Oracle Utilities Network Management System

Release Notes

Release 1.11.0

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Oracle Utilities Network Management System Release Notes

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Release Notes

Preface

These release notes provide an overview of the known issues in Oracle Utilities Network Management System Release 1.11.0.

This preface contains these topics:

- **Audience**
- **Related Documents**
- **Conventions**

Audience

Oracle Utilities Network Management System Release Notes is intended for anyone installing or using Oracle Utilities Network Management System Release 1.11.0.

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 User's Guide

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.

Convention	Meaning
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Release Notes

These release notes contain the following sections:

- **Known Issues in Version 1.11.0**
- **Enhancements in Version 1.11.0**
- **Supported Integrations in Version 1.11.0**
- **Integrations Deprecated in Version 1.11.0**
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- **Items Deprecated in Version 1.11.0**
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Known Issues in Version 1.11.0

This section describes known issues in Oracle Utilities Network Management System (NMS) Version 1.11.0.

There are no significant known issues at the time of this document.

Enhancements in Version 1.11.0

This section describes new and enhanced features in NMS Version 1.11.0.

Architecture Enhancements

Support BI Publisher Serving Multiple Environments

The NMS use of BI Publisher in conjunction with Web Switching has been modified to enable one server to more readily support multiple environments. This will enable the use of a single server to support Production, Test, Training, and other environments.

Support BI Publisher 11g and Migrate Existing Reports

Previously NMS supported BI Publisher 10g both for Web Switching Management and for standard management reports out of the OUBI database. Instead, NMS now supports BI Publisher 11g and NMS standard reports are migrated to be based on 11g.

Business Intelligence-NMS Enhancements

Modify BI Switching Extracts to be Based on Web Switching Management

The previous BI extracts related to NMS Switching were extracted from the Motif-based Switching Management tables. The extracts are modified to extract from the Web Switching Management tables.

Fault Location, Isolation, and Service Restoration (FLISR) Enhancements

Support Use of Power Flow with FLISR

The Fault Location, Isolation, and Service Restoration (FLISR) module previously only supported calculated kVA analysis to determine viable solutions. An option is now provided that will leverage power flow analysis in solution evaluations. This option requires that the NMS Power Flow module is implemented and running.

Feeder Load Management (FLM) Enhancements

Improve Use of Graphical Displays in Feeder Load Management

This feature makes the following improvements to the Graphical View tab on the Feeder Load Management details window:

- Support for graph of multiple feeders at one time.
- Ability to see the numbers for the different types of violations instead of just a total number.
- Filtering based on violation type and/or severity.
- Navigation to the detailed violations table.

Enhance Display of FLM Violations in Tabular Format

The Device Violations and Warnings pane was not efficient for long lists of violations. This feature enhances the Feeder Load Management user interface to make an entire window available for the violations table.

The following changes are made to the existing FLM Tool Tabular View:

1. A new window containing all details for the selected load overview row is added. All of the details panes are moved to this window.
2. Unselected load overview rows are still displayed in their original window.
3. The new violations details window is dynamically updated when the selection changes in the load overview table.
4. New Value, Percentage, and Limit columns are added to violations table
5. The mitigation column is removed from the violations table

Graphical User Interface (GUI) Enhancements

Crew Actions Product Configuration Changes

The product configuration of the Crew Actions window is modified to include more versatile filters and additional toolbar options.

Event Log Product Configuration Changes

The product configuration of the Event Log window is modified to include better sorting and filtering as well as executing the search if a new event number is entered and Return is pressed.

Oracle Fusion Look-and-Feel Adoption

NMS has been made more consistent with the other Oracle Utilities products that incorporate the Oracle Fusion look-and-feel. Changes include standard Options, Help, and Logout menus in the upper right, Oracle Fusion coloring schemes, a shared row for menus and toolbar items, down arrow indicators on menus, and user-configurable options to do complete row coloring, only cell coloring, or no coloring for tables and icons.

Service Alert Product Configuration Changes

The product configuration of the Service Alert window is modified to include more toolbars, clearer labels/text strings, a more natural layout including resizing of dialogs to avoid scrolling, support for multi-select in certain windows to increase efficiency, and other ease-of-use items..

Trouble Info Product Configuration Changes

The product configuration of the Trouble Info window is modified to include better sorting and filtering, right-click context menus, changes of "AMR" to "AMI", more toolbars, and a standard Refresh option in all views to update the data.

Storm Management Product Configuration Changes

The ERT Override options for ERT tiering and ERT delays were added to the product configuration of Storm Management. ERT tiers allows different ERT values to be set based on criteria such as the range of customers out, to reflect the fact that larger outages are prioritized for faster restoration. ERT delay sets a standard amount of time to be added to the event start time as the ERT for an area, rather than a single ERT for all events in the area. The ERT delay can also make user of tiers.

In addition, the Storm Management icons were modified to be more consistent with the rest of NMS and the redundant crew-related toolbar options were removed from the top of the window, only being retained in the actual Crew Information panel.

Viewer Product Configuration Changes

The product configuration of the Viewer window is modified to make some of the options and labeling more intuitive and also modify the Search dialog to default to "Wildcard After" rather than "Exact Match" for searches.

Web Call Entry Product Configuration Changes

The product configuration of the Web Call Entry window is modified to include the option of appointment information when submitting a call. The appointment can be for a specific time range or a "Call Before" option with the amount of lead time to call the customer before meeting them at home.

Work Agenda Product Configuration Changes

The product configuration of the Work Agenda window is modified to include columns for displaying appointment information, change references of "AMR" to "AMI", and move display of the Operations Event Note for a selected row from a field below the Work Agenda table to a popup "balloon" dialog with the note.

Interfaces Enhancements

Improve Handling of AMI Restoration Power-Up Messages

Previously NMS did minimal processing and analysis based on the receipt of an unsolicited power-up message, which would be a "meter on" status that was not the result of a meter ping request. The power-up message now is used in support of restoration verification. Display of the number of power-ups received is supported in the Work Agenda.

In addition, the meterPingPercentage configuration rule that controls the number of meters to ping under a device is now configurable by device class. Ping requests can also be delayed to give meters time to send unsolicited statuses, and be set to expire after a certain time.

Develop MultiSpeak-based SCADA Adapter

A productized SCADA adapter has been developed based upon the MultiSpeak standard for SCADA integration. This adapter handles the MultiSpeak 4.1-defined flows of digital and analog measurementsThis adapter also implements web services-based extensions to handle SCADA alarms, tags, and controls. Where a MultiSpeak candidate specification existed, such as for controls, that candidate specification was leveraged.

Model Management Enhancements

CIM-based Model Import/Export

This feature adds support for the export of feeder/substation based partitions (.mb files) into CIM format and the import of CIM formatted .xml/RDF files into .mp files for import to the NMS Model Preprocessor. The import/export capability adheres to CIM IEC 61968 standards and the generated CIM files were validated using CIM schema validation tools.

Add Model Support for Distributed Energy Resources

Add support for modeling Distributed Generation Resources including electric storage devices and electric vehicles. The model workbook is changed to support these distributed resources.

Add Support for Esri ArcGIS 10.0

The Esri Extractor has been ported from VisualBasic 6 to VisualBasic .Net 2008/3.5, which is supported for both Esri 9.X and 10.X.

Add NMS Spatial Theme and Basemap

NMS v1.10 added spatial datatypes for the electrical objects in the model. This feature defined MapViewer/MapBuilder symbology, themes, and base maps to support visualizing this data in other products including the Oracle Utilities Advanced Spatial Outage Analytics. The spatial visualization is limited to NMS objects in the Geographic coordinate system and does not include internal schematic partitions such as substation internals.

These product basemap, themes, and symbols can serve as a starting point for project implementation where customized themes and symbologies are possible.

Power Flow Enhancements

Support Enhanced Display of Power Flow Information in Viewer

More power flow data is displayed directly in the Viewer to allow operators to readily assess status and problem areas. This includes the option to display flow direction in the distribution network, and additional options to color-code conductors and cables. Color-coding can now be done based on ranges of currents, ranges of loads, voltage per unit, and nominal voltage rating. These options are in addition to the previous options of coloring by source feeder or phase.

Improve Visibility into Power Flow Processing and Results

This feature allows the administrative user to view power flow solution details and identify areas of the model with data problems. The user can request solution details that will be displayed in a browser and show the number of iterations and a list of devices with the largest mismatches for each iteration. The solution details pages are available for administrative users from the Power Flow Results tab of the Viewer's balloon and from the Feeder Load Overview table of FLM.

Extend Power Flow to Handle Distributed Energy Resources

This feature adds handling of distributed energy resources to the power flow solution. This extends the functionality added for the modeling of distributed generation.

The core functional changes are to represent two types of generation: 1) fixed P and Q generators such as induction machines and fixed output inverters, and 2) fixed P and V generators such as synchronous machines with variable VAr output. These machines are represented differently for load flow purposes and for short circuit purposes.

Suggested Switching Enhancements

Enhance Suggested Switching Plan Generation

Previously Suggested Switching only generated one proposed Switch Plan that satisfied the requested objective and constraints. Suggested Switching has been enhanced to generate multiple candidate plans when feasible, providing the user with more options.

Web Switching Management Enhancements

Make the Device ID on Request Tab Editable

Previously the device ID on a submitted Switching Request was not editable, which caused issues if devices changed and the ID needed to be corrected. The device ID now is editable.

Support Filtering on Impacted Customers List

The Impacted Customer List was changed to support a filter to display only critical customers.

Support Ability to Manually Add Steps

Some users of the previous X/Motif Switching Management utilized the ability to manually create a switching step without using the Control Tool. A "short code" was specified to indicate the desired action, which would populate the Operation text with a pre-configured Control Tool description.

A similar feature is now added to Web Swicthing Management. A small panel just above the steps list allows a user to manually build a step. A user then selects a button to "Add" the action to the steps list. The step will be recorded as if it came from the Control Tool. Once the step is added, then the other step fields can be populated and altered like any other step.

Provide Migration from X/Motif Switching Sheets to Web Switching Sheets

Any customer upgrading from X/Motif Switching Management to Web Switching Management will have to migrate their existing data to the new format. A generic Perl script was created (migrate_switching_sheets) to aid projects in the process of migrating their switching and safety

data to the new Web Switching and Web Safety database schema. The script will need to be altered by each project. All of the data will be migrated, but effort may remain in converting it into a format that can be displayed in the project's new switching sheets and safety documents.

Add Complete/Abort/Fail Options on Web Workspace Control Tool

The ability to Complete, Abort, or Fail a step from the Control Tool was added. This will remove the need for the user to jump between the Control Tool and the Misc Log when recording Instruct and Complete operations into the Misc Log.

Improve Response Times of Sheet Loads and Step Executions of Large Sheets

Improvements were made in the performance of loading switch sheets and performing step executions in switch sheets with many steps. In addition, a progress bar is displayed when loading multiple switch sheets.

Provide Support for Pending Devices in Switch Sheets

The Commissioning/Decommissioning tool was designed to enable and disable devices within the NMS network model. This tool was not integrated with Web Switching Management, which makes it harder for an operator to keep the model consistent with the field when dealing with planned switching work. To eliminate this disconnect, the Commissioning tool was modified to send actions to Web Switching Management. These actions will be recorded into a switching sheet or Miscellaneous Log. Actions recorded in study mode can then be executed in real-time mode as the crews are doing the work, and if completed from Web Switching Management will take effect as if done from the Commissioning Tool.

Enhance Audit Log Synchronization

The audit log entries for switching sheets previously were stored in the SWMAN_STEP table. With this feature, they are removed from the SWMAN_STEP table and instead recorded in the SWMAN_AUDIT_LOG table. This is primarily a design change and the data that the end user sees is the generally the same. The exception is in the case of user log, where the user now can also see select audit log records (as pre-configured) in addition to the step data.

Provide Shortcut 'Return to Nominal Status' for Devices in Switch Sheet

A button was added to the Web Switching product to generate a set of "Return To Nominal" switch sheet steps. This new block will contain all the steps needed to switch the affected devices back to nominal. They will be presented in a logical order and should appear logically grouped. (They will not simply be go-back steps in a reverse order.) It should:

- Prepare a block of steps that get appended to the Switch Sheet
- Only include devices contained in the Switch sheet
- Have an initial step to restore de-energized section from the original source
- Create loops/parallels and then breaks to avoid de-energizing customers unnecessarily
- Only have 2 circuits paralleled at one time
- Resolve any condition and Safety actions in addition to the Switching actions.

Web Trouble Enhancements

Support Transfer Zone Option in Crew Actions to Temporarily Transfer Crew

The ability is added to select a crew and temporarily transfer them to a different control zone. The crew no longer would display for users subscribed to the crew's permanent control zone and instead would display for users subscribed to the crew's temporary new control zone. The crew will revert back to their permanent control zone when they are changed from On Shift.

Enable Event Details Post-Completion Edit Log to Display Changed Values

Added new Field and Previous Value columns to the Post-Completion Edit Log table. If a user edits the Event Details after the event has been completed, a row will be entered in the table for each modified field indicating the field name and previous value.

Support Multi-Select and Cancel from Work Agenda

When one or more events are selected in Work Agenda, the user can select the Cancel option. It will bring up a dialog for the cancellation reason, which will be applied to all selected events.

Support "Maintenance" Option in Event Details

A new Maintenance menu item and tool bar icon is added to Event Details. This option allows a user to save the changes made in Event Details and put the selected event in the MNP (Maintenance Pending) state.

Add Display of a Status Icon in Crew Actions - Icons View

Previous the only indication of the crew's job status (unavailable, assigned, onsite, etc.) in the "icons" view of Crew Actions was via color-coding. An additional crew status icon was added inside the crew's "box", which improves accessibility for colorblind or color-impaired users.

Web Workspace Enhancements

Support Lens (a.k.a Camera) in Viewer

Added the ability to open a separate lens window from a Viewer. The area shown by the lens is represented by a rectangle in the Viewer and can be dragged around the Viewer window. The lens has similar functionality to a regular Viewer window and can be at a different zoom level than the Viewer from which it was opened. This feature was known as a "camera" in the X/Motif Viewer, but that term was misleading, as the functionality didn't capture an image.

Support Control Tool "Repredict to Here" Option

Added an option to the Control Tool to "Repredict to Here" that will repredict to the selected device, as opposed to the Repredict Upstream option that will do analysis to try and repredict where the outage location is.

Enhance Look Ahead Violations Display

Previously the Violations tab in Look Ahead displayed all violations on the island after the action occurs. It was hard to see how the proposed action would affect the number and severity of violations for long lists of violations. This feature enhances the violations calculation and display in Look Ahead to allow the user to see and filter the list of violations before and after the action.

Allow Users to Set and Save Viewer Preferences

The following new abilities are added to the viewer:

- The ability to change the distance of attribute text from the device.
- The ability to toggle in and out of a fixed text and symbol size mode.
- A setting that will unload maps before loading new maps.

Also added is the ability to configure and save user preferences for many viewer settings. The following user preferences now are supported:

- Text size
- Symbol Size
- Attribute Size
- The default layers to be displayed
- Unload maps before loading new maps.
- Fixed symbol size

Support Zone Groups for Authority Subscription

Display a predefined list of control zone groups in the Authority tool from which a user can select to subscribe. Each zone group contains one or more control zones, and if a user selects a zone group and then Subscribe, they become subscribed to all control zones in that group.

Enhance Viewer Trace Navigation

An option is provided to zoom the Viewer out to the extent of the trace, similar to Feeder Focus but instead a Trace Focus. In addition, if the trace is to a single device (such as a trace to source or trace to upstream switch), the user can target to the device at the end of the trace.

Support a Trace to Device Class Option in Viewer

Added an option that enables the user to trace to an arbitrary device class selected from a list of device classes. The standard trace options of phase, direction, and nominal vs. real-time are supported.

Add Support for Web Workspace Annunciators

Display a set of annunciators in the footer area of Web Workspace. The available annunciators include Unacknowledged Outages, Unacknowledged Non-Outages, Unacknowledged System Alarms, and FLISR Mode (if licensed)

Support Popups as an Alternative to Audible Alarms

When an audible alarm/alert would be triggered, an option now exists to display a popup text message instead of, or in addition to, the audible tone or sound file. This option is able to be toggled by an individual end user, much like "Audio Enabled" is able to be toggled, and is saved as part of user preferences. This feature will enable hearing-impaired operators to more effectively use the system.

Supported Integrations in Version 1.11.0

The following integrations are supported in this version of Oracle Utilities Network Management System:

Oracle Utilities Product Integrations

- Customer Care and Billing (CC&B) 2.3.1
- Oracle Business Intelligence for Utilities (OBIU) 2.3.2

Additional Integrations

- BI Publisher (version 11.1.1.3)
- Oracle BI Discoverer 11.1.1.4
- Smallworld 3.x, 4.x
- Intergraph 9.3.x
- ESRI 9.0, 9.1, 9.2, 9.3, 10.0
- IBM WebSphere MQ 7.0.1.1

Integrations Deprecated in Version 1.11.0

The following integrations are deprecated in this version of Oracle Utilities Network Management System:

- Business Objects (all versions) for standard reports

Integrations Planned for Deprecation

The following integrations will be deprecated in a future release of Oracle Utilities Network Management System.

- IBM WebSphere MQ-based Adapters

Items Deprecated in Version 1.11.0

The following items are deprecated in this version of Oracle Utilities Network Management System for all customers.

Operator's Workspace Deprecation

The X/Motif-based Operator's Workspace module is deprecated for all customers. The Java-based Web Workspace module provides comparable functionality.

Trouble Management Deprecation

The X/Motif-based Trouble Management module is deprecated for all customers. The Java-based Web Trouble module provides comparable functionality.

X/Motif-based Switching Management Deprecation

The X/Motif-based displays and database tables associated with Switching Management are deprecated for all customers. The Java-based displays and database tables associated with Web Switching Management provide comparable functionality.

X/Motif-based SCADA Extensions Deprecation

The X/Motif-based displays associated with SCADA Extensions and accessed via Operator's Workspace are deprecated for all customers. The Java-based displays associated with SCADA Extensions and accessed via Web Workspace provide comparable functionality.

X/Motif-based AMR Adapter Deprecation

The X/Motif-based displays associated with the AMR Adapter and accessed via Trouble Management are deprecated for all customers. The Java-based displays associated with the AMI Adapter and accessed via Web Trouble provide comparable functionality.

X/Motif-based Fault Location, Isolation, and Service Restoration Deprecation

The X/Motif-based displays associated with Fault Location, Isolation, and Service Restoration are deprecated for all customers. The Java-based displays associated with Fault Location, Isolation, and Service Restoration provide comparable functionality.

De-Supported Platforms in Version 1.11.0

The following platforms are not supported by this version of Oracle Utilities Network Management System:

- Oracle RDBMS 11gR1
- Oracle BI Publisher 10g
- JBoss Java Application Server (all versions)
- Windows Vista
- HP-UX (all versions and architectures)