

## ALEOS 4.18.0 Password Changes

### APPLICATION NOTE

This Application Note provides information and guidance around user passwords in ALEOS 4.18.0.

As part of Semtech's ongoing efforts to increase device security, after updating to ALEOS 4.18.0, the way that you perform the following tasks using ACEmanager and ALMS has changed:

- Changing an existing user password
- Downgrading software (see [page 3](#))
- Enabling and configuring ACEview (a legacy application) (see [page 8](#))

In addition to changes in ACEmanager settings and operation, some AT commands have been changed or added in ALEOS 4.18.0 (see [page 7](#)).

## Changing an Existing User Password

This section describes how the changes in ALEOS 4.18.0 affect changing the user password using ACEmanager, ALMS and AMM.

### Changing the Password Using ACEmanager

In ALEOS 4.18.0, the process of changing the admin password using ACEmanager remains the same. However, after clicking **Change Password**, you are then logged out of ACEmanager and requested to re-authenticate using the new password.

### Changing the Password Using ALMS

The process of changing the password using ALMS differs depending on whether the routers are communicating with ALMS using LWM2M (Lightweight M2M) or MSCI (Modem Status Configuration Interface) protocols.

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**Note:** *If you are using ALMS and have not enabled LWM2M on your routers yet, Semtech recommends switching your routers from MSCI to LWM2M before updating to ALEOS 4.18.0. LWM2M offers increased security, greater bandwidth efficiency and improved reliability, as described in [this bulletin on the Source](#).*

*Please be aware that refurbished routers may be registered in ALMS with an incorrect IMEI, due to radio replacement. These routers will communicate using MSCI, but will not communicate after switching to LWM2M. Please ensure that the registered IMEI is correct before switching to LWM2M. If the IMEI is not correct, you must delete the device and re-register it with the correct IMEI. If re-registration does not work, please contact Technical Support to have the correct IMEI updated in the ALMS system registry.*

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**Note:** *To determine whether your routers are using MSCI, you can go to Status > Services > ALMS in ACEmanager or ALMS Configuration, and check "ALMS Protocol In Use". On your ALMS company dashboard, you can add the Deployed Firmware & Applications widget and use it to identify systems running non-LWM2M firmware in your fleet.*

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## Routers Using LWM2M


If your AirLink routers are using LWM2M to communicate with ALMS, there are no changes to updating the password after updating to ALEOS 4.18.0.

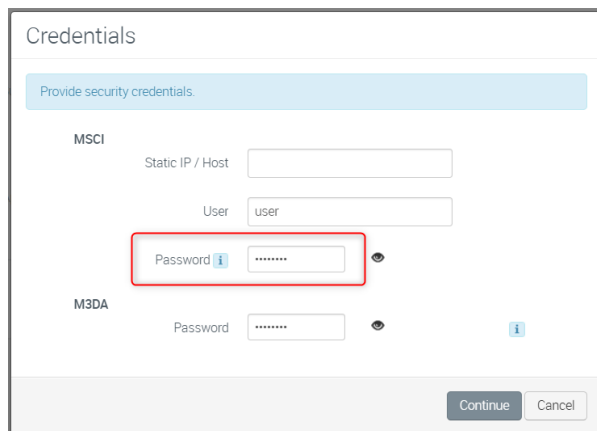
You can update one router at a time, or update passwords for multiple routers using a .csv file as shown in the video in the [ALMS documentation](#).

## Routers Using MSCI

If your AirLink routers are using MSCI to communicate with ALMS, please be aware of the following changes regarding changing the admin password in ALEOS 4.18.0. Note also that you can only update the password for one router at a time.

After updating to ALEOS 4.18.0, the ACEmanager password and MSCI password are no longer linked. Before updating the password, you must change the router's MSCI credentials in order to validate the connection between ALMS and the router.

1. From Monitor > Systems, select a system and click **Edit** in the action bar or directly in the Actions column.
2. In the Firmware & Applications section, click  to edit the credentials for MSCI.
3. Under MSCI, set the password to "NOTSET" (no quotation marks, all capital letters).



4. Click Continue.
5. Synchronize (do not reboot) the router, and then proceed with changing the ACEmanager password, as described under "Change the ACEmanager password for one device" in the [ALMS documentation](#).

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*Note: After the password is updated on the router, the MSCI password will be replaced with the new password. If you need to change the password again, repeat the procedure above.*

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## Changing the Password Using AMM

The process of changing the user password using AMM does not change after you update your routers to ALEOS 4.18.0.

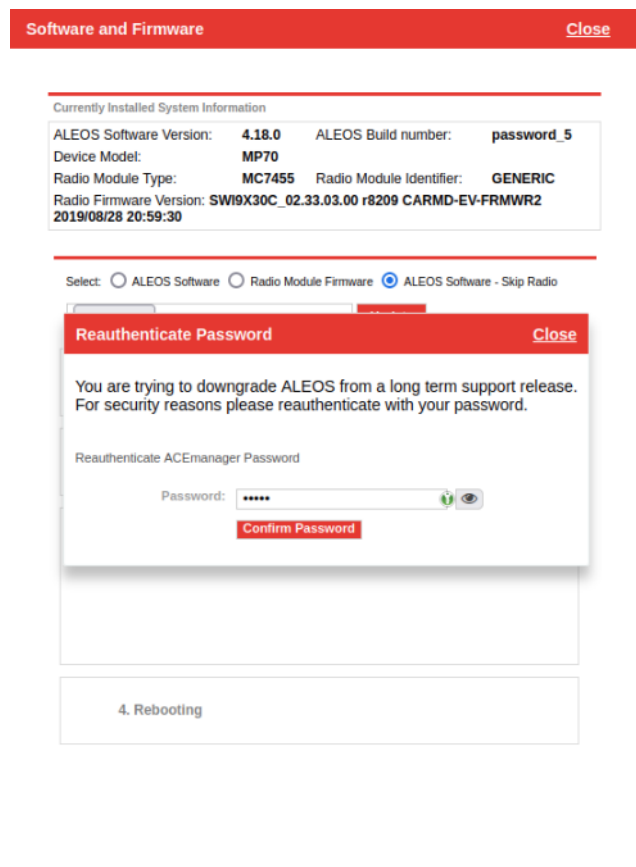
## Downgrading Software

ALEOS 4.18.0 introduces changes to downgrading router software in both ACEmanager and ALMS.

### Downgrading Software Using ACEmanager

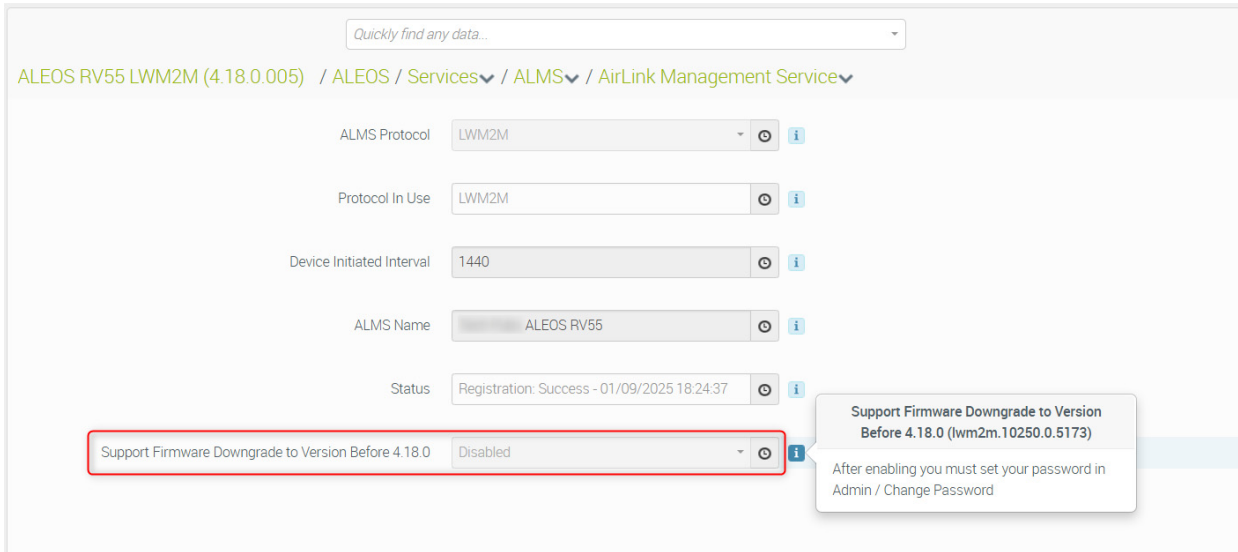
When using ACEmanager to downgrade ALEOS software, you must enter the router's correct admin password before the downgrade begins.

*Note: When entering the password to re-authenticate before a downgrade can begin, an issue exists in Firefox where a typed character may be missed, resulting in a "Failed to confirm password" error. In this case, you can click the "show text" icon (  ) to confirm that the password is complete before clicking "Confirm Password". This issue has not been observed when using the Google Chrome™ or Microsoft® Edge browsers.*






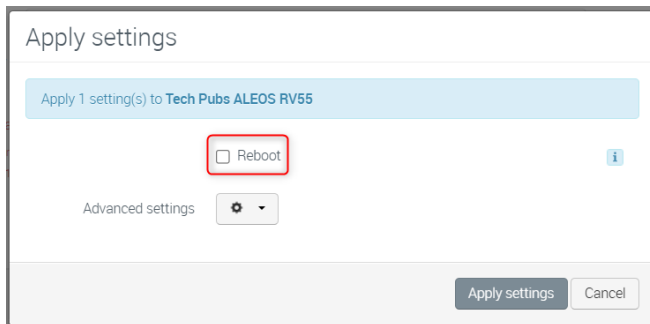
### Downgrading Software Using ALMS (LWM2M)

In ALMS, ALEOS 4.18.0 adds a new setting that must be enabled before software downgrades are allowed for routers using LWM2M to communicate with ALMS. This new setting is Support Firmware Downgrade to Version Before 4.18.0, located under Services > ALMS > AirLink Management Service.

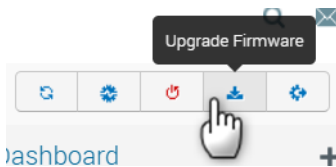


For devices using LWM2M, you can perform a downgrade as follows:

1. Select the system, and synchronize it (  ).
2. When the synchronize operation is complete, go to Admin > Change Password, and enter your current admin password.
3. Click  and then click  (edit).
4. Go to Services > ALMS > AirLink Management Service and enable Support Firmware Downgrade to Version Before 4.18.0.
5. Go to Admin > Change Password, and enter your current admin password.
6. Click Apply.
7. On the Apply settings confirmation screen, disable Reboot, as shown below.



8. Click Apply settings.
9. Go to the system's home screen and wait for the Apply Settings operation to complete (indicated by a green line).
10. Click the Upgrade Firmware button, select the desired ALEOS release, and proceed with the downgrade.



## Using a Template in ALMS



To perform a downgrade with a template for routers running LWM2M:

1. Create a partial template that includes
  - Enabling Support Firmware Downgrade to Version Before 4.18.0
  - The user password
2. Apply this template without reboot (this is not the default behavior).
3. Apply the downgrade, causing device to reboot.

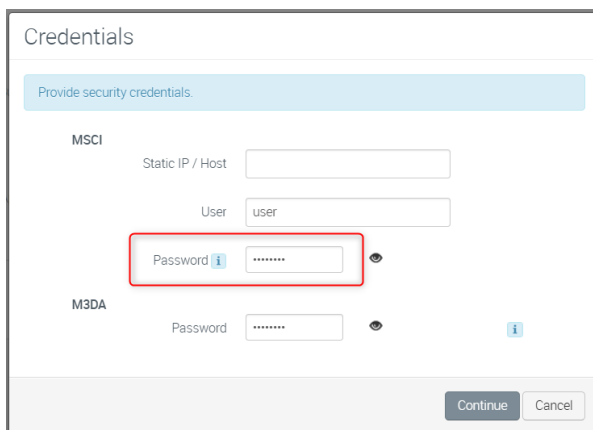
## Downgrading Software Using ALMS (MSCI)



For devices using MSCI to communicate with ALMS, some additional steps are required before you can downgrade the software.

*Note: After updating to ALEOS 4.18.0, it is not possible to downgrade software for several routers running MSCI using a template or using a bulk operation. You can only downgrade one router at a time.*

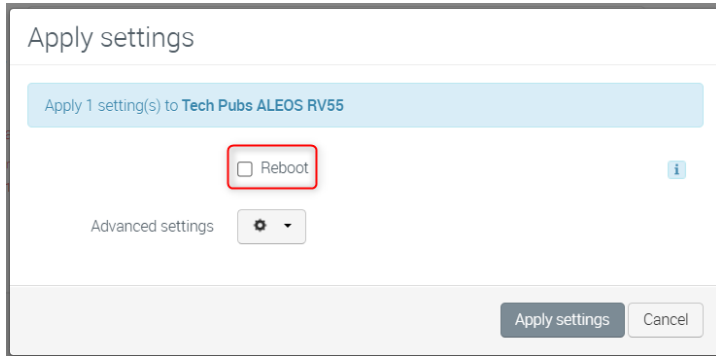
1. Select the system, and synchronize it (  ).
2. When the synchronize operation is complete, go to Admin > Change Password, and enter your current admin password.
3. Change the MSCI credentials.
  - a. From Monitor > Systems, select a system and click **Edit** in the action bar or directly in the Actions column.
  - b. In the Firmware & Applications section, click  to edit the credentials for MSCI.
  - c. Under MSCI, set the password to "NOTSET" (no quotation marks, all capital letters).

*Note: If the password is already filled in, replace it with "NOTSET".*

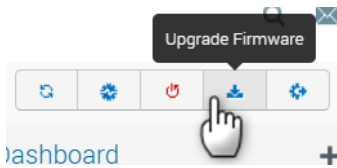


- d. Click Continue.
  - e. Synchronize (do not reboot) the system.
4. Select the system, and click  and then click  (edit).
  5. Go to Services > ALMS > AirLink Management Service and enable Support Firmware Downgrade to Version Before 4.18.0.

6. Go to Admin > Change Password, and enter your current admin password.
7. Click Apply.
8. On the Apply Settings confirmation screen, disable Reboot, as shown below.



9. Click Apply settings.
10. Go to the system's home screen and wait for the Apply Settings operation to complete (indicated by a green line).
11. Click the Upgrade Firmware button, select the desired ALEOS release, and proceed with the downgrade.



## Software Downgrade Using AMM

Software downgrade is not supported on AMM. There are no changes in behavior in ALEOS 4.18.0.

## AT Commands for Update and Downgrade

Before ALEOS 4.18.0, the \*FWRMUPDATE command could be used for ALEOS software update and downgrade. In 4.18.0, the \*FWRMUPDATE command can only update software, and a new command, \*FWRMDOWNGRADE, is to be used for downgrades.

The parameters and syntax of each command are detailed below.

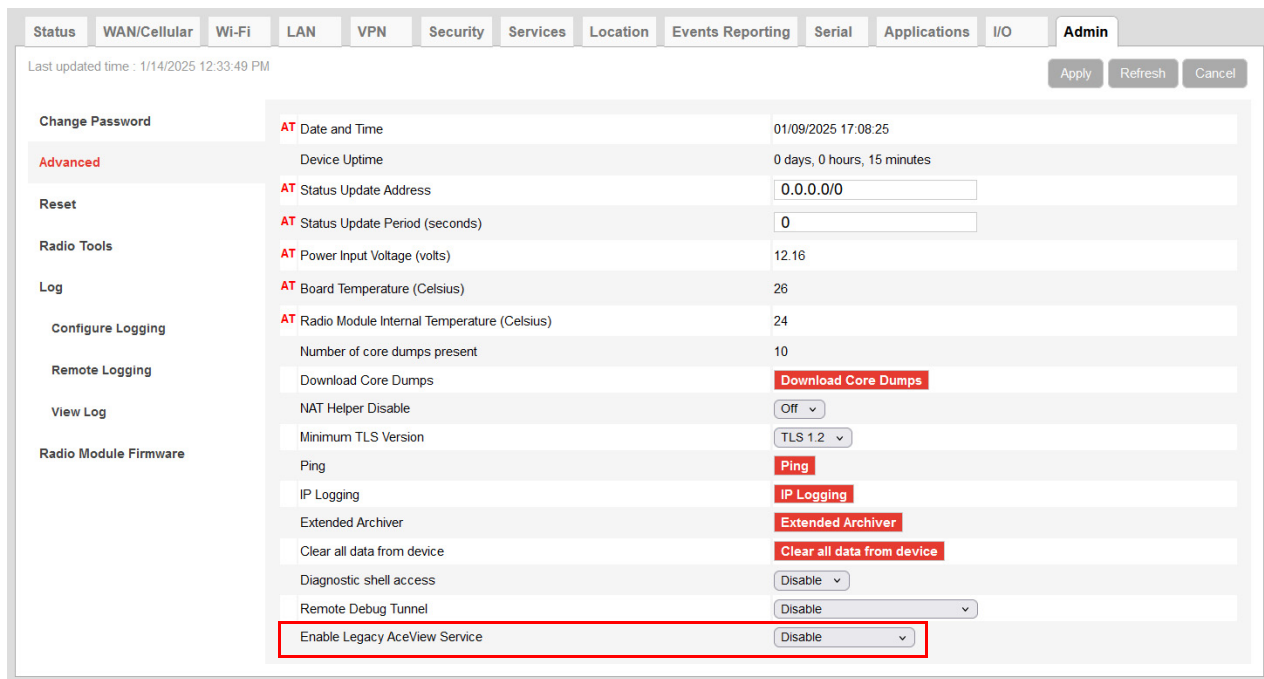
Command	Description
*FWRMUPDATE	<p>This AT command updates the ALEOS software remotely, and can update both the ALEOS software and radio module firmware using the optional &lt;RadioFirmwareFileName&gt; parameter.</p> <hr/> <p><i>Note: In ALEOS 4.18.x and later, this command can only be used to update your routers to the latest ALEOS release. You cannot downgrade routers using this command, as was the case in ALEOS 4.17.x and earlier. Use AT*FWRMDOWNGRADE if you need to downgrade a router.</i></p> <hr/> <p>The ALEOS software file must be on an ftp server. The command parameters are: AT*FWRMUPDATE= &lt;FTP Server IP&gt;,&lt;FTP Server username&gt;,&lt;FTP Server password&gt;,&lt;ALEOS filename&gt;,&lt;RadioFirmwareFileName&gt;</p> <p>Examples: Without radio module firmware: AT*FWRMUPDATE=192.168.17.111,MyUserName,v3yieo,MP70_4.18.0.009.bin With radio module firmware: AT*FWRMUPDATE=192.168.17.111,MyUserName,v3yieo,MP70_4.18.0.009.bin,EM7511_01.14.22.00_GENERIC_002.057_000.iso</p> <hr/> <p><i>Note: To use this command, you must first enter AT*ENTERCND along with your user password (that is, AT*ENTERCND=&lt;user password&gt;).</i></p> <hr/>
*FWRMDOWNGRADE	<p>This AT command downgrades the ALEOS software remotely, and can downgrade the ALEOS software and radio module firmware using the optional &lt;RadioFirmwareFileName&gt; parameter. The ALEOS software file must be on an ftp server. The command parameters are: AT*FWRMDOWNGRADE= &lt;FTP Server IP&gt;,&lt;FTP Server username&gt;,&lt;FTP Server password&gt;,&lt;ALEOS filename&gt;,&lt;CurrentALEOSPassword&gt;,&lt;RadioFirmwareFileName&gt;</p> <p>Examples: Without radio module firmware: AT*FWRMDOWNGRADE=192.168.17.111,MyUserName,v3yieo,MP70_4.17.2.001.bin,pwd12345 With radio module firmware: AT*FWRMDOWNGRADE=192.168.17.111,MyUserName,v3yieo,MP70_4.17.2.001.bin,pwd12345,EM7511_01.14.22.00_GENERIC_002.057_000.iso</p> <hr/> <p><i>Note: To use this command, you must first enter AT*ENTERCND along with your user password (that is, AT*ENTERCND=&lt;user password&gt;).</i></p> <hr/>

## ACEview

Before ALEOS 4.18.0, you could enable the router to communicate with the legacy ACEview utility under Services > ALMS > MSCI > HTTP Server and ACEview Services.

In 4.18.0, ACEview Services has been moved to Admin > Advanced.

*Note: ACEview is no longer supported by Semtech. After updating to ALEOS 4.18.x, you must manually re-enable ACEview if it was previously enabled.*



Options are:

- Disable — ACEview service is disabled.
- LAN Only (default) — ACEview service is only accessible through a LAN connection.
- Both WAN And LAN — ACEview service is accessible through both WAN and LAN connections.

When Enable Legacy ACEview Service is set to LAN Only or Both WAN And LAN, enter an ACEview password. Semtech recommends using a unique password for ACEview, and not the password used to access ACEmanager.

