

# RELEASE NOTES

## OPERATIONS MANAGER

### VERSION 21.Q3.1



## INTRODUCTION

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This is a recommended production software release for all Operations Manager products. Please check the [Operations Manager User Guide](#) for instructions on how to upgrade your device.

## SUPPORTED PRODUCTS

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- OM1200
- OM2200

## KNOWN ISSUES

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- Cellular can be used as an interface for DNS queries instead of the IP address
  - No workaround
- Bond modes balance-alb and balance-tlb don't work under a bridge
  - Workaround by running ip link set up <bond> on both sides
- Network Interfaces are not in the right order in the UI for 24E devices
- Intermittent UI issues when editing a bond or a bridge
  - Workaround is to refresh the web page
- Can't add a username with a - (hyphen) character
  - Workaround is to use an alternative username that does not include - (hyphen) character
- Deleting automatic IPv6 connections from a network interface leaves behind any prefix routes received on that interface
  - Workaround is to manually remove the route by running ip route del <route address/prefix> or perform a system reboot
- The resolvconf tool is not supported for configuring DNS over VPN
  - No workaround
- A bond or a bridge with the device field starting with 'sw' is misidentified as a switch port
  - Workaround is to assign a bond or a bridge a device name that doesn't start with 'sw'
- TFTP doesn't allow - (hyphen) characters in the path
  - Workaround is to use an alternative path that does not include - (hyphen) character
- Attempting to tab complete in ogcli with the - (hyphen) character causes bash errors
- Workaround is to not use tab complete when an ogcli argument starts with - (hyphen) character

## CHANGE LOG

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**Production release:** A production release contains new features, enhancements, security fixes and defect fixes.

**Patch release:** A patch release contains only security fixes or defect fixes for high priority issues.

### 21.Q3.1 (April 2022)

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This is a patch release.

#### Security Fixes

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- Fixed CVE-2022-0847 (The Dirty Pipe Vulnerability)
- Fixed CVE-2022-0778

#### Defect Fixes

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- Exporting config when cellular is enabled no longer produces invalid config.
- Removed some noisy logs about signal strength when cellular is disabled.
- Changed SNMPv3 Engine ID to display in GUI.
- Changed SNMPv3 Engine ID to be generated based on the MAC address of net1.
- Improved validation of state route configuration (made more permissive).
- Increased groupname limit to 60 characters.
- Fixed cellular modems still responding to ping and holding an IP address even after disabling cellular.
- Fixed an issue with the parsing of wildcards in the rules for interzone forwarding.

### 21.Q3.0 (November 2021)

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This is a production release.

#### Features

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- Allow DNS Search Domains to be set
- Support bonds in bridges via ogcli
- Static Routes UI
- Brute Force Protection
- TFTP server
- Configuration overwrite
- Configuration backup and restore via Web UI

#### Enhancements

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- Improve ogcli built-in help
- Improve ogcli port naming syntax
- Display hostnames that include . fully
- More than three DNS nameservers can be configured
- Prioritize DNS on failover interface during out-of-band failover

#### Security Fixes

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- Upgraded Yocto from Gatesgarth to Hardknott

- SNMP RO community strings appear in cleartext
- Password for serial PDU is visible when typing it in
- Download links leak the session token

### **Defect Fixes**

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- Fixed a race condition that could cause issues bringing up the cell modem on fresh/factory reset devices.
- Fixed an issue with serial port IP aliases incorrectly overwriting the network interface configuration on update.
- Fixed an issue with remote AAA authentication negotiation when using IP aliasing.
- Fixed an issue with installing new firmware images from a USB device.
- Improved the resource usage of the ogpsmon service.
- Improved the information display/layout for PDUs.
- Improved the stability and usability of ogcli via the addition of a number of crash fixes and endpoint specific help/error messages.
- Fixed an issue preventing the bridging of NET1 and switch ports for OM1200 devices.
- Reduced the amount of spurious log noise resulting from SNMP updates.
- Allowed manual setting of https certificate which bypasses CSR generation.
- Added support for the SNMP Controlled TrippLite LX and ATS LX Platform SNMP drivers.

### **21.Q2.1 (July 2021)**

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This is a patch release.

### **Defect Fixes**

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- Fixed issue where nginx service would fail on bootup after a system upgrade

### **21.Q2.0 (June 2021)**

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This is a production release.

### **Features**

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- Support for IPsec configuration
  - x509 certificate authentication
  - Dead Peer Detection (DPD)
  - Enhanced IPsec configuration options
- Improved support for automatic failover
  - Includes a SIM activated timestamp to show when failover takes place
  - Improved support for Verizon and AT&T
- Added SNMP Traps for PSUs
- ZTP Enhancements
- Added default password obfuscation and masking to ogcli

### **Defect Fixes**

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- Cell connection with a SIM card that requires a password will not connect
- URLs are not correctly validated

- Using ogcli commands in ZTP over USB script fails
- ogcli import [TAB] does not auto-complete existing files
- ttyd segfaults on exit
- systemd crashes in software boot when USB stick is inserted
- ogcli update fails when 2 items are added to a list
- Help text on Cellular SIM Failover does not change when selecting active SIM
- rsyslog collects debug logs showing passwords in clear text
- Web-UI “Cycle All Outlets” button/link fails when no outlets are selected
- v1 RAML is not compatible with raml2html
- Triggered auto-response playbooks dropdown menus fail after selecting an option
- SNMP temperature alert trap may not trigger in time
- Connecting a Cisco console does not reload portmanager as it should
- Ember proxy doesn’t work because of a cookie problem
- RTC self-test randomly fails
- USB-serial port incorrectly allows setting localConsole mode
- LDAPDownLocal with bad server key doesn’t fall back to local accounts
- TACACS+ errors when server returns large packet of Authorizations
- Local PDU breaks on port import
- puginstall downloads to /tmp (ie. tmpfs)
- Power select seems to be defaulting to allow search and does not work much of the time
- OM12XX has an empty Local Management Consoles page
- Entering an invalid URL for firmware upgrade results in a very long wait
- Uploaded images that fail to install are not removed until reboot
- ModemWatcher doesnt update sim, cellUim, or slotState for telemetry and SNMP
- Interzone forwarding to/from LHVPN zone is broken
- Removed weak ciphers from default SSH and SSL configuration options
  - Upgraded devices from older firmware versions will still have weak ciphers enabled

## **21.Q1.1 (May 2021)**

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This is a patch release.

### **Defect Fixes**

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- Remote syslog can log SNMPv3 PDU credentials in debug mode
- Connecting to a Cisco console via USB did not work
- Booting while connected to a Cisco 2960-X USB console would prevent it from working
- USB drive may not be mounted on boot, causing ZTP to fail
- ogcli update could not append multiple items to a list

## **21.Q1.0 (March 2021)**

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This is a production release.

### **Features**

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- Support for OM120xx SKUs with dual AC power supply
- Support for OM2224-24E SKUs

- Improved list access in ogcli
- Remove Non-Inclusive Language References from WebUI
- SNMP Traps for PSU and system temperature
- Automatic failover support - AT&T and Verizon
- Password Complexity Enforcement
- New bridge inherits MAC address of the primary interface

## Defect Fixes

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- ModemManager can probe the local console
- Description field on create bond/bridge is not cleared after submit
- 10G IPv6 crashes
- “ogcli update” is broken for all non-cellular interfaces
- Deleting an aggregate underneath a VLAN gives a confusing error message
- Cell Modems may come out of Auto-SIM mode
- “Internal Error.” is not a useful REST API error message
- Changing sim during failover causes device to come out of failover mode
- Allow uploading of firmware images over 400M
- “Port Number for Direct SSH Links” not working
- Console user can see the edit button on Access > Serial Ports page
- Aggregate creation errors not shown in web UI when f2c/failover is updated
- SNMP agent sometimes reports ports out of order
- Port Discovery requires multiple runs to complete
- Inform user of failure to add IP Alias to serial port configured as a local console
- Auto-Response Salt Master and Minion may not always sync keys
- REST failure messages not correctly reported in WebUI on Network Interfaces page
- Firewall Interzone Policy dropdowns show duplicate values when adding multiple entries
  - Redesigned UI to improve user experience
- odhcp6c script removes all IPv6 addresses and routes every time an RA event occurs
- search parameters in ‘/ports’ isn’t working
- Cannot use special characters in cell APN or username
- Portmanager does not re-open USB device after it is connected in some cases
- Access via Lighthouse proxy not working from behind NAT
- Configuration allowed multiple SNMP managers with the same destination and different message-types and protocol.
  - This resulted in multiple messages being received via SNMP.
  - Now it is invalid to have multiple SNMP managers with the same destination; each entry must have a unique combination of host, port and protocol.
  - Note: During upgrade to 21.Q1.0, if multiple entries with the same host, port and protocol are found, only the first entry will be kept.
- Mask client passwords in Support Report output
- Modem not present during initial boot, fails on subsequent boots
- Session tokens visible in URLs
- Session APIs are updated to not contain any session tokens
- Compatibility note for CURL users: POSTing to sessions and following the redirect (-L) without allowing cookies (-c /dev/null) will result in an error

## 20.Q4.0 (October 2020)

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This is a production release.

### Features

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- Remote syslog support for port logs
- Support for Multiple SNMP managers
- Dual SIM Support
- Support for additional OM12XX SKUs
- Added the ability to use unauthenticated SSH to console ports
- Configurable RemoteDownLocal/RemoteLocal policies for AAA
- Editing interfaces in existing aggregates
- The ability to enable spanning tree protocol on bridges
- Upgraded Yocto from Zeus to Dunfell

### Defect Fixes

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- When deleting bond interfaces, the web UI can identify the primary interface incorrectly
- Auto response reactions can not always be removed in UI
- IP Passthrough status can display incorrectly if interface is changed
- SNMP Manager V3 password is not set correctly and does not appear in export
- Firewall services with spaces should be invalid
- SNMP Service does not support IPv6
- Ogcli -j import fails when any property contains an apostrophe
- Ogtelem snmp agent using 6% cpu
- Firmware upgrade via WebUI using file upload doesn't work on OM1204/1208
- ssh to a bad port/label does not return expected error
- SNMP Alert Managers do not support IPv6 transport protocols
- Port forward does not work with perifrouted
- IPv6 cellular addresses are not reported in the UI
- Port forwarding does not work as expected on connections other than net1
- Port forwarding does not behave as expected for IPV6

## 20.Q3.0 (Jul 2020)

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This is a production release.

### Features

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- Support for a configurable Login Banner for SSH and Web-UI
- Discover 9600 baud serial devices before other speeds
- Speed up Auto-Response Triggered Playbooks Web-UI page loading time
- Miscellaneous Web-UI wording changes
- Software support for new SKUs, OM2248-10G and OM2248-10G-L
- SNMP Service support for telemetry state
- Allow device configuration import and export
- Support to provision via USB key
- Support for IPv4/v6 Firewall Interzone Policies
- Support for Firewall zone custom/rich rules
- Improved ogcli error reporting

- Upgraded Yocto from Warrior to Zeus
- Upgraded Ember JS from 2.18 to 3.0.4

### **Defect Fixes**

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- When unenrolling from a primary Lighthouse instance ensure the device is also unenrolled from secondary Lighthouse instances
- Switch uplink interface is unable to send/receive frames

### **20.Q2.0 (Apr 2020)**

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This is a production release.

### **Features**

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- Software support for 10G SKU
- Software support for Ethernet Switch SKU
- Auto-Response Network Automation Solution
- 802.1Q VLAN Interfaces support
- Firewall Masquerading (SNAT)
- Firewall Port Forwarding
- PDU Control support
- Opendev Command Line Interface tool (ogcli)
- Static Route Support
- Console Autodiscovery Enhancements
- OOB Failover Enhancements

### **Defect Fixes**

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- Salt version on the Operations Manager has been upgraded from version 3000 to 3000.2
- Unable to change pinout mode on certain ports.
- LH/NGCS proxy breaks Web UI static resources.
- NGCS cannot connect to a remote TFTP server.
- Refreshing the Web UI causes the sidebar navigation to lose place on some pages.
- Deleting Multiple (3+) External Syslog Servers in a single operation causes Web UI errors.
- Serial port mode cannot be changed to 'Console Server' mode after configuring to 'Local Console' mode.
- Local Users 'Disable/Delete Selected' actions fail but claim to succeed on the Web UI.
- Adding a gateway using a static connection sets that gateway's route metric to 0.
- OM12xx firmware sends several lines to front serial port 1 on boot.
- Web UI fails to update USB serial port configuration.
- Auto Response reactions/beacons REST endpoints with missing module specific table return errors.
- Web UI dark mode dialog box background and text too light.
- Auto Response REST API has various bugs in JSON/RAML.
- Port 1 default mode should be "local console" on OM12xx.
- OM12xx USB-A port mapped incorrectly.

- IPv6 network interfaces are not truly deleted when deleted from the Web UI.
- Remote authentication should support IPv6 servers.
- USB serial port Autodiscovery: devices show disconnected after populating hostname.
- REST API allows deletion of uuids under unrelated endpoints.
- Pre-release REST API endpoints have been consolidated or removed as necessary.
- REST API /api/v2/physifs POST fails with a 500 on “Not Found” error.
- REST API /support\_report endpoint is not functional for API v1.
- Web UI session does not end session correctly when left on the web terminal.
- Remote AAA users are not granted expected access to device serial ports.
- Serial ports with lengthy label names do not display nicely in the Web UI.
- Support Report sfp\_info tool does not work for 1G network ports.
- Using a switch port as the probe address for failover doesn’t work.
- Slow memory leak in ogconfig-srv causes OM22xx to eventually restart after ~125 days.
- Remote AAA user not granted port access via SSH/CLI pmshell.
- Slot switching should only ever be possible in the boot immediately after upgrade.
- Serial port label on access serial ports page can extend into next column.
- Web UI fixes on the Routing Protocol page.
- DELETE /config REST API documentation is incorrect.

## **20.Q1.0 (Feb 2020)**

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This is a production release.

### **Features**

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- Bonding Support
- Bridging Support
- Console autodiscovery for labeling ports with the hostname of connected devices
- Force password reset on first use / factory reset
- Add support for Lighthouse cell health reports
- Serial port login / out SNMP alerts
- General improvements to user interface and user experience
- Added support for IPSec tunnels
- Improved CLI configuration tool (ogcli)
- Added IPv4 Passthrough support
- Add support for periodic cell connectivity tests
- Support for OM12XX device family
- Lighthouse OM UI Remote Proxy Support

### **Defect Fixes**

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- System Upgrade: “Error contacting server.” appears after device begins an upgrade
- Fix issue with removing the last interface from a firewall zone using the web UI
- Improved firewall configuration change response time
- Firewall rules are not updated when a zone is deleted until the page is refreshed
- Ember error shows on network interface web UI page



- Web-UI fails to update USB serial port configuration
- Improved rest api documentation
- Unsaved hostname in Web UI leaks into heading and navigation components
- After importing config backup, web terminal and SSH links on Access Serial Ports do not work
- Log rotation improvements
- Improved exception handling
- IPv6 DNS support for cell modem unreliable
- Kernel using wrong realtime clock
- Interrupting an upgrade prevents further upgrades
- Lighthouse synchronisation improvements
- ZTP fixes and improvements

## **19.Q4.0 (Nov 2019)**

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This is a production release.

### **Features**

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- Added new CLI configuration tool, ogcli.
- Support for the Network and Cellular LED.
- Support for cellular connections on the Verizon network.
- SNMP v1, v2c, and v3 Trap support for system, networking, serial, authentication, and config changes.
- Cellular modem can now autodetect carrier from SIM card.
- Device now constructs FQDN from hostname and DNS search domain.
- Maximum number of concurrent SSH connections is now user configurable (SSH MaxStartups).
- Added LLDP/CDP support.
- Added support for the following routing protocols:
  - BGP
  - OSPF
  - IS-IS
  - RIP
- Add support for rebooting the device in UI.

### **Defect Fixes**

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- Swapped default firewall zone assignment for net1 and net2.
- Removed default static IPv4 address on net2.
- Perl now reinstalled on the system.
- Improved reliability of cellular modems.
- Fixed some issues with IPv6 connectivity.
- Manual date and time setting now persist across reboot.
- Statically assigned cellular IP connections were not correctly appearing in UI.
- Modem was not being enabled correctly if ModemManager was in a disabled state.
- Fixed cell signal strength not being checked again if a previous check failed.
- SIM status was not always being correctly reported in the UI.
- Allow USB ports to be used in pmshell and display them correctly.
- ISO-8859-1 text messages were not being correctly handled.
- Correctly start chronyd for NTP.

- Fixed device stability issue from long-term REST API usage.
- IPv6 NTP servers could not be added in the UI.
- Fixed bug where an in-use IPv6 address could be added as a serial port address.
- Fix return code in REST API for port IP alias.
- Fixed rare issues with cellular failover and scheduled cellular firmware updates.
- Cellular connection was not being correctly brought down when performing cellular firmware upgrades.
- Administrator users were not being given correct rights when using pmshell.
- UI was not accepting valid URLs for system upgrade files.
- REST API was not indicating an error when an invalid date was sent.
- No new port logs appeared after rsyslogd was restarted.
- Changing assignment of interfaces to firewall zones had no effect on the firewall.
- Cellular interface did not come up when iptype was deleted from config.
- In the UI using enter on the keyboard now publishes the change instead of clearing it.
- Web server will now listen on IPv6 addresses.
- Cellular statistics were not updated if the modem was not connected.
- Running systemctl restart firewalld now works correctly.
- RAML documentation for PUT /groups/:id request was incorrect.
- Both network interfaces responded to ARP requests when connected to the same subnet (ARP flux).

## **19.Q3.0 (July 2019)**

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This is a production release.

### **Features**

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- Cellular failover and out-of-band access.
- Carrier firmware update ability for cellular modem.
- Administrators can force SSH logins via public-key authentication only, on a per-user basis.
- Users can now store their public-keys for SSH authentication in the configuration system.
- Ability to see users connected via pmshell to each serial port.
- User pmshell sessions can be terminated via the web-UI and from inside pmshell.
- Logs are now more efficient with their use of disk space.
- Users are now warned about high levels of disk use.
- Support report displays list of files that have been modified in each config overlay.
- Configuration backups can now be made and imported via ogconfig-cli.

### **Defect Fixes**

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- UI now navigates to the login screen as soon as session expires.
- Fixed ogconfig-cli pathof command returning incorrect paths for list items.
- Disabled ability for root user's group to be changed in the UI.
- Model and serial number were not appearing in web-UI system dropdown.
- Refresh button was not functioning correctly on network interfaces page.
- Ethernet link speed changes were not being applied.

- Conman was bringing down network link unnecessarily on address changes.
- Conman took too long after a reload to notice the Ethernet links were up.
- Fixed missing text on syslog web-UI page.
- Some cell carriers with special characters in their name were not being handled correctly.
- SSL certificate upload via the web-UI was broken.
- Serial port IP Alias changes were being applied without clicking the apply button.
- Web UI terminal pages weren't updating their page title.
- Serial port direct SSH did not accept public-key authentication.

## **19.Q2.0 (April 2019)**

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This is a production release.

### **Features**

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- USB console support for front and rear USB ports.
- LH5 enrolment support to ZTP.
- Cellular configuration support to UI and REST API with automatic SIM detection.
- Ruby scripting support for use with Puppet Agent.
- Model now displayed in System Details UI.
- Power LED enabled on front panel. Amber when only one PSU is powered, green if both are.
- Comment character support to ogconfig-cli. Character is '#'
- Upgraded underlying base system packages for security and stability enhancements.
- Support for configuring pmshell escape character.
- Basic support for OM2224-24E models gigabit switch.
- Enabled per-interface default routing.
- User configurable IPv4/v6 Firewall.
- Cellular modem firmware upgrade mechanism for CLI.

### **Defect Fixes**

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- Issue with small delay to CLI after login.
- REST API and UI not showing all IPv6 addresses on an interface.
- Incorrect description for Cellular Interface in config.
- Management Console connection wasn't re-establishing after baud rate changes.

## **18.Q4.0 (December 2018)**

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This is a production release.

### **Features**

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- System upgrade capability

### **Defect Fixes**

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- Fix issue in pmshell which produced brief high CPU usage periods
- Removed excessive udhcpc messages
- Updated schema for UART hardware settings

## 18.Q3.0 (September 2018)

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First release for the Opendgear OM2200 Operations Manager.

### Features

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- Built-in cellular modem for use as an Out Of Band connection.
- Dual SFP network ports for Gigabit Ethernet and fiber.
- Secure hardware enclave for storing secrets for encrypting configuration and logs.
- Support for running standalone Docker containers natively on the OM2200.
- Modern HTML5 and JavaScript based Web UI.
- Modern tab-completing configuration shell, ogconfig-cli.
- Consistently validated configuration backend.
- Configurable IPv4 and IPv6 networking stacks.
- Comprehensive REST API for external configuration and control of the OM2200.
- Streamlined user and group configuration and authentication mechanisms, including Radius, TACACS+, and LDAP.
- The ability to enroll and manage the OM2200 with Lighthouse 5.2.2.
- NTP client for accurate time and date settings.
- Support for provisioning the OM2200 via DHCP ZTP.
- Initial support for monitoring the OM2200 via SNMP.
- The ability to manage serial consoles via SSH, Telnet, and WebTerminal.
- Support for running Opendgear NetOps Modules.
- Support for the Secure Provisioning NetOps Module which provides a platform to distribute resources and configuration (ZTP) to devices managed by the Lighthouse 5 platform and connected to the OM2200 appliance.