



ENTUITY
SOFTWARE™

Entuity v20.0 Patch Notification P02

July 15th, 2022

Technical Bulletin July 15, 2022

Version 2022.07.15

We are pleased to confirm the availability of patch P02 for Entuity v20.0, which has now been certified for customer use; further details of the benefits to be gained from this patch are set out in the table below.

IMPORTANT NOTE BEFORE INSTALLING THIS PATCH: If you have not used certtool to add your security certificates to the Java keystore when integrating with external authentication systems when using LDAPs, or event integration to third-party products (e.g. BMC TrueSight) when using HTTPs, then the move to OpenJDK11.0.15+10 will cause these certificates to be removed.

Before you install this patch, please follow the instructions provided [in this article](#) to ensure that you do not lose your certificates. These instructions will tell you how to export your certificates before patch installation using keytool, and then how to import them after installation using certtool.

Latest Patch Details

New in v20.0 P02

Please refer to the [Knowledge Base](#) on the Entuity Help Center for help and information on functionality added in this patch.

Functional Area	Platform(s)	Description
Custom Webhooks	All	<p>Addition of PUT call functionality for modifying custom webhook groups, webhook endpoints and webhook events via RESTful API.</p> <p>Addition of support for XML payloads (alongside existing JSON support).</p>
Dashboards	All	<p>Addition of ability to specify the applicability of a custom dashboard based on the value of an attribute. Users can therefore specify that different dashboards are displayed dependent, for example, on</p>

		<p>different models of router, or different types of firewalls.</p>
<p>Device Support</p>	<p>All</p>	<p>Addition of performance monitoring for NetApp storage devices, to complement existing storage inventory and status polling.</p> <p>Improvements to support for Cisco Digital Network Architecture (DNA) Center devices:</p> <ul style="list-style-type: none"> • Addition of configuration management options when a user adds or modifies a Cisco DNAC device, and a subsequent 'Check DNAC Backup History for Failures' configuration management task for that device. • Addition of 'DNAC Backup Failure' incident for monitoring DNAC backups. • Addition of option to launch remote terminal sessions and HTTP sessions for Cisco DNAC or ISE devices. • Addition of a closing event 'Cisco DNA Center Webhook Alert Cleared' to the 'Cisco DNA Center Webhook Alert' incident. • Addition of new stream attributes and associated attributes thereunder to the DNAC Site Health metrics on the Summary dashboard for a Cisco DNA Center: <ul style="list-style-type: none"> ○ Network health. ○ Client health. ○ Application health. <p>Addition of support for storage performance metrics on DataDomain SNMP storage devices.</p> <p>Addition of support for Cisco UCS CIMC (SNMP) and SuperMicro</p>

		(REST) server devices.
General UI/UX Improvements	All	Addition of a new high contrast UI theme adhering to WCAG 2.1 accessibility guidelines relevant to contrast. This theme mainly impacts text and buttons. It can be selected as a preference at runtime or as a default in entuity.cfg.

Improvements and Fixes

Functional Area	Platform(s)	Description
Asset Management	All	<p>Addition of a 'REST API Port List' field to the 'New Discovery' form when creating a new Auto Discovery profile, enabling users to specify port numbers with REST API support.</p> <p>Fixed an issue whereby a 'Connection URL' was incorrectly required when adding a Hyper-V VM platform via Asset Management. As a result of this fix, a connection URL is no longer required and a hostname is instead required.</p> <p>Improved input validation for inventory form.</p> <p>Fixed a performance issue by improving filtering of large numbers of host mac addresses seen on certain trunk ports.</p> <p>Fixed an issue whereby SSH servers were not discovered through Auto Discovery due to the incorrect processing of SSH credential keys.</p>

		<p>Fixed an issue whereby SSH and WinRM OS-only devices could not be automatically managed during Auto Discovery or be managed via Discovered Assets.</p> <p>Addition of 'Storage' or 'Server' flags to the 'Management protocol' column of respective discovered storage and server devices on the 'Discovered Assets' page.</p>
<p>Configuration Monitor</p>	<p>All</p>	<p>Fixed an issue whereby credentials were not requested when a user ran copies of configuration retrieval tasks that were configured to do so.</p> <p>Fixed an issue whereby changes to running configuration were also incorrectly reported as changes in the startup configuration, whilst changes in the startup configuration were not reported.</p> <p>Fixed an issue that prevented a user from accessing configuration management functionality for a port from the right-click Context menu, even if the port's device was licensed for configuration management.</p> <p>Fixed an issue affecting configuration management scripts and policy rules, whereby using Ctrl + A to select all the contents of a popout dialog would also incorrectly select some text outside the popout dialog.</p> <p>Fixed an issue affecting the creation of a new parameter when adding a new configuration task, whereby selecting 'use connection parameters' for the connection method would incorrectly not prompt the user to manually input connection parameters.</p>

		<p>Fixed an issue affecting the retrieval of configuration files that were uploaded using the Cisco CLI method, whereby two separate timeout of 60 seconds each would occur when attempting to sync with the remote device.</p> <p>Fixed an issue that would cause nightly retrievals to fail.</p>
Configure	Linux	<p>Fixed an issue whereby Configure would fail on Linux platforms when the database server configuration file permissions were incorrectly set to world writeable.</p>
Credential Management	All	<p>Fixed an issue affecting the creation of credentials for configuration management, whereby if the protocol was changed from SSH to telnet, then the default Access Port was not updated from 22 to 23. The Access Port is now correctly updated.</p> <p>Fixed an issue whereby it was incorrectly possible to delete a credential set that was in use by a user defined REST poller.</p>
Custom Webhooks	All	<p>Addition of a payload selection option to help users when editing a custom webhook rule.</p> <p>Fixed an issue whereby a user could delete a webhook group that still had endpoints assigned.</p> <p>Addition of error reporting if invalid JSON or XML is supplied in a Custom Webhook payload.</p> <p>Addition of a check to enforce specification of event severity when creating a custom webhook rule.</p> <p>Improvement to the display of the</p>

		<p>payload tree under the 'Payloads' tab on the Custom Webhooks admin page.</p> <p>Improvement so that once created, a custom webhook event now appears under the 'Events' tab of the Event Administration page. This event will be removed from this tab if it is deleted.</p> <p>Fixed an issue that caused the Webhook Groups field to be empty when creating a new custom webhook rule.</p> <p>Change so that the 'Create Rule' button for creating a custom webhook rule replaces the 'Details' button on the 'Payloads' tab.</p> <p>Improvement whereby an invalid webhook received via RESTful API will no longer be stored in the database.</p> <p>Improvement so that when a device that was a custom webhook endpoint is deleted from management, its endpoint and any custom webhook payloads will be deleted with it.</p> <p>Fixed a spelling error at the top of the payload tree on the 'Payloads' tab.</p> <p>Addition of a form to edit a custom webhook event and severity.</p> <p>Fixed an issue whereby the database for custom webhook objects was not being backed up.</p>
Dashboards	All	<p>Improvements to dashboard stability.</p> <p>Fixed an issue affecting the Ports dashboard, whereby ports</p>

		<p>identified with the status 'notPresent' (gray) incorrectly displayed with the status 'Up' in the Ports table.</p> <p>Changed the default layout of the following system dashboards from 'Scrolling' to 'Fit to Window':</p> <ul style="list-style-type: none"> • Storage Summary dashboard (for Views) • Summary dashboard (for Storage Pools) <p>Fixed an issue whereby if a dashboard contained more than one Chart dashlet that displayed the same view stream, one of the charts would not display data.</p> <p>Fixed an issue that prevented availability of the Summary dashboard for logical volume objects.</p> <p>Fixed an issue that prevented dashboard filtering from working for textual values of transformed attributes.</p>
Dashlets	All	<p>Fixed an issue that prevented users from adding a threshold to a data series in the ICMP Latency Chart dashlet on the Summary dashboard for a device.</p> <p>Fixed an issue whereby the 'Configuration changes over time' Chart dashlet on the Configuration Monitor dashboard could incorrectly report values less than 1 for the number of changes when the chart was reduced to a smaller size.</p> <p>Fixed an issue affecting changes to the timeframe of Chart dashlets, whereby changing away from and then returning to the 'Use Configured Timeframe' option</p>

would not return the timeframe to that set when originally designing the dashboard.

Fixed an issue affecting the Port Summary dashlet, whereby only the first IP address and/or VLAN would be displayed for ports with multiple instances thereof. Now, each IP address and/or VLAN is displayed in a comma-separated list as intended.

Fixed an issue whereby exporting a chart in SVG format would cause all dashlets on the current dashboard to become blank until the user reloaded the page.

Fixed an issue that prevented View stream Chart dashlets from correctly updating.

Fixed an issue that prevented filtering of some attributes (e.g. device manufacturer, model and version) in tables and dashboards.

Fixed an issue affecting the Object Associations dashlet, whereby applied filters were incorrectly not retained after refreshing the page and changing the 'Show associations of type' option.

Fixed issues affecting the Chart dashlet whereby 'Previous N' selections for stream periods would not plot the correct number of data points.

Fixed an issue whereby empty values were not hidden by default on the Key Info dashlet on Summary dashboards for StormWorks objects without a specific dashboard (e.g. storage device shares).

Change to Table dashlets so that design time filters now accept values with decimal points.

Fixed issues that affected Pie Chart dashlets configured to display Object Status or Incident Status, whereby drilldown to the breakdown tables did not work as expected.

Fixed an issue affecting the addition of a Pie Chart dashlet to a custom dashboard when the dashlet's context source has been initially specified as a fixed object, whereby the 'Group Objects of Type' field was not accessible.

Addition of a warning that will appear during the process of adding a dashlet to a custom dashboard, when if the dashlet's context source is specified as 'Fixed Object' but the user does not select a fixed object source.

Addition of an option to display incoming data in ticker charts as a rate, rather than the current absolute counter total.

Fixed an issue affecting the Chart dashlet when user defined attributes with a display format of 'octet rate' were displayed in charts with a y-axis showing bytes/sec, but the hover tooltip displayed the data with a multiplier e.g. in Gbytes/sec. As a result of this fix, the multiplier has now been removed from the tooltips.

Fixed an issue whereby dashlets did not consistently honor the 'Show virtual ports' preference option.

Fixed an issue affecting the

		<p>creation of a Table dashlet, whereby if a user specified the dashlet be applicable to processors, then they would be incorrectly unable to select device attributes in any table columns.</p>
<p>Device Support</p>	<p>All</p>	<p>Improvement to collection of data for LUNs on Pure Storage devices.</p> <p>Improvement to collection of monitoring data for DataDomain and Nimble storage devices.</p> <p>Fixed issues that caused display of incorrect IO statistics on Dell EMC Unity and NetApp SNMP storage devices.</p> <p>Fixed issues that caused incomplete discovery and monitoring of HP Insight Manager SNMP server devices.</p> <p>Change to management of Dell EqualLogic storage devices to rename BIOS Version attributes to Firmware.</p> <p>Addition of support for all models of Unity storage device.</p> <p>Improvement to the management of Dell iDRAC server devices to reduce incidence of error messages.</p> <p>Fixed an issue affecting the collection of port speed data on Cisco Small Business Range devices.</p> <p>Fixed an issue whereby the vendor attribute was not monitored for Data Domain SNMP storage devices.</p> <p>Fixed an issue whereby ports on Dell EMC VNXe storage devices</p>

that were found to be admin down had the status 'OK' and state detail 'Unknown Status'. The state detail now displays 'Admin Down'.

Addition of option to launch remote terminal sessions for SD Controllers, including Cisco APIC devices.

Fixed an issue affecting Dell EMC VNXe and Unity storage devices, whereby disk capacity was incorrectly returned by uemcli when a disk was not allocated to a storage pool.

Fixed an issue whereby Meraki cloud controllers would incorrectly display a 'down' status if the VPN Peer returned a list of private subnets too long for the database column.

Update to fix gathering of port speed on ADSL and VDSL interfaces for DrayTek devices.

Change so that devices with the following sysoids have had their device type corrected to Load Balancer:

- .1.3.6.1.4.1.3375.2.1.3.4.111
- .1.3.6.1.4.1.3375.2.1.3.4.63
- .1.3.6.1.4.1.3375.2.1.3.4.109
- .1.3.6.1.4.1.2021.250.255

Fixed an issue whereby discovery or polling of NetApp SNMP would fail when the cumulative time for SNMP requests exceeded 60 seconds. As a result of this fix, the timeout has been increased to 180 seconds.

Fixed an issue whereby Dell EqualLogic devices were incorrectly listed as server assets, not storage assets.

Change to data collection for NetApp SNMP storage devices, so that volumes are now split between volumes (non-aggregate) and storage pools (aggregate).

Improvement to data collection of storage performance data for NetApp devices so that volumes, storage pools and LUNs display meaningful names instead of their index.

Addition of new peering attributes and support to peer NetApp LUNs with NetApp storage pools to ensure that the overall device capacities are displayed correctly.

Fixed incorrect NetApp storage device volume conversion, MB to GB replaced by MiB to GiB.

Fixed issues affecting discovery, status monitoring and volume capacities for DataDomain SNMP storage devices.

Removed debug logging from Dell iDRAC ssh storage devices.

Fixed an issue whereby all polling for Dell Isilon REST API storage devices would fail if a storage pool went into a non-OK state.

Fixed an issue whereby storage monitoring for NetApp SNMP devices would not return correct polling statuses.

Fixed issues affecting monitoring of storage performance using navisecli, including:

- Description, part number, revision and serial number data were missing from IO Modules.

		<ul style="list-style-type: none"> • Management modules were not being discovered or polled. • Vendor information was missing from battery details. <p>Fixed an issue affecting Dell PowerEdge iDrac SNMP server devices whereby physical disk sizes were incorrectly corrected too small.</p> <p>Fixed an issue affecting Dell Isilon REST storage devices whereby the trailing spaces in the IDs of power supplies would incorrectly cause them to appear as new objects after every poll.</p> <p>Fixed an issue whereby uemcli collectors incorrectly returned power rolling average and power presently reading in discovery.</p> <p>Fixed an issue whereby DataDomain SNMP, Dell Isilon REST and HP Insight Manager SNMP devices were incorrectly returning Reading values as part of discovery rather than polling.</p> <p>Fixed an issue affecting Dell EMC VNX and VNXe storage devices monitored by naviseccli whereby power supplies were discovered but not polled.</p>
Event Management System	All	<p>Improvement to the performance of the event management system when evaluating global event triggers.</p> <p>Addition of new 'Origin Device' and 'Parent' columns to the Event Suppressions page table, enabling users to distinguish between event suppressions on multiple devices that might contain the same object (e.g. OS Service Name).</p>

		<p>Addition of a new 'syslogTimestamp' field to the Event Details form for syslog events, to store the device's timestamp from the syslog message's header.</p> <p>Fixed an issue whereby incidents and events were incorrectly not raised when a storage or server device returned a non-OK state for an enclosure component. The following events have been added for this circumstance:</p> <ul style="list-style-type: none"> • HwDeviceStateOK • HwDeviceStateWarning • HwDeviceStateUnknown • HwDeviceStateError • Device Status Problem.
<p>Firmware Update Management</p>	<p>All</p>	<p>Fixed an issue that could cause the removal of the firmware folder upon upgrade to future versions of Entuity.</p> <p>Changed the default firmware folder from /firmware to /etc/firmware.</p> <p>Improvement to the error message displayed when the configuration register does not match. The error message now details both the device register setting and parameters.</p> <p>Improvement to firmware.properties file generation to increase retrieval speed.</p> <p>Addition of ability to specify the firmware filepath during Configure, both via the wizard and the command line.</p> <p>Improvement so that firmware image upload uses temp files in the process of uploading.</p>

		<p>Improvement so that if chunks fail to transfer then the firmware image upload will be cancelled.</p> <p>Improvement so that backup firmware is now copied from the transfer folder to the firmware folder.</p> <p>Fixed an issue whereby deleted IOS images were not removed from the list of images under the 'Firmware' tab of the Configuration Management page.</p> <p>Fix to prevent a user from uploading more than one file with the same name at the same time.</p> <p>Fixed an issue whereby the firmware.properties file would not be released after retrieving information from it.</p> <p>Fix for configuration management backup via TFTP.</p>
General UI/UX Improvements	All	<p>Improvement to normalize values (to whole numbers) collected for storage performance metrics.</p> <p>Addition of checkboxes to the tree widget used in User Defined REST Polling and Custom Webhooks functionality to indicate that items in the tree can be selected, and a further change so that selectable items are highlighted when the user hovers over them.</p> <p>Addition of an error message that displays when user enters an incident annotation that is longer than 255 characters.</p>
IP SLA	All	<p>Addition of microsecond support to IP SLA Jitter and VoIP operations, improving upon the existing millisecond precision.</p>

<p>Maps - Topological Maps</p>	<p>All</p>	<p>Fixed an issue whereby hypervisors and their VM detection links were disappearing from topological maps after the addition of map labels for attributes that hypervisors do not have (e.g. description).</p>
<p>Polling</p>	<p>All</p>	<p>Fixed an issue whereby some virtual ports were incorrectly displayed as physical ports.</p> <p>Update to the uemcli collector for polling Dell EMC VNXe and Unity storage devices.</p> <p>Fixed an issue whereby the devsysman process responsible for SNMP polling of network devices would incorrectly exit when polling custom devices.</p>
<p>Reporting</p>	<p>All</p>	<p>Addition to the 'Port Bandwidth Capacity Planning Heat Map' report of an option to exclude ports with no data, which is by default selected. This means that with all 'exclude' options unticked, this report will now display all ports (including those that are virtual, admin down, and that have no samples with data).</p> <p>Fixed an issue whereby the Device Configuration Diffs report would always display change timestamps in GMT regardless of the server timezone. The change timestamps now display in the correct timezone for the server.</p> <p>Fixed an issue whereby the Device Configuration Diffs report would include changes that were outside the defined reporting period.</p> <p>Fixed an issue whereby certain pre-existing reports were not viewable. The affected reports were as follows:</p>

		<ul style="list-style-type: none"> • Event Details • Event History • Event Summary • Services Availability • Services Delivery Summary <p>Fixed an issue that generated broken output when exporting the 'Device Uptime, Reachability and Last Reboot' report in CSV format.</p> <p>Fixed an issue affecting the Infrastructure Availability report, whereby ICMP reachability outage figures would be incorrect if a specified device has a maintenance schedule and the report is run with a prime time definition.</p>
RESTful API	All	Fixed an issue that prevented users from adding custom devices via the RESTful API.
Security Updates	All	<p>General security updates and improvements.</p> <p>Apache HTTPD updated to latest version 2.4.62.</p> <p>OpenJDK updated to latest version 11.0.15+10.</p>
Services	All	Fixed an issue whereby if a user added a component from the Dropbox when editing a service and then saved their changes, the service component list would become blank. As a result of this fix, adding components via the Dropbox now works as expected.
System	All	Fixed an issue whereby some vendor-supplied utilities used to collect data from storage devices could hang, which caused an accumulation of processes that adversely affected server performance.

		<p>Fixed an issue whereby npcap driver installation would be incorrectly skipped if an older version was already installed. As a result of this fix, Entuity installs a new driver if there is no driver installed, or if it is older than version 1.60.</p> <p>Change to a system process to fix an issue that could cause SNMP authentication failures for non-Cisco devices.</p>
System	Linux	<p>Change so that the 'restore' utility maintains the case of database table names restored from a backup done on Windows, so that Windows backups can be restored on Linux.</p>
Topology	All	<p>Improvements to Entuity's topology using Link Layer Discovery Protocol (LLDP) to support a greater range of devices and manufacturers.</p>
User Defined REST Polling	All	<p>Fixed an issue that prevented a user from entering negative numbers for a range for a user defined REST poller attribute.</p> <p>Fixed an issue where an error could be thrown when editing a user defined REST poller.</p> <p>Fixed an issue whereby a user could incorrectly access the edit dialog on system transforms.</p> <p>Fixed an issue whereby a user could incorrectly delete a user defined transform whilst it was in use by an attribute.</p> <p>Fixed an issue whereby it was possible to add a string containing just blank spaces as a parameter or a header in a user defined REST poller.</p>

		<p>Fixed an issue whereby it was not possible to add and save a new parameter to a user defined REST poller if the original connection URL itself did not contain a parameter.</p> <p>Fixed an issue whereby adding devices to a user defined REST poller filter would cause an 'Unknown Device' to appear in the list.</p>
User Defined SNMP Polling	All	<p>Improvement to error messages when naming user defined attributes, collectors, thresholds and transforms.</p> <p>Change so that user defined attribute names are now limited to 58 characters instead of 64 (user defined collectors, thresholds and transforms still have a limit of 64 characters).</p> <p>Change so that user defined threshold names can no longer have hyphens in them (this is already the case for user defined attribute names. However, hyphens can still be used in user defined transforms and collectors).</p>
Views	All	<p>Fixed server performance issues caused when a View's contents were determined by a union of Views (and several Subviews or the All Objects View were included in that selection).</p>
Virtualization	All	<p>Fixed an issue whereby an error would be thrown when trying to access the right-click Context Menu for a VM from an associated VM Breakdown Table.</p> <p>Fixed an issue affecting the saving of data for Meraki Cloud Controller VPN Peers and Networks by</p>

		<p>increasing database column sizes.</p> <p>Fixed an issue affecting polling of Meraki cloud controllers, whereby Meraki API v1 no longer retrieves all data without limit in one go. As a result of this fix, polling now requests pages of data that details all polled items.</p> <p>Fixed an issue caused by null data returns for Meraki Uplink objects.</p>
Zones	All	<p>Fixed an issue that could cause Meraki polling to fail when a Meraki device was assigned to a zone.</p>

Notes

Entuity is supplied with the RSSO client version 20.02.00. Your RSSO client version should not be greater than the RSSO server version. Please contact Entuity support if your RSSO server version is less than 20.x in order to obtain a compatible RSSO client.

Entuity recommends that all servers in a multi-server configuration run the same patch version.

Downloading Patches

Patches for all supported platforms are available from the Entuity FTP site: <ftp.entuity.com/>

The site is arranged into separate directories for each Entuity version, operating platform and patch number. Each directory also includes a readme file and any other relevant documents, including checksums, which you are advised to verify before applying each patch. Patches must always be applied via the Patch Installer, which will ensure they are applied in a consistent and reliable manner.

Access to the Entuity FTP site requires a valid username and password that can be obtained from Entuity Support. For added security, the FTP site requires connection via SFTP.

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