validated with all the existing validations such as assigned circuits, reservations, assigned IP Addresses and so on. The validations for deleting the range of equipment is the same as that of **Delete** menu option.

If any one of the validations for deleting equipment fails within the range, it skips that equipment from deletion and continues with the rest of the equipment within that range. Using this feature, you can also delete the child equipment which are not contiguous. After the appropriate equipment within the range are deleted, the **Equipment Inventory** window is refreshed to display all the available equipment.

Delete Equipment from Equipment Spec Usage Report

You can now delete the equipment from the **Equipment Spec Usage Report** window irrespective of their statuses. You can delete multiple equipment in Equipment Spec Usage Report window in two ways:

- New right click menu **Delete** option.
- **Delete** menu option from the **Edit** menu.

When clicking **Yes** to the confirmation message to continue deletion, all of the selected pieces of equipment, including installed child equipment, are validated with all the existing validations such as assigned circuits, reservations, assigned IP Addresses and so on. The validations for deleting the equipment is the same as that of **Delete**

menu option in Equipment Inventory. The selected pieces of equipment with the installed child equipment are deleted after passing the validations. When one or more pieces of equipment fails validation, appropriate error messages are displayed. After all the appropriate equipment are deleted, the **Equipment Spec Usage Report** window is refreshed to display all the available equipment.

Enhancements in Patch 34139852 (6.3.1.558)

The following sections describe the enhancements delivered in this patch.

Logging Utility Upgrade

The MSS logging utility version is upgraded to Log4j 2. The MetaSolv Solution log file names are modified as **appserver.log**, **appserverlog_misc.log**, and **appserver_audit.log**. The log messages are logged in the pattern layout instead of XML layout.

The logging configuration file **loggingconfig.xml** is now split into the two configuration files with the default values:

- **loggingconfig.xml** is used to specify the logging specification, configuration, and category.
- **mslvloggingconfig.xml** is used to configure the JDBC tracing and row limits. You can set the parameters that defines the number of rows that a user is allowed to retrieve and that describes the threshold for the "too-many-rows" alert in **mslvloggingconfig.xml**.

Note:

When you upgrade from 6.3.1.452 or earlier to 6.3.1.558 or later, ensure that you backup the **loggingconfig.xml** before the upgrade. The existing **loggingconfig.xml** file is split into the two configuration files and is overwritten with the default values. You can update the appropriate values in the **loggingconfig.xml** and **mslvloggingconfig.xml** after the upgrade.

See *MSS System Administrator's Guide* for more information on managing the log files.

User Interface Framework Upgrade

In this release, the user interface framework is upgraded, and the user experience remains as is, so no user training is required. As part of this upgrade, the following are the visible changes in the MSS application User Interface:

- Redesigned **Extensions** window: The Extensions window is redesigned to be consistent with the MSS application and the following changes are in the Extensions window:

- The **Extensions** window displays 10 records with right and left arrows. When you click the left or right arrow, it displays the previous or the next 10 records.
- The **Extensions** window follows the color theme set for the MSS application.
- In **Extensions> Extension Summary>Execution Point Search** window, a new link **Modify Search** is added to modify the search criteria for the available building blocks.
- The **Options** menu is removed from the Execution Points window and Extensions window.
- The calendar icon is displayed to the left side of the date field in some of the MSS windows such as Engineering Work Order.

Log Viewer Tool Removed

In this release, the log viewer tool that was used for reviewing MetaSolv Solution log files has been removed.

Enhancements in Patch 33772574 (6.3.1.452)

The following sections describe the enhancements delivered in this patch.

ASR 65 Support

MSS 6.3.1 patch 33772574 supports ASR 65.

Open Connection Hierarchy Directly from Connection Design

You can now navigate directly to the Connection Hierarchy view of a circuit from the results list of the **Connection Design Search** window, and from within the Connection Design maintenance window.

To open the Connection Hierarchy window, you can select the **Connection Hierarchy...** menu item from the following menus:

- **Options** menu and right-click context menu from the results list of the **Connection Design Search** window
- **Options** menu in the Connection Design maintenance window

The **Connection Hierarchy** window opens the expanded hierarchical view of a circuit to show the child hierarchy, if applicable. When triggered, this feature opens its own instance of the **Connection Hierarchy** window, which utilizes both hierarchical views to minimize the overwriting of any existing circuit hierarchies.

Modify the Originating and Terminating Component of a Virtual Connection

You can now modify the originating component, terminating component, or both of a virtual connection without performing a complete redesign. A new right-click context menu item **Select New Orig/Term Element...** is available within the virtual schematic design to modify the components.

Before replacing an element, you must first remove all the associations to other elements within the design. When selecting the new **Select New Orig/Term Element...** menu item, the existing Network System / Element Search window is opened, which is pre-populated with both the Network Template and Element Types to ensure the new element adheres to the existing connection specification. You can then provide additional search criteria and query for your new element. When selected, the new element replaces the existing one within both the design canvas and the Network System/Element association within Connection Summary for that design issue. Once replaced, you can proceed as usual to complete the design.

When replacing an originating and/or terminating element on a virtual connection that has child riders, the replaced component is also replaced within all active (Current and Pending) design issues for each child, relative to the parent virtual connection whose defining element was updated.

 **Note:**

This capability is only available within the Current design issue of a virtual connection having no associated open orders.

Enhancements in Patch 33545361 (6.3.1.417)

The following sections describe the enhancements delivered in this patch.

Plotting Network and Equipment Data on a Geographical Map

MSS now provides the ability to plot your network systems and inventoried equipment on a geographical map, supported by Oracle Spatial components, which are included within your existing Oracle Database license. To enable this feature, you must first download, deploy, and configure the latest Oracle Spatial Map Visualization Component to your MSS application server(s).

See *MSS Installation Guide* for instructions on configuring Oracle Spatial Map Visualization Component.

Once configured, you must then populate the required environment data within MSS, using Preferences, *My Preferences* > *System Information* > *Engineering Map View*.

Once you have configured your environment to use maps, select the new **Engineering Map View** hyperlink located within the **Inventory Management** navigation panel within the application to get started.

A new **Engineering Map View** window opens with a full screen map of the world. The Engineering Map View window provides a toolbar in the top left corner, pan and zoom controls in the top right corner, and a dynamic bar scale on the lower left corner.

The toolbar provides multiple mapping tools, including the MSS-specific option to plot one or more network systems on the map, as well as the option to plot all instances of an equipment specification on the map. You can plot up to five separate network systems on the map at any given time, with the edges of each network identified by different colors.

To plot a network on the map, select the **Add a Network** icon from the toolbar. A **Network System Search** window opens that allows you to search for networks with the same criteria which is available within the Network Search panel of the **Network System Design** window. To plot a network, select the row(s) representing the system(s) you want to plot, and click the OK button. While not enabled by default, the Network System Search results allows you to select the **Include Extensions** check box to also plot each component and its associated relationship(s) that are defined as network extensions.

When plotting a network on the map, only network components having locations with defined latitude and longitude will be included, and you will be notified when one or more components will not be plotted. Additionally, components representing embedded networks will also be plotted, and represented by a cloud icon on the map. You can view the properties of each component via a pop-up window by clicking the icon. You can also open the existing **Managing a Component/Element** window in read-only mode by selecting **Properties...** from the right-click pop-up menu. From the same pop-up menu, you also can expand and plot all components contained within the network system represented by the cloud icon. When plotted on the map, all relationships of an embedded network will inherit the color of the parent network system.

When multiple components having the same location are plotted on the map, the **Properties...** menu is replaced by the **Associated Nodes...** menu, which opens a window providing a list of every plotted component at that location. You can view the properties of each node by selecting it within this window. This list contains the components that represent embedded networks, for which you can choose to expand and plot its components on the map.

All edges of the same network have the same color on the map. For edges that only have a single associated connection, you can open Connection Design as well as its child Connection Hierarchy from respective right-click menu options. Alternatively, edges having multiple associated connections provide you with a **Properties...** menu, which opens the **Managing a Connection** window for that relationship, from which you can open Connection Design or Connection Hierarchy for each connection.

To plot equipment on the map, select the **Manage Custom Themes** icon located within the maps toolbar. From this window, you can choose any combination of Installed Equipment, Under Construction Equipment, and Spare Equipment. You must move your selection(s) from the Available Themes section to the Established Themes section, and click the OK button to open the **Equipment Spec Search** window.

In the **Equipment Spec Search** window, enter your search criteria and select your desired equipment specification to plot all instances of your chosen status(es) on the map. All instances of the equipment with defined locations having valid latitude and longitude coordinates will be plotted on the map, with each status represented by its own, unique-colored icon. You can view the properties of each plotted equipment by clicking its icon, as well as open the **Equipment Inventory** window for the associated location by selecting **Properties...** from the right-click pop-up menu.

Support for Using Your Default Web Browser

MSS application now uses your default web browser when opening web content with an external browser, which includes the following:

- MSS Online Help
- My Links within My Desktop
- Links (Connection Design, Equipment, ASR, EWO, ISR, LSR, PSR, and Work Queue Manager)

The web content opens within Microsoft Edge if a default browser is not configured or there is a problem accessing your default browser. If Microsoft Edge is not installed or is unable to open the content, an error is displayed.

Note:

This feature does not include any External Weblinks that you may have configured within Connection Design, Internal Service Request (ISR), or Product Service Request (PSR). These links are opened directly within the application using an OLE control.

See *MSS Planning Guide* for more information on supported web browsers.

End of Support for Oracle Database 12cR2

With Premier Support for Oracle Database 12cR2 (12.2.0.1) having expired in March 2022, MSS no longer supports Oracle Database 12cR2. Upgrade your Oracle Database to 19c.

See *MSS Planning Guide* and *MSS Installation Guide* for more information on software versions and compatibility.

Enhancements in Patch 33144469 (6.3.1.367)

The following sections describe the enhancements delivered in this patch.

ASR 64 Support

MSS 6.3.1 patch 33144469 supports ASR 64.

Additional Operating System Release Certifications

This release is certified to run the WebLogic application server on Linux 8 and Solaris 11.4, in addition to the previously certified releases that are still under support.

Enhanced Network Grooming Display for Virtual Connections

This release expands the feature previously released for the manual design of a virtual connection, which tracks design changes associated to an order, to the automated design changes made as a result of processing a Network Grooming order containing one or more virtual connections.

After processing the design task for a Network Grooming order, and prior to completing the due date of that same order, you are now able to easily identify which assignments are being removed, and which assignments are being added to the design as a result of the groom processing. This is accomplished via the same manner as already supported via manual connection design, which depict pending and pending disconnect allocations with their own unique line type and color, along with displaying their status, order number and due date within the description.

After completing the due date task of the network grooming order, all associated pending allocations are transitioned to the familiar solid black line and text which represents an In Service allocation. Additionally, all associated pending disconnect allocations are either retained within the design and updated to Disconnected, or removed from the design entirely, dependent upon your setting within the *Inventory Management > Connection Design > Prompt to Remove, Automatically Remove, or Do Not Print Disconnect Lines on DLR* preference.

Enhanced Path Analysis Display for Virtual Connections

This release expands the feature previously released for the manual design of a virtual connection, which tracks design changes associated to an order, to the automated design changes made as a result of selecting an auto-generated path from the **Path Analysis Results** window.

When selecting an auto-generated path within a design issue associated to an open order, each hop representing an allocation to a parent connection will be drawn with the new, pending line type, as well as provide the status, order number, and due date of the assignment, all colored in green to represent the pending status.

After completing the due date task of the order, all pending allocations are transitioned to the familiar solid black line and text which represent an In Service allocation.

Expanded Visualization Support for DWDM Flex Grid Channelization

This release expands the display of flex grid channelization, which was introduced in the prior software patch, to other areas within the application.

The **Network Grooming** window now supports the display of defined flex channel attributes. When grooming from an existing flex channel, the existing Ckt Pos column within the workspace is populated with the center frequency defined for the channel. It will also be combined with a defined channel alias, when configured accordingly. Leveraging the existing Connection Hierarchy view, the grooming workspace displays the center frequency and channel width for all defined flex channels, allowing you to easily identify every flex channel. After making a pending flex channel assignment within the workspace, a new Center Frequency column, located between the existing Ckt Pos and Channel Alias columns, displays the center frequency of the channel. Within the Current view of the workspace, this new column is an editable, dropdown

field, which is pre-populated with all of the available flex channels for the target facility, allowing you to adjust the allocation as necessary.

When assigning condition codes to a flex facility, the **Condition Code Range Assignment** window now displays the Center Frequency From and Center Frequency To, in place of the existing From Position and To Position field labels, respectively. Additionally, both of these columns have been replaced with a dropdown field which is pre-populated with all of the defined flex channels for the facility, allowing you to quickly adjust your channel range. Within the list of channels, the existing Position column now displays the center frequency value in place of the circuit position number, and will also display the channel alias when configured accordingly.

The Reservation module now allows you to more easily reserve flex channels. When searching for channels to add to a Reservation, the **Connection Position Search** window now displays the center frequency for flex channels within the existing Connection Position column, and a new Channel Width column displays the defined channel width. When a flex channel is added to a Reservation, its center frequency is displayed in place of the circuit position, as is its channel width in place of its rate code, allowing you to easily identify the reservation.

Enhancements in Patch 32834810 (6.3.1.333)

The following sections describe the enhancements delivered in this patch.

Support for DWDM Flex Grid Channelization

MSS now provides you the capability to define and manage flexible DWDM grid definitions, as defined within the ITU-T G.694.1 recommendation. The first step to enable this new feature is to define your Flex Grid Profiles, based upon your unique network infrastructure requirements. You may define many different profiles, each defined by a profile name, low and high frequencies (in THz), and appropriate channel spacing (in GHz).

The next step is to enable the new **Flex Grid** checkbox on your chosen CLFI Facility Service Types, and associate one or more flex grid profiles based upon your requirements.

Once a Service Type has been designated as flex grid capable, all new circuits created with this type will default to flex grid channelization, for which you are required to select from the available list of associated flex grid profiles. Once selected, the chosen profile will auto-generate a list of available center frequencies you may choose for each defined channel, and you will select from the available list of defined channel widths, to complete the channel definition. To define a fixed grid circuit for the same Service Type, uncheck the **Flex Grid** checkbox to define the channels as you have done previously.

When defining new or modifying existing flex channels for a facility, the application will prevent you from defining overlapping channels. For example, all center frequencies already occupied within the spectral width of other defined channels of the facility will not be available for selection, and you will be presented with an error when choosing a channel width that overlaps an adjacent channel or defined frequency range for the facility.

You may define flex channels when creating a flex-capable facility, or wait to define them later once you know the required capacity of a provisioned child connection. To do this, increase the Number of Positions field within the **Connection Positions** window, or select the new Add Flex Channel option from the right-click popup menu. A new Delete Flex Channel option is also available here, as well as within Connection Hierarchy to remove any unnecessarily defined channels.

Within Connection Hierarchy and the hierarchical view of an Optical network system, flex channels may be quickly identified by their defined center frequency, computed frequency range, and defined channel width. Additionally, you will also be presented with the available spectral width between defined channels, as well as the defined range for each flex grid facility. All channels will be sorted numerically by center frequency, regardless of when each channel was defined.

To assign a connection to a flex channel, follow the same steps as assigning to a fixed channel. As previously mentioned, the attributes of each defined flex channel are viewable within Connection Hierarchy, and this information is also available when selecting a channel for assignment within the Optical Provisioning Assistant. To easily identify a flex channel assignment, the Facility and Optical Network block types within the DLR now display the center frequency for each assigned channel within the Misc column, and the channel width and spectral range of the channel are written within a system generated design note. The center frequency is also displayed within the schematic design view of the circuit.

New APIs have been created, and existing APIs have been updated to support flex grid channelization. You may now define, maintain, and delete flex channels via the new defineFlexChannels EJB API. The existing createConnectionsNew EJB API now supports the ability to create flex grid facilities, and the existing updateProvisioningInfo EJB API now supports the capability to assign a circuit to a flex channel, as well as remove a circuit from a flex channel.

Changes to the createConnectionsNew API to Create Flex Grid Circuits

[Table 1-1](#) describes the parameters that are added to the Connection entity.

Table 1-1 Connection Entity Parameters

Parameter	Description
FlexGridInd	This field denotes if the circuit is a Flex Grid circuit. True denotes the Flex Grid circuits. Data Type: boolean Default Value: false
FlexGridProfileId	This field describes the Flex Grid Profile Id of the Flex Grid circuit. Data Type: String This field is mandatory if FlexGridInd parameter is set to true .

 **Note:**

The **createConnectionPositions** parameter should be set to **false** for Flex Grid Channels.

Changes for the UpdateProvisioningInfo API to Assign or Unassign Flex Grid Channels

[Table 1-2](#) describes the parameter that is added to the ChannelAssignmentContainer.

Table 1-2 ChannelAssignmentContainer Parameter

Parameter	Description
centreFreq	Center Frequency of the channel to which the circuit has to be assigned to or removed from. This value should be in THz. Data Type: String This field is mandatory for Flex Channels.

Signature for the defineFlexChannels API Call

```
ConnectionAccessManagerRemote.defineFlexChannels(FlexChannelContainer container, User user)
```

Method Parameter Details

FlexChannelContainer (A container object with the Flex Channel definitions to be created, updated, or deleted), User (user object)

Return Object Type from API

com.mslv.ejb.EJBReturn

To obtain the API output, use the following methods in the return object:

- `getReturnObject()`: Returns an array list of successfully processed connections.
- `getMessages()`: Returns a list of error messages in the form of a vector.

Input Parameters for the API

[Table 1-3](#) describes the input parameters for the defineFlexChannels API.

Table 1-3 Input Parameters

Input Parameter	Description
FlexChannelContainer	This parameter contains information about the flex channel(s) (Center Frequency and Channel Width) that has to be created, updated, or deleted. Data Type: com.metasolv.value.resource.FlexChannelContainer Mandatory: Yes
user	Data Type: com.mslv.ejb.User

Input Parameters for FlexChannelContainer

[Table 1-4](#) describes the input parameters for FlexChannelContainer.

Table 1-4 Input Parameters for FlexChannelContainer

Input Parameter	Description
exchangeCarrierId	Connection identifier. Data Type: String Mandatory: Yes
channelSpecs[]	Array list of channel details. Data Type: ArrayList of com.metasolv.value.resource.channelSpecsContainer Mandatory: Yes

Input Parameters for channelSpecsContainer

[Table 1-5](#) describes the input parameters for channelSpecsContainer.

Table 1-5 Input Parameters for channelSpecsContainer

Input Parameter	Description
activityCode	Defines the activity performed by the API. Valid values are: <ul style="list-style-type: none"> A: To add or define a channel for the circuit. D: To delete a channel for the circuit. U: To update a channel for the circuit. Data Type: String Mandatory: Yes

Table 1-5 (Cont.) Input Parameters for channelSpecsContainer

Input Parameter	Description
centerFrequency	Center Frequency of the channel which has to be added, updated, or deleted. This value should be in THz. Data Type: String Mandatory: Yes
channelWidth	Channel Width of the channel which has to be added, updated or deleted. This value should be in GHz. Data Type: String Mandatory: No
channelAlias	Defines the Channel Alias. Set this parameter to MSSNull to clear the Channel Alias during an Update Activity. Data Type: String Maximum Length: 15 Mandatory: No
remarks	Defines the Remarks field. Set this parameter to MSSNull to clear the remarks during an Update Activity. Data Type: String Maximum Length: 60 Mandatory: No
toCenterFrequency	The Center Frequency to which the channel has to be updated to. This value should be in THz. Data Type: String Mandatory: No
toChannelWidth	The Channel Width to which the channel has to be updated to. This value should be in GHz. Data Type: String Mandatory: No

Microsoft Edge replaces Internet Explorer 11 Web Browser

With Microsoft's decision to end-of-life IE 11 in June, 2022, it has been replaced with Microsoft Edge, which now provides support for displaying the JSPs within MSS. A web browser is required for several areas of the application such as ASR, EWO, and Customer Profile.

You will need to install the self-signed certificates on the client machine by navigating to the following URL within your Edge browser:

`https://<hostAddress>:<port>/main/pblistener`

If you receive a security warning, you will need to import the certificate from within the **Content** tab of the Internet Options dialog. Click the **Certificates** button, select the **Trusted Root Certification Authorities** tab, and then click the **Import...** button to import the root certificate for the server. Complete the installation, close all instances of Microsoft Edge, and then start the MSS client.

Enhancements in Patch 32426910 (6.3.1.267)

The following sections describe the enhancements delivered in this patch.

ASR 63 Support

MSS 6.3.1 patch 32426910 supports ASR 63.

Circuit Diversity Support for Virtual Connections

You may now add virtual connections to a Diversity Set, which will track and log design violations for each virtual connection within the set. Similar to the existing behavior for traditional circuits belonging to a diversity set, which are assigned to channelized parent circuits, manually allocating a virtual connection belonging to a diversity set to a parent bandwidth, group, or virtual connection will now display the **Violation Override** window for you to enter data to create and log the design violation against the connection. The validation logic will traverse up the entire parent hierarchy when looking for a common parent which produces the violation.

When opening a virtual connection having one or more diversity violations, you will be presented with the **Design Violations** window, and may choose whether or not to view them prior to opening the **Connection Design** window.

To remove a diversity violation from a virtual connection, remove the parent allocation causing the violation from the design, and the violation will be removed from the log. To more easily identify the parent connection causing the diversity violation, a new Riding Circuit ID column is now available within the **Design Violations Search** window, located just after the existing Circuit ID column.

Diversity Sets having a Diversity Set Type equal to Diversity no longer restrict you to only being able to add two circuits, therefore allowing you to define sets containing many individual circuits. Now that many circuits are allowed within an individual set, a new Diverse Circuit List dropdown field is now available within the **Violation Override** window, which lists all other circuits within the same diversity set assigned to the same parent.

Display Pending, Pending Disconnect, and Disconnected Assignments within the Schematic Design of a Virtual Connection

When making manual design changes to a virtual connection via an order, you are now able to easily distinguish between the modified and static assignments within the design. All modified assignments now provide an enhanced label displaying the assignment status, due date, and order number.

Additionally, assignments to new parent connections are now colored in green, and have their own, unique line type. While assignments to existing parent connections were previously removed from the canvas when removing an assignment, they are now retained within the schematic design until you choose to remove them. During the ordering cycle, these removed assignments are now displayed in red and have their own unique line type, in addition to displaying the order information previously mentioned. Assignments with a Pending status that have never been In Service will be removed from the canvas when the assignment is removed.

When completing the due date task of an order, all of the green pending assignments associated to that order will be transitioned to the familiar black text and solid line within the associated design issue. The transitioning of all associated pending disconnect assignments is now controlled via the existing Inventory Management > Connection Design > Prompt to Remove, Automatically Remove, or Do Not Print Disconnect Lines on DLR preference. When your preference is set to Prompt to Remove, all pending disconnect assignments are updated to have a darker red color, and display their Disconnected status. When viewing a schematic design containing one or more disconnected assignments, you will be prompted to either remove or keep the disconnected assignments on the design; once the design is saved, disconnected assignments which you have removed from the design may not be added back.

When your preference is set to automatically remove the pending disconnect assignments, they will be removed from the schematic design of the appropriate design issue for the circuit. Please note that when processing a disconnect activity for a virtual circuit, all assignments will be retained within the schematic design and display as disconnected, regardless of the preference value. The Do Not Print Disconnect lines option is not relevant to virtual schematic designs, so this option will default to “prompt to remove”.

When disconnecting a virtual connection through the Group Disconnect menu option within Service Request Connections, or via the System Task Server via the automated GRPDISC task, all parent assignments for the virtual connection will be marked as pending disconnect, and display as described above.

Support UNIT Expansion from 6 to 25 Characters in DLR-ISI 14 Guidelines

In support of the updated DLR-ISI 14 guidelines, the application now supports up to twenty five characters within the UNIT field, up from the previous six characters. When displayed within the DLR, this information will continue to display within the same UNIT / CHANNEL column, and will span multiple lines within the block as necessary to display the entire contents.

Enhanced Reject Task Auditing

When rejecting a task either within the application or via the API, a new auto-generated service request note provides additional information allowing you to easily identify which task was rejected, and which task it was rejected from (GUI only). This information, along with the existing notes already available, will assist you to determine this history of the service order.

The new auto-generated note is in the form of: <INITIATOR TASK> TASK REJECTED TO <SELECTED TASK> TASK when initiated from the GUI, and REJECTED TO <TASK TYPE> TASK when initiated via the API. When initiated via the GUI, and the source and target tasks of the rejections are associated to different orders, the note will also include the order information, such as the following:

```
ORDER <123> TASK <ABC> REJECTED TO ORDER <789> TASK <XYZ>
```

All task notes may be viewed within the **Service Request Notes** window for the associated order.

Enhanced Work Queue - Search Criteria Usability

The Task Types field within the **Work Queue - Search Criteria** window has been expanded to allow you to enter more task types, which provides you more control of the data displayed within your Work Queue Manager. While four rows of task types are now visible at any given time, a vertical scrollbar allows you to enter and view even more data.

New Preference to Prevent Duplicates When Adding a Network Element to a Network System

A new Prevent Duplicate Network Element Names preference is now available within Inventory Management > Network Systems, which will prevent you from creating a new network element having the same name as an existing element.

When enabled, this preference triggers logic to validate that the name of a new element being created within the Managing a Component/Element window within Network Systems does not already exist, regardless of the value entered within the Number field.

If the named element already exists, you will be presented with a new message asking if you would like to bring the existing element into the network. Choosing yes automatically triggers the Browse... button to open the existing Component/Element Search window, which automatically populates the Name, Network Element ID, Network Location, and Element Type fields, when those value are populated within the calling window. When the Element Type is populated, the window will automatically trigger the search and display all matching results for you to choose from.

You may then select a result, which will pass it back to the Managing a Component/Element window, and share the existing element into the network system, rather than creating a brand new element having the same name.

Enhancements in Patch 31655196 (6.3.1.223)

The following sections describe the enhancements delivered in this patch.

Only Display Priority Circuits within Connection Hierarchy

You may now more quickly identify circuits having an associated Circuit Priority Code within Connection Hierarchy. Previously, while priority circuits were easily identified by

their respective images representing their priority level, along with their parent hierarchy's priority flag, they were surrounded by all non-priority circuits within the same hierarchy. Now, you may quickly configure Connection Hierarchy to only display priority circuits, thus filtering out all other circuits that do not have an associated priority code. To do this, right-click and select the new **View > Only Priority Circuits** menu option. You can return the hierarchy to normal by selecting the menu option again to disable it.

When enabled, this new menu will refresh the view to only display circuits having an associated priority code, and filter out all other circuits, including the channels each non-priority circuit is assigned to.

 **Note:**

Non-priority parent circuits containing one or more priority circuits within their child hierarchy will continue to display within the hierarchy, and are identified by the circuit priority flag. These non-priority circuits are kept within the hierarchy so that you may navigate down to their priority children.

Query by All Connection Types within an Engineering Work Order

When retrieving connections for change or disconnect within an Engineering Work Order, you are now able to search across all Connections Types simultaneously. To do so, select any combination of the following checkboxes within the **Select Circuit for Change** or **Select Circuit for Disconnect** windows, along with any other applicable criteria:

- Facility
- Bandwidth
- Special
- Virtual

Please note that these checkboxes represent the types of connections that will be returned by your query, and not the Connection Format for those circuits. For example, to only retrieve bandwidth connections having a common language serial format, you should only select the **Bandwidth** checkbox, not the **Special** checkbox, along with populating the Connection Format with CLS format (structured).

Expanded Equipment Node Address

The Node Address for an equipment port, which may be configured to store the concatenated address information for an equipment hierarchy, now supports up to forty-eight characters, up from the previous limit of thirty characters. This expansion allows you to provide additional characters within one or more levels of the concatenated hierarchy, with less risk of the data being truncated.

The extended Node Addresses will display within each level of Equipment Hierarchy, as well as within the other areas of the application that display this information, such as the following windows: Hard-wired Cross-connect, Equipment Replacement

Assistant – Equipment Mapping, Equipment Search, and Reservation. The extended node address will also display on the CLR/DLR Design within physical Connection Design.

Enhanced Task Handling During Order Cancellation API

This enhancement extends the existing capability to streamline the order cancellation process already available within the GUI, to the API. The API now supports the ability to automatically re-open a completed task, or automatically bypass a task that has never been in a ready state.

These new API features are enabled by the same two checkboxes available within both the **Provisioning Plan** and **Task Behavior** windows. The **Reopen on Cancel** checkbox, along with the **reopenTaskIndicator** parameter for the API, control the re-opening of tasks, and the **Bypass on Cancel** checkbox controls whether or not a task that has never been in a ready state will automatically be bypassed/closed upon order cancellation.

Note:

- The **Reopen on Cancel** checkbox is not applicable to pre-order plans.
- This release extends these task behaviors to now support tasks which are automatically assigned to an Engineering Work Order (EWO).

Channel Edits now Available within Network Systems

A new **Edit** button is now available within the **Circuit Properties** window, which is accessed from the **Managing a Connection** window within an Optical network system, as well as the **Properties...** menu from within a SONET/SDH network. This button opens the **Channel Edits** window which was previously enhanced to support the incremental assignment of channel aliases along with the existing remarks capability.

Enhancements in Patch 31459266 (6.3.1.192)

The following sections describe the enhancements delivered in this patch.

ASR 62 Support

MSS 6.3.1 patch 31459266 supports ASR 62.

Network Rehome of Group Connections

The network rehome capability available within Network Systems now allows you to rehome group connections and their associated group members. To rehome a group connection from one component to another, simply select Rehome From and Rehome

To... from the popup menus from your source and target components, respectively, and select the desired group connection within the Network Rehome window just as you would for a physical connection and click OK.

The application will then associate the selected group connection, along with its group members, to the existing relationship between the static endpoint and the new target component, or create a new relationship if one does not already exist. When rehomeing the last connection(s) associated to the existing relationship to a new one, the existing relationship will be removed from the network canvas.

The associated component and location information for all rehomed connections will be updated accordingly, and those in CLF format will have their Connection IDs updated and alphabetized to reflect their new endpoint. Additionally, all child connections will have new design issues created to reflect the network change, and those which previously terminated at the source component will be updated to terminate at the new target component.

Enhanced Connection Design/Hierarchy Searches

The Connection Design and Connection Hierarchy search windows, as well as the Connection Position Search window when searching for channels to add to a Reservation, now provide you the ability to query for connections by the following attributes, which are managed within the General tab of the Properties page within Connection Design:

- Official Company Use
- Protected Connection
- Host/Remote
- Allow Lower Rates

You may query across all connection types by these attributes by selecting the corresponding check boxes which are now available within the primary search criteria of both windows. While you may select all or none of these new check boxes while also selecting multiple connection types to include in your results, the selected check boxes will only impact the connection types they are applicable to, and therefore not impact the retrieval of connections not having those attributes.

For example, when selecting the Host/Remote check box along with all connection types, the query will only consider this attribute for facility connections and limit the result set to only those facilities having this property enabled; all other connection types will ignore this attribute as it is not applicable to them.

Enhanced Equipment Spec Search

You are now able to search by model number within the **Equipment Spec Search** window by entering your criteria within the new Model Number field. Similar to existing criteria, this new field supports wildcard searches, and the matching data will be displayed within the new Model Nbr column within the result set.

Improved Work Queues Management

The **Work Queues** window in which you define and manage your organization's work queues now provides dynamic filter criteria, enabling you to find the desired work queue(s) much quicker. A new (Parent) Work Queue field allows you to filter the list of work queues to only list those having matching data within the Work Queue or Parent fields, and a new Owner field allows you to filter the list by Owner.

Both of these fields filter the result set as you type, may be populated at the same time, and support multiple wildcard (%) characters. As you type, a new label will update dynamically to provide you the number of rows displayed as well as the number of filtered rows.

Enhanced Add Soft Intermediate Connection Process

The process for adding a soft intermediate connection to a virtual connection's schematic design within Connection Design now supports the recently-added feature which enables you to define a network component as an Ingress/Egress Node.

When initiating the Add Soft Intermediate Connection process within Connection Design from a network component which is designated as an Ingress/Egress Node, the **Available Nodes** window now displays the other Ingress/Egress nodes within the same network system by default. You may uncheck the **Only Display Ingress/Egress Nodes** check box to display all components within the network system, and you may quickly identify whether or not the listed component is an ingress/egress node by viewing the new Ingress/Egress Node column which replaces the Internetworking column. If the source component has its Network custom attribute populated, only ingress/egress nodes having the same custom attribute value will display.

If you would like to select a destination component that is not currently listed within the window, you may still use the Search... button to find your desired component. When triggering the Add Soft Intermediate Connection process from a network component whose **Ingress/Egress Node** check box is not enabled, the **Available Nodes** window will continue to work as before.

Revamped UI within Network Templates and Network Systems

The **Network Template Maintenance** and **Network System Design** windows have been updated with a color scheme more consistent with the rest of the application. Within the navigation panels of each window, the hierarchical views now have a white background similar to Equipment Inventory and Connection Hierarchy, and the search views now present the data in a more visually-pleasing manner in line with other result sets within the application.

Enhanced Task Handling During Order Cancellation

You are now able to further streamline the order cancellation process by configuring how the application handles particular tasks. To minimize the risk of having to clean up a canceled order, you are now able to configure tasks within a particular Provisioning Plan or Task Behavior to automatically re-open when an order is canceled. Enabling this feature will automatically select the **ReOpen** check box for the task within the Service Request Supplement – Cancel window so that the user is no longer required to remember to select this task for reopening.

Tasks within a Provisioning Plan and Task Behavior may also be configured so that they are automatically bypassed during order cancellation if that task has never been in a ready status. Enabling this feature for a task will automatically mark it as not required within the Service Request Supplement – Cancel window if it has never been in a ready state, and thus never been worked. This action will automatically close the task so that the assigned user is no longer required to analyze whether or not the task must be re-worked, thus improving user efficiency.

These new features are enabled by the selection of two new check boxes now available within both the **Provisioning Plan** and **Task Behavior** windows. The new **Reopen on Cancel** check box controls the re-opening of tasks, and the new **Bypass on Cancel** check box controls whether or not a task that has never been in a ready state will automatically be bypassed upon order cancellation.

 **Note:**

These task behaviors are currently only supported within the GUI. Additionally it is not applicable to pre-order plans and for tasks which are automatically assigned to an EWO.

Define a Custom Channel Number/Alias

You are now able to define a custom channel number/alias for each channel on a channelized connection, which supports up to fifteen alphanumeric characters. When creating a new facility connection directly from Connection Design or Connection Hierarchy, the **Connection Identification** window now provides a new Channel Alias column after the existing Remarks column within the connection positions list. This same column is now also available within the **Connection Positions** window when editing an existing connection. To accommodate the new Channel Alias column, the overall width of both the **Connection Identification** and **Connection Positions** windows have been widened.

Additionally, a new Override Connection Position w/ Channel Alias check box is now available within both of the previously-mentioned windows, which allows you to effectively replace the default numeric channel position with the alias you define. When overridden, the alias will display in place of the numeric value within the application. When the new check box is not selected, the application will display both the default numeric value of the connection position and the newly-defined alias within the application. This information is displayed within separate columns/fields within some windows, while it is displayed in line with a '/' delimiter within other windows such as Connection Hierarchy.

When configured to override the channel number, the channel alias will replace the default channel number within the UNIT/CHANNEL column within the DLR. Because this column only supports up to five characters per DLR-ISI guidelines, the channel alias may span up to three rows within the DLR to display the entire contents. When configured not to override the channel number, the defined alias will display within the MISC column.

Because this new capability may affect the information displayed on a DLR, the **Connection Positions** window now triggers a DLR reconcile to update all impacted DLRs, when applicable.

While you may enter each alias individually, you may also define them by range via a new Edit button, which was previously only available within the **Connection Positions** window. This button will open the Channel Edits window, previously named Remarks Edits, which has been enhanced to support the incremental assignment of channel aliases along with the existing remarks capability. When defined, this window will also display the channel alias next to the connection positions so that they may be easily identified.

Additional Software Release Certification

With this release, MetaSolv Solution is now certified to run the client and application server on Windows Server 2019, in addition to Windows Servers 2016 and 2012 R2.

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Oracle Communications MetaSolv Solution What's New, Release 6.3.1
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