



MGOS 4.4.2

RELEASE NOTES

About MGOS 4.4.2

MGOS 4.4.2 is a general release for MG90 routers (4G and 5G variants).

Customers are recommended to upgrade to this latest release to take advantage of new features, updated functionality, security updates, and addressed field-reported issues that are described in this document.

Important: All customers running MGOS 4.4.0 must first upgrade to MGOS 4.4.1 (AMM OTA or via USB drive) before upgrading to MGOS 4.4.2. Failure to do so may prevent the router from connecting to the carrier network.

If you upgraded directly from MGOS 4.4.0 to MGOS 4.4.2 and are experiencing network connectivity issues, please contact Support for further instructions.

Note: Sierra Wireless recognizes that our customers deploy devices in a wide range of network environments with varying configurations. It is always good practice to install a new MGOS release with the planned operation workflow on a few trial devices to ensure that standard operation is maintained within your environment before deploying the new release across your fleet of MG90 5G devices.

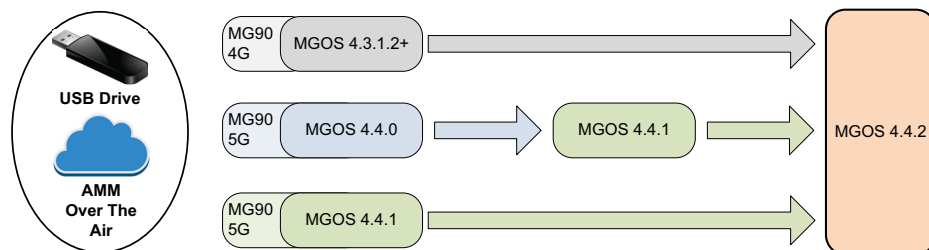
Important: Customers using FIPS mode must upgrade to stay current with security bug fixes.

Upgrade Methods

MGOS 4.4.2 can be installed via USB drive, or via an AMM Over-The-Air (OTA) upgrade subject to the AMM Over-The-Air Upgrade Requirements on [page 2](#).

The following upgrade paths to MGOS 4.4.2 are supported via USB and AMM:

- From MGOS 4.3.1.2+—Upgrade directly to MGOS 4.4.2.
- From MGOS 4.4.0—Upgrade to MGOS 4.4.1, and then upgrade again to MGOS 4.4.2.
- From MGOS 4.4.1—Upgrade directly to MGOS 4.4.2.

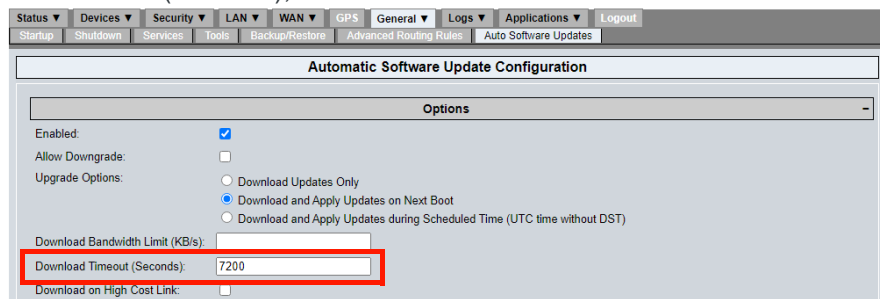


AMM Over-The-Air Upgrade Requirements

- AMM 2.17.1 or newer is required to upgrade over-the-air to MGOS 4.4.2.

Important: *Upgrading using older AMM versions will result in MGOS firmware upgrade failures, and can require a USB-stick install to recover. For more information, refer to [Product Bulletin: AMM 2.16 Prerequisite to MG90 firmware upgrade](#).*

- **Upgrade recommendation**—Before using AMM to upgrade to MGOS 4.4.2, Sierra Wireless recommends setting the download timeout value to 7200 s, to ensure the download completes in one attempt. (Otherwise, if the download times out, it will resume at the next opportunity—for example, when the active link changes, the next scheduled update window, when the device reboots, etc.)
 - a. In MGOS, go to General > Auto Software Updates.
 - b. In Download Timeout (Seconds), enter 7200.



- c. Click Submit.

New Features/Updated Functionality

WAN Connection (Cellular)

Updated network negotiation process to meet AT&T/FirstNet MTU size requirements.

Implemented the EM9190 radio module's Smart Transmit (SAR backoff) feature to satisfy certification requirements.

Added support for additional AT&T SIMs that have the following prefixes: 8901280, 8901380, 8901560, 8901180, 8901950.

WAN Link Configuration (Cellular)

Added 5G band support in the band list when the Custom Band Setting Mode is set to Restrict to Bands, or to Exclude Bands.

Updated Setting for Band options:

- Changed "Automatic" to "All Bands" to accurately reflect functionality of the Custom Band Setting Mode band lists.
- Added 5G NR ALL option.

Added Enable TCP MSS Clamping option to avoid dropped or fragmented TCP packets by reducing the maximum TCP packet size.

WAN Link Policies (Cellular)

Enhanced the WAN Signal Strength policy:

- Included additional RF condition metrics (RSRP, RSRQ, SINR).
- Updated the penalty behavior to remove the penalty in one step at the end of the recovery period, rather than linearly over the course of the period.

VPN

Added "Single Subnet Per Child SA" option. This option enables a VPN to be configured to use IKEv2 instead of IKEv1 to connect the MG90 to a Cisco Adaptive Security Appliance (ASA).

Resolved issue that prevented reliable connection of IKEv1 Host-to-LAN VPNs with multiple local subnets.

Resolved issue with establishing IKEv1 LAN-to-LAN IPsec VPNs with multiple remote subnets.

AMM

Added support for AMM 2.17.2 multiple unit reboot feature for MG90 routers. This feature enables AMM to force an immediate reboot on multiple MG90 routers with one command.

Broadcast (Gateway State Beacon)

Enhanced the VPN Status option to allow broadcast of a single status for all VPNs combined, or separate statuses for all VPNs.

GNX

Added support for GNX to use AMM as a configuration server and data server via the management tunnel. GNX traffic is directed through the management tunnel when enabled through the LCI (Application > GNS) "Use Management Tunnel" option.

When connected to an MG90 router, the MG90's serial number is added to the GNX default configuration file if the GNX software has been configured to read and report it.

Radio Module Firmware

New radio module firmware for:

- EM7511 (AT&T, Bell, Generic, Sprint, TMO, Verizon)
(Note—New Bell firmware can be downloaded from AMM and manually installed.)
- EM9190 (AT&T, Generic, TMO, Verizon)

SIM-based Switching—Automatic image switching to Bell firmware for EM7511 when a Bell SIM is inserted is now supported.

Serial

Added support for updated IOGEAR USB-RS232 adapter cable.

Device Management (Logging) System

Added options to enable DNS logging and set the log severity level (General > Services).

Notes

Cellular

MG90 5G routers with Verizon SIMs will connect only to LTE.

Addressed Issues

WAN

Resolved an issue in MGOS 4.3.0.1 (only when FIPS is enabled) that prevented port forwarding on Host-to-LAN VIPs.

Resolved an issue that caused the router to do a link recovery reboot when the link was still up.

Resolved an issue that deleted the carrier APN for an active cellular connection, causing the connection to drop.

VPN

Resolved an issue that caused the Verizon network to reject an active connection, causing repeated reconnections.

Resolved an issue that caused IPsec VPNs to go down for extended periods.

Wi-Fi

Resolved an issue that caused traffic interruptions on Wi-Fi WAN.

Resolved an issue that caused the router's Wi-Fi SSID (access point) to stop broadcasting, requiring a reboot to restore it.

GNSS

Resolved an issue that could cause the indicated location of a stationary router to drift.

Resolved an issue that, in certain cases, caused infrequent loss of GPS/GNSS fix.

Ethernet

Resolved an issue where an Ethernet port connected to third-party equipment would not be available on power up or when reconfigured from IDLE to LAN or WAN.

AMM

Resolved an issue in MGOS 4.3.0.1 (FIPS only) that could cause an incorrect VPN status to be reported in the AMM Link Utilization report.

Resolved issue that caused connected Wi-Fi clients to be incorrectly reported as disconnected.

Vehicle Telemetry

Resolved an issue that intermittently displayed erroneous speed information.

Resolved an issue that prevented the MG90 from detecting the electronic control unit (ECU) on the 2021 Chevrolet Tahoe.

Router Shutdown Configuration

Resolved an issue that caused the reset button to not work for some Button Reset Time values.

Device Management (Logging) System

Resolved an issue that reported a false overvoltage to the management system.

Resolved an issue that caused the router to reboot.

Security Updates

Software

Upgraded to BIND version 9.11.36 and DHCP version 4.4.3