

Yukon: What's New and Path for Legacy Users

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Powering Business Worldwide

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Agenda

01

Introduction

02

Software Release Process Overview

03

Recent New Features and Improvements

04

Migration of Java Client Functionality



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Introduction



Introduction

David Sutton - Software Product Manager

- Primary role
 - The prioritization of new feature sets and improvements into the Yukon software platform
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Software Release Process Overview

Software Release Process Overview

- Software platform is typically released two times a calendar year
 - Q2 and Q4 are the typical targets
 - Release package includes:
 - What's new guide
 - Release notes for both the enterprise software and the compatible RFN package if applicable
 - Updated documentation
 - Minimum system requirements matrix containing current OS, DB and browsers used for validation of the software release

Software Release Process Overview

- **Yukon v9.4 – Available Now**
 - OS
 - Windows Server 2019
 - Windows Server 2022
 - DB
 - SQL Server 2017
 - SQL Server 2019
 - SQL Server 2022
 - Oracle 19c
 - Browser
 - Google Chrome
 - Microsoft Edge

Software Release Process Overview

Yukon v9.5 – Q4 2023

- OS
 - Windows Server 2019
 - Windows Server 2022
- DB
 - SQL Server 2019
 - SQL Server 2022
 - Oracle 19c

Yukon Q2 2024

- OS
 - Windows Server 2019
 - Windows Server 2022
- DB
 - SQL Server 2019
 - SQL Server 2022
 - Oracle 19c

*Note that SQL Server 2017 will be removed from the upcoming fall release due to mainstream support having expired October 2022

- 
- We encourage you to update annually to stay current with software releases to reduce any security risk and to take advantage of new features within the solution
 - Going forward, expect more consistent communications from our team when new versions are available

Recent New Features and Improvements

Yukon v9.2

Released Q2 2022

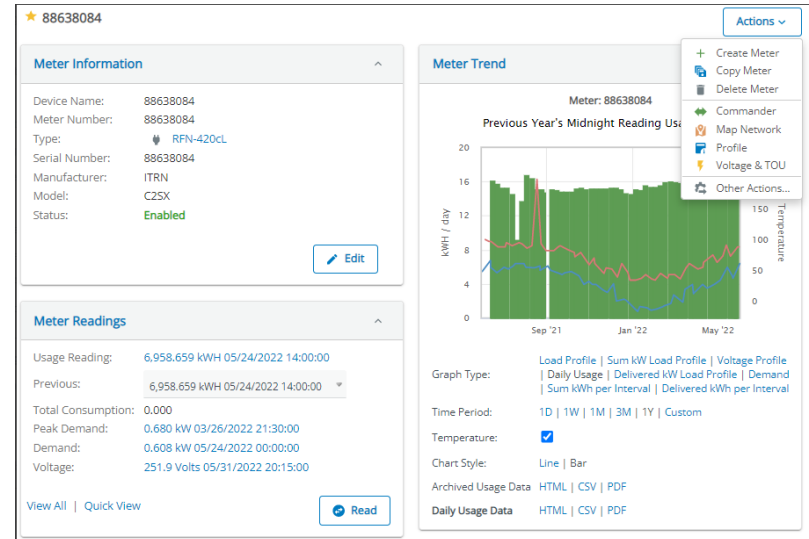
Yukon v9.2 – Release April 2022

- General rebranding
 - Effort to coordinate a common look and feel to Eaton's software platforms
- RFN Gateway configuration
 - Ability to configure the IP / Port of each RFN gateway from Yukon
- Ability to manage RFN outage event processing
 - Option to limit email notifications and MultiSpeak messaging to RFN alarm reporting only
- Device Support
 - Gas Node
 - Cellular based LCR
 - IPLink Relay platform
- IVVC logging improvements
 - Invalid power flow issues are logged



General Rebranding

- Rebranding of Yukon's UI using Eaton standard components for icons, colors and buttons
 - Utilities will find the color scheme, icon sets and look and feel of buttons, titles, etc. slightly different than previous versions of Yukon.
 - This is the beginning of rebranding effort to bring a common look and feel to all of Eaton's software products
 - These changes do not affect navigation nor functionality within the software



RFN Gateway Configuration

- Each RFN gateway has the ability to initiate a connection to the Network Manager service to allow various functionality such as outage alarm reporting
- To configure the IP and port of a gateway from the [Assess Gateways](#) page
- **Actions** button “Update NM IP Address/Port”
- Select the gateway(s) and enter the appropriate

The screenshot displays the 'Gateways' management interface. A modal dialog titled 'Update NM IP Address/Port' is open, showing the selected gateway 'Gateway(1.5)-02' and the current 'NM IP Address/Port' '10.6.3.26:32030'. The dialog includes 'Cancel' and 'Update' buttons. In the background, the 'Actions' menu is visible, with the 'Update NM IP Address/Port' option circled in blue. Below the dialog, a table shows the current configuration for six gateways.

NM IP Address	NM Port
10.6.3.26	32030
10.6.3.26	32030
10.6.3.26	32030
10.6.3.26	32030
10.6.3.26	32030
10.6.3.26	32030

Ability to manage RFN outage event processing

- Meter Outage Events, which arrive during the meter's reporting interval, occasionally result in outage notification emails being sent from Yukon.
 - This is due to the outage and restoration events being processed out of order
- To address this issue, an option to “**Notify on Alarms Only**” has been added to the Device Data monitor configuration
- While the Data Monitor will continue to process data as before, when configured, a notification will only be provided when an RFN Outage or Restoration Alarm is received
- A similar option labeled “**Notify on Alarms Only**” has been added to the Outage Notification monitor used to publish RFN outage and restoration alerts via MultiSpeak to the Outage Management System (OMS) in real time

Ability to manage RFN outage event processing

- Device Data Monitor
 - Per monitor setup
- Outage Notification Monitor
 - Per MultiSpeak message type

★ RFN Outage Actions ▾

Settings ⓘ

Name: RFN Outage
Violations: 4 (HTML | CSV | PDF)
Monitor: ---

Support: ---

Device: ---
Violation: ---
Status: ---
Notify On: ---

Status

Attributes

★ Test-OutageStatus-410cL
Edit

Name: Test-OutageStatus-410cL
Device Group: /System/Device Types/RFN-410cL ⓘ 🔍 ⓘ
Select Attribute: Outage Status ▾
State Group: Outage Status
Outage Notification Monitoring: Enabled

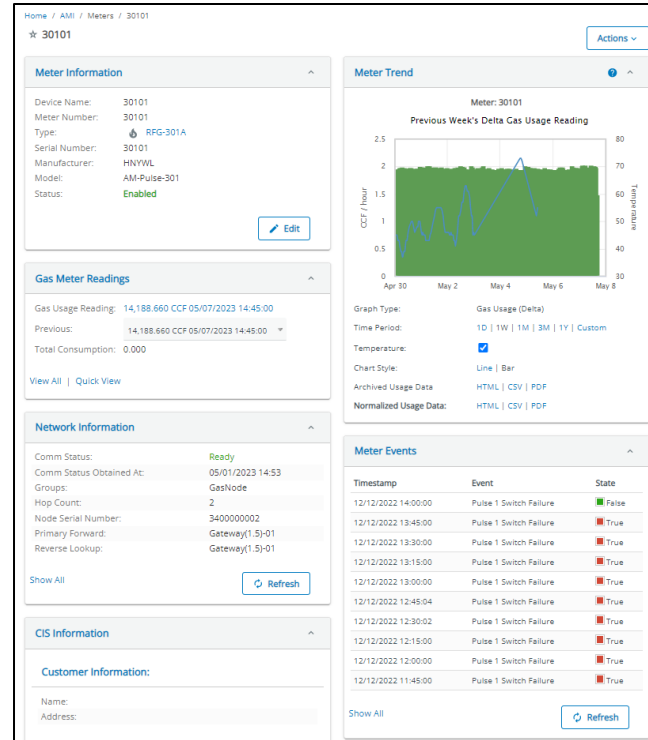
Outage Event Processors ⓘ

Previous State	Next State	MultiSpeak Event Type	Notify On Alarms Only
Difference ▾	Good ▾	Restoration ▾	Disabled ▾ ✕
Difference ▾	Questionable ▾	NoResponse ▾	Disabled ▾ ✕
Difference ▾	Bad ▾	Outage ▾	Disabled ▾ ✕

➕ Add

Device Support

- RFN Integrated gas nodes
 - Added support for two integrated gas nodes types; the RFG-301A and the RFG-301R.
 - Battery-powered nodes that provide register, channel and event data across the RF network.
 - The device's recording and reporting intervals are configurable.



Device Support

- RFN Cellular IPLink Relay
 - Added support for a cellular based relay that can be used to provide an RF communications point in weak areas of the network.
 - The CRLY-856 reports data over the cellular network into a Virtual Gateway service that is installed on the Yukon application server

The screenshot displays the Eaton AMI web interface for a specific relay device. The top navigation bar includes 'AMI', 'Demand Response', 'Volt/Var', 'Assets', 'Tools', and 'Admin'. The breadcrumb trail is 'Home / Relays / 5010132902'. The device ID '5010132902' is prominently displayed with a star icon and an 'Actions' dropdown menu.

Relay Information

Device Name:	5010132902
Type:	CRLY-856
Serial Number:	5010132902
Manufacturer:	EATON
Model:	CRLY856

[Edit](#)

Cellular Connection

Communication Status: ■ Connected 01/01/2010 12:00:00 !

RSSI:	0 dBm 01/01/2010 12:00:00 !
RSRP:	0 dBm 01/01/2010 12:00:00 !
RSRQ:	0 dB 01/01/2010 12:00:00 !
SINR:	0 dB 01/01/2010 12:00:00 !

[Query](#)

Infrastructure Warnings

No recent warnings found.

Relay Events

Timestamp	Event	State
05/02/2023 03:56:52	Cellular Connection Failed	■ Cleared
05/02/2023 03:56:48	Cellular Sim Card Inserted Removed	■ Inserted
05/01/2023 13:57:27	Cellular Connection Failed	■ Cleared
05/01/2023 13:57:23	Cellular Sim Card Inserted Removed	■ Inserted
05/01/2023 13:55:24	Outage Status	■ Good
05/01/2023 13:53:17	Outage Status	■ Bad
04/25/2023 03:01:08	Cellular Connection Failed	■ Cleared
04/25/2023 03:01:04	Cellular Sim Card Inserted Removed	■ Inserted
04/15/2023 05:18:25	Cellular Connection Failed	■ Cleared
04/15/2023 05:18:21	Cellular Sim Card Inserted Removed	■ Inserted

Show All [Refresh](#)

Network Information

Device Support

- Cellular LCR family of devices
 - This feature provides device management, controls and data retrieval functions for a cellular based LCR by integrating to Eaton's Brightlayer Cloud through the Brightlayer Utility Cloud API.
 - Traditional data such as 60 minute interval run time and shed time per relay as well as event statuses are provided.
 - In addition, Activation Status, Load State, Shed Status per relay are also available

★ LCR-6600C 720313580		Actions ▾
6600-Cell	Device Info	Device Readings
ACCOUNT	Switch Type: LCR-6600C	Status
CONTACTS	Serial Number: 720313580	05/06/2023 07:00:00 Relay 1 Shed Status Inactive
RESIDENCE	Device Name: 720313580	05/06/2023 07:00:00 Relay 2 Shed Status Inactive
CALL TRACKING	GUID: a1035138-d43d-11eb-b8bc-0242ac130003	05/06/2023 07:00:00 Relay 3 Shed Status Inactive
METERING	Firmware Version: V1.1.1	05/06/2023 07:00:00 Relay 4 Shed Status Inactive
CONTROL HISTORY	IMEI: 864475041757575	Analog
ENROLLMENT	ICCID: 89148000005976205831	05/06/2023 07:00:00 RSSI -65 dBm
ALTERNATE ENROLLMENT	Label: 720313580	05/06/2023 07:00:00 Relay 1 Run Time Data Log 0 Minutes
OPT OUT	Alt Tracking Number:	05/06/2023 07:00:00 Relay 1 Shed Time Data Log 0 Minutes
APPLIANCES	Voltage:	05/06/2023 07:00:00 Relay 2 Run Time Data Log 0 Minutes
HARDWARE	Field Install Date: 09/12/2022	05/06/2023 07:00:00 Relay 2 Shed Time Data Log 0 Minutes
	Field Receive Date:	05/06/2023 07:00:00 Relay 3 Run Time Data Log 0 Minutes
	Field Remove Date:	05/06/2023 07:00:00 Relay 3 Shed Time Data Log 0 Minutes
	Notes:	05/06/2023 07:00:00 Relay 4 Run Time Data Log 0 Minutes
	Status: (none)	
	Asset Availability: Inactive	
	Service And Storage	
	Service Company: (none)	
	Warehouse: (none)	

IVVC Logging Improvements

- Invalid power flow issues are logged
 - Improvements in the application's indication that an invalid power flow issue has caused the algorithm to revert to local control or has skipped an analysis period entirely

127.0.0.1:8080/capcontrol/search/recentEvents?value=4

01/20/2022 08:30:45	---	Crystal Springs	Communicating Percent Setting restored for: Regulator	cap control
01/20/2022 08:28:44	---	Crystal Springs	Communicating Percent Setting restored for: CapBank	cap control
01/20/2022 08:28:44	---	Crystal Springs	Analysis Period Skipped - Communicating Percent Setting violated for: Regulator	cap control
01/20/2022 08:26:43	---	Crystal Springs	Communicating Percent Setting restored for: BusPower	cap control
01/20/2022 08:26:43	---	Crystal Springs	Analysis Period Skipped - Communicating Percent Setting violated for: CapBank, Regulator	cap control
01/20/2022 08:24:42	Crystal Springs	Crystal Springs	IWV Rejected Point Response - Quality: 0x4 - Timestamp: 01/20/2022 08:14:39	cap control
01/20/2022 08:24:42	Crystal Springs	Crystal Springs	IWV Rejected Point Response - Quality: 0x4 - Timestamp: 01/20/2022 08:14:43	cap control
01/20/2022 08:24:42	CS-01-CBC01	Crystal Springs	IWV Rejected Point Response - Quality: 0x4 - Timestamp: 01/20/2022 08:14:47	cap control
01/20/2022 08:24:42	CS-Reg-01 Points	Crystal Springs	IWV Rejected Point Response - Quality: 0x4 - Timestamp: 01/20/2022 08:15:12	cap control
01/20/2022 08:24:42	---	Crystal Springs	IWV Analysis Stopped	cap control
01/20/2022 08:24:42	---	Crystal Springs	IWV Comms Lost	cap control
01/20/2022 08:24:42	---	Crystal Springs	Analysis Period Skipped - Communicating Percent Setting violated for: BusPower, CapBank, Regulator	cap control
01/20/2022 08:22:41	---	Crystal Springs	Analysis Period Skipped - Communicating Percent Setting violated for: BusPower, CapBank, Regulator	cap control
01/20/2022 08:20:40	---	Crystal Springs	Analysis Period Skipped - Communicating Percent Setting violated for: BusPower, CapBank, Regulator	cap control

Yukon v9.3

Released Q4 2022

Yukon v9.3 – Release November 2022

- **MultiSpeak Integration Options**
 - Additional metering attributes are available to pass via MultiSpeak to third-party systems
 - Addition of the MultiSpeak v4.1 specification in support of gas and water integrations
- **Meter Event**
 - A blink event marker was added to the meter event report
- **Mapping improvements**
 - Hops within a node's primary path are colored by ETX band to indicate link quality
 - Path cost was added to the network information downloads
- **Database Editor migration**
 - Paging transmitter setup
 - Notification group setup
- **Asset Availability**
 - Metrics are archived daily to provide historical context across demand response seasons
- **IVVC UI Updates**
 - Various chart and configuration updates

MultiSpeak Integration Options

- Additional Metering Attributes available for publishing via MultiSpeak
 - The MultiSpeak implementations have been expanded to include additional meter attributes.
 - These attributes are optional and are activated via configuration to ensure backwards compatibility with existing integrations
 - Attributes categories
 - Rate A - D Delivered kWh
 - Rate A - D Peak Demand (delivered kw)
 - Rate A - D Received kWh
 - Received kWh
 - kVar
 - kVarh
 - kVA and PF

Attributes

All the supported attributes for multispeak are categorized into 5 categories. Below are the list of categories along with their attributes:

1. Peak Demand + Usage: Peak Demand and Usage (2 attributes).
2. kVar + kVarH: kVa, kVar and kVarH (3 attributes).
3. TOU: Delivered kWh Rate A, Delivered kWh Rate B, Delivered kWh Rate C, Delivered kWh Rate D, Received kWh Rate A, Received kWh Rate B, Received kWh Rate C, Received kWh Rate D, Peak Demand Rate A, Peak Demand Rate B, Peak Demand Rate C, Peak Demand Rate D (12 attributes).
4. Power Factor: Power Factor (1 attribute).
5. Received kWh: Received kWh (1 attribute).

Recommended values for Maximum Records Returned:
By default the value for Maximum Records Returned is 10000 for Peak Demand + Usage. After selection of multiple attributes in drop down, it will require to change Maximum Records Returned value.
Below are the default recommended values we can set if only single option (eg. TOU) is selected from Attributes dropdown:

1. Peak Demand + Usage: 10000
2. kVar + kVarH: 7000
3. TOU: 2000
4. Power Factor: 10000
5. Received kWh: 10000

These values can be calculated based on below formula:
 $\text{Round} (2/n * \text{Default Maximum Records Returned}) = \text{Integer value, where n is number of attributes. Values will be multiple of 100.}$

If multiple attributes are selected like TOU and Peak Demand + Usage then value can be set to 1000. Total number of attributes for this is 14 (TOU = 12 and Peak Demand + Usage = 2).

MultiSpeak Integration Options

- MultiSpeak v4.1 Specification
 - Implemented with similar functionality as the v3.0 specification
 - In addition, it provides support for gas and water meters inventory management and billing reading methods

The screenshot displays the 'MultiSpeak Interface Setup' configuration page. At the top, there are tabs for 'YUKON SETUP', 'VENDOR SETUP', and 'SYNCHRONIZATION'. Below the tabs, the 'MultiSpeak Interface Setup' section shows the following details:

- Company Name: Cannon
- App Name: Yukon
- Primary CIS: MSP1
- DeviceName Alias: Meter Number (Default)
- Meter Lookup Field: Auto (Meter Number First)

The 'Interfaces' section is divided into three versions:

- Version 3.0:**
 - MR_Server: http://127.0.0.1:8080/multispeak/v3/MR_Server
 - OD_Server: http://127.0.0.1:8080/multispeak/v3/OD_Server
 - CD_Server: http://127.0.0.1:8080/multispeak/v3/CD_Server
 - LM_Server: http://127.0.0.1:8080/multispeak/v3/LM_Server
 - SCADA_Server: http://127.0.0.1:8080/multispeak/v3/SCADA_Server
- Version 5.0:**
 - MR_Server: http://127.0.0.1:8080/multispeak/v5/MR_Server
 - OD_Server: http://127.0.0.1:8080/multispeak/v5/OD_Server
 - CD_Server: http://127.0.0.1:8080/multispeak/v5/CD_Server
 - DR_Server: http://127.0.0.1:8080/multispeak/v5/DR_Server
 - SCADA_Server: http://127.0.0.1:8080/multispeak/v5/SCADA_Server
 - NOT_Server: http://127.0.0.1:8080/multispeak/v5/NOT_Server
- Version 4.1:**
 - MR_Server: http://127.0.0.1:8080/multispeak/v4/MR_Server
 - OD_Server: http://127.0.0.1:8080/multispeak/v4/OD_Server
 - CD_Server: http://127.0.0.1:8080/multispeak/v4/CD_Server
 - DR_Server: http://127.0.0.1:8080/multispeak/v4/DR_Server
 - SCADA_Server: http://127.0.0.1:8080/multispeak/v4/SCADA_Server
 - NOT_Server: http://127.0.0.1:8080/multispeak/v4/NOT_Server

Each server entry includes a double-headed arrow icon and a blue bar icon, indicating configuration options.

Meter Event

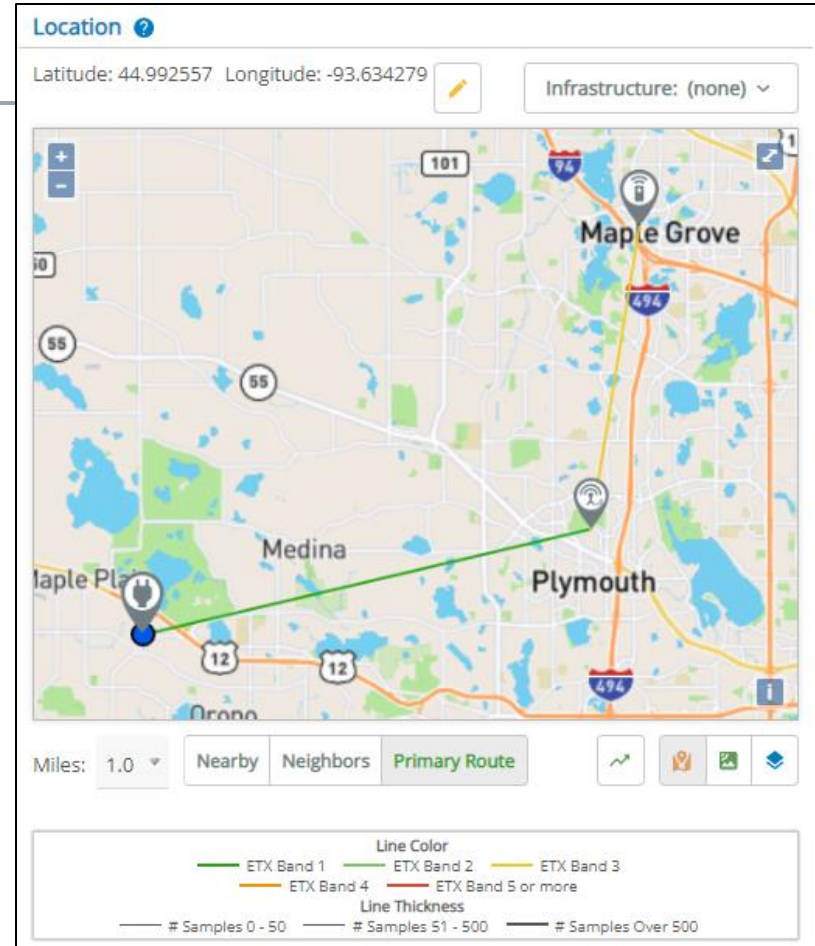
- **Blink meter event**
 - Blink events have been added to the Meter Event processing for individual meters and will display on the Meter Details page.
 - Users will also be able to review the blink events across a selectable time frame using the attribute “RFN Blink Reported” and the Meter Events report

The screenshot displays the Meter Details page interface. At the top, the 'Disconnect' section shows a status of 'Not configured' with buttons for 'Disconnect', 'Arm', 'Connect', and 'Query'. Below this is the 'Meter Events' section, which contains a table with two rows of data. The table is highlighted with a red border. The 'Outages' section below shows counts for 'RFN Blink Count', 'Rfn Outage Count', 'RFN Blink Restore Count', and 'Blink Count'. At the bottom, there is an 'RFN Outages Log' section with the message 'No Outage Logs' and several icons for search, zoom, and other actions.

Timestamp	Event	State
04/11/2022 14:16:00	Blink Reported	Cleared
04/10/2022 14:16:00	Blink Reported	Cleared

Mapping Improvements

- Hops within a node's primary path are colored by ETX band to indicate link quality
 - This will allow the user to review the link quality of every node in a meter's path back to the gateway to find the weakest area
 - From the [Meters Details](#) page, find the [Actions](#) button "Map Network"
 - Clicking on the [Primary Route](#) button on the Map Network page will result in the route lines being color coded by ETX Band.



Mapping Improvements

- Path cost was added to the network information downloads
 - The RF node's path cost is now included in the Comprehensive Map and the Download Network Info CSV download

☆ Gateways

Actions ▾

Gateway Information

Name ↑	Serial Number	IP Address	Firmware Version	Last Communication	
Gateway(1.5)-01	1560000749	10.106.46.102	9.7.0	Successful	
Gateway(1.5)-02	1560000751	10.106.46.127	9.7.0	Successful	
Gateway(2.0)-02	7800000023	10.106.46.140	9.7.0	Successful	100%
GWY-801 (7800002734)-2	7800002734	10.106.46.158	9.7.0	Successful	100%
GWY-801 (7800004284)-1	7800004284	10.106.46.139	9.7.0	Failed	100%
QA6200VGW	Virtual9	10.106.46.200	9.5.0	Failed	100%

+ Create
 Comprehensive Map
 Download Network Info
 Manage Certificates
 Manage Firmware
 Update NM IP Address/Port

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Device	Meter Number	Type	Sensor S/N	Latitude	Longitude	Primary Forward	Comm Status	MAC Address	Node S/N	Link Quality	Hop Count	Descendant Count	Next Hop	Path Cost
2	RFNtniv420	123	RFN-420cD	14857	44.690265	-92.998896	Fake Gateway 800	Ready	11:22:33:44:91:11	4260060913	Below Average	23	95	Fake Gateway 800	2
3	RFN-530eRXR Meter	123456	RFN-530S4eRXR	123456	44.917717	-92.859145	Fake Gateway 800	Not Ready	11:22:33:44:91:11	4260060913	Excellent	24	60	Fake Gateway 800	2

- Actions button “Comprehensive Map” or “Download Network Info”

Database Editor Migration

- Configuration tools continue to be migrated from the Database Editor Java application to the web UI.

- Users will now be able to manage Transmitter setup and Notification Groups through the web UI.

- Accessible via the Site Map at the bottom of the Yukon webpage
 - Category Assets: Signal Transmitters
 - Category Tools: Notification Groups

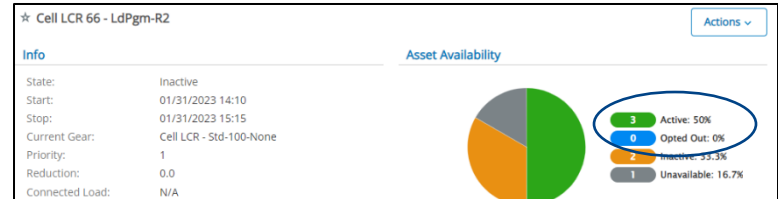
- Signal Transmitters

- Notification Groups

The image displays several overlapping screenshots of the Eaton web UI. The top-most screenshot shows the 'Edit Signal Transmitter: South Region' form. It has a 'General' tab with fields for Name (South Region), Type (WCTP Terminal), Pager Number (9), and Status (Enabled). Below is a 'Communication' section with fields for Communication Channel (Cart Channel), Password (masked), Sender (yukonserver@cannontech), and Security Code (none). A second screenshot shows the 'Create Notification Group' form, also with a 'General' tab and 'Notification Settings' section. A third screenshot shows a 'Site Map' menu with 'Signal Transmitters' and 'Notification Groups' circled in blue. A fourth screenshot shows a tree view of notification groups, with 'CI Customers' and 'Unassigned Contacts' expanded.

Asset Availability

- Metrics are archived daily to provide historical context across demand response seasons
 - Asset Availability categories are archived daily at each level of the Demand Response hierarchy (Groups, Programs, Control Areas, Scenarios)
 - As attribute data, this will be available to display via popup
 - As well as via export for further analysis and review



Home / Collection Actions / Data Export

★ Data Export

Export Formats

Format: Marketing - Dynamic [Edit] [Copy] [Create]

Devices: Individually Selected [Search]

Device Count: 9

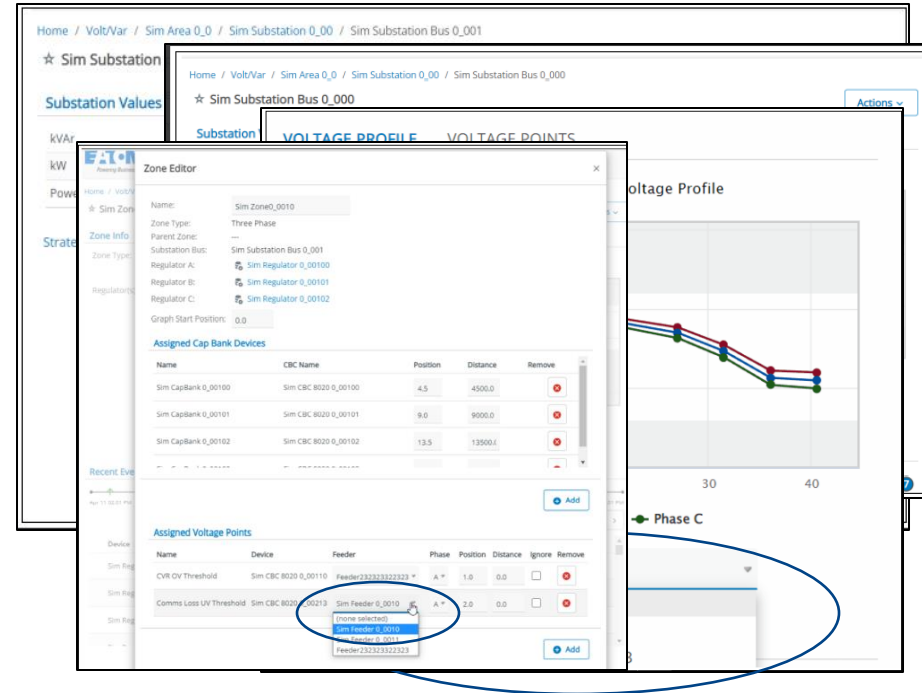
Attribute:

- Asset Availability Active Devices ✕
- Asset Availability Inactive Devices ✕
- Asset Availability Opted Out Devices ✕
- Asset Availability Total Devices ✕
- Asset Availability Unavailable Devices ✕

Apr 8 Apr 10 Apr 12 Apr 14 Apr 16 Apr 18 Apr 20 Apr 22 Apr 24 Apr 26 Apr 28 Apr 30 May 2 May 4 May 6 M...

IVVC UI Updates

- Various chart and configuration updates
 - Outdated data will not be shown on the chart and will be marked as ignore
 - When Override Strategy Limits are specified, a diamond shaped data point pin will display, and the values will show in the tool tip
 - Added filter by feeder(s) option
 - Added feeder drop-down to Assigned Voltage Points in the Zone Wizard



Yukon v9.4

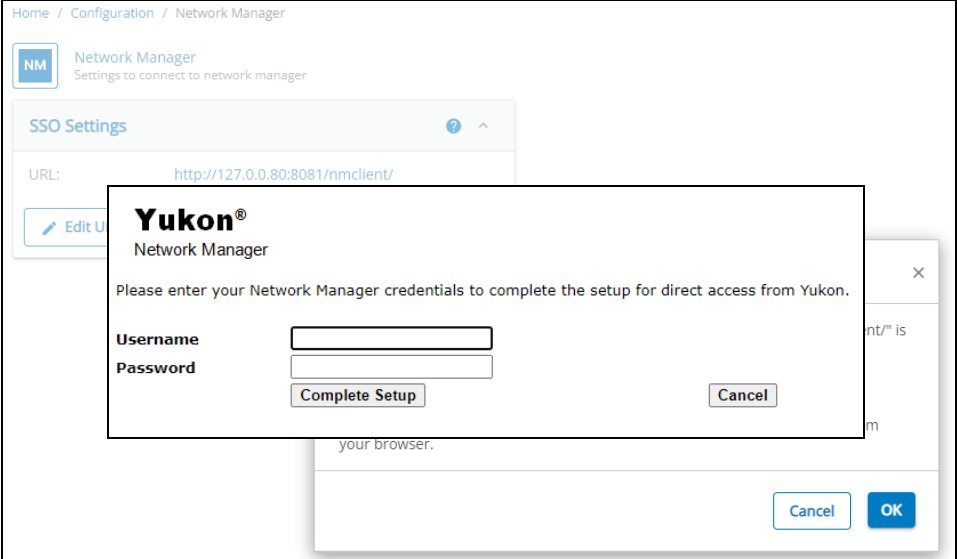
Released Q2 2023 – Available Today!

Yukon v9.4 – Release May 2023

- **Network Manager Direct Access**
 - Allows system administrator to pair the NM service with Yukon and control access via a user role instead of a second login
- **Mapping Improvements**
 - The mapping visualization tools will now support the display of user provided shapefiles
- **Infrastructure Warning Improvements**
 - Ability to disable notifications for specified warnings

Network Manager Direct Access

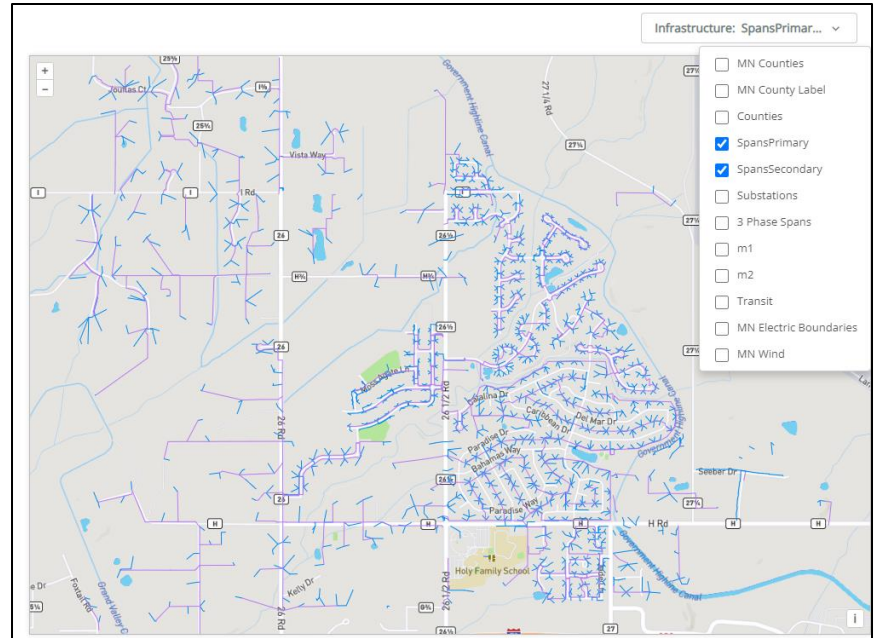
- Direct Access pairs the authentication services in NM and Yukon
 - Allows users with the Network Manager Access role to access NM Client directly without the need to authenticate a second time
 - System administrator configuration requires valid Yukon credentials to initiate and valid NM credentials to complete the pairing



The screenshot shows the Network Manager configuration interface. The main page is titled "Network Manager" and "Settings to connect to network manager". Under "SSO Settings", the URL is set to "http://127.0.0.80:8081/nmclient/". A modal dialog box titled "Yukon® Network Manager" is overlaid on the page. The dialog contains the text: "Please enter your Network Manager credentials to complete the setup for direct access from Yukon." Below this text are two input fields labeled "Username" and "Password". At the bottom of the dialog are two buttons: "Complete Setup" and "Cancel".

Mapping Improvements

- The mapping visualization tools will now support the display of user provided shapefiles
 - System administrators can import single layer shapefiles into the platform and choose to optionally display them on the maps
 - Meta data within is displayed by clicking in the map



Mapping Improvements

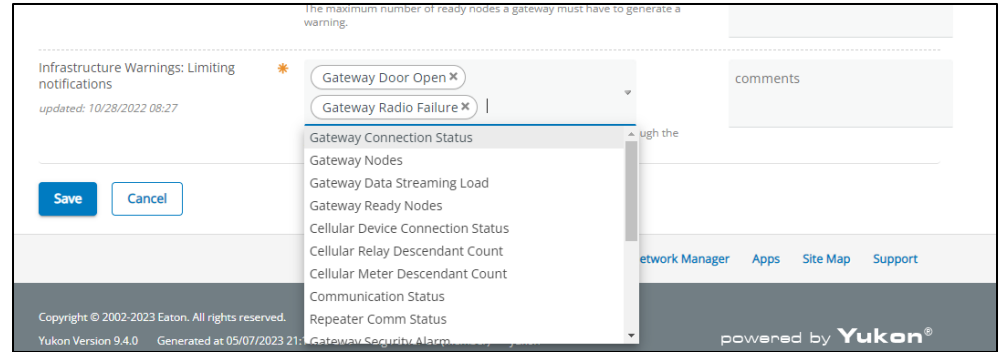
- Shapefile Configuration

- System administrators add shapefiles via the [Admin](#) menu, [Configuration](#) and [Mapping](#)
- From the Mapping page, click the [Add](#) button to bring in additional files
- Select the appropriate zip file and a color to render the contents with
- Contents are now available throughout Yukon from the Infrastructure drop down available in all mapping tools

The screenshot displays the 'Comprehensive Map' interface. At the top, there are filter controls: 'Filter By:' with three dropdown menus containing 'Fake Gateway X', 'Fake Gateway 2 X', and 'Fake Gateway 3 X'; 'Link Quality:' set to 'All'; 'Descendant Count:' set to 'All'; 'Hop Count:' set to 'All'; and 'Color Code By:' set to 'Gateway'. A blue 'Filter' button is on the right. Below the filters, it shows 'Filtered Results: 27 device(s)'. On the right side, there is an 'Infrastructure: MN Counties' dropdown menu with a list of options: 'All Gateways', 'All Relays', 'All Primary Routes', 'Counties', 'SpansPrimary', 'SpansSecondary', 'Substations', '3 Phase Spans', 'MN Electric Boundaries', 'MN Wind', and 'MN Counties' (which is checked). The map itself shows a geographical view of Minnesota and surrounding areas, with various infrastructure elements overlaid in different colors and styles, including blue and green shapes representing gateways and relays.

Infrastructure Warning Improvements

- Ability to disable notifications for specified warnings
 - Certain low risk infrastructure warnings cause unnecessary email traffic and at worst, false positives
 - System administrators may configure which warnings result in notifications to reduce the categories to just those that require immediate attention
 - This setting affects email notifications only. The remainder of the infrastructure warning process continues as before



Migration of Java Client Functionality

Java Client Retirements

- Java Client Retirements
 - The Trending, Commander and TDC Java clients **have been retired** and are no longer included in the install or upgrade process.
 - Web based options are available for those systems still needing access to the functionality previously provided by these clients.
 - The Database Editor and NM Clients continue to be migrated into the existing Yukon structure

Java Client Retirements

- Trending

- Navigate to **Trends** under the Tools menu
- Click **Actions** on the righthand side to Create and Edit
- Select the data points to trend, line colors and line type.
- Turn the Auto Refresh option On and the trend will update automatically while the browser session is active

The screenshot illustrates the 'Trending' feature in the Eaton Java Client. The main interface shows a dashboard with a 'Temperature' trend graph. The graph displays three data series: 'Temperature / Minneapolis, MN Basic' (blue line), 'Temperature / Minneapolis, MN Yesterday' (green line), and 'Temperature / Minneapolis, MN Peak 06/05/2021' (black line). The graph shows temperature fluctuations over time, with a zoomed-in view of the peak. The 'Actions' menu is open, showing options like 'Create', 'Edit', 'Delete', 'Reset Peak', 'Print', 'Download', and 'Download CSV'. The 'Auto Refresh' option is set to 'On'. A modal window titled 'Edit Temperature' is open, allowing configuration of the trend's point, device, label, color, style, type, axis, and multiplier.

Edit Temperature

Point:

Device:

Label:

Color:

Style:

Type:

Axis:

Multiplier:

Java Client Retirements

- MACS Schedules - Tabular Data Console (TDC)

- Navigate to **Scripts** under the Tools menu
 - Primarily used for PLC data collection and other actions
- Web based options to start and stop the script
- Web based editing of the script

The screenshot displays the Eaton AMI web interface. The top navigation bar includes 'AMI', 'Demand Response', 'Volt/Var', 'Assets', 'Tools', and 'Admin'. The 'Tools' menu is open, showing 'Collection Actions', 'Commander', and 'Data Export'. The main content area shows the 'Deployment Manager' dashboard with a 'Scheduled Scripts' section. A 'Schedule' configuration page is open, showing details for a script named 'Collect MCT 410 and 420 Readings.ctf'. The 'GENERAL' tab is selected, and the 'Start Policy' section is visible. The 'Stop Policy' section is also visible. At the bottom of the 'Schedule' page, there are 'Edit' and 'View Script' buttons. A 'Text Editor' window is open, showing the script content. The script content includes a warning message, a header, and several configuration parameters.

```
#####  
# *** IF EDITING THIS SCRIPT, YOU ARE NOW PERSONALLY ***  
# *** RESPONSIBLE FOR ITS CORRECTNESS AND RUNNABILITY ***  
#####  
#END_HEADER  
#START_PARAMETER_LIST  
  
#ScriptFileName "Collect MCT 410 and 420 Readings.ctf"  
  
#ScriptDescription ""  
  
#The name of the schedule.  
set ScheduleName "Collect MCT 410 and 420 Readings"  
  
#The name of the meter group to read.  
set GroupName "/Meters/Collection/MCT-410 and 420"  
  
#The type of group.  
set GroupType "group"  
  
#Number of seconds to wait for porter to try.  
set WaitTime "10000"  
#####
```

Java Client Retirements

- Custom Displays - Tabular Data Console (TDC)

- Navigate to **Data Viewer** under the Tools menu
- Existing custom displays
- Primarily used to display ad hoc tables of related data points
- Easily find related data points by device or point names

The screenshot shows the Eaton Data Viewer interface. The top navigation bar includes the Eaton logo, 'AMI', 'Demand Response', 'Volt/Var', 'Assets', 'Tools', and 'Admin'. The breadcrumb trail is 'Home / Data Viewer / Chicago Weather'. The main content area is titled 'Chicago Weather' and contains a form with 'Name: Chicago Weather' and an empty 'Description' field. Below the form are two panels: 'Available' and 'Selected'. The 'Available' panel has a search box containing 'minneapolis' and a table of data points. The 'Selected' panel shows two items: 'Chicago Ohare - Temperature' and 'Chicago Ohare - Relative Humidity'. At the bottom, a dropdown menu shows 'Gateway(2.0)-02 LM Control Status MCT-410cL (39631918)' and a 'Create' button.

Point	Point ID	Device	Point Type
Temperature	40860	Minneapolis, Crystal Airport	Analog
Temperature	1532262	Minneapolis Blaine Airport	Analog
Relative Humidity	40859	Minneapolis, Crystal Airport	Analog
Relative Humidity	1532261	Minneapolis Blaine Airport	Analog

Java Client Retirements

- Commander
 - Navigate to **Commander** under the Tools menu
 - Note the Commander option is available under the Actions button on the Meter Details pages as well
 - Primarily manual PLC based commands to one or more devices
 - Device and command selections
 - Option to setup custom command selections also available

The screenshot displays the Commander interface. At the top, the breadcrumb navigation shows 'Device' and 'Load Group' leading to 'ExpressCom' and 'VersaCom'. The 'Device' dropdown is set to 'CCU-721 (0)'. A 'Select a C...' dropdown is open, showing a list of commands. The 'Device Commands' dialog is open, showing a list of commands with columns for 'Command Name', 'Command', 'Visible', and 'Category'. The 'All MCTs' category is selected in the left-hand list.

Command Name	Command	Visible	Category
Clear kWh Reading	putvalue kyz 1 reset	<input checked="" type="checkbox"/>	All MCTs
<input checked="" type="checkbox"/> Read Config	getconfig install all	<input checked="" type="checkbox"/>	All MCTs
Read Current Demand	getvalue demand	<input checked="" type="checkbox"/>	All MCTs
Read Demand Interval (LP t	getconfig interval ?LP/LI	<input checked="" type="checkbox"/>	All MCTs
Read Energy	getvalue kWh	<input checked="" type="checkbox"/>	All MCTs
Read General Info	getstatus internal	<input checked="" type="checkbox"/>	All MCTs
Read Meter Config	getconfig model	<input checked="" type="checkbox"/>	All MCTs
Read MPKH ()	getconfig mult kyz 1	<input checked="" type="checkbox"/>	All MCTs
Read Powerfail	getvalue powerfail	<input checked="" type="checkbox"/>	All MCTs
<input checked="" type="checkbox"/> Send Config	putconfig install all	<input checked="" type="checkbox"/>	All MCTs

Java Client Retirements

The retired Java Clients were removed with the release of Yukon v9.0 in May of 2021



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Agenda

01

Introduction

02

Software Release Process Overview

03

Recent New Features and Improvements

04

Migration of Java Client Functionality



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Next in Grand Station 2

- Customer Forum on EV Chargers and other Emerging Grid Challenges



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