



Powering Business Worldwide



Cumulative Release Notes

Release 6.0.2

Version 1

July 2019

Eaton

www.eaton.com/powerquality

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Contact Eaton Support

For your convenience, Eaton provides support to assist you with questions on installation, operation and troubleshooting. Please contact us at:

softwareconnectivityts@eaton.com

800-356-5737 option 2, option 5, option 1

Contents

| | |
|--|----|
| Contents | 3 |
| 1. Introduction | 4 |
| 1.1. About This Guide | 4 |
| 2. Release Details | 5 |
| 2.1. Upgrade Patch | 5 |
| 2.1.1. Upgrade Patch Details | 5 |
| 2.1.2. Upgrade Patch Prerequisites | 5 |
| 2.1.3. Upgrade Patch Installation Instructions | 6 |
| 3. Version 6.0.1 New Features and Enhancements | 7 |
| 4. Version 6.0.0 New Features and Enhancements | 33 |

1. Introduction

1.1. About This Guide

This guide provides detailed information related to the features and enhancements provided in recent releases of the application.

2. Release Details

This version of the product is available as an upgrade patch to the previous release.

2.1. Upgrade Patch

The following details apply to the upgrade patch version of the installation which is applied to an existing instance of the application only. To perform a new install of the application please visit the support portal for links to the full installer and supporting documents.

2.1.1. Upgrade Patch Details

| Item | Description |
|-------------------------------|--------------------------------------|
| Name of Install File | VPMPatch-190722-C-6.00.00002.tar.bz2 |
| Type of Install File | Upgrade |
| MD5 Checksum | 0a5bb39e83dcadb220cb90979648c14c |
| Release Date | July 22, 2019 |
| Version Affected | 6.0.1 |
| Version of 3D Client Required | 6.0.2 |

2.1.2. Upgrade Patch Prerequisites

The following items are required to complete a successful installation of this release.

Please ensure all pre-requisites are met prior to starting any installations of the application.

- **WARNING: Before installing this patch, please ensure that ALL VDC servers have at least one known-good and recent backup and/or VM snapshot to rollback to if necessary.**
- **YUM repository is required for patch installation.** Please see the YUM section of the Server & OS Installation Guide for YUM configuration details.
- All VDC servers must have version affected (as noted above) installed
 - Version number is visible on the Web Interface link ribbon bar on the upper left or
 - On the server run: `cat /opt/VDC/VERSION`
- **WARNING: If the VDC system consists of multiple servers, it is vital to install this patch in the following order:**
 - Master Database Server first
 - Then the Master Server
 - Finally all the Probe Servers
 - If the Master Database Server and Master Server reside on the same server, apply this patch on that server first
- Must have SSH access via a tool like PuTTY to gain command line access on the server
- Must have access to the systems using the root user account
- Must have the ability to transfer the patch file to the server (example: WinSCP)
- Confirm the integrity of the patch transfer by comparing the MD5 checksum located in the Patch Details above:

- After moving the file from your local system to the application server run:
`md5sum PATCH_NAME.tar.bz2`
- Confirm that MD5 Checksum matches the value in the table above.

2.1.3. Upgrade Patch Installation Instructions

Follow the instructions below to successfully apply this version of the product to your existing application servers.

WARNING you will be presented with a similar message at the beginning of the installation. Please ensure that the conditions are met before starting the install.

```
# /opt/VDC/patch/VDCPatch-180204-C-5.04.00000/install
Before installing this patch, please ensure that ALL VDC servers have at least one known-good and
recent backup and/or VM snapshot to rollback to if necessary. Is such a known-good and recent
backup and/or VM snapshot available for EVERY VDC server? (YES/NO): YES

If the VDC system consists of multiple servers, it is vital to install this patch on the Master Database
Server first, then the Master Server, finally all the Probe Servers. If the Master Database Server and
Master Server reside on the same server, apply this patch on that server first. Is this required
installation sequence being followed correctly? (YES/NO): YES
```

- Upload **PATCH_NAME.tar.bz2** onto all application servers under /tmp/
- Login to all application servers as root user
- Extract the patch installer by running:
 - `tar -C /opt/VDC -xvf /tmp/PATCH_NAME.tar.bz2`
- Apply the patch by running:
 - `/opt/VDC/patch/PATCH_NAME/install`
- **Clear browser history** after installation before launching a web session to log into the new version of the application.

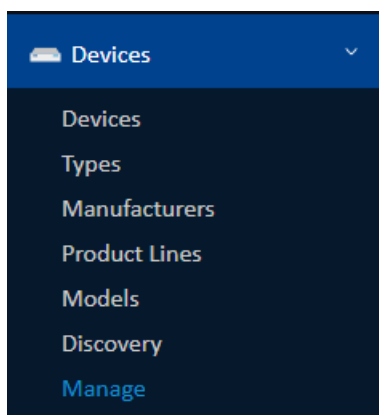
3. Version 6.0.2 New Features and Enhancements

The following list of features, enhancements and bug fixes are included in this version of the product. The prefix for each item included in this release will indicate if the enhancement is included in the Web interface, 3D client interface or Both interfaces. If no prefix is listed, then the enhancement is a general enhancement to the application without an update to the user interface. Items listed with a reference in [] were originated in the Customer Support Portal. The number in [] is a reference to the Support Portal Ticket ID.

| ID | Description |
|-------------|---|
| 3426 | [NYN-460-31616] Rack Import Placement Issue on Import |
| 3430 | WI: Eaton Bulk Config Upload for UPS M2 Card |
| 3431 | WI: IE Browser, Mobile and iPad compatibility |

- 3426 [NYN-460-31616] Rack Import Placement Issue on Import**
Fixed an issue where an imported Rack was not being placed correctly on the floorplans. Users can now export racks, make edits and import back to the application with no issues on rack locations.
- 3430 WI: Eaton Bulk Config Upload for UPS M2 Card**
A new feature was added to the application to support bulk configuration of Eaton Rackmount UPS devices which are using an M2 communications card. The following information details the new feature.

The Firmware menu item on the Device group has been renamed from Firmware to Manage. This page will now support bulk management of both the Firmware files and the Configuration files.



When the UPS-Rackmount Type is selected, the options for bulk configuration management will be available to users.

< Manage

Search Clear

Manufacturer: Type:
 Name: Model:
 Owner: Device Group:
 Firmware Version: Rack:
 A/B Power: Rack Group:

[Upload Firmware](#) [Download Configuration](#) [Upload Configuration](#) [Set Access](#)

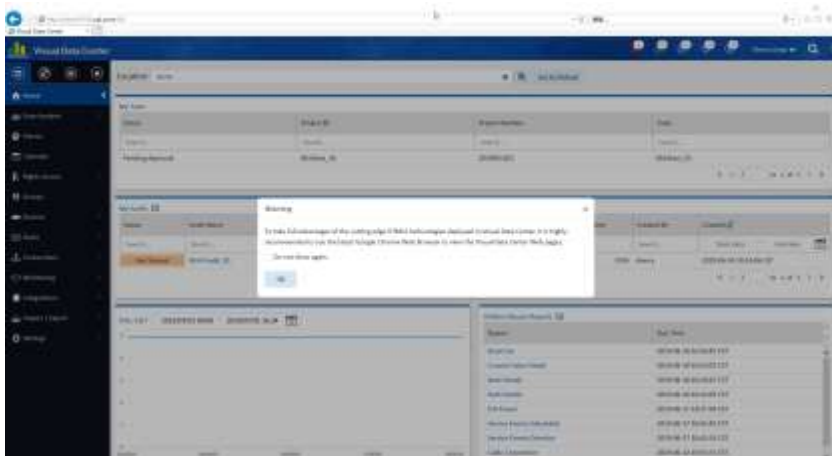
| <input type="checkbox"/> | Device Name | Model | Serial # | IP | Owner | Device Group | Firmware Version | Rack |
|-------------------------------------|--------------------|------------------|------------|-----------------|-------|--------------|-------------------|------|
| <input checked="" type="checkbox"/> | eUPS - ups01.lori | SP1000RC | | 192.168.111.121 | | Public | 1.5.1 | |
| <input checked="" type="checkbox"/> | eUPS - newhostname | SP550R | | 192.168.111.221 | | Public | 1.5.1 | |
| <input type="checkbox"/> | eUPS - UPS DOT 219 | PW9130L700R-XL2U | | 192.168.111.211 | | Public | ConnectUPS Web/ST | |
| <input type="checkbox"/> | eUPS - Dot 232 | BPX2000RT | GA19G41030 | 192.168.111.231 | | Public | Network Manage | |

The following steps can be completed to bulk manage the configurations of these devices:

- Select the checkbox for devices to be managed. Multiple devices may be selected. Note, this Bulk Configuration feature will only work for devices using the M2 communications card.
- Click the Set Access button. Enter the user and password configured on the devices to allow for administrative functions to be performed. This user/pw combination will be used to Download and Upload the configuration card from the selected devices.
 - Note, this Set Access process is only stored while the user is on this Manage page. If the user visits a different application page, then Set Access must be performed again.
- Click the Download Configuration button. An Excel spreadsheet will be delivered listing the current configurations for the selected devices.
- Update the configuration settings of the devices in the spreadsheet using the buttons on the top left or by entering them manually. Save the updated Excel spreadsheet.
- Click the Upload Configuration button and select the Excel spreadsheet. The updated configurations are applied to the devices selected in the list.
- Click the Set Password button. Enter the user, current password, new password, confirm the new password and click ok.
 - Note, the Import Central page will show a summary list of each device's IP address and the status of the password change. If there is an error, there will be an error-comments.txt that lists all the failed updates and some details.
- Important notes on these new features:
 - Download and Upload buttons are not enabled unless the Set Access action has been performed on the devices. A Yellow key will be displayed next to devices which have had their passwords set.
 - This version only supports the M2 communication card. The MS communication card is not supported in this release.

- View entries in the Calendar to understand if uploads are successfully started and/or completed.
 - View the Import | Export page to see specific details on errors which have occurred. Common errors include:
 - Incorrect user/pw combinations set for the device
 - Device is not available on the network
 - A selected device is not included in the Excel Upload spreadsheet
 - The Upload Configuration process will restart the communications card on the UPS device. There will be a 2-3 minute restart time until the card is reachable via the web again.
 - The Excel spreadsheet will not copy or clone these configurations settings: System Name, Hostname, IPv4 Address.
- **3431 WI: IE Browser, Mobile and iPad compatibility**
Application pages and templates have been updated to resolve issues with some versions of Internet Explorer and Mobile web interfaces.

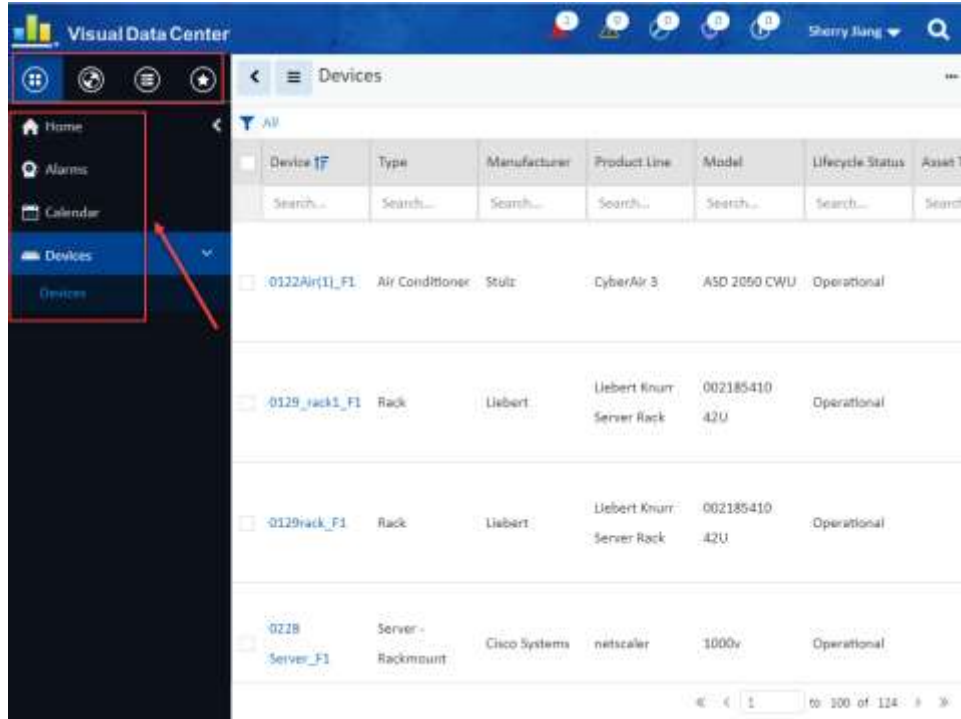
IE is supported for version 6.0.2, but it is highly recommended to use the latest Google Chrome Web Browser to view the VPM web pages. If users do not use Google Chrome, there will be a warning message to remind users when they first login. If “Do not show again” is checked and the user clicks the OK button, this message will not show at subsequent logins.



A new, limited menu interface has been introduced when users login with a mobile tablet or phone device. This limited interface is designed to provide mobile users with core features of the application via native browsers on these devices. Mobile browser users can access the following pages:

- Home
- Alarms
- Calendar
- Devices
- Location Tree

- Search
- Favorites

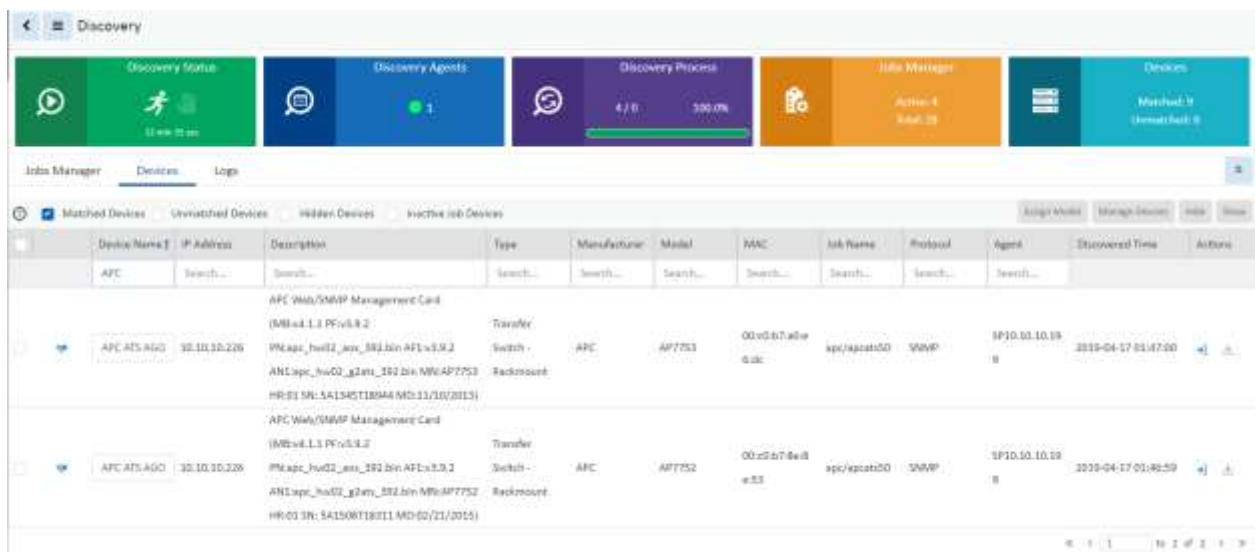


4. Version 6.0.1 New Features and Enhancements

The following list of features, enhancements and bug fixes are included in this version of the product. The prefix for each item included in this release will indicate if the enhancement is included in the Web interface, 3D client interface or Both interfaces. If no prefix is listed, then the enhancement is a general enhancement to the application without an update to the user interface. Items listed with a reference in [] were originated in the Customer Support Portal. The number in [] is a reference to the Support Portal Ticket ID.

| ID | Description |
|------|--|
| 3352 | WI: Support APC Rackmount ATS in Discovery |
| 3353 | WI: Add Connections Table in Device Central |
| 3355 | WI: Navigation Tree Enhancement |
| 3362 | WI: Support Starline Power Bus in Discovery |
| 3363 | WI: Support Server Tech PDU in Discovery |
| 3364 | WI: Support Eaton M2 UPS in Discovery |
| 3365 | WI: Add Power Source on Rack Capacity Dashboard |
| 3366 | WI: Add About Link to Help Page |
| 3367 | WI: Location Access Control List Enhancement |
| 3368 | WI: Support Import Navigation Tree Nodes |
| 3369 | WI: Daisy Chain Firmware Push |
| 3370 | WI: Support firmware and load segment controls for both models of cards in Eaton devices |
| 3378 | Update UPS Battery Replacement Report |
| 3381 | Add Firmware Version as Monitored Data Points |

- 3352 WI: Support APC Rackmount ATS in Discovery**
 Added ability to discover APC rackmount ATS devices.



Added a monitoring template for APC Rackmount ATS models.

| ID | Name | Unit | Data Type | Monitor Type | Parameters/Formula | Value Type | Unit | Status |
|----|-------------------------------|------|-----------|--------------|----------------------------------|------------|------|-------------------------------------|
| | Active Source | | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.2) | Enum | | <input checked="" type="checkbox"/> |
| | ATS Source | | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.10) | Enum | | <input checked="" type="checkbox"/> |
| | Config Current Limit | A | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.9) | Default | A | <input checked="" type="checkbox"/> |
| | Config Frequency Deviation | | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.8) | Enum | | <input checked="" type="checkbox"/> |
| | Config Front Panel Lockout | | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.7) | Enum | | <input checked="" type="checkbox"/> |
| | Config Input Voltage Rating | V | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.6) | String | V | <input checked="" type="checkbox"/> |
| | Config Line VRMS Medium Limit | V | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.5) | Default | V | <input checked="" type="checkbox"/> |
| | Config Line VRMS Narrow Limit | V | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.4) | Default | V | <input checked="" type="checkbox"/> |
| | Config Line VRMS Wide Limit | V | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.3) | Default | V | <input checked="" type="checkbox"/> |
| | Config Preferred | | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.2) | Enum | | <input checked="" type="checkbox"/> |
| | Config Sensitivity | | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.1) | Enum | | <input checked="" type="checkbox"/> |
| | Config Transfer Voltage Range | | Integer | WSP | 003(1.128.1.41.318.1.1.8.1.1.0) | Enum | | <input checked="" type="checkbox"/> |

There is a corresponding dashboard for APC rackmount ATS devices.

| Attribute | Value | Unit | Last Polled Time |
|-------------------------------|------------------|------|-------------------------|
| Active Source | Source 1 | | 2019-04-08 23:49:58 EDT |
| ATS Status | OK | | 2019-04-08 23:49:58 EDT |
| Config Current Limit | 22.00 | A | 2019-04-08 23:49:58 EDT |
| Config Frequency Deviation | Two | | 2019-04-08 23:49:58 EDT |
| Config Front Panel Lockout | EnableFrontPanel | | 2019-04-08 23:49:58 EDT |
| Config Input Voltage Rating | 120 | V | 2019-04-08 23:49:58 EDT |
| Config Line VRMS Medium Limit | 12.00 | V | 2019-04-08 23:49:58 EDT |
| Config Line VRMS Narrow Limit | 6.00 | V | 2019-04-08 23:49:58 EDT |
| Config Line VRMS Wide Limit | 20.00 | V | 2019-04-08 23:49:58 EDT |
| Config Preferred | Source 1 | | 2019-04-08 23:49:58 EDT |
| Config Sensitivity | Normal | | 2019-04-08 23:49:58 EDT |

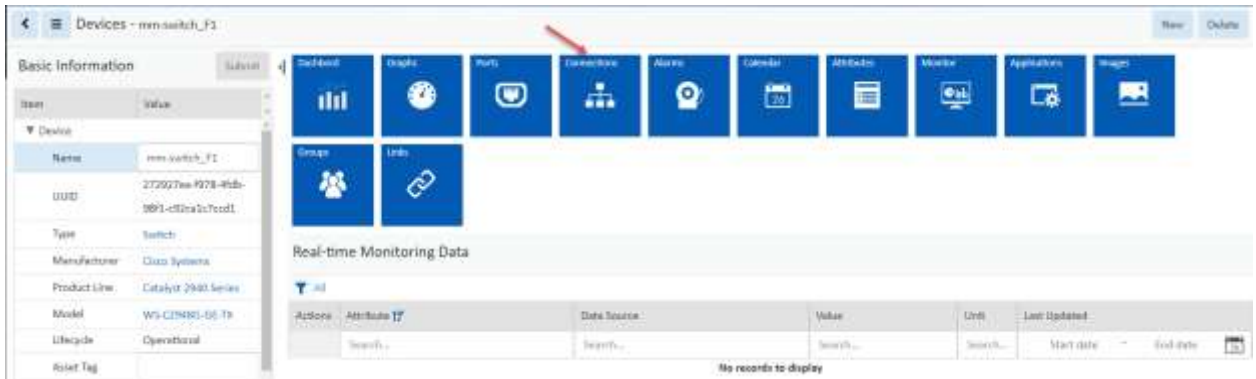
Outlets Capacity

Total: 16

- Remaining: 16 (100.00%)
- Used: 0 (0.00%)

- **3353 WI: Add Connections Table in Device Central**

Add a separate table to list connected/reserved ports with connection information. Port to Port connections have more information than just the target device and port. This table also displays color, length, port type, speed, VLAN, etc.



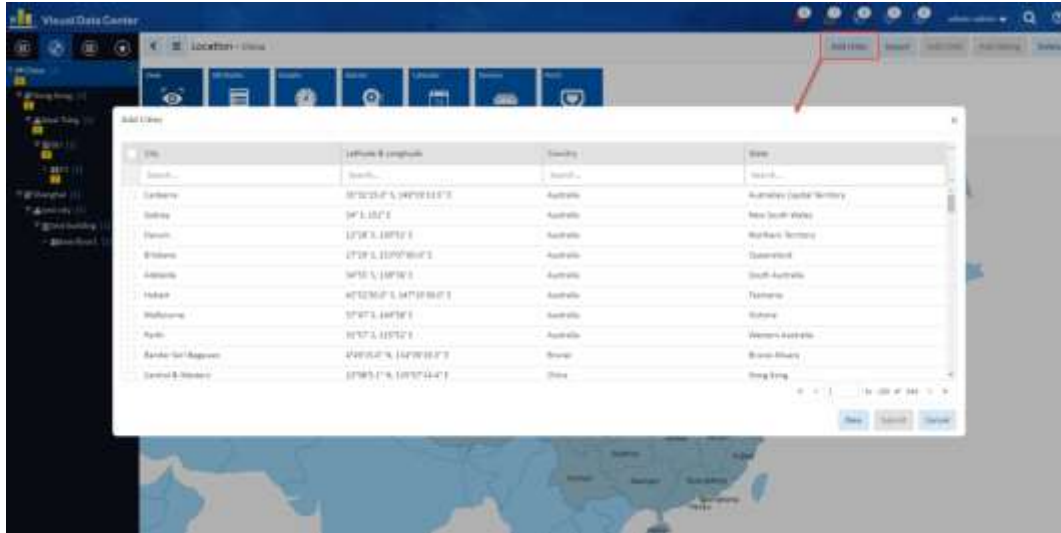
Connections

| Port Name | Port Type | Port Status | Connected Port | Cable Name | Serial Number | Color | Length | Speed | VLAN |
|-----------|-------------|-------------|----------------------|-----------------|---------------|-------|----------|-------|------|
| ni 1 | Network In | Connected | mm-switch: ni 1 | New Cable021801 | SN040101 | | 12.00 ft | 1001 | |
| ni 2 | Network In | Connected | mm-switch: ni 2 | New Cable | | | | 1001 | |
| no 01 | Network Out | Connected | mm-pp11_F1: no 05 | New Cable | | | | 1001 | |
| no 04 | Network Out | Connected | mm-switch: no 13 | New Cable | | | | 1001 | |
| no 08 | Network Out | Connected | mm-switch: no 15 | New Cable | | | | 1001 | |
| no 23 | Network Out | Reserved | 0305 server 01: ni 1 | | | | | 1001 | |
| no 34 | Network Out | Reserved | 0329 server 01: ni 2 | | | | | 1001 | |

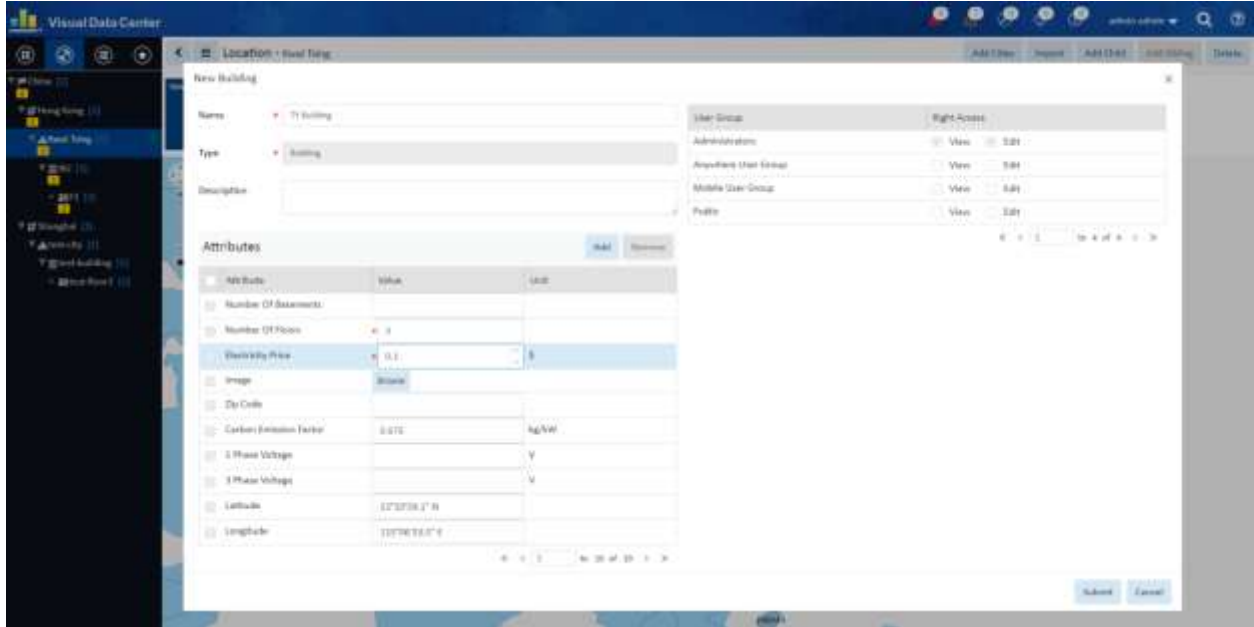
Navigation: << 1 to 7 of 7 >>

- **3355 WI: Navigation Tree Enhancements**
Navigation tree has been converted to HTML5.

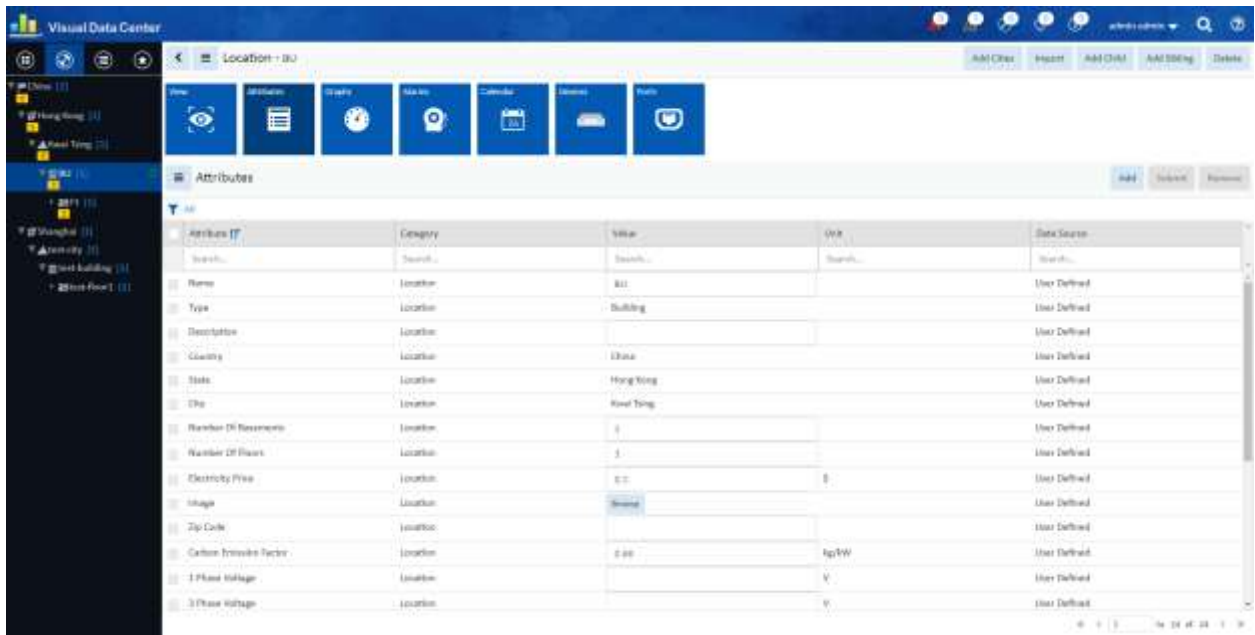
1) Users can use Add Cities to create country, state and city.



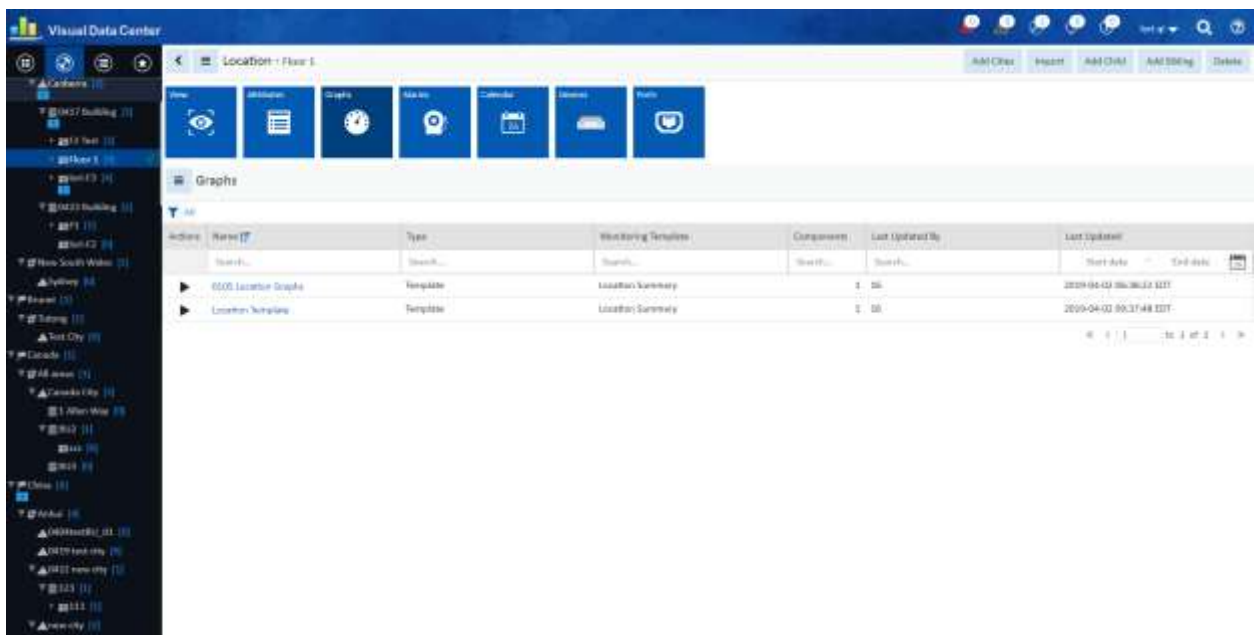
2) Users can use Add Child/Add Sibling to create building, floor and area nodes. Users can use Delete button to delete those nodes which are no longer in use.



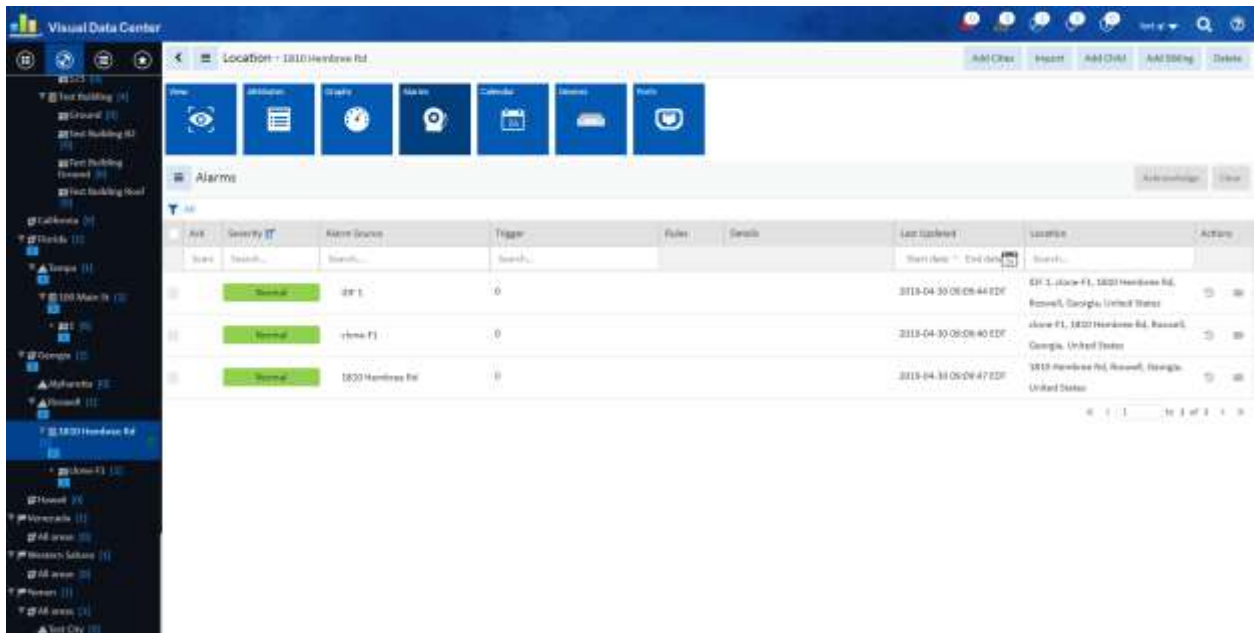
3) By clicking Attributes tile, users can add, modify or remove attributes for selected location node.



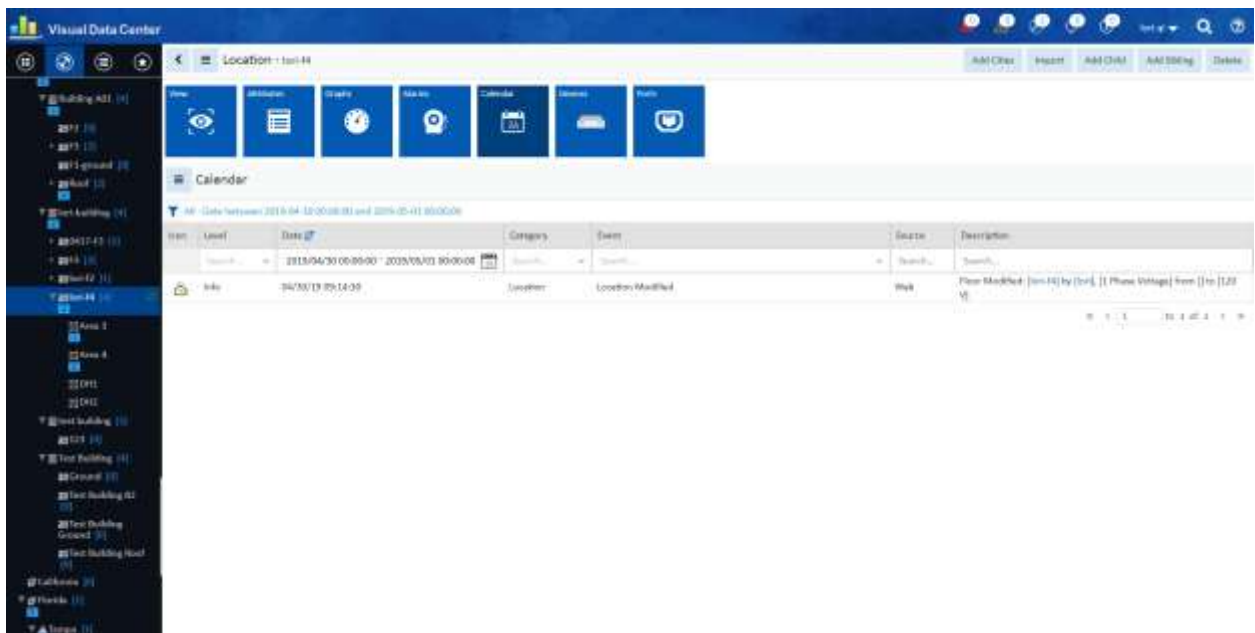
4) Graphs – Shows all graphs defined for selected location



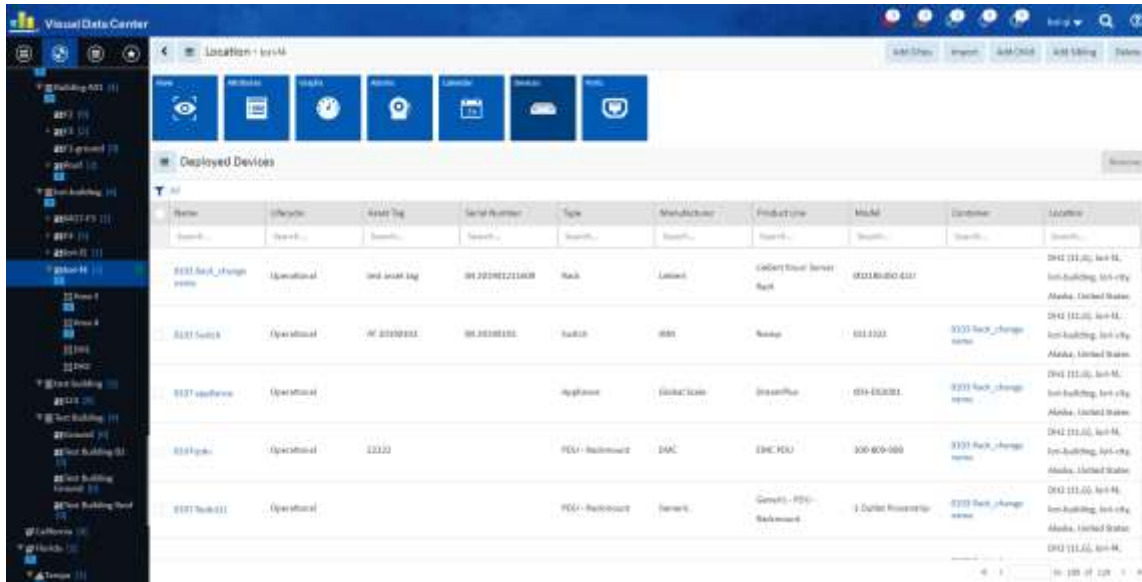
- 5) Alarms – All alarms generated for selected location and alarms for devices mounted in the selected location node.



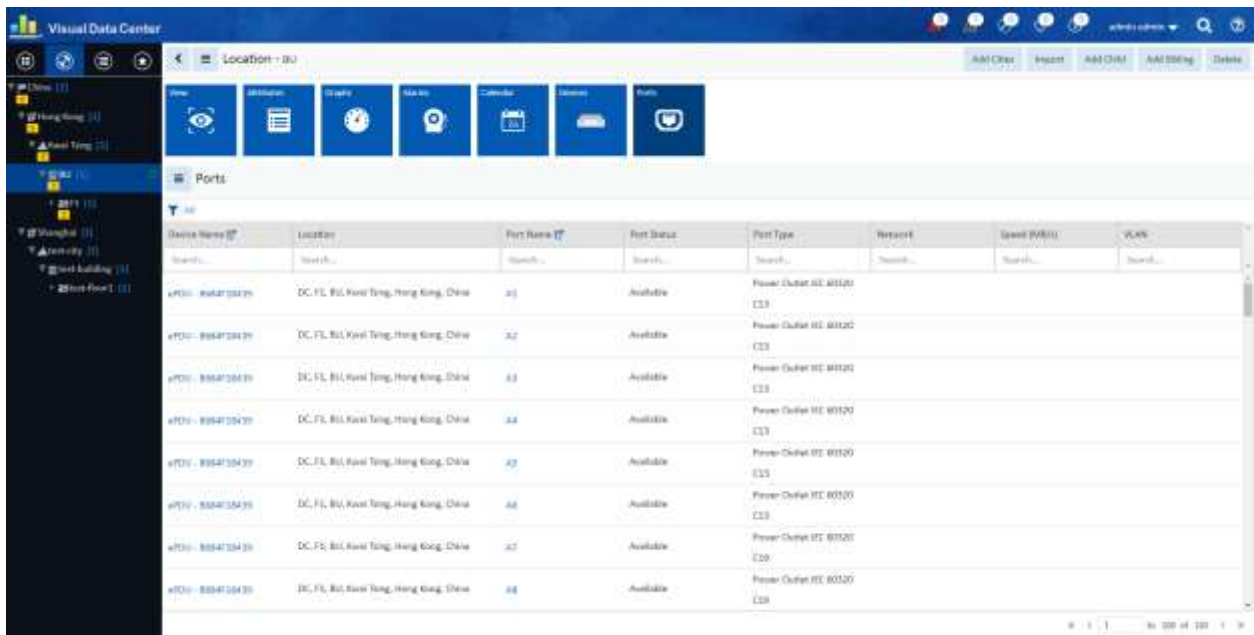
- 6) Calendar – Show all event logs generated for selected location.



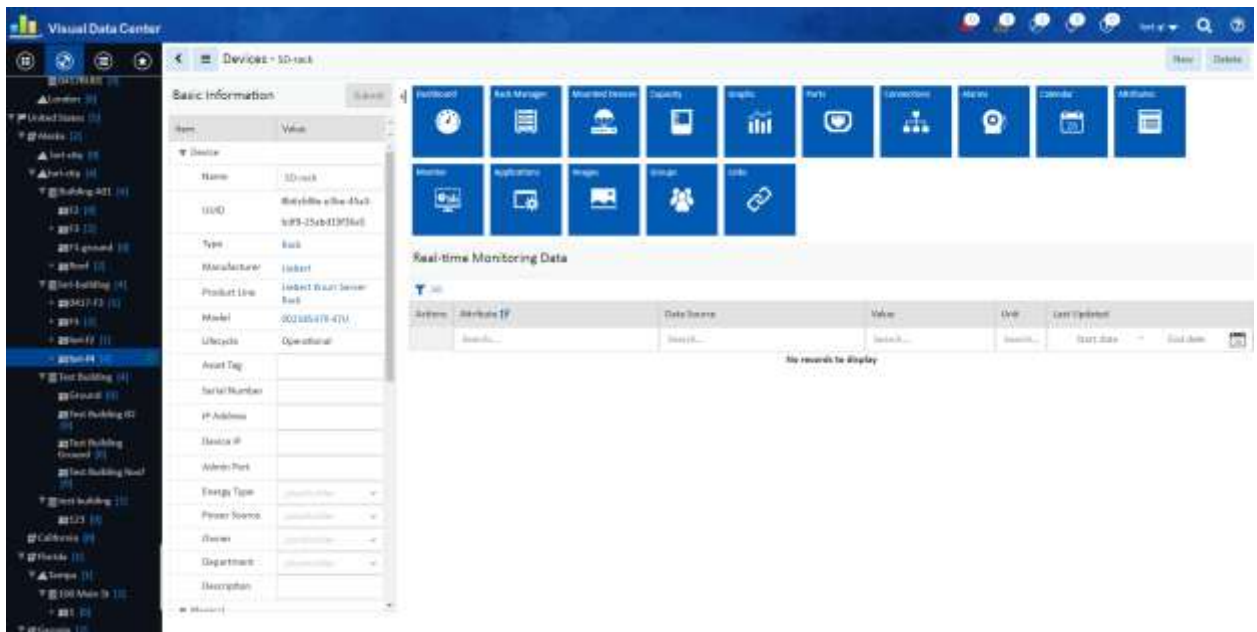
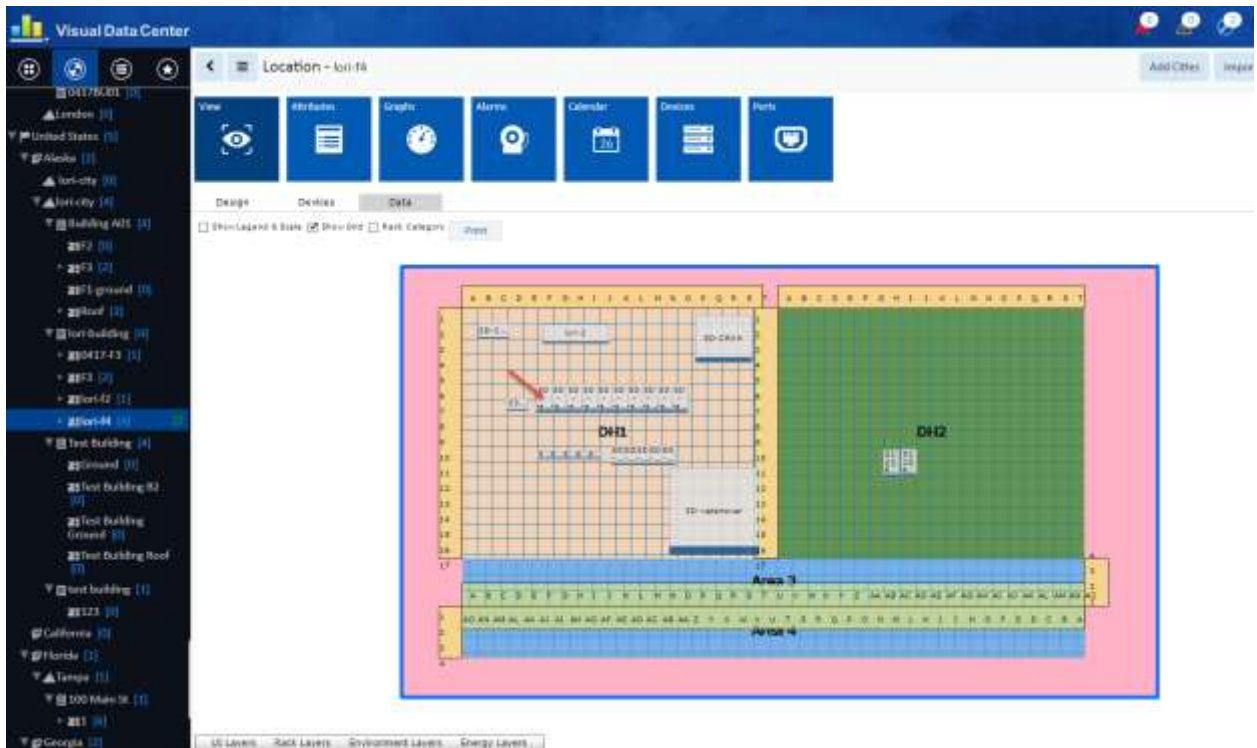
- 7) Devices – Show all devices mounted in the selected location. Users can click on the device name to open the device central.



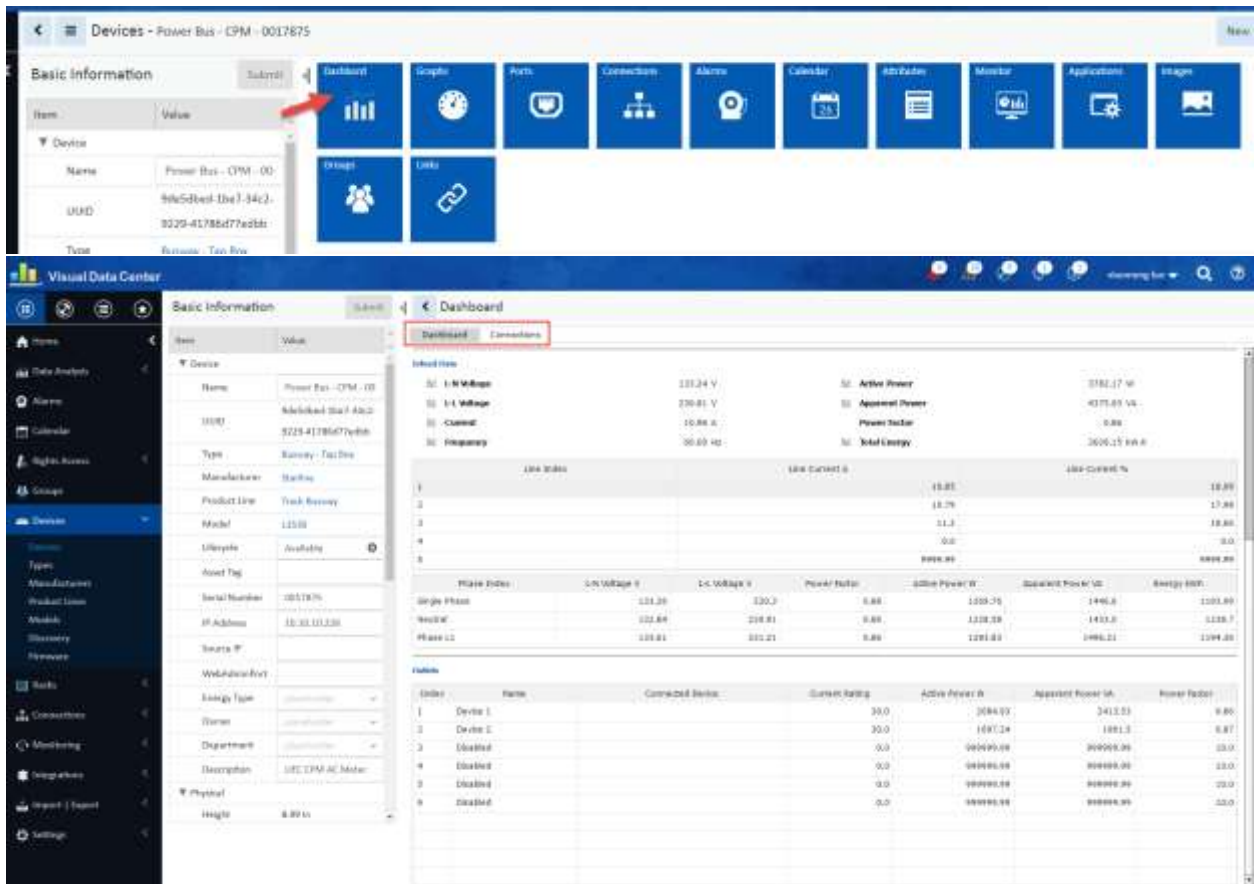
- 8) Ports – Show all device ports in selected location. Users can click on the port name to open the circuit trace. Users can click the device name to open device central.



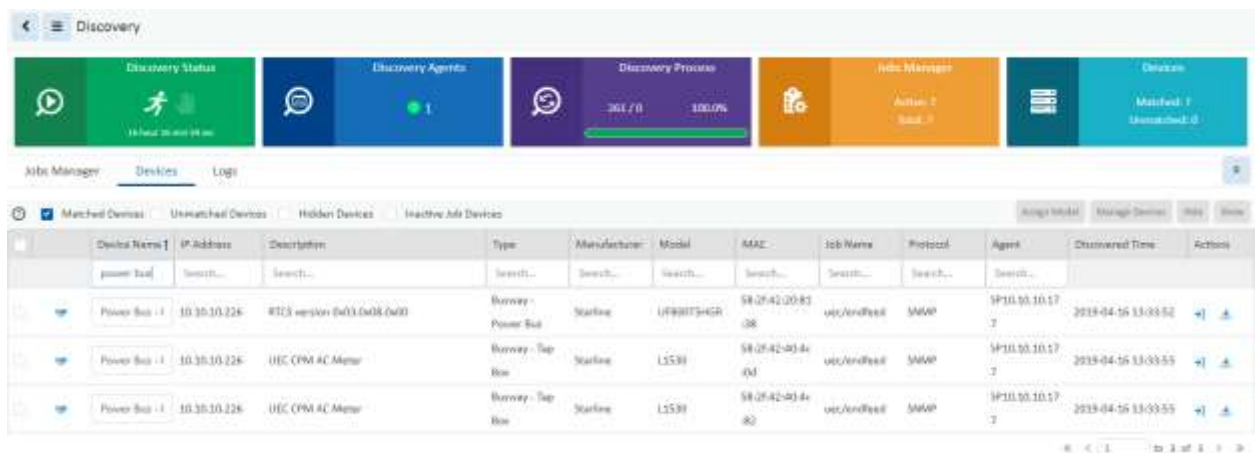
- 9) Devices and Ports are removed from the navigation tree. Users can open device central by double clicking on the device on the floor View page.



10) Users can open device Dashboard and Connections tab from device central -> Dashboard



- **3362 WI: Support Starline Power Bus in Discovery**
Added ability to discover Starline Power Bus and Tap Boxes.



Added a monitoring template for Starline Power Bus and Tap Boxes.

The screenshot shows the 'Monitoring Template - Starline Busway - Power Bus' configuration page. It includes a left sidebar with navigation options like Home, Data Analysis, Alarms, and Monitoring. The main content area has a form for Name, Category, and Description, and a table of parameters to be monitored.

| ID | Name | Unit | Data Type | Monitor Type | Parameters/Formula | Value Type | Unit | Status |
|----|----------------------------------|------|-----------|--------------|-------------------------------|------------|------|-------------------------------------|
| | Active Power | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.4.7.0 | Default | W | <input checked="" type="checkbox"/> |
| | Apparent Power | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.4.8.0 | Default | VA | <input checked="" type="checkbox"/> |
| | Current | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.4.9.0 | Default | A | <input checked="" type="checkbox"/> |
| | Energy | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.5.0.0 | Default | kWh | <input checked="" type="checkbox"/> |
| | Infeed Line Current 1 | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.5.1.0 | Default | A | <input checked="" type="checkbox"/> |
| | Infeed Line Current 2 | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.5.2.0 | Default | A | <input checked="" type="checkbox"/> |
| | Infeed Line Current 3 | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.5.3.0 | Default | A | <input checked="" type="checkbox"/> |
| | Infeed Line Current 4 | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.5.4.0 | Default | A | <input checked="" type="checkbox"/> |
| | Infeed Line Current 5 | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.5.5.0 | Default | A | <input checked="" type="checkbox"/> |
| | Infeed Line Current Percentage 1 | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.5.6.0 | Default | % | <input checked="" type="checkbox"/> |
| | Infeed Line Current Percentage 2 | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.5.7.0 | Default | % | <input checked="" type="checkbox"/> |
| | Infeed Line Current Percentage 3 | | Scaler | WSP | 0001.1.1.1.1.1.0776.1.1.5.8.0 | Default | % | <input checked="" type="checkbox"/> |

There is a corresponding dashboard for the devices.

The screenshot shows a device dashboard with two main sections: Basic Information and a Dashboard. The Basic Information section lists details like Name, Model, Type, and Manufacturer. The Dashboard section provides a summary of key metrics and detailed performance data.

Basic Information:

- Name: Power Bus - CFM - 02
- Model: Modelled Star Line
- SN: 522541286072636
- Type: Energy - Tap Line
- Manufacturer: Starline
- Product Line: Truck Busway
- Model: 1230
- Lifecycle: Available
- Asset Tag:
- Serial Number: 0017876
- IP Address: 10.0.0.1234
- Source IP:
- WebAddress:
- Energy Type: (dropdown)
- Owner: (dropdown)
- Department: (dropdown)
- Description: IEC CFM AC Motor
- Physical:
 - Height: 8.89 m

Dashboard:

Info:

- Line Voltage: 232.4 V
- Line Current: 18.81 A
- Active Power: 3382.17 W
- Apparent Power: 4377.81 VA
- Current: 18.88 A
- Power Factor: 0.88
- Total Energy: 3605.15 kWh

Line Status:

| Line | Line Current A | Line Current B | Line Current % |
|------|----------------|----------------|----------------|
| 1 | 18.81 | 18.81 | 18.81 |
| 2 | 18.79 | 18.79 | 17.86 |
| 3 | 11.1 | 11.1 | 18.86 |
| 4 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 |

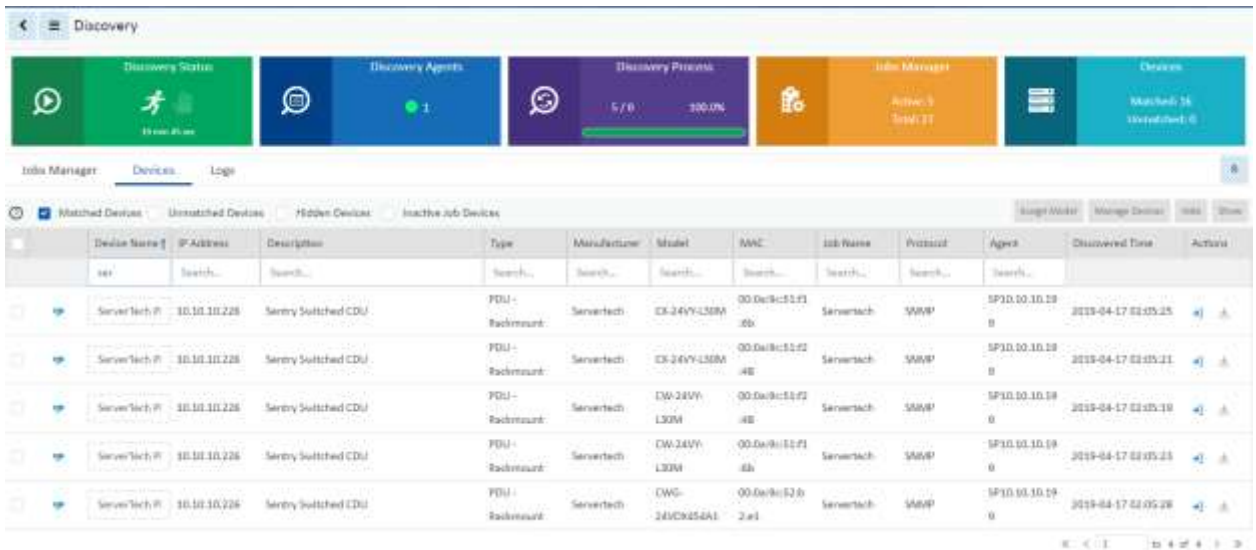
Phase Data:

| Phase Data | L-L Voltage V | L-N Voltage V | Power Factor | Active Power W | Apparent Power VA | Energy kWh |
|--------------|---------------|---------------|--------------|----------------|-------------------|------------|
| Single Phase | 232.26 | 230.7 | 0.88 | 3382.70 | 4462.0 | 3382.89 |
| Phase U | 232.88 | 238.81 | 0.88 | 3228.39 | 4132.0 | 3228.7 |
| Phase LV | 233.81 | 237.21 | 0.88 | 3281.83 | 4462.0 | 3281.83 |

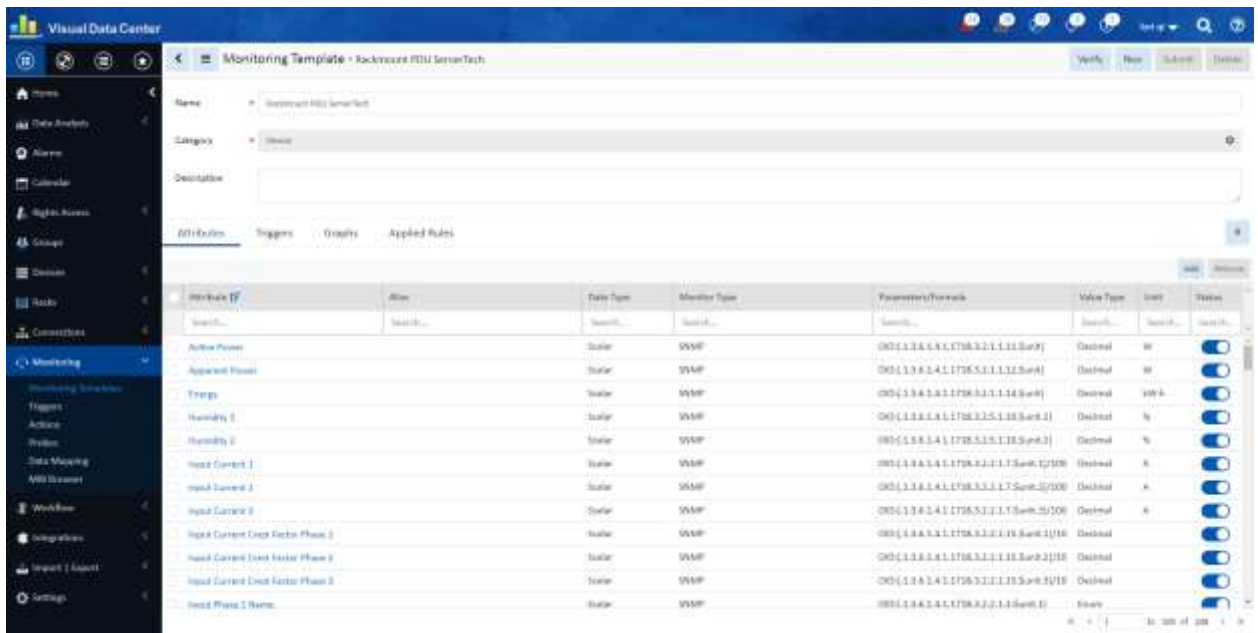
Tables:

| Order | Name | Connected Status | Current Rating | Active Power W | Apparent Power VA | Power Factor |
|-------|----------|------------------|----------------|----------------|-------------------|--------------|
| 1 | Device 1 | | 30.0 | 3084.93 | 3412.23 | 0.89 |
| 2 | Device 2 | | 30.0 | 1697.24 | 1991.2 | 0.87 |
| 3 | Disabled | | 0.0 | 00000.00 | 00000.00 | 0.0 |
| 4 | Disabled | | 0.0 | 00000.00 | 00000.00 | 0.0 |
| 5 | Disabled | | 0.0 | 00000.00 | 00000.00 | 0.0 |
| 6 | Disabled | | 0.0 | 00000.00 | 00000.00 | 0.0 |

- **3363 WI: Support Server Tech PDU in Discovery**
Added ability to discover Server Tech PDUs.



Added monitoring template for Server Tech PDU models.



There is a corresponding dashboard for the devices.

Visual Data Center - Dashboard

Basic Information

| Item | Value |
|---------------|---------------------|
| Device | |
| Name | ServerRack PDU - M2 |
| UUID | 801126820072e |
| Type | PDU - Rackmount |
| Manufacturer | Schneider |
| Product Line | Smart PDU |
| Model | CS-12P19M4C2 |
| Lifecycle | Available |
| Asset Tag | |
| Serial Number | AD00000111 |
| IP Address | 10.10.10.226 |
| Device IP | |
| Admin Port | |
| Energy Type | |
| Color | |
| Department | |
| Description | Server Smart PDU |
| Height | 3.50 m |

Power Capacity (W)

| Actual | Desired | Rated |
|----------|----------|----------|
| 1,890.00 | 2,000.00 | 2,000.00 |

Phases

| Phase | Current (A) | Load (A) | Creff Factor | Watts | Depth Factor | Input Power (W) |
|---------|-------------|----------|--------------|----------|--------------|-----------------|
| Phase_L | 11.86 A | | 1.79 | 207.18 W | 1194.08 W | 1193.28 W |
| Phase_N | 13.47 A | | 1.79 | 288.00 W | 1136.08 W | 1134.08 W |
| Phase_C | 18.23 A | | 1.49 | 257.40 W | 1194.08 W | 1195.00 W |

- **3364 WI: Support Eaton M2 UPS in Discovery**
Added ability to discover Eaton M2 UPS.

Discovery

Discovery Status: 48 hour 18 min 29 sec

Discovery Agents: 1

Discovery Process: 261 / 0 100.0%

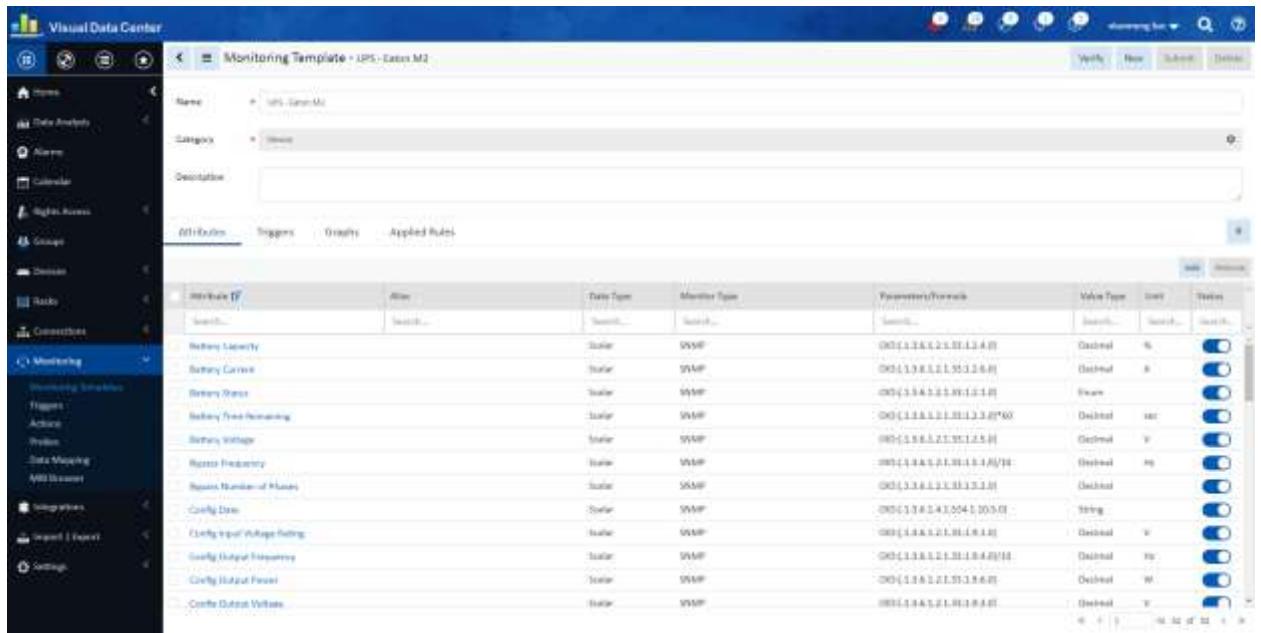
Jobs Manager: Action 7 Total 7

Overview: Matched 7 Unmatched 0

Jobs Manager | **Devices** | Logs

| Device Name | IP Address | Description | Type | Manufacturer | Model | WAC | Job Name | Protocol | Agent | Discovered Time | Actions |
|-------------|--------------|---|-----------------|--------------|---------|--------------------|----------|----------|---------------|---------------------|---------|
| 40PS-ups-08 | 10.10.10.226 | Eaton 10Gbit Network Card | UPS - Rackmount | Eaton | SP1000 | 90.10.85 with 9.66 | M2 | SNMP | SP10.10.10.17 | 2019-04-16 15:46:58 | [i] [d] |
| 40PS-ups-08 | 10.10.10.226 | Eaton 10Gbit Network Card Eaton DOT 120 | UPS - Rackmount | Eaton | SP1000C | 90.10.85 with 9.66 | M2 | SNMP | SP10.10.10.17 | 2019-04-16 15:46:58 | [i] [d] |

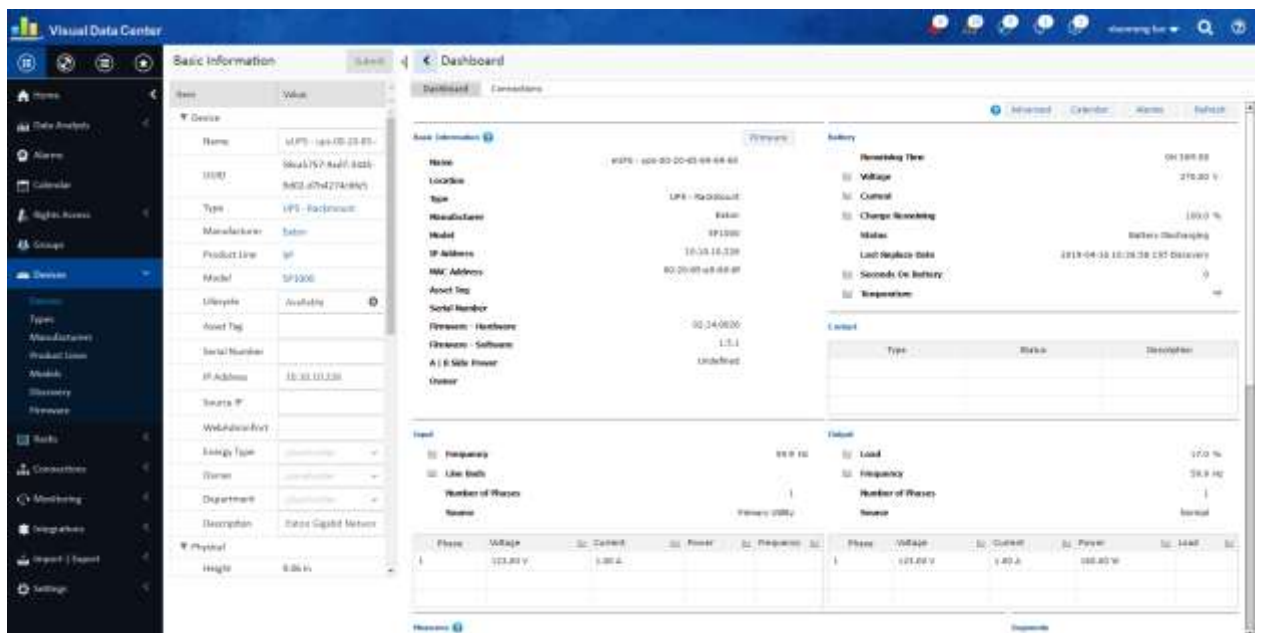
Added a monitoring template for the M2 network card devices.



The screenshot shows the 'Monitoring Template - UPS-Eaton-M2' configuration page. It includes a left-hand navigation menu with options like Home, Data Analysis, Alerts, Calendars, High Availability, Groups, Devices, Tools, Connections, Monitoring, Integrations, Import & Export, and Settings. The main content area is titled 'Monitoring Template - UPS-Eaton-M2' and contains a form with fields for Name, Category, and Description. Below the form are tabs for 'All Devices', 'Triggers', 'Graphs', and 'Applied Rules'. A table lists various parameters to be monitored for the device.

| Module ID | Item | Data Type | Monitor Type | Parameters/Formula | Value Type | Unit | Status |
|-----------|------------------------------|-----------|--------------|-----------------------------------|------------|------|--------|
| | Battery Capacity | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Decimal | % | On |
| | Battery Charge | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Decimal | A | On |
| | Battery Status | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Enum | | On |
| | Battery Time Remaining | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Decimal | min | On |
| | Battery Voltage | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Decimal | V | On |
| | Battery Frequency | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Decimal | Hz | On |
| | Report Number of Pages | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Decimal | | On |
| | Cooling Date | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | String | | On |
| | Cooling Input Voltage Rating | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Decimal | V | On |
| | Cooling Output Frequency | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Decimal | Hz | On |
| | Cooling Output Power | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Decimal | W | On |
| | Cooling Output Voltage | Scalar | WSP | 001.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | Decimal | V | On |

There is a corresponding dashboard for the devices.



The screenshot shows the 'Dashboard' view for a device in the Visual Data Center. The left-hand navigation menu is visible, and the main content area is titled 'Dashboard'. It features a 'Basic Information' sidebar with details about the device, including Name, ID, Type, Manufacturer, Model, and IP Address. The main dashboard area is divided into several sections: 'Basic Information', 'Battery', 'Input', and 'Output'. Each section displays real-time data and trends for various parameters.

| Item | Value |
|---------------|-----------------------|
| Name | UPS-144-02-03-01 |
| ID | 0000157-0407-0000 |
| Type | UPS - Rackmount |
| Manufacturer | Eaton |
| Model | SP1000 |
| IP Address | 10.10.10.10 |
| Status | Available |
| Asset Tag | |
| Serial Number | |
| Department | Other Capital Network |
| Height | 0.86 in. |

| Item | Value |
|-----------------|----------|
| Frequency | 50.0 Hz |
| Line Load | 39.9 Hz |
| Number of Waves | 1 |
| Phase | Phase 1 |
| Voltage | 121.00 V |
| Current | 1.80 A |
| Power | 105.80 W |

| Item | Value |
|--------------------|---------------------------------|
| Remaining Time | 04:18:00 |
| Voltage | 270.00 V |
| Current | |
| Charge Remaining | 100.0 % |
| Status | Battery Charging |
| Last Recharge Date | 2019-04-18 10:34:58 CST (Daily) |
| Seconds On Battery | 0 |
| Temperature | 48 |

- 3365 WI: Add Power Source on Rack Capacity Dashboard**
 Power Source has been added to the Rack Capacity dashboard. The Power Source can be: PDU Rackmount, IT Devices, Rack Power, PDU or UPS Rackmount.

Capacity

| | | | | | | |
|-----------------|----|---|---|---|----|-----|
| eaton_PDU_01_F1 | 30 | 0 | 0 | 0 | 30 | 0.0 |
| mm-rpdu_F1 | 6 | 0 | 0 | 0 | 6 | 0.0 |
| rUPS_01_F1 | 5 | 0 | 0 | 0 | 5 | 0.0 |

| Device Name | Total | Used | Reserved | Broken | Available | % Utilization |
|---------------|-------|------|----------|--------|-----------|---------------|
| mm-pp11_F1 | 24 | 0 | 0 | 0 | 24 | 0.0 |
| mm-switch_F1 | 50 | 0 | 0 | 0 | 50 | 0.0 |
| pp_fiber01_F1 | 0 | 0 | 0 | 0 | 0 | N/A |

Power **Power Source: PDU - Rackmount**

Power Supply Devices Rated: 6.53 kW Derated: 14.0 kW Active: 2.0 kW % Utilization: 14.3

| Device Name | Type | Data Source | Power Rated (W) | Power Derated (W) | Active Power (W) | % Utilization |
|-----------------|-----------------|--------------|-----------------|-------------------|------------------|---------------|
| eaton_PDU_01_F1 | PDU - Rackmount | User Defined | 5760.0 | 6000.0 | 2000.0 | 33.3 |
| mm-rpdu_F1 | PDU - Rackmount | | N/A | 6000.0 | N/A | N/A |
| rUPS_01_F1 | UPS - Rackmount | | 770.0 | 2000.0 | N/A | N/A |

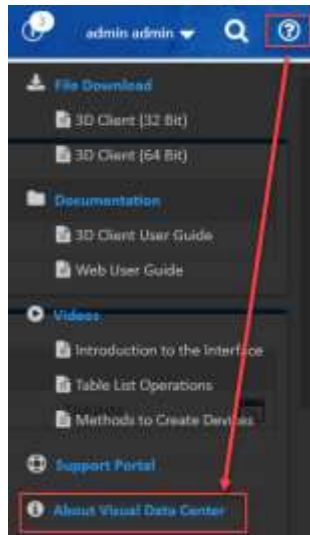
IT Devices Rated: 0.13 kW Derated: 0.13 kW Active: N/A % Utilization: N/A

| Device Name | Type | Data Source | Power Rated (W) | Power Derated (W) | Active Power (W) | % Utilization |
|--------------|-------------|-------------|-----------------|-------------------|------------------|---------------|
| mm-pp11_F1 | Patch Panel | | N/A | N/A | N/A | N/A |
| mm-switch_F1 | Switch | | 130.0 | 130.0 | N/A | N/A |

- **3366 WI: Add About Link to Help Page**

Shows basic product information to help with troubleshooting:

- Product Name and Current Version of the application
- Specific build information which may help troubleshooting
- Licensed customer
- License expiration, license model (FMA or Device)
- Server Time



- **3367 WI: Location Access Control List Enhancement**

Every location needs to be assigned accesses. All locations have separate view and edit access.

1. View Access

View this location on the navigation tree and the details page:

- a. Map/Floor View: Limited the data by devices access
- b. Site/Summary
- c. Attributes
- d. Graphs: Limited the data by devices access
- e. Alarms: Limited the data by devices access
- f. Calendar: Limited the data by devices access
- g. Deployed Devices: Limited the data by devices access
- h. Ports: Limited the data by devices access

2. Edit Access

Building

- 1) Modify name and attributes
- 2) Create children

Floor:

- 1) Modify name and attributes
- 2) Create children
- 3) Define floor shape
- 4) Deploy devices

Area:

- 1) Modify name and attributes
- 2) Deploy devices

4. Path View

User doesn't have View access to a node, but user has View access to its sub-nodes

User will can see the node on the tree but it is disabled and user cannot see details of the node

User Group - UG_ACL

Name: * UG_ACL

Description:

Users Components **Locations** Groups Devices Reports

View All Edit All

| Location | View | Edit |
|-----------------|-------------------------------------|-------------------------------------|
| ▼ F1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| A 1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| A 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| A 3 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| A 4 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ▼ United States | <input type="checkbox"/> | <input type="checkbox"/> |
| ▼ Alaska | <input type="checkbox"/> | <input type="checkbox"/> |
| ▼ 3D-City | <input type="checkbox"/> | <input type="checkbox"/> |
| ▼ 3D-Building | <input type="checkbox"/> | <input type="checkbox"/> |
| ▼ 3D-F1 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Conference Room | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Datacenter | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Energy Room | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2D-F2 | <input type="checkbox"/> | <input type="checkbox"/> |

Visual Data Center

Location - F1

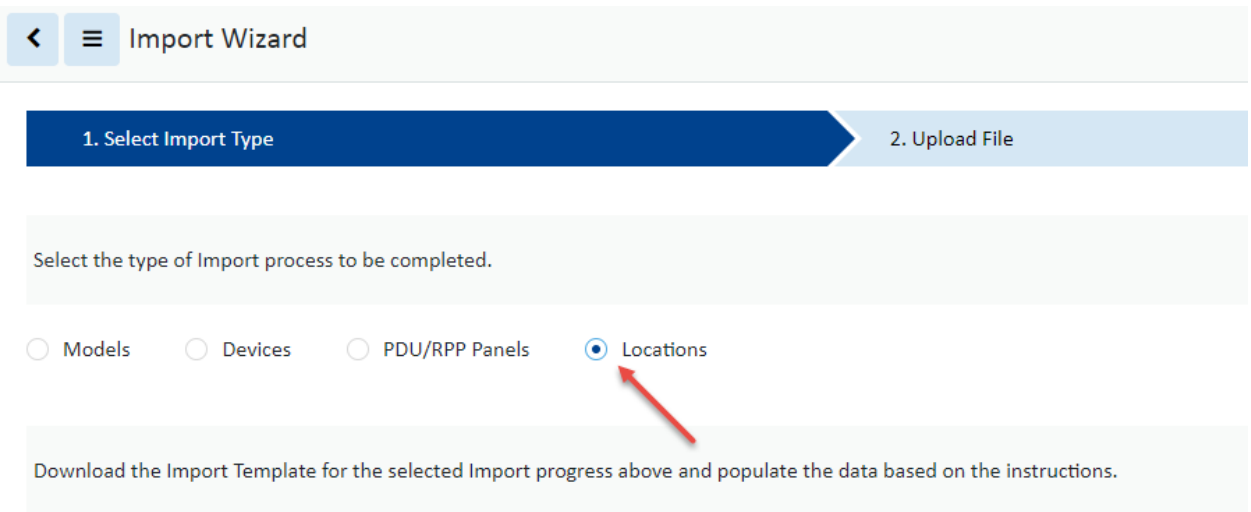
View Attributes Graphs Alerts Calendar Reports Maps

Attributes

| Attribute ID | Category | Value | Unit | Data Source |
|-----------------|----------|----------|------|--------------|
| Name | Location | F1 | | User Defined |
| Type | Location | Floor | | User Defined |
| Description | Location | | | User Defined |
| Country | Location | China | | User Defined |
| State | Location | Shanghai | | User Defined |
| City | Location | Rujia | | User Defined |
| Building | Location | 80 | | User Defined |
| Floor Index | Location | F1 | | User Defined |
| 1 Phase Voltage | Location | | V | User Defined |
| 3 Phase Voltage | Location | | V | User Defined |

- **3368 WI: Support Import Navigation Tree Nodes**

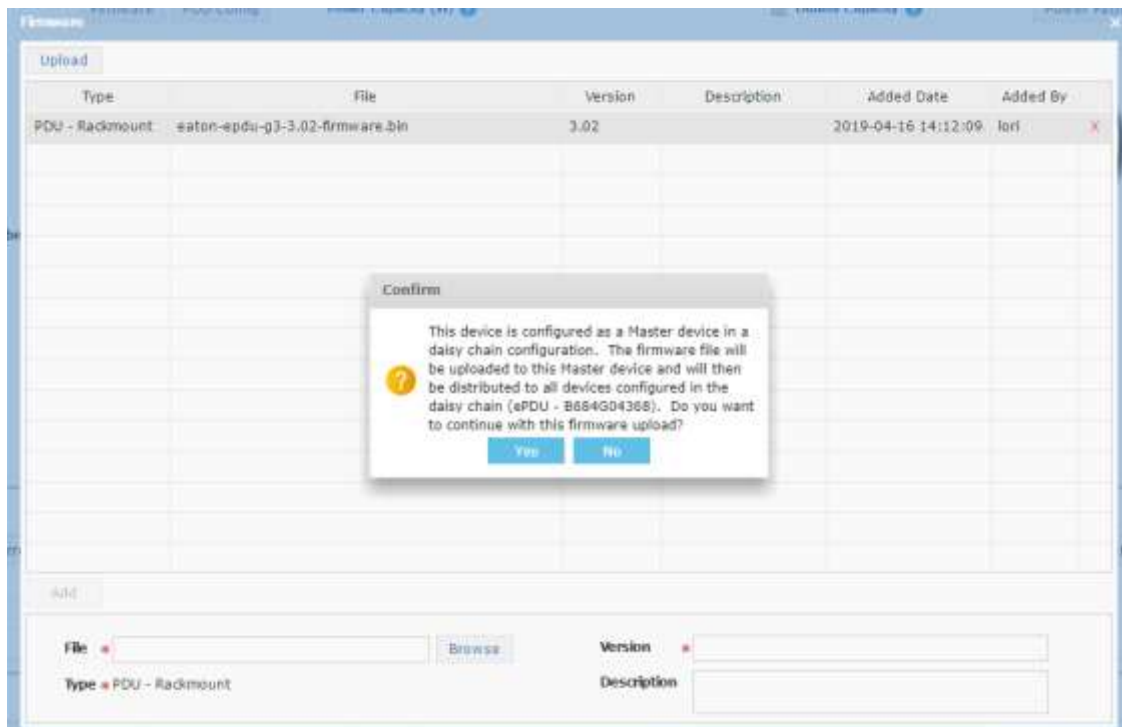
Location nodes can now be created by import. Users can open Import Central to import locations.



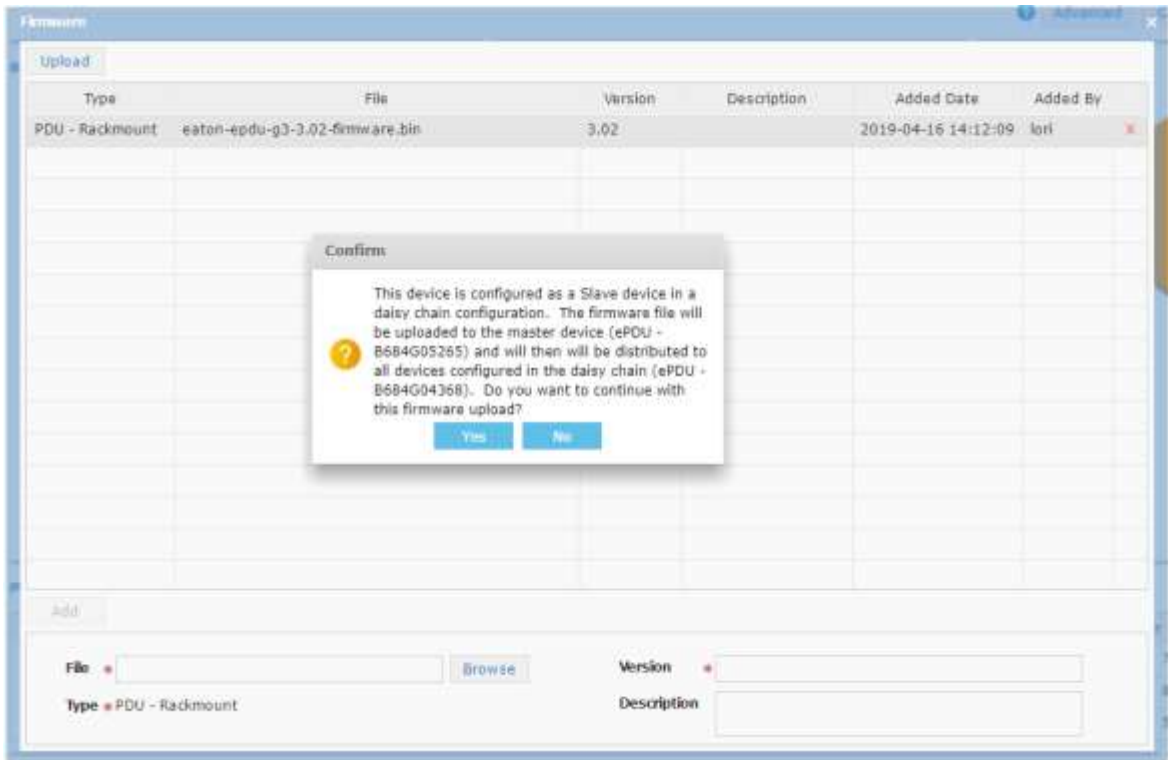
- **3369 WI: Daisy Chain Firmware Push**

When uploading firmware to daisy chained devices messages inform you how the firmware will be distributed.

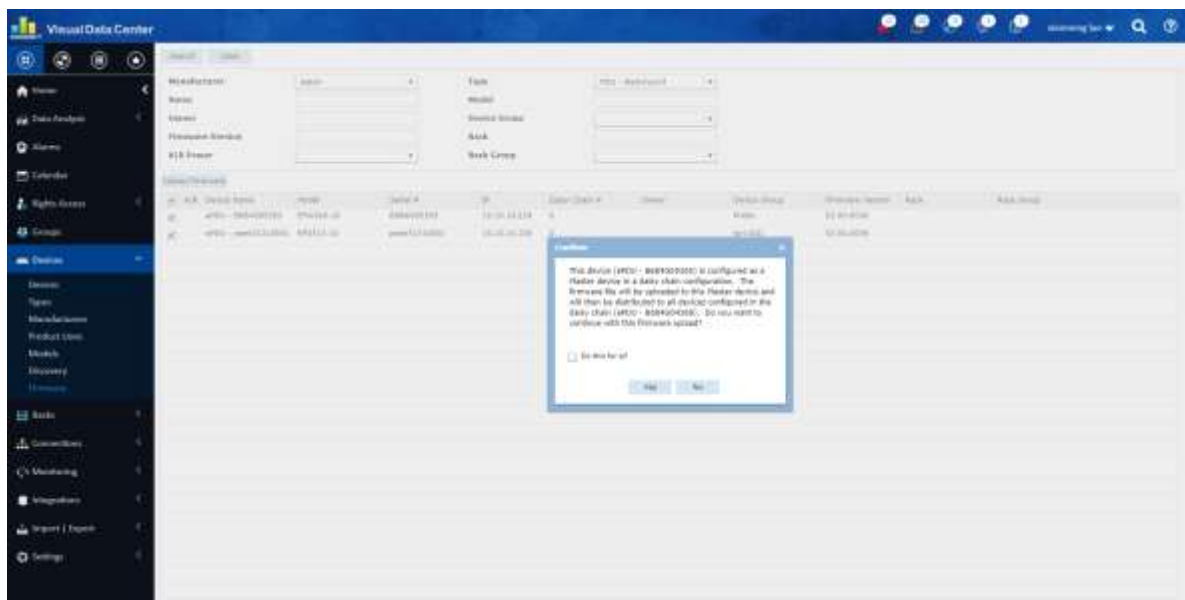
If you upload to the master device the message informs you how it will be distributed to the other devices in the daisy chain.



If you upload to a slave in the daisy chain, the message informs you of the device's status and how the firmware upload will go to the master first and the distributed to devices in the daisy chain.



Bulk Firmware Upload – Only shows the master devices. It does not show the slave units.



- 3370 WI: Support firmware and load segment controls for both models of cards in Eaton devices

The screenshot displays the Visual Data Center interface. On the left is a navigation menu with options like Home, Data Analysis, Alarms, Calendar, Rights Access, Groups, Devices, Types, Manufacturers, Product Lines, Models, Recovery, Firmware, Tools, Connections, Monitoring, Integrations, Report & Report, and Settings. The main area is titled 'Basic Information' and shows details for a device with the following attributes:

| | |
|---------------|-----------------------------|
| Item | UPS - 100-00-00-00-00-00-00 |
| SKU | 862157447000 |
| Model | 862157447000 |
| Type | UPS - Rackmount |
| Manufacturer | Eaton |
| Product Line | 9P |
| Model | SP1000 |
| Lifecycle | Available |
| Asset Tag | |
| Serial Number | |
| IP Address | 10.30.10.100 |
| Serial # | |
| WebAccessURL | |
| Energy Type | Uninterruptible |
| Brand | Uninterruptible |
| Department | Uninterruptible |
| Description | Static Switch Network |
| Physical | |
| Height | 0.26 in |

The 'Dashboard' section on the right provides a summary of device information and battery status. A red arrow points to the 'Firmware' link in the 'Basic Information' section. Below the dashboard, there are two tables showing power and battery data:

| Phase | Voltage | Current | Power | Frequency | Phase | Voltage | Current | Power | Temp |
|-------|----------|---------|-------|-----------|-------|----------|---------|----------|------|
| 1 | 121.80 V | 1.80 A | | | 1 | 121.80 V | 1.80 A | 100.00 W | 144F |

This screenshot shows the 'Add Firmware' dialog box in the Visual Data Center. The dialog is titled 'Add Firmware' and has a 'Success' status. It contains a table with columns for Type, File, Version, Description, Added Date, and Added By. Below the table, there are input fields for 'File' and 'Version', and a 'Description' field. A red box highlights the 'Type' dropdown menu, which is currently set to 'UPS - Rackmount'. A red arrow points from the 'Add Firmware' button in the background to the dialog box.

- **3378 Update UPS Battery Replacement Report**

Update Asset -> UPS Battery Replacement report. There should be no special +3 years logic in this report. Compare the From/To dates to the Last Replace Date attribute on the device and return UPS devices which meet the criteria.

Visual Data Center UPS Battery Replacement

OPI

Location: 18 (A 1, F1, BU2)(Area3, Floor1, 0723 Building)(Conference Room, 3D-F1, 3D-Building)(Area4, Last Replace Date:
 Device Group: 2 (lori-DG1, Public)
 Last Replace Date: 2019-04-01 – 2019-04-16 Device Name

| Device Group lori-DG1 | | | | | | | | | | |
|------------------------------|--------------|----------|---------------------------------------|---------------|--------------------|------------------------|-------------|---------------|--------------|--|
| Manufacturer | Product Line | Model | Device Name | Output Load % | Seconds On Battery | Last Replace Date | Date Source | Serial Number | Battery Type | |
| Eaton | 5P | 5P1000 | eUPS - ups-00-20-85-E9-69-6F. | 17.0 | 0 | 2019-04-16 10:36:58+08 | Discovery | | | |
| Total | | | | | 0 | | | | | |
| Device Group Public,lori-DG1 | | | | | | | | | | |
| Manufacturer | Product Line | Model | Device Name | Output Load % | Seconds On Battery | Last Replace Date | Date Source | Serial Number | Battery Type | |
| Eaton | 5P | 5P1000RC | eUPS - ups-00-20-85-E9-6A-B9.opi.init | 0.0 | 0 | 2019-04-16 10:36:58+08 | Discovery | | | |
| Total | | | | | 0 | | | | | |

- **3381 WI: Add Firmware Version as Monitored Data Points**

Added Firmware version as a monitored data point for Eaton PDU and Eaton UPS. After the firmware is updated, the Firmware version on the device dashboard will be updated in a probe interval.

Eaton UPS

Navigation tabs: Dashboard, Graphs, Ports, Connections, Alarms, Calendar, Attributes, Monitor, Applications, Images, Groups, Links.

Real-time Monitoring Data

⌵ All - Attribute contains firmware

| Actions | Attribute <input type="text" value="firmware"/> | Data Source | Value | Unit | Last Updated |
|---------|---|----------------|------------|-----------|---|
| | firmware | Search... | Search... | Search... | Start date - End date <input type="text" value="30"/> |
| | Firmware - Hardware | UPS - Eaton M2 | 02.14.0026 | | 2019-04-16 14:18:27 CST |
| | Firmware - Software | UPS - Eaton M2 | 1.5.1 | | 2019-04-16 14:18:27 CST |

◀ < 1 to 2 of 2 > ▶

Navigation menu with icons for: Dashboard, Graphs, Ports, Connections, Alarms, Calendar, Attributes, Monitor, Applications, Images, Groups, and Links.

Real-time Monitoring Data

▼ All - Attribute contains firm

| Actions | Attribute | Data Source | Value | Unit | Last Updated |
|---------|------------------|---------------------|------------|-----------|---|
| | firm | Search... | Search... | Search... | Start date - End date  |
| | Firmware Version | Rackmount PDU Eaton | 02.00.0096 | | 2019-04-16 14:28:42 CST |

◀ < 1 to 1 of 1 > ▶

5. Version 6.0.0 New Features and Enhancements

Version 6.0.0 represents a change of the web interface from Flash to HTML5. As such, there are major changes to the web interface and related usability of the features in that interface. Please refer to the v6.0.0 Web Interface User Guide to review the detail of the new web interface.

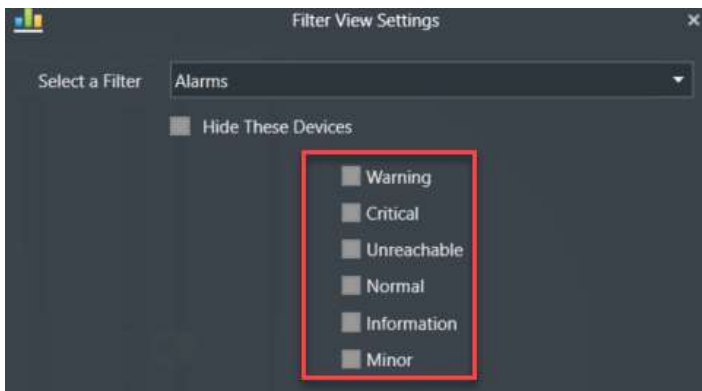
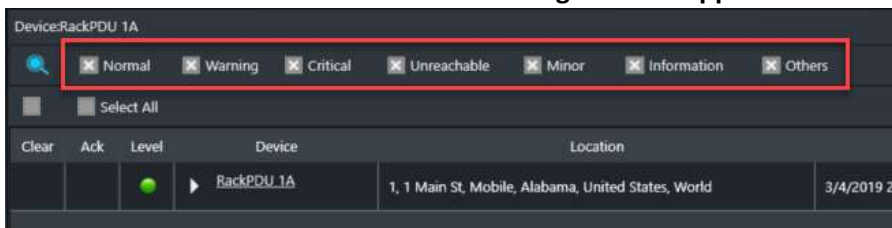
The following list of features, enhancements and changes are included in the 6.0.0 version of the product as related to the 3D client interface.

| ID | Description |
|-------------|--|
| 3338 | Alarm Panel in Navigation Tree now includes 5 Levels |
| 3339 | Alarm Level Lists and Checkboxes Throughout the Application include All 5 Levels |
| 3340 | Web Interface link goes to Web Interface Home Page |
| 3341 | Calendar Function Ribbon Icon now links to Web Interface Calendar Page |
| 3342 | Capacity Planning changed to Capacity Planner |
| 3343 | Dashboard and Trend Chart Options Removed from Main Data and Replaced Throughout the Application |
| 3344 | VM Panel Icon and all VM Functions Have Been Removed |
| 3345 | Schedule Tool Icon Removed |
| 3346 | Triggers have Replaced Thresholds |
| 3347 | Layer View now has Broken Fiber, Network and Power Ports in List |
| 3348 | Location History Removed from the Floor > Services Tab |
| 3349 | Device Central Changes |
| 3350 | Alarm LEDs Removed from Home Page Site Data |
| 3351 | Camera Studio Icon Removed from Function Ribbon |

- 3338 Alarm Panel in Navigation Tree now includes 5 Levels**
 Under each location node of the navigation tree are the summary count of alarms for that node. There are 5 possible alarm types: Critical (red), Warning (yellow), Unreachable (blue), Minor (lavender) and Information (light blue). The device counts are aggregated for all locations under the selected node. The summary count boxes are only colorized when the value is greater than 0. Note: The alarm indicators will not appear under the device or port nodes of the tree. The Alarm count information will be automatically updated every 5 minutes, but users can choose to refresh manually to get updated data between the auto refresh cycles.



- **3339 Alarm Level Lists and Checkboxes Throughout the Application include All 5 Levels**



- **3340 Web Interface link goes to Web Interface Home Page**
Previously the web interface link had two options Administration and Navigation. Now it goes directly to the web interface home page.
- **3341 Calendar Function Ribbon Icon now links to Web Interface Calendar Page**
Previously the 3D client had its own version of the calendar. Now the Calendar
- **3342 Capacity Planning changed to Capacity Planner**
Previously Capacity Planning icon had two options What If Analysis and Power Project Plan. Now it goes directly to Capacity Planning. The Power Project Plans are in the web interface in the Data Analysis menu group. Broken power, network and storage ports are now listed on the Capacity Planner summary page.

Capacity Planner

Analysis | Advanced | Print

Site Energy Information

| | |
|------------------|---|
| Current PUE | Estimated Yearly Power Consumption(WWh) |
| Current DC/E | Estimated Annual Cost (\$) |
| IT Power (kW) | Estimated Yearly CO2 Emissions(Tons) |
| Total Power (kW) | |

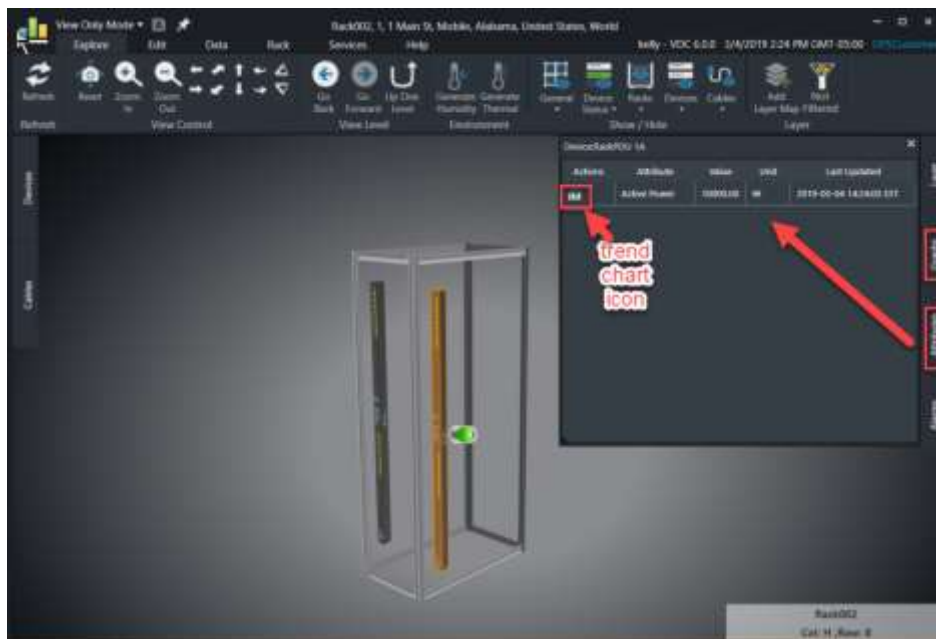
Space Summary

| | |
|--------------------------------|---------------------------------|
| Total/Raised Floor Area | Total Network Ports |
| Cooling/White Area | Used Network Ports (Raw/%) |
| Count - Racks | Available Network Ports (Raw/%) |
| Total Front Rack U | Reserved Network Ports (Raw/%) |
| Used Front Rack U (Raw/%) | Broken Network Ports (Raw/%) |
| Available Front Rack U (Raw/%) | Total Storage Ports |
| Total Power Ports | Used Storage Ports (Raw/%) |
| Used Power Ports (Raw/%) | Available Storage Ports (Raw/%) |
| Available Power Ports (Raw/%) | Reserved Storage Ports (Raw/%) |
| Reserved Power Ports (Raw/%) | Broken Storage Ports (Raw/%) |
| Broken Power Ports (Raw/%) | |

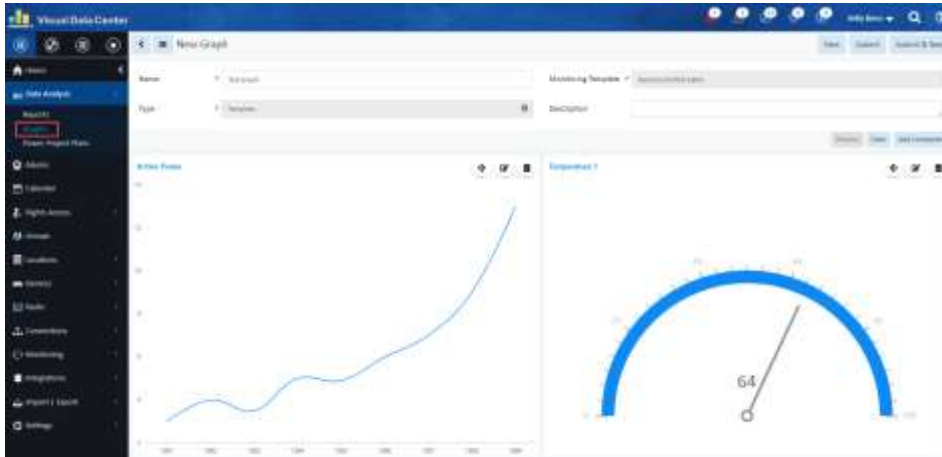
- **3343 Dashboard and Trend Chart Options Removed from Main Data and Replaced Throughout the Application**

Dashboards and Trend charts are now referred to as Graphs and Attributes. The options have been removed from the drop-down list under Main Data. In other areas of the application the term Dashboards has been replaced with Graphs and Trend Charts replaced with Attributes.

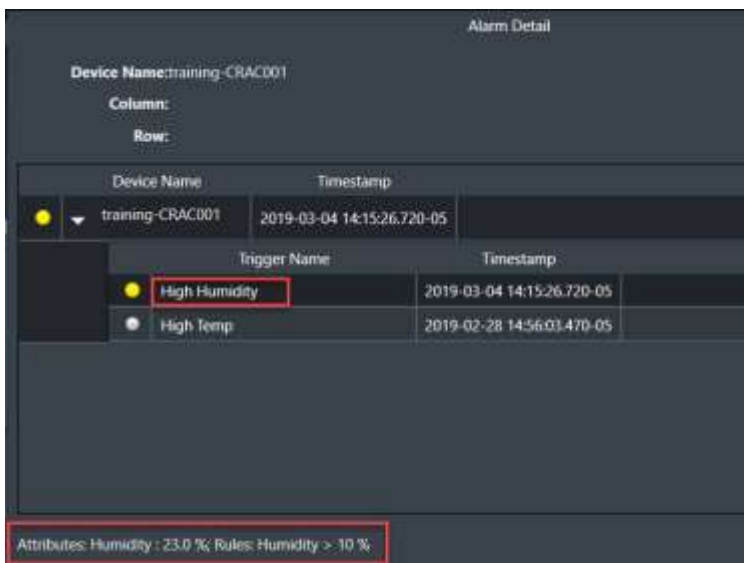
The image below shows the contents of the Attributes (formerly Trend Charts) right side tab containing the monitored attributes for the selected device with icons for the associated trend charts. The Graphs right side tab link opens the Graphs page for the selected device in the web interface.



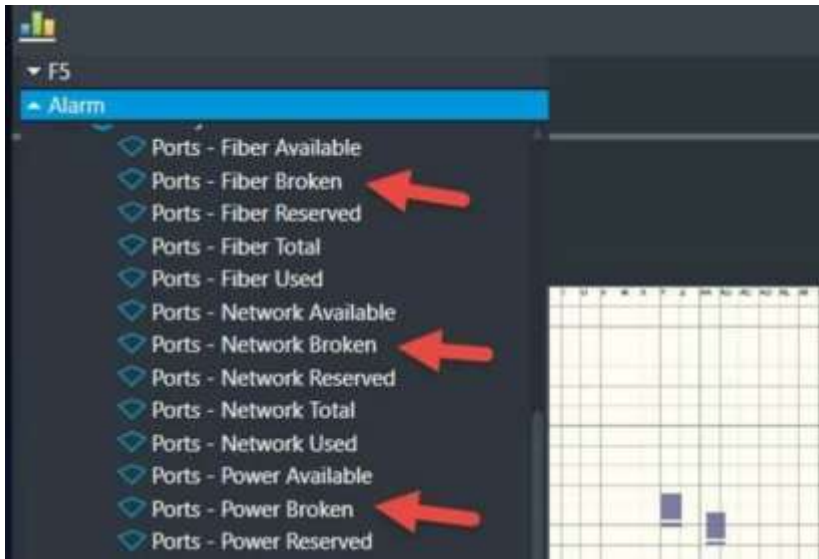
Graphs are created and edited in the web interface. The Graphs menu item is available in the Data Analysis menu group or from the Graphs function tile on the web interface Device Central page for the device.



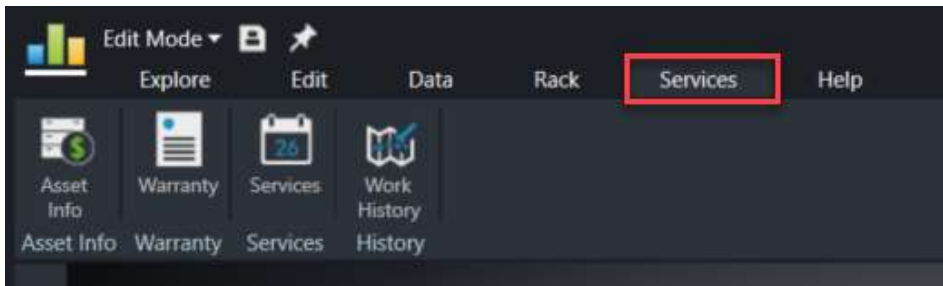
- 3344 VM Panel Icon and all VM Functions Have Been Removed**
The VM Panel Icon has been removed from the function ribbon. All references to VM functions have been removed from the application.
- 3345 Schedule Tool Icon Removed**
The Schedule Tool Icon has been removed from the function ribbon.
- 3346 Triggers have Replaced Thresholds**
Triggers are defined to indicate Alarm conditions. The trigger definition is included in Alarm messages and descriptions.



- **3347 Layer View now has Broken Fiber, Network and Power Ports in List**



- **3348 Location History Removed from the Floor > Services Tab**
Previously there was a Location History icon next to Work History. It has been removed.



- **3349 Device Central Changes**
The Dashboards and Trend Charts and Calendar tabs have been removed. Graphs and Calendar links have been added. The Graphs link opens the web interface Graphs page for the selected device. The Calendar link opens the web interface Calendar page for the selected device.



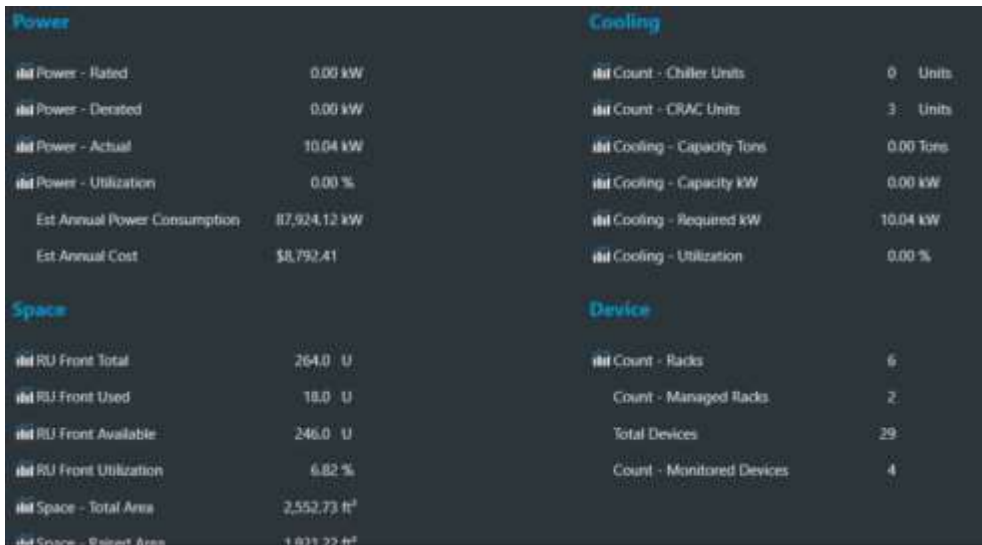
- **3350 Alarm LEDs Removed from Home Page Site Data**

Previously



| Power | | Cooling | |
|------------------------------|----------------------|---------------------------|-----------|
| Power - Rated | 0.00 kW | Count - Chiller Units | 0 Units |
| Power - Derated | 0.00 kW | Count - CRAC Units | 0 Units |
| Power - Actual | 0.00 kW | Cooling - Capacity Tons | 9.00 Tons |
| Power - Utilization | 0.00 % | Cooling - Capacity kW | 31.64 kW |
| Est Annual Power Consumption | 0.00 kW | Cooling - Required kW | 0.00 kW |
| Est Annual Cost | \$0.00 | Cooling - Utilization | 0.00 % |
| Space | | Device | |
| FU Front Total | 7,857.0 U | Count - Racks | 187 |
| FU Front Used | 103.3 U | Count - Managed Racks | 48 |
| FU Front Available | 7,753.3 U | Total Devices | 490 |
| FU Front Utilization | 1.32 % | Count - Monitored Devices | 45 |
| Space - Total Area | 0.00 ft ² | | |

Now



| Power | | Cooling | |
|------------------------------|--------------------------|---------------------------|-----------|
| Power - Rated | 0.00 kW | Count - Chiller Units | 0 Units |
| Power - Derated | 0.00 kW | Count - CRAC Units | 3 Units |
| Power - Actual | 10.04 kW | Cooling - Capacity Tons | 0.00 Tons |
| Power - Utilization | 0.00 % | Cooling - Capacity kW | 0.00 kW |
| Est Annual Power Consumption | 87,924.12 kW | Cooling - Required kW | 10.04 kW |
| Est Annual Cost | \$8,792.41 | Cooling - Utilization | 0.00 % |
| Space | | Device | |
| RU Front Total | 264.0 U | Count - Racks | 6 |
| RU Front Used | 18.0 U | Count - Managed Racks | 2 |
| RU Front Available | 246.0 U | Total Devices | 29 |
| RU Front Utilization | 6.82 % | Count - Monitored Devices | 4 |
| Space - Total Area | 2,552.73 ft ² | | |
| Space - Racked Area | 1,031.22 ft ² | | |

- **3351 Camera Studio Icon Removed from Function Ribbon**

The Camera Studio functionality is now available in the web interface from the Integration menu group > Camera Studio menu item. There is no longer access from the 3D Client.