



## Mobile-network-based location service

### Robust mobile network-based location service

- Eliminates any “no position” scenario by using cellular and Wi-Fi network attributes
- Delivers location data where you need it, in the cloud enterprise
- Ready to use: Pre-integrated with u-blox cellular and short range hardware
- Reliable, scalable, and proven to support billions of messages
- Easy to use IoT platform with flexible plans to suit your needs

### The challenges of stand-alone GNSS

A Global Navigation Satellite System (GNSS) receiver cannot determine a position when satellite signals are unavailable, such as in urban canyons, indoors, parking garages, or when GNSS jamming signals are present. For fleet asset tracking and supply chain management, it's unacceptable.

On the other hand, cellular network cells and Wi-Fi access points are widely available, even in areas where GNSS signals are poor or absent.

Network-based location using cellular and short-range radio attributes provides an alternative to no position fix at all.

### CellLocate mobile network-based location service

CellLocate is a robust network-based location service that delivers location data where you need it, in the cloud, even in areas where GNSS is poor or absent, by using cellular and Wi-Fi network attributes.

It is ready to use since it is embedded in u-blox cellular and short-range modems. You can manage entire fleets with our easy-to-use IoT platform and flexible predictable plans.

This end-to-end solution is proven, scalable, and ready to virtually eliminate any “no position” scenario.



Location in cloud

#### Delivery in the cloud

CellLocate delivers location data where you need it, in the cloud. For most constrained IoT applications, location data is not needed locally on device, but instead by a cloud service. To properly match your system design, the access options of Device to Service and Service to Service access are also available.



Embedded CEL, SHO

#### Ready to use

CellLocate is ready to use since it is already embedded in u-blox cellular and short-range Wi-Fi modems. There is sample code available in GitHub for rapid testing and prototyping.



Position via CEL, Wi-Fi

#### Eliminates any “no position” scenario

CellLocate virtually eliminates the “no position” scenario by enabling a seamless GNSS > Wi-Fi > cellular fallback logic that is typically used in an asset tracking application. CellLocate is globally available and works independent of network operators.



Robust

#### Proven. Reliable. Flexible.

CellLocate is a robust end-to-end location solution that is reliable, scalable, and proven to support billions of messages. You can manage entire fleets with our easy-to-use IoT platform and flexible, predictable plans.



**Features / details**

Supported network technologies	GSM/GPRS UMTS/HSPA LTE-M and NB-IoT LTE Cat 1 LTE Cat 4
Data size <sup>1</sup>	Uplink: 100 – 200 bytes Downlink: 150 bytes

1: Data size depends on the number of visible cells and user selected GNSS aiding data

**u-blox cellular products supporting CellLocate**

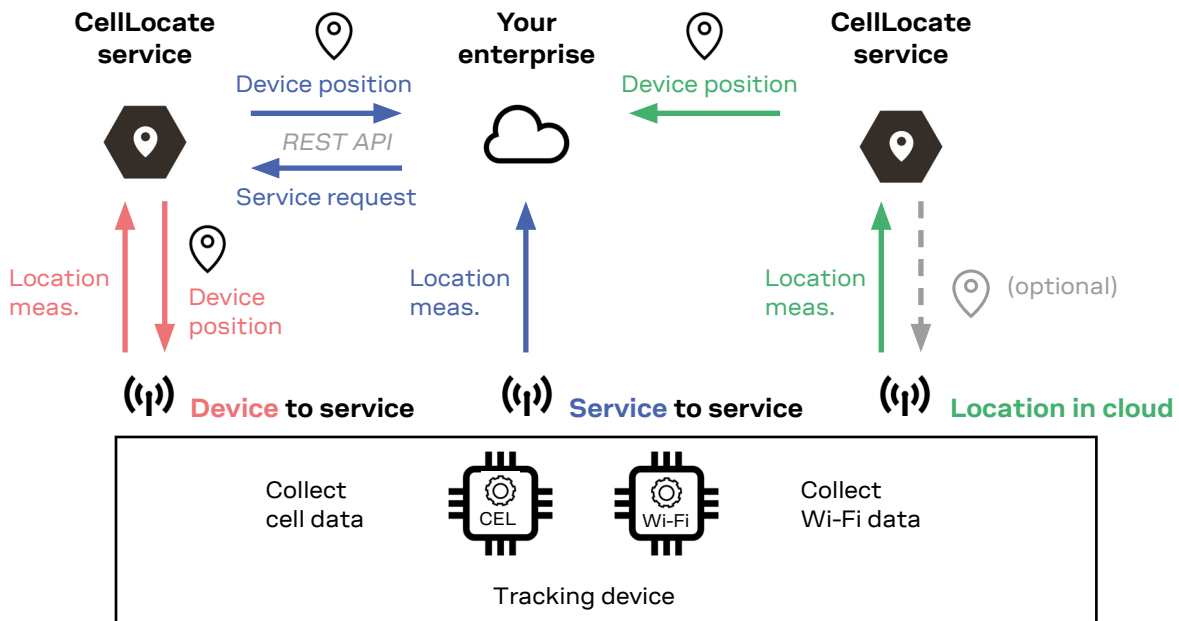
SARA-R5 series multi-band LTE-M/NB-IoT modules
SARA-R540S multi-band LTE-M/NB-IoT module
SARA-R500E multi-band LTE-M/NB-IoT module
SARA-R4 series LTE-M/NB-IoT/EGPRS modules
LARA-R6 series LTE Cat 1 modules (with 3G fallback)
LENA-R8 series LTE Cat 1 modules
LARA-L6 series LTE Cat 4 modules (with 3G fallback)
SARA-G450 series GSM/GPRS modules

**u-blox short range products supporting CellLocate**

NINA-W15 variants: NINA-W151-04B, NINA-W152-04B, NINA-W156-04B
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**Three options to access CellLocate:**

Device to service. Service to service. Location in cloud.



**Further information**

For contact information, see [www.u-blox.com/contact-u-blox](http://www.u-blox.com/contact-u-blox).  
For more details, see [www.u-blox.com/iot-location-service](http://www.u-blox.com/iot-location-service).

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