

## Upgrading ALEOS 4.15.3 to 4.16.2

### APPLICATION NOTE

This Application Note provides procedures for upgrading AirLink RV55 LTE-A Pro and MP70 LTE-A Pro routers from ALEOS 4.15.3 to the latest release, ALEOS 4.16.2. The upgrade includes both ALEOS software and radio module firmware for the EM7511 radio module. Do not upgrade to ALEOS 4.16.1.

You must upgrade both the ALEOS software and the radio module firmware.

This document is intended for the following audiences:

- End customers: You must upgrade EM7511 RMFW for your current network operator. If you use RMFW image switching, you must upgrade EM7511 RMFW for the applicable network operators.
- Resellers and distributors: You must update EM7511 RMFW for all network operators.

## Upgrading ALEOS and the Radio Module Firmware

### Before You Begin

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*Note: If you are new to configuring and updating AirLink routers, see “Planning Your Update” and “Recommendations” in the ALEOS Software Configuration User Guide” for your router (the MP70 Guide is [here](#); the RV55 Guide is [here](#)).*

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Confirm your current ALEOS version and radio module firmware:

1. Connect the AirLink router you want to update to your laptop, log in to ACEmanager, and go to Status > About.
2. Check the Radio Firmware Version and ALEOS Software Version (see [Figure 1](#) on page 2).  
Ensure your router is running ALEOS version 4.15.3.
3. Download the ALEOS 4.16.2 software and radio module firmware from The Source:
  - [MP70](#)
  - [RV55](#)

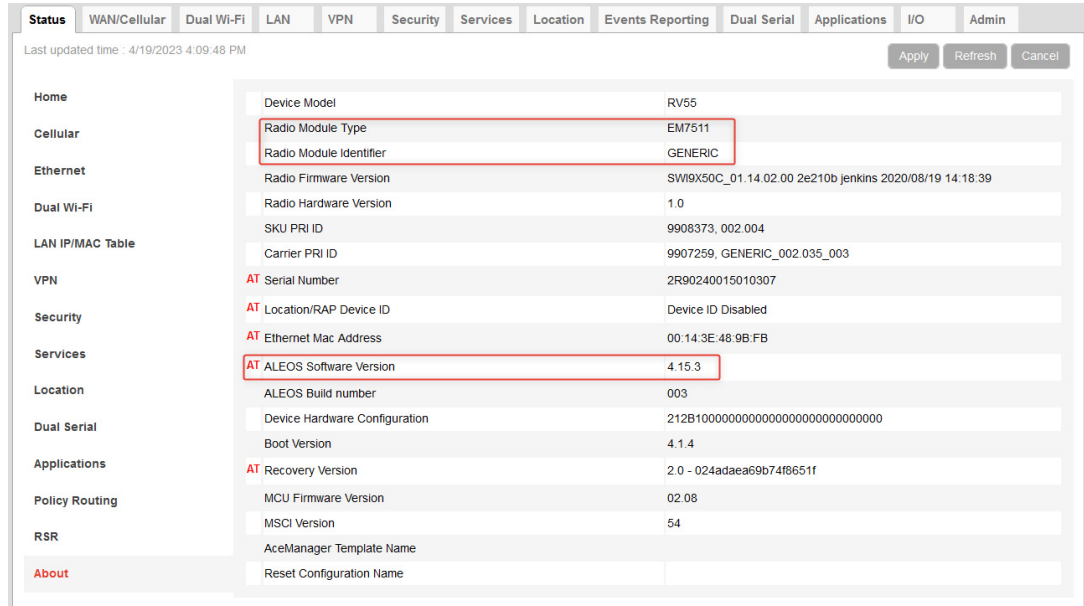


Figure 1: ACEmanager: Status > About

## Summary Steps

The upgrade process includes the following steps:

1. Upgrade ALEOS from 4.15.3 to 4.16.2 (see [page 1](#))
2. Upgrade your existing radio module firmware (see [page 3](#))
3. If you are using network operator image switching, upgrade the other network operators' radio module firmware on the router (see [page 5](#))
4. Reset the router to factory defaults using the router's reset button.
5. Enable radio firmware switching (see [page 5](#))

## How to Upgrade

This procedure shows you how to update your router's operating system from ALEOS 4.15.3 to 4.16.2 and to update the current radio module firmware. After completing this update, you can then update the radio module with other network operators' radio module firmware, as described in [Install the Other Radio Module Firmware](#) on page 5.

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*Note: For complete information, see the Gateway Configuration chapter in the ALEOS Software Configuration User Guide.*

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To update the ALEOS software and radio module firmware on one AirLink router:

1. Connect the AirLink router you want to update to your laptop, and log in to ACEmanager.
2. Click the Software and Firmware button.  
The Software and Firmware update window opens.

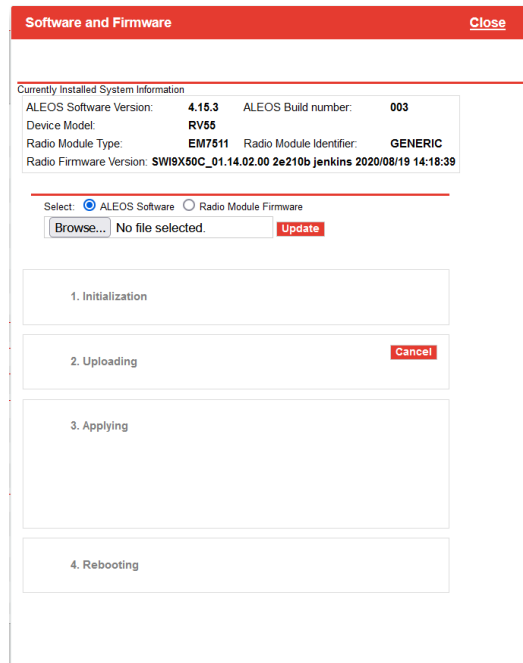


Figure 2: Software and Firmware update window

3. Click **Select ALEOS software** (which updates ALEOS and prompts you to update the radio module firmware if a newer version is available for your router).
4. Click Browse... and navigate to the ALEOS software you downloaded from the Sierra Wireless Web site. This is a .bin file named for the gateway and the ALEOS software version. For example, RV55\_4.16.2.001.bin.
5. Click Update.  
The ALEOS software update runs automatically and green check marks appear beside each step as it is completed.

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**Important:** Do not disconnect the router from the computer, and do not power cycle or reset the router during the update.

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You will be prompted to update the current radio module firmware.

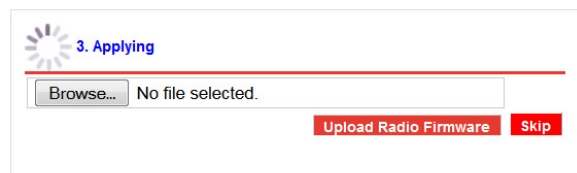


Figure 3: Prompt for Radio Module Firmware

6. Under Applying, click Browse... and navigate to the radio module firmware file that was included in the .zip file you downloaded. This is an .iso file named for the router's radio module and the current operator's network. For example, EM7511\_01.14.13.00\_GENERIC\_002.048\_000.iso.
7. Click Upload Radio Firmware.

A message appears on the window indicating that the firmware has been successfully uploaded.

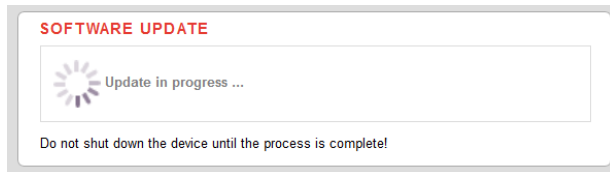
Once the radio module firmware is uploaded, the router begins applying the firmware upgrade.

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**Important:** *Do not disconnect the AirLink router from the computer or reboot the router while the firmware update is in progress. During the radio module firmware update, the router LEDs flash rapidly in sequence (an LED chase or caterpillar). When the radio module firmware update is complete (**this may take up to 20 minutes**), the router reboots automatically.*

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8. When the update is complete, the AirLink router reboots. The Software Update progress window appears.



When the ALEOS update and RMFW update is complete, you are returned to the Login screen.

9. After you log in, go to Status > About.
10. Click Refresh.
11. Check the ALEOS Software Version and the Radio Firmware Version fields to confirm that the ALEOS software and the radio module firmware have been updated.
12. If you require Network Operator Switching, see [Install the Other Radio Module Firmware](#).  
If you do not require Network Operator Switching, Reset the router to factory default settings using the router's reset button.
  - a. Press and hold the reset button. The router's Power LED will first flash GREEN and then flash RED.
  - b. When the Power LED begins flashing RED, release the reset button. The router will reset and reboot.

# Install the Other Radio Module Firmware

**Important:** *This procedure is required only if you require Network Operator Switching.*

To update additional Network Operators' radio module firmware on the router:

1. In ACEmanager, go to Admin > Radio Module Firmware.

The screenshot shows the 'Radio Module Firmware' section in the ACEmanager Admin interface. It displays a table with the following data:

Active?	Network Operator	Version	Up to date?	Actions
<input type="radio"/>	ATT	"01.14.02.00_ATT_002.047_002"	No	Update Remove Activate
<input checked="" type="radio"/>	GENERIC	"01.14.13.00_GENERIC_002.048_000"	Yes	Update Remove Activate
<input type="radio"/>	VERIZON	"01.08.04.00_VERIZON_002.015_008"	No	Update Remove Activate

Below the table, there is an 'Install' button and a callout box: "Click Update to add new radio module firmware (your router may display additional network operators)".

Figure 4: ACEmanager: Admin > Radio Module Firmware

2. Click Update to add the new RMFW for Network Operators that need to be updated (indicated by **No** in the **Up to Date?** column) in the router's RMFW storage. The "Please select firmware for [network operator name]" window appears.

The dialog box titled "Please select firmware for ATT" contains the following elements:

- A "Browse..." button.
- A text field with the value "No file selected."
- An "Update" button.
- A "Close" button at the bottom right.

- a. Click Browse... and navigate to the LTE-A Pro Radio Module Firmware file that you downloaded earlier (see [Upgrading ALEOS and the Radio Module Firmware](#) on page 1).
- b. Click Update.

*Note: When the maximum number of radio module firmware versions are stored on the router, the Install button is not available. To free up space to add another version, remove one of the firmware versions on the router.*

After updating the firmware, you can confirm that it has been updated in the firmware list, as shown in [Figure 5](#).

Active?	Network Operator	Version	Up to date?	Actions
<input type="radio"/>	ATT	"01.14.13.00_ATT_002.062_000"	Yes	<input type="button" value="Update"/> <input type="button" value="Remove"/> <input type="button" value="Activate"/>
<input checked="" type="radio"/>	GENERIC	"01.14.13.00_GENERIC_002.048_000"	Yes	<input type="button" value="Update"/> <input type="button" value="Remove"/> <input type="button" value="Activate"/>
<input type="radio"/>	VERIZON	"01.14.20.00_VERIZON_002.058_000"	Yes	<input type="button" value="Update"/> <input type="button" value="Remove"/> <input type="button" value="Activate"/>

Figure 5: ACEmanager: Admin > Radio Module Firmware (FW up to date)

3. Repeat Step 2 for additional Network Operators.
4. Reset the router to factory default settings using the router's reset button.
  - a. Press and hold the reset button. The router's Power LED will first flash GREEN and then flash RED.
  - b. When the Power LED begins flashing RED, release the reset button. The router will reset and reboot.
5. Log in to ACEmanager again.
6. Under Options, enable Network Operator Switching. When Network Operator Switching is enabled, the router automatically selects and uses the appropriate radio module firmware for the installed primary SIM card. If there is no SIM card installed in the primary SIM card slot, the router switches to the SIM card in the secondary SIM card slot.