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The following advisory notice describes a specific issue when OTA upgrading certain E-Series devices using the SARA-R410-02B-03 cellular modem between certain versions of Device OS.

The following SKUs are affected:

- E-Series LTE (E402)

This only affects devices containing the SARA-R410-02B-03 cellular modem manufactured after September 2021 that shipped with Device OS 1.4.2. Devices manufactured before that contained the SARA-R410M-02B-01 modem and are unaffected. E402 modules manufactured after June 2022 will ship with Device OS 2.2.0 and will be unaffected.



Furthermore, this only affects devices that are upgrading from 1.4.2 - 1.5.4 to the following Device OS versions OTA:

- 2.0.0, 2.0.1, 2.0.2, 2.1.0
- 3.0.0, 3.3.0



**The recommended mitigation is to upgrade from 1.4.2 to 2.3.0**, skipping any intermediate versions. This will prevent the issue from occurring.

The affected E-Series LTE E402 models have the following serial numbers:

- E40TAD135xxxxxx to E40TAD213xxxxxx

The serial number ("SN") can be found on the sticker on the module.

It does not affect the EtherSIM E-Series LTE (E404) or other SKUs.

**If you are already targeting Device OS 2.2.0 or later, no action is required.**

## Scenarios where this can occur

The most common scenario is a fleet of E402 devices that are running Device OS 1.4.2. The fleet is operating correctly, and the fleet contains a mix of both older SARA-R410-02B-01 and newer SARA-R410-02B-03 modems.

If you then upgrade the product firmware on your fleet to a version that targets 2.0.0 to 2.1.0, say version 2.0.1, you will encounter this problem. The subset of devices with SARA-R410-02B-03 modems will get stuck and never complete the upgrade.

**The solution when upgrading is to go from 1.4.2 to 2.3.0, and not a lower 2.x version.**

The exact range of affected Device OS versions is:

- Upgrading from any Device OS version from 1.4.2 to 2.0.0-rc.2 (inclusive). This includes 1.4.2, 1.4.3, 1.4.4, 1.5.0, 1.5.1, and 1.5.2.
- Upgrading to 2.0.0-rc.3 to 2.1.0 (inclusive). This includes 2.0.0, 2.0.1, 2.0.2, and 2.1.0.
- Or upgrading to 3.0.0 or 3.3.0. The Device OS 3.x development line is not recommended for the E402. It does not have fixes for Gen 2 platforms such as the E402.

## Symptoms

- The device will be flashed the user firmware binary, and reboot normally
- The device will receive the first of the three system parts, then reboot, as it normally would
- The device will now be stuck in blinking green and be unable to receive the additional system parts to function normally
- Your user firmware will not run while in this state, as the device is in safe mode

At this point, the device will need to be flashed by USB, as it will not be able to connect to cellular, and thus cannot be upgraded to 2.2.0 or later OTA.

## Mitigation

The recommended mitigation is to **target your product firmware to Device OS 2.3.0**, the latest 2.x LTS release. This will prevent the OTA upgrade issue from occurring and will also have the greatest compatibility in the future.

## Not affected

The following scenarios are not affected by this issue:

- SKUs other than the E-Series LTE (E402) are not affected
- The EtherSIM E-Series LTE (E404) is not affected
- Fleets only containing E-Series LTE (E402) devices manufactured before September 2021 are not affected
- Fleets that are already using Device OS 2.2.0 or later are not affected and you do not need to upgrade now
- Devices upgraded by USB or SWD/JTAG are not affected (but we still recommend using Device OS 2.3.0)