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Overview

Particle has a identified an issue that can lead to lengthy or intermittent connectivity issues on a small number of devices manufactured after July 2022:

- B-Series SoM B402
- Boron LTE BRN402

There is a timing-related issue between the SIM card and the u-blox SARA-R410M modem that affects SIM card initialization. The cellular modem may recover after a power cycle, either by Device OS after 10 mins or through the customer's product or firmware. Devices impacted by this issue may see this problem intermittently.

Who is impacted?

This notice is specific to Gen 3 devices using the SARA-R410M LTE Cat M1 cellular modem:

- B-Series SoM B402
- Boron LTE BRN402

Only these models manufactured after July 2022 that have the SIM ICCID prefix 890103 are affected. The ICCID can be found in the SIM tab in the console if you've imported the devices. You can also connect the device by USB to your computer, put it in listening mode (blinking dark blue) by holding down the MODE button, and using the `particle identify` command in the Particle CLI.

The following are **not** affected:

- B-Series SoM B404 and B404X are not affected
- Boron LTE BRN404 and BRN404X are not affected
- Tracker One ONE402, ONE404 are not affected (has a BG96-MC modem)
- Tracker SoM T402, T404 are not affected (has a BG96-MC modem)
- Gen 2 devices (E-Series LTE and Electron LTE) are not affected
- All 2G/3G and LTE Cat 1 models are not affected (SARA-U201, SARA-U260, SARA-U270, SARA-G350, EG91-E, EG91-EX)
- Device with EtherSIM are not affected

What is Particle doing about it?

A series of new Device OS builds have been created to resolve this issue, as follows:

Device OS Status

2.3.1	Preview binaries: 11th November
3.3.1	Preview binaries: 11th November
4.0.1	Target date: 15th November
5.1.1	Target date: 21st November

Who should upgrade?

- Any customer impacted this network connection issue is advised to immediately upgrade to the preview release and validate the fix on their impacted product line.

- Any customer who is affected by [TAN010](), which can also affect connectivity.

You will typically:

- Create new product firmware that targets the approved Device OS version (2.3.1, for example). Test this with a subset of devices in your product, then deploy to your product fleet.

- If you flash devices on your manufacturing line, you should update your flash images to use this new firmware and Device OS version.

You may also use these versions of Device OS on devices that are not affected, if you want to keep a consistent version of Device OS across a fleet of devices that contains a mix of affected and unaffected B402 or BRN402 devices.

Minimum required Device OS version

Due to the severity of this issue, a special condition has been programmed into Particle's Cloud OTA as follows:

- For any impacted B402 or BRN402 containing the new SIM card prefix 890103, Particle's cloud will not OTA update product firmware that would cause a Device OS upgrade to an affected version within each of the 4 major Device OS versions (2.x.x, 3.x.x, 4.x.x and 5.x.x).
- A table of supported firmware upgrades for the various versions is enumerated below

Initial firmware version	Allowed upgrade versions
< 2.3.1[1]	2.3.1 or above
	3.3.1 or above
	4.0.1 or above
	5.1.1 or above
>= 3.0.0 and < 3.3.1	3.3.1 or above
	4.0.1 or above
	5.1.1 or above
4.0.0	4.0.1 or above
	5.1.1 or above
>= 5.0.0 and < 5.1.1	5.1.1 or above

[1]Also includes 0.x.x and 1.x.x versions.