Oracle Utilities Network Management System

Release Notes

Release 2.4.0.1.0

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Oracle Utilities Network Management System Release Notes

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Contents

Preface

These release notes provide an overview of the features in Oracle Utilities Network Management System Version 2.4.0.1.0.

This preface contains these topics:

- Audience
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Audience

Oracle Utilities Network Management System User's Guide is intended for anyone installing or using Oracle Utilities Network Management System Version 2.4.0.1.0.

Related Documents

For more information, see these Oracle documents:

- *Oracle Utilities Network Management System Adapters Guide*

- *Oracle Utilities Network Management System Configuration Guide*

- *Oracle Utilities Network Management System Quick Install Guide*

- *Oracle Utilities Network Management System Installation Guide*

- *Oracle Utilities Network Management System Licensing Information User's Guide*

- *Oracle Utilities Network Management System User's Guide*

- *Oracle Utilities Network Management System Operations Mobile Application Installation and Deployment Guide*

- *Oracle Utilities Network Management System OMS for Water User's Guide*

- *Oracle Utilities Network Management System Advanced Distribution Management System Implementation Guide*

Chapter 1

Release Notes

Known Issues in Version 2.4.0.1.0

This section describes known issues in Oracle Utilities Network Management System Version 2.4.0.1.0.

- The Solaris binary for the Generic IBM MQ Adapter (MDSGW) will not be available on the initial v2.4.0.1.0 release, but is planned for the first patch bundle (NMS 2.4.0.1.1). This is due to an issue with linking to the IBM MQ C++ libraries on Solaris. The MDSGW binaries for Linux and AIX will be available with NMS 2.4.0.1.0.

Enhancements in Version 2.4.0.1.0

New and enhanced features in Oracle Utilities Network Management System Version 2.4.0.1.0.

Distributed Energy Resource Management System (DERMS)

Overload Relief to use New Optimization Engine

This feature enhances the overload relief objective to use a new optimization engine that can consider operational pricing of DER. Projects will need to make changes to both the model workbook and power flow workbook to add support for operational pricing.

Distribution Management System (DMS)

Conductor Impedance Mismatch Acknowledgment Options

The Conductor Impedance Mismatch tool has been modified to have an additional column called "Status" in the impedance mismatch table. A conductor impedance mismatch reported in the tool can be in one of the following Statuses at any point of time.

- New

- Confirmed Correct

- Confirmed Error

When mismatches are first identified, the status will be NEW. The next time the report is ran, if the same conductor is present, the status will remain what was already there (New, Confirmed Correct or Confirmed Error). A popup menu with options Confirmed Correct, Confirmed Error, Unconfirmed has been provided to acknowledge the mismatches. The user can confirm that a conductor impedance mismatch is correct by right clicking on a row and selecting "Confirmed Correct". The user can confirm that a conductor impedance mismatch is not correct by right clicking on a row and selecting "Confirmed Error." The user can unconfirm a conductor impedance mismatch by right clicking on a row and selecting "Unconfirmed".

Fault Location, Isolation & Service Restoration (FLISR)

Single Phase Operation

This feature adds the ability for FLISR to restore non 3-phase faults using 3-phase or single-phase switching.

If configured for single-phase switching, the first step for restoration will be to isolate the faulted zone for the faulted phases. The next step will be to create a parallel using a feeder tie switch for the un-faulted phases. The last step will be to break the parallel by opening the un-faulted phases at the isolation switch FLISR operated. This mode will avoid causing a momentary outage for some customers

If configured for three-phase switching, FLISR will open all three phases on a switch to isolate the fault, then restore using a tie-switch. This mode will cause a momentary outage for some customers, but less switching actions will be necessary and creating a parallel will not be necessary.

Restore Feeder on Loss of Breaker Voltage

This feature adds the ability for FLISR to be triggered based on a loss of voltage in the situation where we do not have lock-out indication. In the case that we do not have fault indication, FLISR makes the assumption that the fault is upstream of the furthest upstream device reporting zero voltage.

Feeder Load Management (FLM)

Store Generation Results by Various Categories

FLM can now report on DER output by configurable containers. A DER asset can belong to multiple containers. Examples of containers are solar, large, dispatchable.

Add New Rules for Triggering FLM Forecasts

This feature adds the ability to configure multiple custom FLM forecasting modes. Each feeder can be configured to use any of the configured custom forecasting modes. Each custom forecasting mode can be configured to forecast out X number of hours, Y number of forecast intervals per hour, and Z number of daily peaks. Each custom forecasting mode can define what triggers FLM to forecast. FLM forecasts can be configure to trigger based on:

- Feeder head load change by more than X kW.

- After X number of hours.

- If a topology change has occurred on a specific device class.

- If regulation or capacitor settings have been changed for a specific device class.

Load Shed (LS)

Automatic Execution of Load Shed Steps

This feature adds the ability to automatically execute load shed blocks that are controllable by SCADA. The SCADA load shed steps will be executed in parallel, and the plan will not abort if a step fails. The restoration blocks will not have the ability to auto-execute. A load shed plan can contain blocks that are manual and SCADA. In this case, only the SCADA load shed blocks will be automatically executed.

Operations Mobile Application (OMA)

Allow OMA Users to be Crew Members in NMS

OMA users now can be associated to an existing crew and will display in the Personnel list for the crew. A new column indicates if they are an OMA crew member.

Allow OMA Users to Set/Change Crew Details (Including Crew Type)

This feature allows an OMA user to edit the Crew Makeup details of the crew that they are associated with, such as the contact person, crew type, control zone, etc.

Highlight Selected Feeders in OMA

This feature allows OMA users to select a device or conductor on a feeder and highlight that feeder. This will result in the conductors, devices, etc. on other feeders being "dimmed" so that the objects and extent of the selected feeder stand out. Additional feeders can be incrementally added or removed to the highlighted feeder set.

Ability to Manually Set Work Queues from OMA

This feature allows an OMA user to manually add or remove work queues associated with an event to which they are assigned/associated.

Ability to Submit Multiple Assets in a Single Damage Assessment

Previously a damage assessment could only include one modeled device. This feature adds the ability for a user to specify multiple modeled devices/assets in a single damage assessment report.

Event Customer List and Attributes in OMA

This feature adds the ability for an OMA user to see the full list of customers impacted by an event that is in their task list. The same customer attributes (name, address, telephone, etc.) that is available in the Web Workspace Customer List is available in OMA.

Object Selection: Configurable Radius of Objects Selected Automatically

Previously you had to draw a bounding circle or rectangle to select one or more objects in the OMA map. This feature adds the ability to simply select a point and all objects in a configurable radius will be selected, making it easier to just select the desired device or object.

Allow OMA to Suspend a Task

This feature adds the ability for an OMA user to indicate that their current task event is suspended, meaning that it is still assigned to them but in a suspended state while they are pulled off to do something more urgent and they expect to return to it. This is the same suspended status supported from the main Web Workspace application.

Add Verification Steps for Work Going to OMA

This feature adds greater visibility into the status of events assigned to an OMA crew. When an event is assigned to an OMA crew, the status goes to SNT/Sent rather than ASN/Assigned. Once received by the OMA user's device, the status changes to RCVD/Received. If the OMA user selects an acknowledgment button for the task or expands it to view it, then the status of the event changes to CRD/Crew Read. This provides better information to an operator or dispatcher, since the RCVD indicates that the OMA user's device received it and was not offline, and then CRD indicates that the OMA user has actually seen the assigned event/task. These default statuses are configurable and the regular ASN/Assigned status can still be used for work going to OMA crews if preferred.

Crew Emergency Button for OMA

This feature adds an Emergency button to the OMA device, which results in a System Alarm and optional Crew Emergency popup within Web Workspace. When the Emergency button is selected on the OMA device, the user has a configurable number of seconds to cancel the action before the Emergency alarm is sent. Once sent, the OMA user has to enter their password to cancel the alarm. Otherwise, the alarm can be silenced and cleared as usual within Web Workspace.

OMA Heartbeat to/from NMS to Verify Connection Status

This feature adds a heartbeat-type periodic check between OMA and the NMS server. If the OMA device goes offline, or the WebLogic server is down, or the NMS server is down, the OMA device will show as offline and the OMA crew will show as offline within Web Workspace.

Ability to Mark Progress of Assessment

This feature adds the ability for an OMA user to draw a bounding rectangle or polygon around a section of the distribution network and mark it as assessed. Assessed network segments can show as highlighted in the OMA map or Web Workspace viewer via Hide/Display, and a calculated "% assessed" of a feeder can be shown based on the percentage of conductor lengths that have been marked as assessed.

Allow OMA to Change an Outage to a Non-Outage

This feature adds an option in the task Event Details for an OMA user to indicate that an outage is actually a non-outage, or vice-versa. This is helpful when a customer reports a loss of power that turns out to be an internal circuit breaker/fuse within their premise, or damage to a pole that doesn't result in loss of power. The original call details are preserved, but the event type and clues in the Work Agenda change to indicate that it is a non-outage with 0 customers affected.

Certain Crew Types Now Able to be En Route/Onsite at Multiple Events in OMA

This feature adds the option for a configured crew type or types to be put en route or onsite to more than one event at once. This is helpful when a utility has a guide/bird dog crew that is coordinating multiple contractor or mutual aid crews in the field that are not represented in NMS. The guide crew is the contact between these crews and the dispatcher or operator, and thus needs to be able to be shown at multiple places at once, as they represent crews at multiple locations. This feature adds the support within the OMA task list and OMA map for this functionality.

Add Confirm Service/Secondary Outages to OMA

This feature adds the ability for an OMA user to indicate that there is a confirmed service or secondary outage below the transformer level, affecting a subset of the customers on a transformer, rather than the entire transformer being out with all customers losing power.

Enable/Disable OMA Self-Assign Task by Control Zone

OMA provides an option for an OMA user to "self-assign" work from the OMA map rather than relying on it being assigned to them from Web Workspace. This feature adds the ability to restrict that option by task control zone. This is helpful if self-assign should not be permitted in urban areas, but might be allowed for rural areas where crews may be operating more independently to cover a region.

Auto-Assign Event Created by Device Operation Back to OMA User

This feature adds an option that when an OMA user operates a device that does not have a currently predicted outage and thus will create a new event, that the new event should automatically be assigned back to the OMA user. This avoids the need for a control room operator or dispatcher to deal with the new event and perhaps mistakenly assign it to a different crew.

Ability to Associate Attachments to NMS Events via OMA

This feature adds the ability for an OMA user to attach a file such as a photo or document at the NMS event level, rather than only as part of a damage assessment. It also adds the ability for an OMA user to "attach" a link at the event or damage assessment level, for example to link to a video on a shared drive or website.

Power Flow (PF)

Power Flow to Calculate and Show Neutral Currents

This feature adds the ability for power flow to calculate neutral currents based on the phase currents. Neutral currents are visible in the balloon dialog and in FLM feeder details. A new violation type has been added so that NMS will identify neutral current overloads. The power flow workbook has been modified to include attributes for seasonal neutral current limits.

SCADA Integration

MultiSpeak Adapter to Pass Safety Doc Information with Tag Requests

This feature allows information from a safety document to be added to the conditions associated with the safety document so that MultiSpeak Adapter can forward this information to SCADA system.

Control Tool Action to Inhibit all Associated SCADA Points

This feature adds the ability to inhibit all associated SCADA points for a device. The inhibit all command has been added to the Operate Menu of the Control Tool.

Add Comments Field to SCADA Summary Screen

This feature adds a configurable rule to require comments from a user when they inhibit, or disables a point for power flow. If a user inhibits multiple points, then the comment will be applied to all points that were inhibited. A user also has the ability to change the comment. When inhibits and disable for power flow conditions are removed from a point, the comments will automatically be cleared.

Suggested Switching (SS)

Load Shed Wizard

A wizard has been added to the load shed application that will automatically select load groups based on the criteria the operator specifies. The operator can specify how much load shed is desired, if shedding of critical customers are allowed, if the feeder must be in a nominal state, how much DER output can be allowed to be disconnected, and if manual/SCADA groups should be considered. The criteria that is displayed to the operator is configurable.

Multi-Tiered Suggested Switching

This feature adds a relieve violations objective to the suggested switching wizard that will relieve violations at the lowest possible cost, either by dispatching DER, or by reconfiguring the network to balance load across multiple feeders (multi-tiered switching). The number of tiers that suggested switching will consider is configurable.

Web Switching (WSW)

Show All Crew Status Updates in Switching Crews List

This feature allows visibility into the general crew status of crews that display in a switching sheet's crew list, including events associated to that crew that are not events associated to the switching sheet. Previously only events associated to the switching sheet impacted the displayed crew status, which meant that an operator couldn't tell if a crew associated to the switching sheet was still onsite at another event.

Add Auto-Refresh Option to Safety Document and Switching Sheet Lists

This feature adds an option to allow the Safety Document list and Switching Sheet list to dynamically refresh when a Safety Document or Switching Sheet has changed, respectively. For example, a change in status, a change in description, and so on.

Ability to Indicate that the Crew is Ready for an Instruction (OMA/NMS)

This feature allows an OMA crew associated to switching steps (or an operator updating a switching sheet) to indicate that the crew is in place and ready for steps to be instructed. This provides greater visibility to a switching operator, especially if they have a large switch plan involving multiple crews, to track when different crews are ready for steps to be instructed. The time of the "Ready for Instruct" is captured, and the ready for instruct status can be canceled if the crew is no longer ready.

Web Trouble (WT)

NMS Alert If a Priority Assignment Not Acknowledged Within Configurable Time

This feature allows an option for a notify alarm to be triggered if an event with one or more configured "priority" trouble codes is assigned to a crew but is not acknowledged by the crew or the crew doesn't go en route within a configurable time period.

Certain Crew Types Able to be En Route/Onsite at Multiple Events

This feature adds the option for a configured crew type or types to be put en route or onsite to more than one event at once. This is helpful when a utility has a guide/bird dog crew that is coordinating multiple contractor or mutual aid crews in the field that are not represented in NMS. The guide crew is the contact between these crews and the dispatcher or operator, and thus needs to be able to be shown at multiple places at once, as they represent crews at multiple locations. This feature adds the support within the Web Workspace Viewer, Crew Info, Crew List, etc. for this functionality.

Automatically Associate FLA to Confirmed Outages

Confirmed device outages, confirmed momentary outages, and Fault Location Analysis events on the same device that start within a configurable time from each other will be automatically associated with each other. A new association type of Automatic (indicated by "A" in the Rel Type column in Work Agenda) will be used.

Ability to Set Work Queues Based on Damage Assessment Details

This feature allows the option to configure certain device types or asset types in a damage assessment report to automatically set a work queue for the event. For example, a damage report that includes trees to clear and conductor to be replaced could automatically set a Tree work queue and a Wire work queue for the event associated to the damage assessment.

Web Workspace (WW)

Ability to Specify Viewer to Target from a D-SCADA System

This feature allows the Viewer focus message that can be sent from supported D-SCADA systems to specify which NMS Viewer should be focused on the device or point selected in the D-SCADA system. This provides more flexibility in navigating with context between displays in the two systems, when necessary.

Improve Substation and Analog Value Displays

This feature allows an administration user type to configure what SCADA point values should be displayed in the viewer. The user can select what points to display from SCADA Summary. The positioning, rotation, text size, and displaying the leader lines to the device is also configurable. The values, positioning, rotation, text size, and leader line configurations are saved globally and affects the displays for all users.

Support Saving Preferences to Update Site-Wide Setting

This feature allows an administrative-type user to save user preferences that will update the default configuration settings for all users. New sorts or filters will add to the list of sorts and filters that other users have, and other supported user preferences such as column order, width, and visibility; default sort and filter for tables; and window size and placement will take effect for other users upon their next login unless the user has already overridden the defaults with their own saved preferences.

Option to View Note History for Device

This feature allows a user to view the history of any edits done to Notes that are associated with devices or other objects in the Viewer. The user ID, time stamp, and previous note text can be viewed.

Ability to Associate Attachments to NMS Events

This feature adds the ability for an NMS user to attach a file such as a photo or document, or attach a link, at the NMS event level. Attachments were previously only supported as part of a damage assessment or switching sheet.

Upgrading to Version 2.4.0.1.0

The upgrade path to Oracle Utilities Network Management System V2.4.0.1.0 is a complete delivery of new binaries, libraries, and configuration files. There are identified migrations based upon your previous release of Oracle Utilities Network Management System, if any.

For details on supported platforms, refer to the installation documentation shipped with Oracle Utilities Network Management System V2.4.0.1.0.

Deprecated Platforms

The following platforms are still supported but are planned to be deprecated in the next NMS major release:

- Microsoft Windows 7

- Microsoft Windows 8

Supported Platforms

For details regarding supported platforms, please see:

Oracle Utilities Network Management System Licensing Information User Manual