
Trellis™ Real-Time Infrastructure Optimization Platform Release Notes

Version 3.4

April 22, 2015

This document outlines:

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1. Main Features

The following list details components in this version 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 System 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™ Integration API tool** - The integration API allow any third party software system to integrate 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** – With the 3.0.2 release of the *Trellis*™ platform, the existing 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*™ Business Process Manager enhancement** - This enhancement is for devices to be placed within a rack only. The ability to define the specific placement within a rack when using *Trellis*™ Process Manager has been added. As part of this enhancement, the install and move processes have been extended to allow for the specific position within the rack to be defined.
- ***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.

2. New Features

- The *Trellis*™ Change Planner software module enhancements extend support to create, read, update and delete data connections, and also provide the ability to track power and heat capacities within created projects. Other changes in this module extend availability of capacity and inventory searching for future states. Users can also see future data port reservations from the current state, indicated by the port being shaded blue if a planned connection exists.
- The *Trellis*™ platform incremental backup and restore feature empowers the customer to configure and manage database backups. It reduces the overall time required for backups and

reduces the amount of network bandwidth required when backing up over a network. The configuration of database backup policies allows organizations to target service level agreements with recovery point objectives defined for their business.

- The *Trellis*™ platform user interface enhancements include new tab improvements that allow for a more intuitive management of open windows, combined catalog and catalog search functions to provide the user a more streamlined way to search and deploy devices, and a floating toolbar within the Graphical View that gives quick access to colorization, layers and inventory search. Additionally, the user interface now has the ability to combine the Portfolio View and Graphical View together providing a more intuitive streamlined view of data.
- Eight additional reports are added to the list of *Trellis*™ platform predefined reports:
 - Trace Switch Connection
 - Network Path Connection
 - Cable Route
 - Network and Power Connection
 - Switch Port Status
 - Device Visual
 - Rack Visual
 - Latest Power Consumed by Device
- The *Trellis*™ Real-time Infrastructure Optimization Platform RESTful API provides access to resources and functionality of the *Trellis*™ platform software. The APIs support full Create, Read, Update and Delete operations on devices and connections with the ability to query containers and symbols. Additional features include pagination through query results, localization of messages, projections to control the level of detail in the response, sorting and predefined queries. The message formats for request and response supported are JSON and XML over a secure HTTP connection. See the Resources section of the API help for detailed examples of HTTP requests, information on headers and query parameters, or for schema information for resource requests and responses. To access the *Trellis*™ platform RESTful API documentation, modify the link by replacing <TrellisSystem> with your IP address or the DNS name for the server and click the following link: <https://<TrellisSystem>/api/help/trellisrestfulapi.html>

3. Platform Updates

Avocent® Universal Management Gateway appliance update:

Apply firmware version 2.9.0.25

4. Hotfixes Included

The following new hot fixes are included in this release. All released hotfixes are included. None are excluded.

- **3.2.0.3:** Addresses PRs 18541, 29509, 29625, 31399, 32305, 32567, 32672, 32820, 32914 and 33834
 - PR 18541: Alarm SNMP traps are not being sent when the associated threshold alarm has been cleared.
 - PR 29509: PUE error is being generated, preventing the PUE level 2 from being generated in the dashboard.
 - PR 29625: Connection error is presented when attempting to access the PUE.
 - PR 31399: User is unable to add the same device to the Total IT Load and Total Facility Load tables when configuring a PUE.
 - PR 32305: User cannot make a power connection between a Rack PDU and Rack ATS.
 - PR 32567: The Consumption report includes delayed data points that have not been processed by the daily aggregation job.
 - PR 32672: The Breaker Amp Value is not displayed in the Capacity view if the Amp value is imported from a CSV file.
 - PR 32820: The Coherence log does not rollover when it reaches the defined maximum file size.
 - PR 32914: The Monthly Summary aggregation job can fail.
 - PR 33834: The *Trellis*[™] platform Trap MIB file defines an OID that is not included in the traps being sent from the *Trellis*[™] platform.
- **3.2.0.4:** Addresses PR 34873
 - PR 34873: A leg mismatch occurs between the Raritan RPDU and APC ATS, causing a failed connection.

5. Notes and Special Instructions

- For more information and detailed instructions on using the *Trellis*[™] platform, visit <http://global.avocent.com/us/olh/trellis/> for accompanying user documentation.
- There is a known issue in the PUE calculation when the COV (change of value) collection setting is active. As a result, this setting causes the PUE report to show an incorrect value. There will be a 3.4.0.1 patch available to address this issue.
- The user “TrellisAdministrator” is case sensitive. **TrellisAdministrator** must be entered with initial caps as shown to get full and correct authorization permissions. All other users created using the *Trellis*[™] platform user interface (UI) need to be logged in as lower case to get full and correct authorization permissions.
- The *Trellis*[™] platform software is accessible using secure connections (HTTPS) by default and non-secure connections (HTTP) are disabled. Contact Professional Services or Technical Support to modify this default configuration if required.
- The *Trellis*[™] platform software is accessible using the Fully Qualified Domain Name registered on the front server. Contact Professional Services or Technical Support to modify this default configuration if required.
- The front and back machines need to be restarted after the Authentication Provider configuration is modified (added/updated/deleted) using the Authentication tab in the *Trellis*[™] platform software user

interface. This enables the authentication code to use the updated Authentication Provider configuration.

- When adding an External Authentication Provider for the user credentials, the username should have the full distinguished name.

For example: "cn=BrowseUser,cn=Users,dc=yourdomain,dc=com".

NOTE: Without this, the added external Authentication Provider may not function as desired.

NOTE: Before enrolling an Avocent® Universal Management Gateway appliance, the appliance symbol download is required from Portal.

Element Library support summary

NOTE: *Trellis*™ software version 3.4 and *Trellis*™ Intelligence Engine version 3.4.1.36 are compatible with Element Library version 3.4.0.x and lower versions. For Receptacle support, please upgrade your existing devices to the latest 3.0 symbols which are part of the *Trellis*™ platform software version 3.4.

- For SNMPv3 support, please configure the SNMPv3 destination IP as the Avocent® Universal Management Gateway appliance IP in the Device Configuration page and disable SNMPv1/v2 traps.

Pre-requisites

The *Trellis*™ platform software version 3.4 can be applied on top of version 3.3 only. If you are upgrading from a previous version other than *Trellis*™ platform software version 3.3, all sequential patches must be applied to move to version 3.3 before upgrading to the 3.4 patch. Do not try to apply the 3.4 from any previous versions other than 3.3.

To update the Avocent® Universal Management Gateway appliance:

1. Upgrade the Avocent® Universal Management Gateway appliance firmware through the appliance Web UI or the DSView™ 4 management software.
2. Within the *Trellis*™ platform interface, install the latest element libraries into the Avocent® Universal Management Gateway appliance (2.9.0.25) by selecting *Administration - System Configuration - Universal Management Gateway Status - Status - Element Library*.

Trellis™ platform RESTful API deprecated methods and properties

Deprecated Methods:

- /symbols/search/findByDeviceId
- /devices/search/findFromDeviceByConnectionId
- /devices/search/findToDeviceByConnectionId

Deprecated Properties:

- /zones – zoneUse

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