
Trellis™ Real-Time Infrastructure Optimization Platform

Release Notes

Version 4.0.3 UPDATE!


January 20, 2017

This document outlines:






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1. New Features Overview

Version 4.0.3 of the *Trellis™* real-time infrastructure optimization platform continues to build on our user interface (UI) redesign effort by introducing a newly enhanced connections view, as well as providing many new and exciting features that have been requested by our customer base.

In order to better serve our customer community, the  logo has been placed next to features that we have added to the *Trellis™* platform as a result of a customer submitted feature enhancement request (FER). FERs are features and ideas customers submit to Product Management which are then validated with users and prioritized for development based on the total value that they bring to our customers.

Trellis™ Platform Enhancements

-  **Restricted Access:** Now users have the ability to check a box to allow (or block) Modify/Delete access to a cabinet.
-  **New API:** Users have the ability to create and assign a role, and now have access rights to a role via an API.
-  **New Date-only User-Definable Property (UDP):** We have created a new UDP field that allows customers the ability to select a date only value instead of being required to select a date and time as we have in the past. The Date / Time UDP is still available as an option to users who need it.
-  **Avocent® DSView™ Management Software Accordion Security Enhancement:** We have made the DSView accordion (for use with the Avocent® DSView™ software) read-only for users who don't have the proper access rights to launch DSView™ software sessions from within the *Trellis™* platform.
-  **One Line Diagram Enhancements (*Trellis™* Power Systems Manager Module):** Users can create an expression on any symbol, allowing proper representation of the active or energized state of that symbol.
- **Trellis™ Platform Textual Connections View Redesign:** The underlying technology used for the textual connections view in the *Trellis™* platform is now replaced with HTML 5 as a part of an ongoing product redesign effort. This adjustment improves the functionality and performance of this feature so connections across devices are faster and more intuitive than ever.

NOTE: At this time, this new capability is found under Beta mode (accessed through the Admin panel or by clicking the link at the top of your global header upon log in). You only have to select this mode one time, and can go back to Classic view if you wish.

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- **Bulk Data-Load Tool (BDP) Enhancements:** Users can now create floor spaces with multiple points to properly represent any non-rectangular areas they may have.
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2. General Features Overview

The following list details existing components of the *Trellis*[™] platform software:

- ***Trellis*[™] Management Console platform:** The console platform enables the unified management of the data center IT and facilities infrastructure. The platform of hardware, software and services provides the ability to collect and analyze real-time data from managed devices using a single user interface.
- ***Trellis*[™] Change Planner software module:** This module provides features that allow the data center manager to plan the data center for future additions through the use of detailed projects, GANTTS and tasking.
- ***Trellis*[™] Inventory Manager software module:** This module provides features to better utilize IT and critical infrastructure equipment by managing the inventory of all physical assets and determining used and available space in the data center.
- ***Trellis*[™] Site Manager software module:** This module reports the health of the infrastructure to data center personnel, enabling them to recognize and resolve conditions that impact infrastructure availability and system performance.
- ***Trellis*[™] Energy Insight software module:** This module provides data center personnel with visibility into the data center's total consumption, energy costs and PUE, which enables them to measure the impact of decisions on the data center energy efficiency.
- ***Trellis*[™] Reports and BI feature:** Reports are created by opening a canned report and applying filters. Filters are used to select data and combine multiple values using logical connectors.
- ***Trellis*[™] Power Systems Manager software module:** This module provides data center personnel with the ability to monitor the power flow of their building through a one line diagram. The one line diagram also allows the data center personnel to see the current consumed and remaining capacity of devices at a glance and take action accordingly. Dashboards provide the ability to view the capacity trend and power status of devices.
- ***Trellis*[™] REST APIs:** The REST APIs allow any third party software system to interact with *Trellis*[™] platform. These APIs are available as secure web services.
- ***Trellis*[™] Process Manager software module:** Designed around industry best practices and input from our customers, *Trellis*[™] Process Manager includes four set processes as well as a better way to assign and track work and manage approvals through workflow. These four processes include installing, moving, decommissioning and renaming devices. Each of these is configurable to reflect the user's individual workflow. Through these capabilities, the user has the ability to initiate, analyze and report on core data center processes used to drive the business as well as helping them to more effectively manage their environment. The value of *Trellis*[™] Process Manager lies in its ability to reduce the risks associated with changes in the data center and at the same time, improve worker efficiency.
- ***Trellis*[™] BMS Integration module:** With the BMS (Building Management System) Integration module, the device monitoring feature of the *Trellis*[™] platform has been enhanced to support monitoring of BMS Devices. Features such as update monitoring configurations of monitored devices using Custom Element Libraries and Element Library synchronization have been introduced with BMS Integration.
- ***Trellis*[™] Receptacle Monitoring and Control feature:** With the Receptacle Monitoring and Control feature, device views for selected rack Power Distribution Units (PDUs) in the *Trellis*[™] platform have been enhanced to support the display of information. Features such as viewing the data points for the receptacle

openings on a supported PDU on both the Dashboard & Additional data points tabs of the device view, as well as sending commands from the Control & Configuration tabs of device view have been added to the interface.

- **Trellis™ Audit Events feature:** The Audit Events feature has been enhanced to cover more of the *Trellis™* platform functionality to record Audit Events. Examples are Device Create & Place/Delete, Move, Enable/Disable Monitoring, Create/Delete Power Connection and Update Device/Container Properties. Event Description now contains more details such as device name, container name, username, and so on, to give better insight into the respective event. Event Viewer functionality has also been enhanced to support pagination to improve user experience.
- **Trellis™ Platform RFID Integration with Gen 2 support:** This feature allows real-time integration between an RFID supported rack and the *Trellis™* platform. As part of this feature, all physical device movements are reflected automatically within the *Trellis™* platform. The current release supports the integration via Gen 2 RFID tags from Methode.
- **Trellis™ Platform Fine Grained Authorization feature:** The Fine Grained Authorization (FGA) feature is used to provide another level of security where roles are granted View or Manage access rights to resources (enterprises, buildings, floors, spaces, zones, devices) that have been created in the *Trellis™* platform. Users will only be able to view/manage resources based on roles assigned to them.
- **Trellis™ Thermal Systems Manager software module:** The *Trellis™* Thermal Systems Manager balances total cooling production with the actual heat load at the room and rack level, which allows facilities management to understand the true thermal capacity for planning and redundancy and reduce wasteful overcooling to lower energy costs.

3. Notes and Special Instructions

General Information

- For more information and detailed instructions on using the *Trellis™* platform, visit <http://global.avocent.com/us/oh/trellis/> for accompanying user documentation.
- Version 4.0.3 of the *Trellis™* platform supports *Trellis™* Intelligence Engine version 4.6 and 4.6.1.5, as well as the Avocent® Universal Management Gateway appliance firmware version 3.4.1.10 containing the embedded *Trellis™* Intelligence Engine version 4.0.3.1.

NOTE: Element Library versions 4.0.0.x and lower are supported by these versions listed.

Prerequisites **IMPORTANT!**

NOTE: The *Trellis™* platform software version 4.0.3 can be applied on top of version 4.0 or on top of version 4.0.2 only. Do not try to apply 4.0.3 from any previous versions other than 4.0 or 4.0.2.

- If you are upgrading from a previous version other than *Trellis™* platform software version 4.0, all sequential patches must be applied to move to version 4.0 before upgrading to the 4.0.3 patch.
- Customers currently at *Trellis™* platform software version 4.0.1 will first need to upgrade to *Trellis™* platform software version 4.0.2. After upgrading to version 4.0.2, customers can then proceed with applying *Trellis™* platform software version 4.0.3.
- Also, customers using the *Trellis™* platform with an integrated SmartCabinet™ are advised not to upgrade to this release since integration has not been tested with this version.

4. Upgrading the Platform

NOTE: Prior to upgrading the *Trellis*TM platform, ensure you have read the Prerequisites information within the previous Notes and Special Instructions section of these release notes. Also, for additional detailed instructions on upgrading the platform, *Trellis*TM platform upgrade guides supporting previous versions are available at the following link: <http://global.avocent.com/us/olh/trellis/other.html>. When the page opens, select the *Upgrading* tab.

4.0.3 *Trellis*TM Platform Upgrade for Linux

When you have verified the version and copied the installation upgrade files to the front and back machines, you must stop the front machine, then the back machine.

To stop the machines:

1. Log in to the front machine as **oracle**.
2. Enter **/etc/init.d/trellis stop**, wait for the *Trellis*TM platform application to stop and restart the server at the operating system level.
3. Repeat steps 1-2 for the back machine.
4. Complete the upgrades on the back and front machine by running the installer patch on each.

WARNING: Closing the SSH window session during an upgrade causes the installation to fail. If the installer patch fails on either machine for any reason, do not run the installer again. Collect the patch log (located at /u03/logs/installer/) and contact Technical Support.

To upgrade the back machine: **UPDATED!**

1. Log in to the back machine as **oracle**.
2. Enter **cd <TRELLIS_PATCH_DIR>** to access the installation patch directory.
3. Enter **sh ./installPatch** to run the patch.
4. Wait for the BUILD SUCCESSFUL message to appear when the process is complete, which can take 8-45 minutes.

NOTE: The upgrade process migrates data during the cdmr-sql-patch process. The duration of the migration is relative to the amount of data in the system and performance of the hardware during the upgrade process. No further action is required on the back machine after the upgrade is complete. However, do not proceed to the front machine upgrade until everything is fully complete on the back machine.

To upgrade the front machine: **UPDATED!**

NOTE: If you recently downloaded symbols from the *Trellis*TM platform portal and they are newer than those available in the 4.0.3 upgrade package, an Unmarshal Exception error occurs and the patch log will report a failed build with the Symbol(s) already exists text. If this error occurs, go to <http://community.emerson.com/networkpower/support/dcim/m/mediagallery/3690> and follow the instructions.

1. Log in to the front machine as **oracle**.
2. Enter **cd <TRELLIS_PATCH_DIR>** to access the installation patch directory.
3. Enter **sh ./installPatch** to run the patch.
4. At the platform installation patch prompt, enter the DomainDir directory location and press **Enter**.
5. Wait for the BUILD SUCCESSFUL message to appear when the process is complete, which can take 120-200 minutes.

4.0.3 Trellis™ Platform Upgrade for Windows

When you have verified the version and copied the installation upgrade files to the front and back machines, you must stop the front machine, then the back machine.

To stop the machines:

1. Log in to the front machine as the local administrator.
2. Click *Start - Command Prompt*, right-click and select *Run as Administrator*.
3. Enter `\u01\trellis\trellis stop` to stop the front machine and wait for the machine to stop.
4. Repeat steps 1-3 for the back machine.
5. Complete the upgrades on the back and front machine by running the installer patch on each.

WARNING: Closing the command prompt window during an upgrade causes the installation to fail. If the installer patch fails on either machine for any reason, do not run the installer again. Collect the patch log (located at C: \u03\installer\logs) and contact Technical Support.

To upgrade the back machine:

1. Log in to the back machine as the local administrator.
2. Click *Start - Command Prompt*, then right-click and select *Run as Administrator*.
3. Enter `cd <TRELLIS_PATCH_DIR>` to access the *Trellis™* platform install patch directory.
4. Enter `installPatch` to run the patch.
5. Wait for the BUILD SUCCESSFUL message to appear when the process is complete, which can take 8-45 minutes.

NOTE: The upgrade process migrates data during the cdmr-sql-patch process. The duration of the migration is relative to the amount of data in the system and performance of the hardware. No further action is required on the back machine after the upgrade is complete. However, do not proceed to the front machine upgrade until everything is fully complete on the back machine.

To upgrade the front machine:

NOTE: If you recently downloaded symbols from the *Trellis™* platform portal and they are newer than those available in the 4.0.3 upgrade package, an Unmarshal Exception error occurs. If this error occurs, go to <http://community.emerson.com/networkpower/support/dcim/m/mediagallery/3690> and follow the instructions.

1. Log in to the front machine as the local administrator.
2. Click *Start - Command Prompt*, then right-click and select *Run as Administrator*.
3. Enter `cd <TRELLIS_PATCH_DIR>` to access the install patch directory.
4. Enter `installPatch` to run the patch.
5. At the platform install patch prompt, enter the DomainDir directory location and press **Enter**.
6. Wait for the BUILD SUCCESSFUL message to appear when the process is complete, which can take 120-200 minutes.

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