Software Release Notes V2.16.1

AirLink® Manager and AirLink® Mobility Manager

SIERRA WIRELESS®

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Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the Sierra Wireless modem are used in a normal manner with a well-constructed network, the Sierra Wireless modem should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless modem, or for failure of the Sierra Wireless modem to transmit or receive such data.

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Revision History

Revision number	Release date	Changes
1	May 14, 2018	AMM 2.16.1 Release Notes
2	Sept 12, 2018	Corrected first bullet in Chapter 4, section: Product enhancements, to indicate that the DELAY field has been increased to 32767 minutes.

Contents

1: Release Information

AirLink Manager (AM)/AirLink Mobility Manager (AMM) 2.16.1 is a minor release of the AirLink Manager Platform that provides support for the AirLink LX60, introduces a refreshed user interface for reporting, and several new features in the product.

After completing an upgrade of the AM/AMM, Sierra Wireless recommends that all users refresh their browser cache after the upgrade before accessing AMM 2.16.1.

Officially Released Versions

These release notes are inclusive of all AMM R2.15.x versions.

AMM 2.16.1 was officially released to General Availability on May 1, 2018.

Platform Support

AMM 2.16.1 has been tested on Dell R230 and R630 servers and on VMWare ESXi.

Browser Support

AMM 2.16.1 has been tested on Internet Explorer 11. Other supported browsers include Chrome and Firefox. Users that attempt to use a browser that is not supported will get a warning and may experience some issues.

Sierra Wireless Gateway Support

For oMG gateways, AMM 2.16.1 supports up to oMG R3.15.1. For AirLink gateways, AMM 2.16.1 supports ALEOS firmware version 4.4.3 and higher. Some features of AM/AMM 2.16.1 require later versions of the ALEOS or MG software.

AMM 2.16.1 also supports:
- GNX6: G604.08.01 and higher
- GNX3-UMTS: G303.08.83 and higher
- AirLink LX60
- Calamp LMU2631CV model

2: Key Features and Enhancements

Support for the AirLink LX60

Sierra Wireless recently launched the AirLink LX60 gateway, the industry's first LTE and LTE-M/NB-IoT router for commercial and enterprise applications. The LX60 offers "out-of-the box" connectivity that is simple to install, and easy to manage providing your equipment or business with a primary or backup LTE connection. The LX60 provides purpose-built, secure, reliable, managed LTE networking in IoT applications such as Building Automation, Digital Signage, Taxis, ATMs, Kiosks, and Point-of-Sale terminals.

AM/AMM 2.16.1 is required to support the AirLink LX60.

Support for AirLink GNX Devices

Sierra Wireless provides telematic, security, and fleet service organizations with the most effective and up-to-date wireless location-enabled equipment to offer compelling services and solutions to their end customers. The AirLink GNX solutions are highly configurable and designed to service a wide variety of requirements, and are ideal for Mobile Resource Management, vehicle tracking, and many other location-aware applications and services.

AM/AMM 2.16.1 adds support for display and reporting of the GNX-3 and GNX-6 models of GNX devices into the AMM. Deployment and configuration of the GNX devices is not supported in AMM, but uses the traditional GNX process.

Improved Support for ALEOS Application Framework (AAF) Applications

AAF is an application framework that allows customers to write applications that are installed and executed on their ALEOS-based AirLink gateways and routers. AM/AMM 2.16 added support for installing, configuring and deploying AAF applications from AM/AMM.

AM/AMM 2.16.1 removes the requirement that AAF applications require a specific packaging format. With AM/AMM 2.16.1, AAF applications developed following the AirVantage packaging requirements can now be deployed to AM/AMM. This means that any AAF applications that were developed for ALMS on AirVantage can be reused on AM/AMM.

For more information on AAF and it's packaging requirements, please refer to https://source.sierrawireless.com/resources/airlink/aleos_af/aleos_af_home/.

The full *Upgrade Applications* capabilities in the *Software Distribution* features are supported for AAF applications on AM/AMM.

AAF applications require ALEOS 4.8.0 or later.

AMMER - AMM Event Reporting 1.0.2

AMMER 1.0.2 has been released as part of the AM/AMM 2.16.1 release and is preloaded with the installation/upgrade of AM/AMM 2.16.1. Please refer to the AMMER 1.0.2 release notes for more information on the details of the release.

Improvements to the CSV Upload Capabilities

Improvements to the Import Device Details via CSV Upload

The **Admin -> Gateways** main device page includes a number of free form fields to populate device-specific information about each of the devices in the AM/AMM.

Figure 2-1: Admin -> Gateways device page

In previous releases, this information had to be populated individually, from within the AMM.

AM/AMM 2.16.1 improves the CSV upload capabilities, allowing users to populate this information for multiple devices. The CSV template has been improved to add four additional columns for the "Customer", "Location", "Contact" and "Notes" fields on the **Admin -> Gateways** page.

Figure 2-2: New fields added to the CSV template for gateway import

Reboot Option After Configuration Change with Spreadsheet Upload for ALEOS Devices

This release improves the CSV upload capabilities to add a new check box (unchecked by default) to force a reboot of ALEOS-based devices after configuration changes are made.
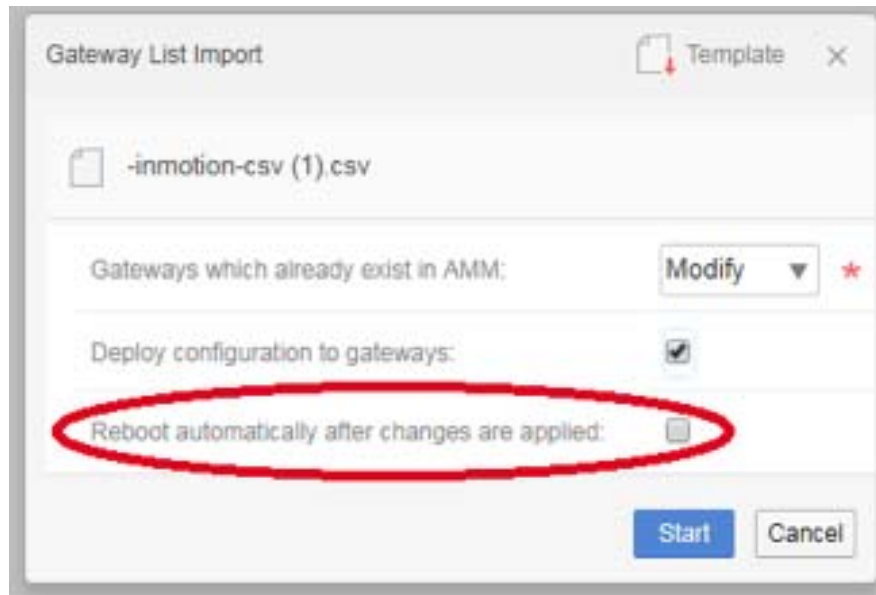
Figure 2-3: You can now force a reboot of devices after applying a configuration change

This feature will only work with ALEOS-based devices.

Browse Log Files Support for ALEOS Devices

Browse Log Files Enabled for ALEOS Devices in Right-click Menu

Accessing device log files can be of tremendous value when troubleshooting issues with devices. AMM has long supported accessing log files for MG-based devices by right clicking on the *Browse log files* right-click menu item.

AM/AMM 2.16.1 extends this capability to ALEOS based devices, through the installation of a new AAF application called *uploadlog*. Once installed on the ALEOS devices, the device will upload ALEOS log files from the device to the AMM. Please note that this feature should only be used for troubleshooting purposes and is not expected that it would be enabled across a full fleet of devices. Use of this feature will increase the bandwidth consumed by your devices.
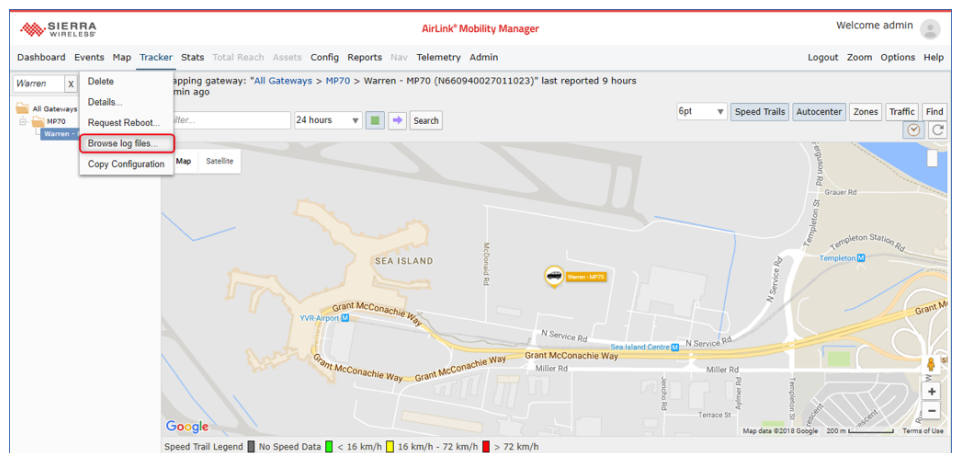
Figure 2-4: Users can now access log files for ALEOS devices from the device right click menu

UPLOADLOG AAF Application

To enable this capability, users are required to install an AAF application called *uploadlog* onto their ALEOS-based devices. This application will enable the upload of the log files from the device to the AM/AMM. It is important to note that the *uploadlog* application uploads the log files in cleartext.

The *uploadlog* AAF application is preinstalled with AM/AMM 2.16.1 and is available on the Source to be downloaded independently.

3: AM/AMM Report User Interface Changes

The most notable changes in the AM/AMM 2.16.1 release is the introduction of a new style sheet for the AM/AMM reports. This change introduces subtle improvements in the look and feel of almost all the AM/AMM reports. Changes include a new color palette, changes to the fonts and minor layout changes.

There have been no changes made to the functionality of any of the reports.
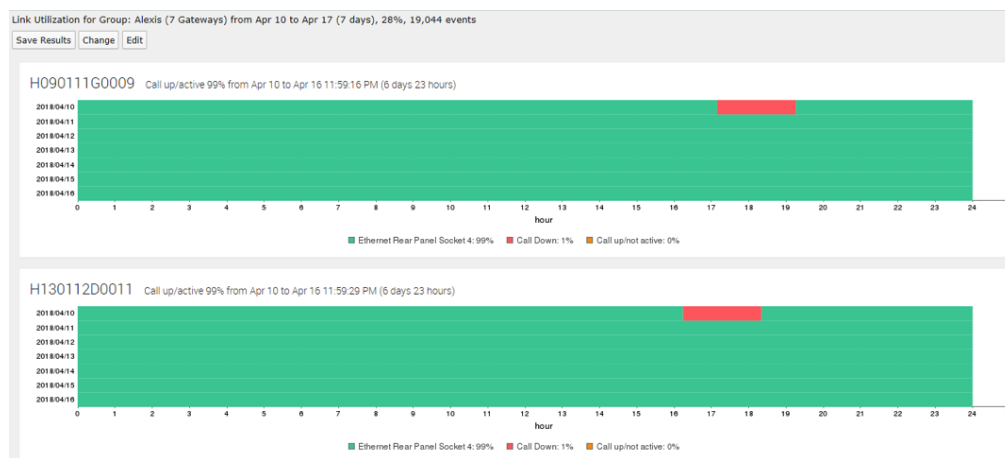
Figure 3-1: The new look and feel for the Link Utilization report.

4: Minor Product Enhancements

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There a number of minor new features and product enhancements made to the AM/AMM in the 2.16.1 release:

New Features

- Exposed the "Satellites in Use" for ALEOS devices to the user in AMM, in the "Satellites in View" stat that was already available for MG devices. (5959)
- Support for FirstNet: Generate an AM/AMM stat that tracks the presence/absence of a FirstNet in SIM in MG devices. (5970)

Product Enhancements

- We increased the DELAY field in AMM/Thresholds from 600 minutes to 32767 minutes to allow for longer delays. (5762)
- Provided a stat in the AMM that indicates the availability of CANBus operations events on ALEOS-based devices. Supported from ALEOS 4.9.x or later. (5755)
- Introduced a new DELS Event (65537) for GPO state change on MG90 devices. (5694)
- Introduced a new error code to provide more granular error reporting during gateway software update on oMG devices. (5553)
- Introduced a new ALEOS 4.9.0 event that is generated to indicate the successful calibration of the device sensor for accelerometer data on the AirLink MP70. An improvement was also made to AMMER to forward this event to AMM (AMMER-78). The event can be viewed in the Event Viewer report.

Reference	Problem Description
Customer Reported Field Issues	
6116	Addressed an issue where the user could not open the messages file in LCI (LCI->Logs->Current Logs) via the AMM.
6012	The Asset Tags upload feature provided a means to upload a template, to allow for the bulk upload of Asset Tags. Previous releases provided no direction for the formatting of the file. AMM 2.16.1 documentation provides direction for the format of the files.
5962	Addresses an issue where the AMM was not writing MSCI updates when the configuration value is set to 0 for any MSCIID, preventing the change from being applied.
5912	Addressed an issue where the AMM Software Upgrade status does not reflect the actual oMG software download status.
5900	Permanently removed a deprecated feature in the AMM that was causing a "Threshold 363" error message to appear on a customer's AM dashboard page.
5730	Addressed an issue where the session object is not removed after a Tomcat HTTP session timeout.
5693	Made a modification to the browser compatibility to address an issue where with new browser versions, the release causes scrolling problems within the device tree pane.
5639	Addressed an issue within AM where the location of ALEOS devices is not being shown in the Maps tab, even though Longitude and Latitude can be seen in the Stats for the device.
5636	Addressed an issue for customers with AM/AMMs with a private (non-resolvable) host name that prevented ALEOS gateways from downloading the firmware packages uploaded to their internal AMM server to do software updates.
5633	The documentation in this release improves the AM/AMM "Add gateways" CSV template instructions.
5998	Addressed an issue where Admin > Zones does not display the color picker when creating a new Zone.
5864	Allow the AM/AMM to be used as an NTP server for gateways.
General Issues	
5862	Addressed an issue on the gateway edit screen where there is a link called "logs" at the top of the screen. When this link is clicked, the user sees an error page in their browser. The link has been removed as the user can already accomplish this task by using the right-click menu in the device tree.

Reference	Problem Description
5759	Improved the mechanism that clears stale M3DA requests, and that caused the database to grow very large.
5753	This release adds support for additional MSCI Error codes "ERR_APP_RESERVED, (7) and ERR_DISABLED, (8)" that are returned when the MSCI ID that is being edited is being disabled because the MP70 hardware cannot support Vehicle Telemetry.
5600	Addressed an issue that was exposed when the LCI for an oMG gateway was accessed from the right-click menu in the AMM device tree. The page frequently showed as many as four extra characters at the top left side of the screen.
Configuration Issues	
6025	Addressed an issue where AM/AMM was incapable of processing parameters that included empty string in ALEOS configuration files.
6033	Addressed an issue with Internet Explorer 11 where the AM/AMM UI freezes after a doing a Copy Config action, followed by a reboot request on the target gateway.
6006	Reduced data usage by preventing AM/AMM from requesting the version information and full app configuration on each MSCI check-in.
6003	Addressed an issue where AM/AMM source code could be exposed in the Config 'Show Differences' section.
5999	Addressed an issue where an error message 'Index 0 size 0' could appear when clicking on the Config 'State' column.
5876	Addressed an issue where if the user updated an MSCI configuration value on an ALEOS gateway via AM/AMM's CSV gateway import, the AM/AMM no longer recognizes configuration changes made directly on the gateway via ACEmanager.
Tracker Issues	
6021	Addressed an issue in Internet Explorer 11 and Firefox Quantum browsers (the issue does not exist in Chrome) where there were more gateways being displayed on the Tracker map than were in the AMM.
2897	Addressed an issue where in some limited situations the Tracker location history was not showing speed information on map.
Security Vulnerabilities	
	Addressed all critical, high, and medium severity vulnerabilities identified by Nessus scans against AMM 2.16. More than 480 individual issues were addressed as part of the 2.16.1 release.

6: Outstanding Problems

Reference	Problem Description
AMM Issues	
7287, 6650	The following security issues were identified after code freeze on the AM/AMM 2.16.1 release - CVE-2016-7913 (Linux kernel) and CVE-2018-1000001 (glibc). These issues are not considered critical and will be addressed in a future release.
6145	After a user generates a CSV Client History report, the report results are cached in the system. When the user generates a different CSV client history report, the system always fetches the old report from cache instead of generating a new one using the new dates. Only the same user can retrieve this old report. There is no security risk that a different user is shown this old report. The workaround is for the user to logout, causing the cache to be deleted. The user can then log in and generate a different CSV report.
6099	Bandwidth Consumption report missing some data usage after gateway startup, resulting in the data usage being reported incorrectly.
6097	In rare situations, the Software Distribution process for installation is reporting failure incorrectly as "another update already in progress", when in fact there was no other upgrade happening on that gateway.
6051	The Stats tab filter is not showing appropriate stats for GenX gateways, but instead is showing the Stats for MG devices.
6046	Software Distribution: A user is allowed to click "uninstall" for oMG applications even though this is not a supported feature. You cannot uninstall applications on the MG platform.
6044	The "LinkXWANSignalStrength" stat is accessible from Dashboard link but no data is displayed in the reports.
6027	There is a known issue where some GPS satellite information is being reported as unknown for ALEOS devices when the gateway has a GPS fix. While identified in AM/AMM, this is likely to be an ALEOS issue.
6022	When an Asset Tag is registered on an oMG, the Asset shows up in the Asset Dashboard on the AMM but its location on the map is not seen. The current gateway is blank, which should be the oMG from which the Asset events are being reported.
6016	There is a limitation in the AM/AMM that only one ALEOS application can be installed or upgraded at a time.
5865	When a user generates a Driving Behavior report using accelerometer data, they can drill down into the event details to the point that a Stats Graph report can be triggered which shows details of a specific harsh acceleration or harsh deceleration event. This Stats Graph report is sometimes showing events which are too far back in time to be relevant to the incident being viewed.

Reference	Problem Description
5853	Chose not to address the microcode changes related to the Spectre/Meltdown vulnerability in the AM/AMM. The kernel patches have been applied by the VM and BIOS vendors.
5804	From the "Browse log files" option in the device tree right-click menu, a user can view various logs for the selected gateway. When the dels.txt file is selected, the contents are shown in raw format. When the "Raw Text" button on this page is clicked once, the output does not change. When it is clicked a second time, the screen goes blank. No amount of toggling this button can cause the file to be displayed in decoded format.
5798	There is an intermittent issue where on the Tracker and Map tabs, some gateways are being represented on the map with an old-style vehicle marker instead of the expected vehicle icon.
5765	The Zone Map report Map output can be blank when "Draw hourly pins" option is selected.
5733	Incorrect values can be displayed in the Stats Graph report when opened from the Odometer report.
5732	Users should be aware that AM/AMM user names with space " " are not supported and causes login errors.
5718	The Bandwidth consumption report will generate high data usage during daylight savings, due to an error in the report generation.
5717	The Link Utilization report is showing >24 hours in one day. This is only affecting the 4th day of the 7-day report.
5699	When an ALEOS app is discovered to have been un-installed by AMM, actions are taken to clean up and remove the app from AMM. However, it fails to remove the old *config files associated with the app. The recommendation is to always use the management system to install and remove applications.
5692	There is a known issue where the Availability Details report presents the number and average time of connections for Call up/active it seems to not correspond to the number of connections shown in the Link Utilization report, at least for the first Cellular connection. Also, for Call up/not active, it shows as a single instance of the total time rather than the actual number of instances.
ALEOS Issues Affecting AM/AMM	
5890	There is an existing issue in ALEOS that results in the Ethernet WAN status not being updated if Ethernet port mode is Auto DHCP. This issue has been passed to the ALEOS team.