Software Release Notes V2.16

AirLink[®] Manager and AirLink[®] Mobility Manager



41111491 Rev 1

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Revision History

Revision number	Release date	Changes
1	Sept 15, 2017	AMM 2.16 Release Notes

>>> Contents

Release Information
Officially Released Versions
Platform Support
Browser Support
Sierra Wireless Gateway Support 6
Key Features and Enhancements
AM/AMM UI Improvements 7
Vehicle Type
UI Enhancements for Map and Tracker
ALEOS Vehicle Telemetry 13
Supported Reports for ALEOS Devices
Driving Behavior Report Supports Sensors in the AirLink MP70 Vehicle Rout
Vehicle Telemetry Requirements for ALEOS Devices 14
Support for ALEOS Application Framework (AAE) Applications
AAF Application Management
AMMER – AMM Event Reporting
ALEOS Support for AM/AMM Reports
Reports Supporting ALEOS Devices (AM and AMM)
Tracker (AMM Only)
Telemetry (Optional AMM feature)
General Management Enhancements
Device-Specific ALEOS Configuration Changes
Schedule Software Upgrade for MG Devices
New Gateway Stats for LTE Signal Parameters
ALEOS Support for the Public Software Repository
Scalability Improvements

Contents

AM/AMM User Interface Changes 21
Change "Geographic" to "Tracker" in Reports
Minor Report Changes
Vehicle Hours Report
Coverage Trails Report
Gateway Trips Report
End of Support for oMG R2 Software 22
aNC 4000 Devises Demoved from AN/ANA
Removal of the R2 Vehicle Configuration Audit Report
System Software Upgrades 23
Addressed Problems 24
Outstanding Problems

>> 1: Release Information

AirLink Manager (AM)/AirLink Mobility Manager (AMM) 2.16 is a major release of the AirLink Manager Platform that introduces a refreshed user interface and several significant new features in the product. This release continues to improve compatibility between ALEOS and oMG/MG devices, adds compatibility with ALEOS devices for the Telemetry feature of the AMM, increases the number of reports that support ALEOS devices, upgrades key system components and addresses a number of security issues that were discovered after the release of 2.15.2.

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.

Officially Released Versions

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

AMM 2.16 was officially released to General Availability on September 15, 2017.

Platform Support

AMM 2.16 has been tested on Dell R230 and R630 servers and on VMWare ESXi.

Browser Support

AMM 2.16 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 supports up to oMG R3.14.4. For AirLink gateways, AMM 2.16 supports ALEOS firmware version 4.4.3 and higher. Some features of AM/ AMM 2.16 require later versions of the ALEOS or MG software.

AM/AMM UI Improvements

AM/AMM 2.16 introduces significant new UI enhancements that improve the overall look and feel of the AM/AMM. While not changing the functionality of the product, these new features improve the way users interact with many aspects of the system.

Vehicle Type

AM/AMM 2.16 introduces a system-level component to the product – a "Vehicle Type". While the core of the AM/AMM remains the AirLink gateway or router that is registered into the management system, this new feature allows a user to associate a type of vehicle (or other type of equipment) with the gateway, allowing for an icon to provide a visual representation in the AM/AMM user interface.



Figure 2-1: The SUV Vehicle Type associated with an AirLink MP70 vehicle router.

The Vehicle Type allows for an icon associated with the gateway or router to be displayed in the user interface in the Map and Tracker tabs, as well as for all supported Tracker reports.

This feature is accessed under the Admin tab in the user interface and has a number of key features as described in the following subsections.

Default Vehicle Types

The AM/AMM includes a set of default icons that provides 19 different icons for you to use. The default icon is a "Gateway" and all devices in your AM/AMM system will have this icon associated with it by default when your system is upgraded to AM/AMM 2.16.

The default icon types are:

- Gateway (Default)
- Ambulance
- Bus
- Car
- Fire Engine
- Flatbed
- Heavy Duty Bucket Truck
- Heavy Rescue Vehicle
- Light Duty Bucket Truck
- Pickup
- Police Car
- Police Motorcycle
- Police SUV
- Service Truck
- Straight Truck
- Squads
- SUV
- SWAT Truck
- Water Tender

Users with the appropriate privileges can import new icons in **Admin->Vehicles** to create a custom set of icons that better reflect the vehicles or equipment associated with their devices.

Vehicle Type Management

Association of the Vehicle Type with a device can be done on a single gateway, or for an entire fleet. For a single gateway, the association is made through **Admin-**>**Gateway**. Selecting the Vehicle Type when editing a Gateway opens a dialog box that allows the user to select the icon they want associated with the Gateway.

Add or Edit Gateway gatewa Show Advanced Config	iy: "All Gateway	ys > MP70 > Warren - M	1P70 (N660940	027011023)" last re		
ID:	Select a vehicle t	Select a vehicle type				
Name:	Fi	lter	Q			
Vehicle Type:	│ ⊡- 🦳 Defau	It Vehicle Group		*		
Group:	- 🗲	Gateway				
Customer:	- 25	Ambulance				
		Bus				
Location:		Car				
	- :	Fire-Engine				
Contact:		Flatbed				
	- 35	Heavy-Duty-Bucket-Truck				
	- 20	Hasiw-Record-Vahiola		•		
Notes:			Select	Cancel		
Icon URLs:						

Figure 2-2: Selecting a Vehicle Type to associate with a Gateway.

To change Vehicle Types for multiple Gateways, the Gateway Upload CSV file has been enhanced to add a column that identifies the Vehicle Type to be associated with a list of devices. For full instructions, refer to the *AMM Operations and Configuration Guide*.

	А	В	С	D	E	F	G	н	1	J	К		Æ
1	# This CSV file conta	ins a header lir	ne followed by	the data lines re	presenting the g	ateways to be in	mported to the	AMM.					
2	#												
3	# -A comma (,) is req	uired as a field	delimiter.										
4	#-Double quotation	marks (") are r	equired for an	y fields containir	ig commas.								
5	# -A greater-than sig	n (>) is require	d as a delimit	er for groups.									
6	# Example: CA10882	023210,Unit 10	2,JT > AirLink										
7	#												
8	# -Groups that do no	t exist in the A	MM will be cr	eated as defined	by the structure i	n the CSV file.							
9	# -Duplicate IDs in th	ne CSV file will	be ignored ex	cept for the first i	instance.								
10	#-Options will be pr	ovided for use	r to decide ho	w to deal with a g	ateway entry in f	the CSV file if it	s ID already exi	sts in the A	MM syster	n.			
11	#-Users can choose	to ignore the e	ntry or instruc	t the AMM to mo	dify the gateway	name and grou	ip in the system	according	to the CSV	file if thes	e fields are	e not	
12	# -Entries without gr	oup information	on which do no	ot already exist in	the AMM system	n will be popula	ated with the gr	oup the us	er was assi	gned to in	Admin->U	sers.	
13	# -All gateways bein	g added/modi	fied via CSV in	nport will be logg	ed in User Activit	y.							
14	# -Configurations ca	n be modified	using this tem	plate by adding o	olumn headers ir	the form of M	SCIID= and supp	lying value	es for each	gateway ro	ow at the o	orres	
15	ID	Name	Groups	Vehicle Type	MSCIID=5003	MSCIID=5024	MSCIID=1114						
16	N663340109021030			Gateway	NewPassword1	15							
17	N663510103021030			Bus	NewPassword2	5							
18	N671830031011031			Gateway	NewPassword3	15							h
19	N663350039011030			Police-Car	NewPassword4	1							
	 → import 	t_test1 (·	Ð			:	4					Þ	

Figure 2-3: The spreadsheet upload feature has been enhanced to allow for the Vehicle Type to be set for multiple devices.

Outside of the Tracker Reports, Vehicle Type is not used as an identifier or filter in other AM/AMM features.

Support for Vehicle Type in Tracker Reports

The new *Vehicle Type* feature has been integrated into the following Tracker Reports in AMM:

- Gateway Trips
- Gateway Trip Trends
- Trip Replay
- Zone Crossing Summary
- Zone Map
- Zone Summary

Within the support reports, Vehicle Type can be used as a filter to focus the report results on a specific set of devices that are associated with the Vehicle Type. This feature defaults to *All vehicle types*, but you can click to open the Vehicle Type selector and select a specific type for this report.

Gateway Trip Trend	Show Advanced Config	
Shows the distance that or maximum speed, total dis Distances are calculated f	ne or more gateways travelled for each trip taken over the specified tim tance travelled, total travel time, and total distance travelled for each sp rom GPS data (as opposed to odometer data).	ne period. The report also shows the average speed pecified time period (e.g. per day, per hour etc.).
Gatewa	ay(s):* Group: All Gateways	Filter (5 gateways)
Vehicle	type: All vehicle types	-0
Report time ra	ange:* Previous Days: v 7 Jul 10 to Jul 17 (7 days)	
Limit to map	area:* Not limited Manually defined area One or more zone:	95
Exclusion 2	tones: 🗹 No exclusion zones	
Output fo	rmat:* HTML Excel 	
	Run Now Run In Background	

Figure 2-4: Tracker Reports can use Vehicle Type as a filter for generating reports.

UI Enhancements for Map and Tracker

The icons defined in the Vehicle Type are also displayed in the AM/AMM user interface in the Map and Tracker tabs, replacing the generic colored boxes that represented the devices in previous versions of the product. The colored circles around the outside of the icon continue to reflect the status of the device, as it is defined by the Thresholds on the AM/AMM Dashboard.

Map Display Enhancements

There are three primary enhancements to the Map view in AM/AMM

Configurable Device Icons: The icons from Vehicle Type are displayed in the Map view.

Device List: The Vehicle Type Icon is added to the device list on the right-hand side of the user interface.

Clustering: In previous versions of the AM/AMM, each device was displayed in the Map view, irrespective of the zoom level chosen for the map. As part of the scalability enhancements made in AM/AMM 2.16, the user interface now supports clustering, where groups of individual device icons will be replaced with a new Cluster icon. The Cluster icon indicates the number of devices that are in that area, and the colors will dynamically update to show the percentage of devices that are in the various states (OK, Warning, Error) and hovering over the Cluster will identify the number of devices in each state. Clicking on the Cluster icon will adjust the zoom level to display the devices in that Cluster.



Figure 2-5: The Map tab has been updated to display Vehicle Type.

Tracker Display Enhancements

There are three primary enhancements to the Tracker view in AM/AMM

Configurable Device Icons: The icons from Vehicle Type are displayed in the Tracker view.

Clustering: In previous versions of the AM/AMM, each device was displayed in the Tracker view, irrespective of the zoom level chosen for the map. As part of the scalability enhancements made in AM/AMM 2.16, the user interface now supports clustering, where groups of individual device icons will be replaced with a new Cluster icon. The Cluster icon indicated the number of devices that are in that area, and the colors will dynamically update to show the percentage of devices that are in the various states (OK, Warning, Error) and hovering over the Cluster will identify the number of devices in each state. Clicking on the Cluster icon will adjust the zoom level to display the devices in that Cluster.

Speed Trails: As the Tracker tab provides a near real-time view of the devices in your AMM, the icons in the Tracker tab will move on screen as the vehicle in the field moves around. As with previous release, the speed trails will reflect the speed of the vehicle, as a trail off the Vehicle Type icon.



Figure 2-6: Icons will move in near real-time around the Tracker interface.

WIRELESS		AirLin	nk* Mobility Manage	r		Welcome admin 📀
Dashboard Events Ma	p Tracker Stats Total Re	ach Assets Config Re	ports Nav Teleme	etry Admin	Logout	Zoom Options Hel
Filter 24 hours v	Mapping 35 gateways, sho	wing 1				
All Gateways (10 of 35) Cyrus - M970 - Dava V - M970 - Dava V - M970 - Se Super M970 - Sprinter Van - Tomk - M970 - Warren - M970 - Warren - M970	Filor	24 hours v	Search Tupper Ave	12pt Speed Trails Sherwood Ave Tu	Autocenter Zones	Traffic Find 🕑 🗘
	raid 🖸	Brinette		Trans-Canada Musy		Joe Mick - GX450

Figure 2-7: A zoomed in view of speed trails in Tracker.

Gateway Trips Report User Interface Enhancements

The Gateway Trips report will display a trail of the location of your devices over time, and show any stops that were made during the trip. In AMM 2.16, the icons for Start, End, and Stops have been updated to maintain visual consistency with the other user interface changes made in this release.



Figure 2-8: Before and After screen shots showing the changes to the Gateway trips report icons.

ALEOS Vehicle Telemetry

Vehicle Telemetry is an optional feature of the AMM that is licensed separately. In previous releases, Vehicle Telemetry was only supported on MG devices. AMM 2.16 introduces support for ALEOS-based devices in the optional Vehicle Telemetry feature.

Supported Reports for ALEOS Devices

AMM 2.16 enables three of the Vehicle Telemetry reports for ALEOS devices. The full complement of reports continues to be available for MG devices.

- Driving Behavior
- Vehicle Hours
- Odometer

Driving Behavior Report Supports Sensors in the AirLink MP70 Vehicle Router

The AirLink MP70 Vehicle Router includes a series of sensors that can provide greater accuracy in understanding driver behavior. The Driver Behavior report in AMM 2.16 has been updated to support data from the sensors in the AirLink MP70. For fleets that include AirLink MP70's, accelerometer data will be used if available. This capability is dependent on the sensors in AirLink MP70 being enabled, a feature that is available with ALEOS 4.9.0 or later.

	AirLink* Mobility Manager	Welcome Warren
Dashboard Events Map Tracker	Stats Total Reach Assets Config Reports Nav Telemetry Admin	Logout Zoom Options Help
Dashbaard Events Map Tracker Norma 24 hours v C D Million 10070 10070 D Million 10070 - 0.001 D D Million 10070 - 0.001 D <th>* Stats Total Reach Assets Config Reports Nav Telemetry Admin riving Behavior Show Advanced Config Config Config: C</th> <th>Logout Zoom Options Help summarizes them across a range of vehicles over a pariod of time. This 70 (M660940027011023/)</th>	* Stats Total Reach Assets Config Reports Nav Telemetry Admin riving Behavior Show Advanced Config Config Config: C	Logout Zoom Options Help summarizes them across a range of vehicles over a pariod of time. This 70 (M660940027011023/)

Figure 2-9: The Driver Behavior report has been updated to use sensor data if available from an AirLink MP70.

Once the report is generated, the report content has been enhanced to indicate the source of the hard acceleration/deceleration events. Events generated from the accelerometer on the AirLink MP70 will show an "A"; events generated from speed data based on GPS will display an "S".

Drivino Data S vehicle	Driving Behavior for AAA-1 TomH - MP70, Tim - Jeep (2 Gateways) from Jul 14 to Jul 21 (7 days), 7,082 events. Data Source column indicates if the hard acceleration and deceleration events are based on accelerometer (A) or vehicle speed (S) data.													
Save I	Save Results K Change Edit													
Unit	VIN	Drive Time	Distance Travelled	Max Speed	Avg Speed	Speeds > 113 km/h	Speeds > 129 km/h	Idles > 30 mins	Idles > 1 hour	RPM > 3,500	RPM > 6,000	Data Source	Hard Accels	Hard Decels
<u>AAA-1</u> <u>TomH -</u> <u>MP70</u>	1C4RDJDG0HC783131	3 hours 14 mins	51.50 km	97 km/h	34 km/h	0 sec	0 sec		1	36 secs	0 sec	A	142	295
<u>Tim -</u> Jeep	1C4AJWAG9EL225698	4 hours 39 mins	209.2 km	114 km/h	53 km/h	1 min 21 secs	0 sec			5 secs	0 sec	s	1	2
Average		3 hours 56 mins	130.4 km	105 km/h	44 km/h	40.5 secs	0 sec		0.5	20.5 secs	0 sec		71.5	148.5

Figure 2-10: The Driving Behavior report results will show when accelerometer data has been used to determine hard braking or hard acceleration events.

Vehicle Telemetry Requirements for ALEOS Devices

AMM Vehicle Telemetry is available in AMM 2.16, and is supported on the following ALEOS-based AirLink devices:

- AirLink GX450
- AirLink MP70

Vehicle Telemetry continues to be supported MG devices (oMG 500, 2000, MG90).

For ALEOS-based AirLink gateways and routers, Vehicle Telemetry on AMM 2.16 requires ALEOS 4.8.0 or later, and requires that the AMMER AAF application (version 1.0 or later) is installed on the gateway. For more information on AMMER please refer to AMMER – AMM Event Reporting. For AirLink MP70s that want to use the inertial sensors, ALEOS 4.9.0 and AMMER 1.0 or later are required.

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 adds support for installing, configuring and deploying AAF applications from AM/AMM.

For more information on AAF, please refer to https://source.sierrawireless.com/ resources/airlink/aleos_af/aleos_af_home/

AAF Application Management

AAF application management in AM/AMM 2.16 leverages the Admin->Software Distribution features of the product. Through the Admin->Software Distribution -> Repository, users with appropriate privileges can upload AAF applications to the AMM for distribution to their devices. Once uploaded to the AM/AMM, the Admin ->Software->Distribution features are used to deploy the AAF applications. As your AAF applications evolve, new versions can be uploaded and used to upgrade your devices. Configuration of the AAF applications is also supported through the Config->Deploy features of AM/AMM.

Applications > 2 Sch	edule > 3 Summary	
i Please select an applicatio	n you would like to upgrade.	
Name	Version	
	• staten	
ammer-ALEOS-Gen	eric Select Version 🔻	

Figure 2-11: AAF Applications can be installed and upgraded from the AM/AMM.

Scheduled Upgrade for ALEOS AAF Applications

AM/AMM 2.16 introduces the ability for users to schedule software upgrades for ALEOS AAF applications, to ensure that updates are applied at a predefined date and/or time.

AAF Requirements and Limitations

AAF applications use the M3DA protocol to communicate with the AM/AMM. To ensure this communication remains secure, the server password management features require the AM/AMM to communicate with ALEOS gateways via HTTPS. **TCP port 44900 is required to be open** to facilitate this communication.

In the AM/AMM 2.16 release, only one AAF application can be upgraded at a time. To upgrade multiple AAF applications, the user must wait for the previous application upgrade request to be completed.

To support AAF applications in AM/AMM, the AAF applications require a specific packaging format. With the AM/AMM 2.16 release, there are two Sierra Wireless developed AAF applications that are pre-packaged and released with the platform - AMMER and AVTA. For customers that wish to use their own AAF applications in AM/AMM, the AAF applications must be updated to conform with the AM/AMM specifications. Please contact Sierra Wireless or your authorized Sierra Wireless Partner for more information and support in packaging your AAF applications.

AMMER – AMM Event Reporting

Many of the features of the AM/AMM (e.g. Tracker, Reporting) require a highresolution dataset to provide the detailed results that AM/AMM users expect. As ALEOS devices operate based on a device-invited, periodic check-in, previous releases of AM/AMM did not report enough data to provide access to many of the reports and other features of the product. To address this issue, we have developed the AMMER (AMM Event Reporting) AAF application to collect and stream a higher-resolution data set from ALEOS devices to the AM/AMM. This application allows us to tune the event reporting rate to ensure that location and device information is delivered to the AM/AMM at the greater data granularity than the standard ALEOS check-in provides. AMMER will stream data to the AM/AMM when a WAN connection is available, and will store and forward data if a connection is not available.

This increased data collection provides better data to AM/AMM and is required to enable the AM/AMM reports like Link Utilization and Driver Behavior that are now available for ALEOS devices in AM/AMM 2.16. For the full list of reports enabled by AMMER, please refer to ALEOS Support for AM/AMM Reports.

AMMER 1.0 is preloaded with the installation/upgrade of AM/AMM 2.16, but requires ALEOS 4.8.0 or later to be installed on the AirLink gateway. The AMMER AAF application must be installed on the ALEOS devices to enable applications like Telemetry and AM/AMM reporting.

AMMER will increase the amount of data collected, but provides many benefits, in addition to enabling reporting – GPS data follows routes with higher degree of accuracy on Tracker reports; and the Tracker display of moving vehicles in near real-time are more accurate.

AMMER Configuration

AMMER can be configured from within the Config->Deploy section of AM/AMM. AMMER is preconfigured with a set of values that are appropriate for most deployments, but all variables can be modified as required by editing the configuration and updating your devices.

Edit Configuration File amme	rconfig v on gateway: "All Gateways > MP70 > Warren - MP70 (N660940027011023)" last reported 15 mins 49 secs ago 📒 Out of sync - rem
File name:	ammerconfig
File date:	Jun 9 12:36:02 PM
<pre>clash version"1.0" enc: config: caccal_incident_end+enal caccal_incident_startve (ambiant_air_temperatur: totatery_uoltage>enable: totatery_uoltage>enable: totatery_uoltage>enable: totatery_uoltage>enable: totater_uoltage>enable: totater_uoltage=enable: cacsah_incident_startve ddts>tenegint_conduct_temperature (ambiant_temperature) (ambiant_temp</pre>	<pre>oding="UTF-8"} blast,threshold=0,min=0,max=0:/sccl_incident_ends mablest,threshold=0,min=0,max=0:/sccl_incident_start: exemablest,threshold=0,min=0,max=0:/otsex_incident_start: able=0,threshold=0,min=0,max=0:/otsex_incident_start: able=0,threshold=0,min=0,max=0:/otsex_incident_start: able=0,threshold=0,min=0,max=0:/otsex_incident_start: able=0,threshold=0,min=0,max=0:/otsex_incident_start: able=0,threshold=0,min=0,max=0:/otsex_incident_start: able=0,threshold=0,min=0,max=0:/otsex_incident_start: able=1,threshold=0,min=0,max=0:/otsex_incident_start: able=0,threshold=0,min=0,max=0:/otsex_incident_start: able=0,threshold=0,min=0,max</pre>

Figure 2-12: Editing the AMMER configuration in AM/AMM 2.16.

AMMER Details and Limitations

AMMER 1.0 is packaged as part of AMM 2.16. Sierra Wireless will continue to improve AMMER, and AMMER will have its own independent release cycle from AM/AMM, and will be made available on the Sierra Wireless software repository. Each future release of AMM will be packaged with the latest available release of AMMER.

AMMER can only be installed on ALEOS 4.8.0 or later.

AMMER uses the M3DA protocol to improve the communication between ALEOS devices and the AM/AMM management system. **M3DA requires that TCP port 44900 be opened** between the ALEOS gateways and AM/AMM.

ALEOS Support for AM/AMM Reports

AM/AMM 2.16 continues the process of adding support for ALEOS devices for AM/AMM reports. AM/AMM 2.16 increases the number of supported reports from 3 to up to 14 reports, depending on the products licensed.

The AMMER AAF app is required to be installed on the ALEOS-based gateway or router for these reports to collect the required data to function as designed. Specifically

- AMMER 1.0
- ALEOS 4.8.0+
- ALEOS 4.9.0+ to use sensor data (AirLink MP70 only)

Customers should be aware that the use of AMMER will increase the amount of data collected from ALEOS devices, but provides the benefit of enabling and improving the accuracy of the reports. AMMER makes ALEOS devices act more like MG devices in AM/AMM reports. Please refer to the *AMM Operations and Configuration Guide* for details and common usage scenarios.

Reports Supporting ALEOS Devices (AM and AMM)

- Network Reports
 - Availability Trend
 - · Availability Details
 - Coverage Map
 - Coverage Trails
 - Link Utilization
- Bandwidth
 - Bandwidth Consumption

Tracker (AMM Only)

- Gateway Trip Trend
- Trip Replay

Telemetry (Optional AMM feature)

- Driving Behavior
- Vehicle Hours
- Odometer

General Management Enhancements

Device-Specific ALEOS Configuration Changes

The current process for managing configurations of ALEOS devices in AM/AMM uses a "golden master" copy configuration process to copy the configuration from a master device with a known, validated configuration to one or more other devices in the AM/AMM. This approach does not allow for device-specific parameters to be set across the fleet of devices.

AM/AMM 2.16 introduces the ability to make device-specific changes across multiple devices. It uses the existing Gateway Upload feature that was introduced in AMM 2.15.2, that allows users to register multiple AirLink devices with the AM/ AMM. The spreadsheet template and supporting AM/AMM features used in the Gateway Upload feature has been enhanced to include new columns in the spreadsheet for unique MSCIID values. Users can set the values of the MSCIIDs that thy want to adjust on a per device basis, and upload the spreadsheet. The values will change the next time each device checks in with AM/AMM.

The most common example, is to change the ACEmanager password to a unique value on all devices in the field.

Note: ALEOS devices must be communicating with the AM/AMM using HTTPS for password configuration changes.

	А	В	С	D	E	F	G	Н	1	J	K	-
1	# This CSV file conta	ains a header	line followed	by the data lines re	epresenting the g	ateways to be i	mported to the	AMM.				
2	#											
3	#-A comma (,) is re	quired as a fie	eld delimiter.									
4	#-Double quotation	n marks (") are	e required for	any fields containi	ng commas.							
5	#-A greater-than si	gn (>) is requi	red as a delim	iter for groups.								
6	#Example: CA10882	2023210,Unit 1	02,JT > AirLink	:								
7	#											
8	#-Groups that do n	ot exist in the	AMM will be	created as defined	by the structure	n the CSV file.						
9	#-Duplicate IDs in t	he CSV file wi	ill be ignored	except for the first	instance.							
10	0 #-Options will be provided for user to decide how to deal with a gateway entry in the CSV file if its ID already exists in the AMM system.											
11	#-Users can choose	to ignore the	entry or instr	uct the AMM to mo	odify the gateway	name and grou	ip in the system	according	to the CSV	file if thes	se fields are	e not
12	#-Entries without g	roup information	tion which do	not already exist i	n the AMM syster	n will be popula	ated with the gr	oup the us	er was assi	gned to in	Admin->U	sers.
13	3 #-All gateways being added/modified via CSV import will be logged in User Activity.											
14	# - Configurations ca	an be modifie	d using this te	mplate by adding o	olumn headers ir	the form of M	SCIID= and supp	lying value	s for each	gateway ro	ow at the c	orres
15	ID	Name	Groups	Vehicle Type	MSCIID=5003	MSCIID=5024	MSCIID=1114					
16	N663340109021030			Gateway	NewPassword1	15	1					
17	N663510103021030			Bus	NewPassword2	5						
18	N671830031011031			Gateway	NewPassword3	15						
19	N663350039011030			Police-Car	NewPassword4	1						
	impor	rt test1	(+)			:	4				_	Þ

Figure 2-13: An example of the spreadsheet used to set unique values across multiple devices.

Schedule Software Upgrade for MG Devices

With the introduction of support for ALEOS devices in AMM 2.15, ALEOS-based AirLink devices could schedule software updates. This capability was not supported for MG AirLink devices. This release adds the ability for MG AirLink devices to schedule software updates at a date and time of the user's choosing.

It is important to note that MG devices must be running version 3.14.5 or later on oMG500/2000 devices or version 4.1 or later on MG90 devices in order to use this feature. As a result, the ability to schedule software updates for MG devices will not work until the releases are made available.

New Gateway Stats for LTE Signal Parameters

AM/AMM 2.16 adds support for new Stats for the following common LTE Signal Parameters: RSSI, RSRP, RSRQ, and SINR. As these parameters have been added as Stats, users can display and add Thresholds in AM/AMM for any AirLink device.

This feature is supported for both ALEOS and MG AirLink devices.

ALEOS Support for the Public Software Repository

New releases of device software are published to the Sierra Wireless public software repository. AM/AMM's which have access the public Internet can be configured to automatically download any new software releases that Sierra

Wireless publishes. In previous releases of the AM/AMM, this feature was only available for oMG and MG releases. AM/AMM 2.16 now supports this capability for new ALEOS releases.

Scalability Improvements

A number of significant improvements have been made to the AM/AMM, increasing the number of devices that can be managed by a single instance of the product. With the release of AM/AMM 2.16, the product can now support up to 5,000 AirLink gateways or routers.

In support of this change, and to support this increased device count, there are new hardware requirements for both the Appliance and Virtual Machine (VM) versions of the product. Please refer to the AM/AMM documentation for further details on these new requirements.

>> 3: AM/AMM User Interface Changes

Change "Geographic" to "Tracker" in Reports

In previous releases of the AMM, the reports associated with the Tracker feature were under the heading "Geographic" in the Reports submenus. In AMM 2.16, we have changed the name of the Tracker Reports from "Geographic" to "Tracker".

Minor Report Changes

Vehicle Hours Report

On the Vehicle Hours report, the 'GPIO devices' option is not applicable to ALEOS devices.

Coverage Trails Report

On the Coverage Trails report, the "Show the call as down when the VPN connection is down" option is not valid for ALEOS devices.

Gateway Trips Report

On the Gateway Trips Report, we removed the option to force legacy *gps.txt* file usage.

>>> 4: End of Support for oMG R2 Software

As was communicated with the *End of Support* announcement on the oMG R2 software product, oMG 1000 devices running the oMG R2 software are not supported on AM/AMM 2.16. Any customer still using this class of device should not upgrade to AM/AMM 2.16, and should remain on AM/AMM 2.15.x or earlier.

oMG 1000 Devices Removed from AM/AMM

Once upgraded to AM/AMM 2.16, the AM/AMM will no longer recognize oMG 1000 devices running the oMG R2 software. These devices will be removed from the AM/ AMM and will not appear in the management system.

Removal of the R2 Vehicle Configuration Audit Report

As this version of the oMG software is no longer supported, the *R2 Vehicle Configuration Audit* report has been removed from the AM/AMM.

5: System Software Upgrades

AM/AMM 2.16 is a major release of the AM/AMM software and contains a number of significant upgrades to core system components. Specifically, it includes upgrades to CentOS 7, the Java 8 JDK and Tomcat 8.

5

6: Addressed Problems

Reference	Problem Description			
Reporting Issues				
4793	After upgrading from 2.15 to 2.16, the users will find that they cannot generate Stats Graph report for reserved0-* stats for ALEOS devices. This is because reserved0-* has been removed from the Stat pick, and only CellLink-* is available going forward. The workaround is to use LinkX-* instead. In 2.15 every reserved0-* stat is accompanied by a LinkX-* stat because reserved0 is the one and only WAN link for ALEOS devices.			
5181 (ALFI-1811)	The Event Viewer report is updated to remove irrelevant log entries for ALEOS devices.			
5149 (ALFI-1739)	The AMM documentation has been updated to include the details for setting up fuel tank size in the optional Telemetry module.			
General User Interface Issues				
5082 (ALFI-1678)	Addressed an issue where special characters in a folder name would prevent users from moving gateways to and from that folder.			
5080 (ALFI-1680)	Addressed an issue when the Threshold for an oMG device does not show the correct list of stats when mixed fleet of devices is selected in the user interface. The Stats displayed revert to all device types (MG + ALEOS), causing the wrong Stats to be displayed.			
Software Distribution Issues				
4881 (ALFI-1530)	Addressed an issue where users were prevented from scheduling software updates on the AMM if they did not have permission for the "All gateways" group.			
Configuration Issues				
4868 (ALFI-1537)	Addressed an issue where the in-sync history in the AMM does not include changes made at the remote device. Clicking on the In Sync link and observing the change history does not display evidence of the remote configuration change. Reviewing the differences between current and previous versions do not reveal the change made at the remote device.			
3727	Addressed an issue where is the user tries to select specific devices for Mass Config/Copy, only the first 500 devices are displayed in the filter. There was no way of selecting more unless you use the tree view and select with the <i>Ctrl</i> button. This filter limitation has been removed.			
3761	Addressed an issue where, if the configuration is copied from one gateway to another an error message is displayed, but the configuration is copied as expected, generating a false error message.			

Reference	Problem Description			
Operational Issues				
5207 (ALFI-1826)	Addressed an issue where the AMM stops processing events due to the <i>Too many open files</i> error, causing the system to stop operating.			
Security Vulnerabilities				
3442, 4284, 4333, 4576, 4644, 4663, 4755, 5326, 5046	Addressed all critical, high and medium severity vulnerabilities identified by Nessus scans against AMM 2.15.2, 2.16 including updates to CentOS 7, Tomcat 8 and Java 8 JDK.			
4152	Addressed CVE-2017-5638. Removed the certificated used to support oMG R2 software that was triggering an expired certificate error in the Nessus scan.			
4050	Disabled IPv6 support to reduce security vulnerabilities until we introduce capabilities to directly configure and manage the IPv6 stack in AMM.			
5010 (ALFI-1635, ALPR-261)	Addressed an issue where the AMM was communicating with the client in cleartext for Remote LCI sessions even though the rest of the communication was encrypted via HTTPS. The method of setting up the socket for Remote LCI sessions has been updated to be done in secure mode.			

->> 7: Outstanding Problems

Reference	Problem Description		
AMM Issues			
4240, 5128, 5556	The following security issues were identified after code freeze on the AM/AMM 2.16 release – CVE-2017-2647, CVE-2014-9761, CVE-2015-8778, CVE-2015-8779 and CVE-2017-10053. These issues are not considered critical and will be addressed in a future release.		
5424	A modified ALEOS gateway's Configuration History summary not showing the correct information when an ALEOS gateway's configuration is changed (e.g. through a <i>msciconfig</i> file edit). When this change is made, the device's state goes to "Modified". On the Configuration History page for that device, the "Summary of the Last Remote Configuration Action" window will show: [MSCI] – AMM request is queued and waiting for the gateway to check in		
	This information is not correct since the device will stay in "Modified" state in AMM until the user applies the change, no matter how many MSCI check-ins occur.		
5368	The <i>All Gateways</i> entry in the device tree will not highlight when user has permissions that are limited to a different group. A user is logged in and <i>All gateways</i> is automatically highlighted. If the user selects a device in the device tree, and then goes back to select <i>All Gateways</i> , the <i>All Gateways</i> entry does not highlight even though the selection is honored.		
5353	An empty M3DA password on the ALEOS device can cause a perpetual configuration mismatch between the device and the AM/ AMM.		
	If M3DA password is not set (empty) on the ALEOS device, and a configuration revert is initiated from the AM/AMM, the state will remain perpetually in <i>Awaiting rollback</i> , because M3DA will be unable to communicate. And, since it is not permitted to save an updated value until sync is achieved, it's not able to recover.		
	To correct this situation, enter an M3DA password on the device and initiate Revert on the AM/AMM. Even though it was already awaiting rollback (no visible state change), it will achieve sync and set a valid M3DA password.		

Reference	Problem Description			
5244	When an AAF app is un-installed manually on the gateway, there's no notification sent to management platform. It is recommended that all installations and removals be done from the AM/AMM.			
	The user is able to get up-to-date AAF app list information by either:			
	1. Rebooting the device. The device will automatically send a new application list to management platform through M3DA;			
	2. Click the Revert button in the AM/AMM Deploy page. AM/AMM will send a request to the device for new application list through M3DA.			
	Once the AM/AMM receives new application list, it will be saved as the value of <i>ApplicationVersion</i> stat (viewable in the stats page). AM/AMM will also remove the config file of the un-installed App from the deploy page, as well as its related configuration state stat.			
Software Distribution				
5589	An application upgrade is incorrectly reported as failed. When two unscheduled application upgrades occur at the same time, one application is reported as failed due to another update already being in progress.			
5430	Software Update progression not being shown for ALEOS devices. When a software update is scheduled for an ALEOS device, the Software Distribution page "Last update status" column goes from <i>Ready To Update</i> to <i>Success</i> without showing the states in between even though events are being received by the AMM to indicate progress of the update.			
Tracker Display Is	sues			
5528	The Tracker trail can disappear when the gateway moves in southbound direction. In the Tracker user interface, the vehicle icon shows the current position of the gateway, but it appears that when the vehicle icon was redrawn each time the gateway moved, the trail was being erased.			
5090	The vehicle icon may sometimes disappear on the Tracker display while a vehicle is moving. In some cases, the vehicle icon may disappear, leaving just the gateway label and the gateway trail. In this situation, the vehicle icon will not reappear until the refresh button is clicked.			
AMMER Issues	AMMER Issues			
AMMER-90	AMMER is not able to send Ethernet Rx/Tx events from the ALEOS device, as this information is not available from ALEOS. ALEOS only provides Rx/Tx for Cell link. This limitation affects the accuracy of the <i>Bandwidth Consumption</i> report for ALEOS devices.			

Reference	Problem Description			
ALEOS Issues Affecting AM/AMM				
5030 (ALLX-11889)	The changed parameter notification from the device to AMM doesn't work for the M3DA password. This affects the AM/AMM's ability to auto detect that the M3DA password has been changed out of band and retrieve it. To mitigate, the user is required to manually trigger a <i>Config Revert</i> for the AM/AMM to pick up the new password and allow M3DA communications to continue. This issue will be addressed in a future ALEOS release.			
ALLX-12045	When the AirLink device has no WAN interface available (i.e. no SIM card, no Wi-Fi etc.), and the AMMER AAF application is installed on the device and configured to send data to the AM/AMM, the logs fill up with M3DA errors at the frequency the data would have been sent from the application.			