u-locate benefits

Ease of installation
Easy, scalable installation with anchor auto-orientation and NFC provisioning, along with Docker-based software

Seamless
Experience seamless indoor/outdoor positioning

Compatible
No vendor or technology lock-in thanks to the leading omlox implementation

u·locate
Indoor Positioning

Performance and cost
Bluetooth Low Energy high precision positioning in 2D and 3D

Future proof
Easy maintenance and management

Flexible
Choose stand-alone components based on need
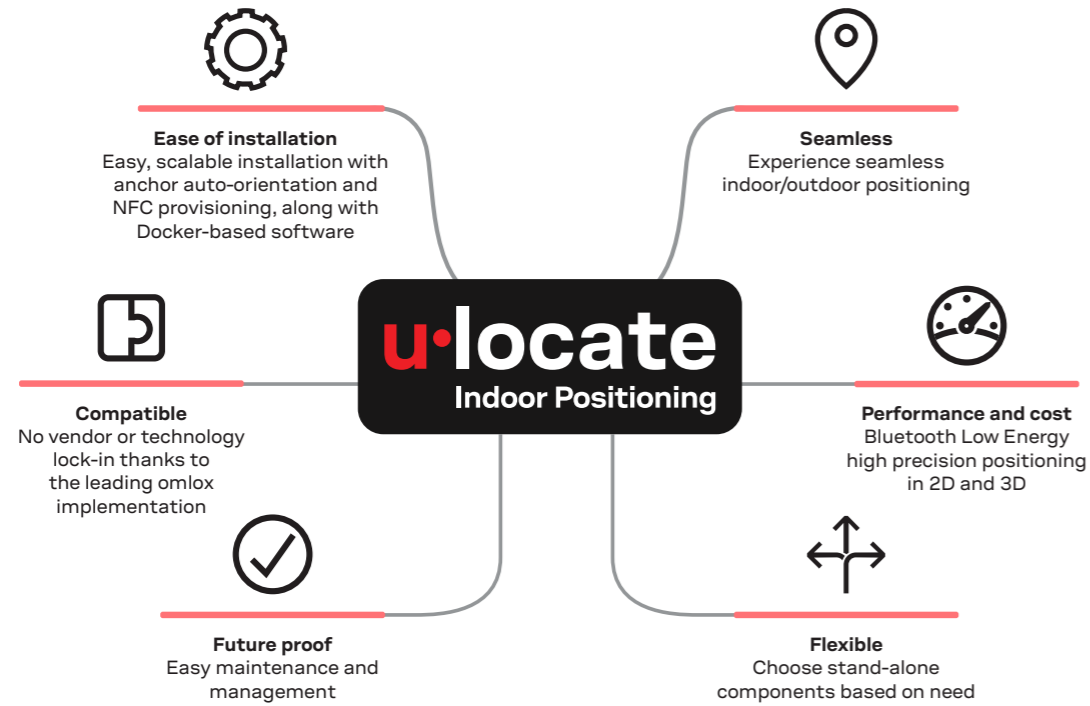
u-locate
Indoor positioning

Why u-blox?

	Positioning is in the u-blox DNA	As a leader in GNSS industrial and automotive markets we have the positioning algorithms knowledge and expertise to create the best solutions.
	Broad spectrum of solutions	Strong synergies between Wi-Fi, Bluetooth, cellular, and positioning technologies for a seamless indoor/outdoor solution.
	Ease of installation	Installing and deploying an indoor positioning system is a time-consuming and expensive task. We designed u-locate to simplify the implementation. This is evident in the u-locate components - both hardware (easy anchor provisioning with NFC and Bluetooth LE) and software (mobile app, u-locateEngine APIs).
	Modularity	Customers can pick and choose the parts of the u-locate solution that suit their applications and business case.
	High quality	Individually tested, tuned, and X-rayed modules. Compliance with industry standards.
	Competent worldwide technical support	u-blox has over 25 years of R&D in GNSS and wireless technology. We provide support in all project phases.
	Quick time to market	Designed with ease of installation in mind. Quick integration with standardized hardware and software.

u-locate – the comprehensive RTLS solution from u-blox

Thanks to its combination of software and hardware, u-locate precisely determines indoor locations using Bluetooth Low Energy (LE) Angle-of-Arrival (AoA). This user-friendly system enhances efficiency, profitability, and workplace safety in offices, warehouses, hospitals, manufacturing facilities, and more.

RTLS at a glimpse
A Real-Time Locating System (RTLS) is an advanced technology that automatically pinpoints and tracks the exact location of objects or individuals within a designated area, in real time. Relying on tags or badges attached to items or people and a network of fixed reference points (known as anchor points), RTLS delivers precise location data, enabling businesses to operate and interact dynamically with their environment.

Locate anything indoors.
u-locate is the comprehensive RTLS solution designed to track your assets' locations accurately.

Do you have other needs or ideas?
Let's discuss them. Contact us, and we'll tailor our solution to your requirements.
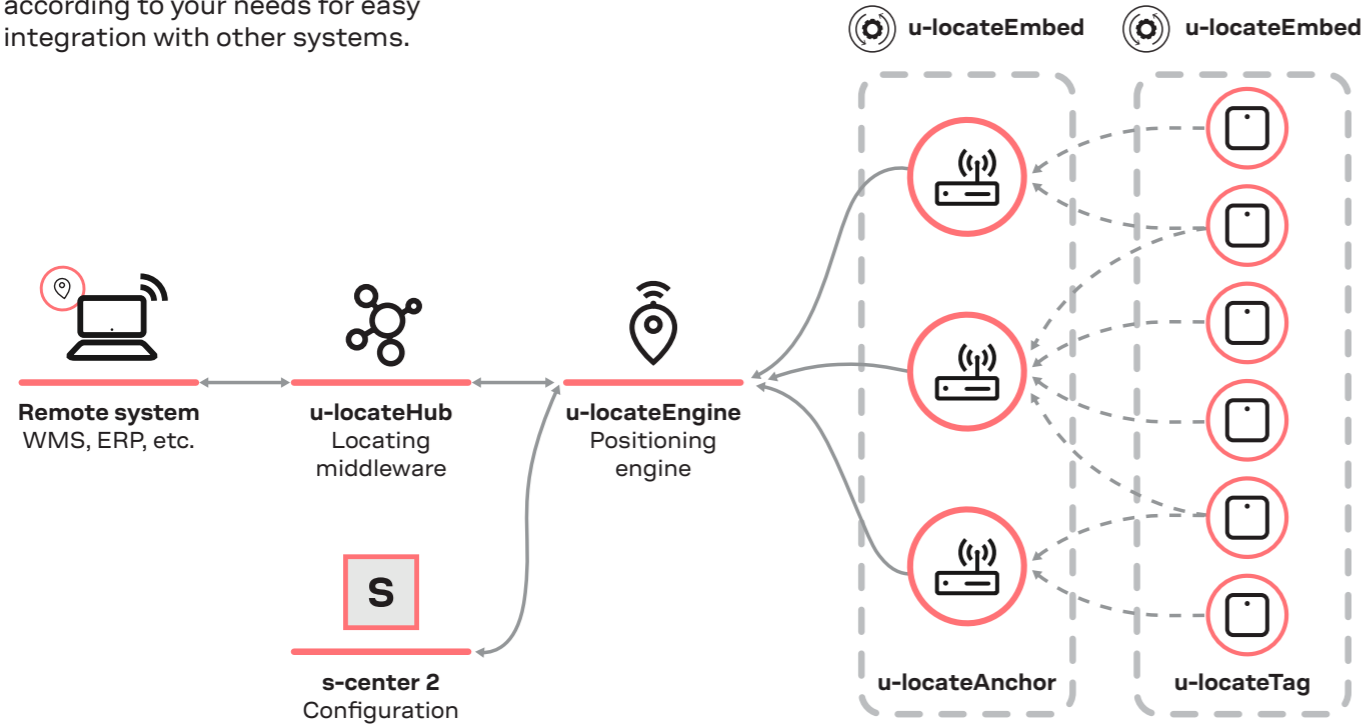www.u-blox.com/contact-u-blox.

Further information
To learn more about u-locate, the comprehensive RTLS solution designed by u-blox, see www.u-blox.com/u-locate.

The distinguishing attributes

u-locate provides the optimal combination of accuracy, cost, and power consumption.
In addition, u-locate offers unparalleled flexibility. You can customize it by selecting components according to your needs for easy integration with other systems.

u-locateEmbed **u-locateEmbed**

Remote system
WMS, ERP, etc.

u-locateHub
Locating middleware

u-locateEngine
Positioning engine

s-center 2
Configuration

u-locateAnchor **u-locateTag**

Component overview

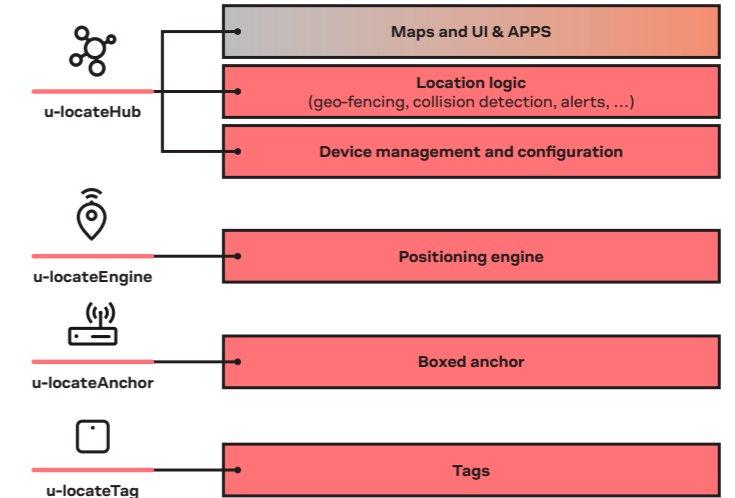|		
	u-locateHub	This is the locating middleware of u-locate, featuring omlox™, the open locating standard. It offers easy integration and distribution, flexible deployment, and independence from any location technology, indoors and outdoors.
	u-locateEngine	The positioning engine calculates the position of the tags using the angles provided by the anchors. It complies with omlox™ and its well-documented API platform includes several APIs for real-time positioning and configuration. The positioning engine also offers easy installation and maintenance.
	u-locateAnchor	The anchor point (locator) finds the angle of the tag and relays it to the positioning engine. It includes our ANT-B10 Bluetooth LE antenna board in a water resistant and durable case. It enables connection via Wi-Fi (either 2.4 GHz or 5 GHz), Ethernet, and NFC and is powered by Power over Ethernet (PoE) and USB-C. The anchor point can be freely oriented or fixed to ceilings and walls.
	u-locateTag	This is a highly configurable Bluetooth LE AoA tag with a long battery life. It can be placed on assets and people.
	u-locateEmbed	The u-blox embedded software runs on all u-locate hardware components. It implements the u-blox AoA algorithm.
S	**s-center**	The s-center support software helps you configure the u-locate solution.
	ANT-B10	ANT-B10 is a self-contained Bluetooth LE AoA antenna board for direction finding and indoor positioning.
	ANT-B11	ANT-B11 is a compact Bluetooth LE AoA antenna and sensor board.

One solution, many possibilities

u-locate adapts to various indoor positioning scenarios, depending on specific needs. Here are some scenarios from a great number of possible use cases.
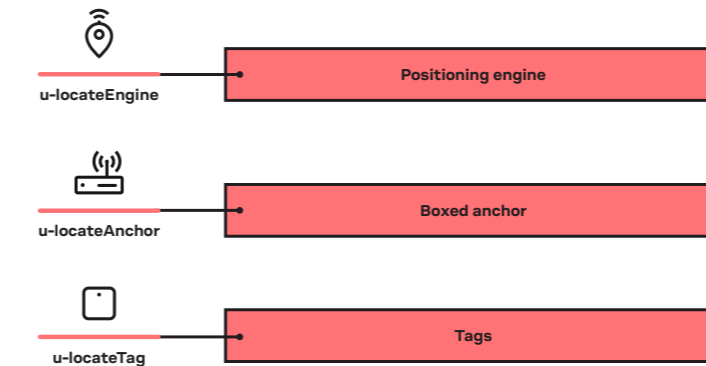
Scenario 1: "I'm looking for a comprehensive indoor positioning solution that reduces time-to-market and requires minimal development."

u-locateHub is the u-blox locating middleware built on top of the u-locate solution. Based on the omlox™ standard, it minimizes your efforts, allowing you to focus on your application. An implementation with u-locateHub together with the engine, anchors, and tags will provide the positioning solution you need.

u-locateHub — Maps and UI & APPS / Location logic (geo-fencing, collision detection, alerts, …) / Device management and configuration

u-locateEngine — Positioning engine

u-locateAnchor — Boxed anchor

u-locateTag — Tags

Scenario 2: "I have my own location/IoT platform and want to integrate it with a Bluetooth LE AoA solution."

Add only the necessary u-locate Bluetooth components to your existing platform. Place the u-locate tags on your assets and the anchors will accurately track them. The u-locateEngine outputs the exact location of the tags within the premises, facilitating easy configuration and integration into your infrastructure.

u-locateEngine — Positioning engine

u-locateAnchor — Boxed anchor

u-locateTag — Tags

Scenario 3: "I'm designing an anchor point for my direction-finding/positioning solution. I want to integrate it into my system with as little effort as possible."

ANT-B10 and ANT-B11 offer 3D and 2D positioning, respectively. These u-blox antenna boards have everything you need already integrated. They feature a Bluetooth LE module running the u-blox AoA algorithm, a well-defined AT command protocol, and a pin header for easy connection to your host board.

ANT-B10, ANT-B11 — Components