

## Essentials

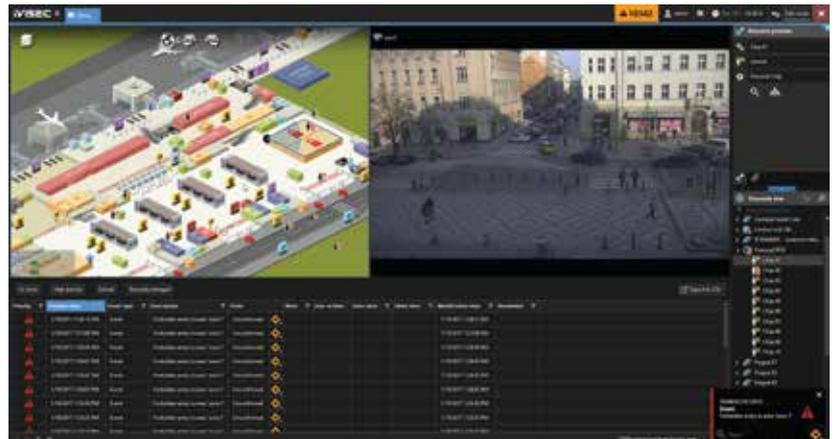
- Active RFID tracking & monitoring system
- Protects any kind of asset
- Locate tags in 3D
- High accuracy & precision
- Two-way encrypted communication

Lock8.io is a cutting-edge tracking & monitoring system utilizing active tags and enhanced software-based analytics, creating the ability to track people or goods within a secured area for a wide range of uses - from retail, logistics and facility management to military and law enforcement.

Developed in cooperation with close technology partners, Lock8.io offers the highest accuracy on the market even in environments with high tag-density, as well as jamming protection and shielding, biometric sensor support, fully encrypted communications, IoT systems compliance and extensibility with additional sensors.

## Use cases

- Supply Chain & Logistics
- Retail & Inventory Control
- Access Control
- Hazardous Environments
- Law enforcement
- Transportation
- Waste Disposal & Ecology
- IoT
- Building & Environmental Control
- Military



## Unique features

- Environments with high tag density
- Software analytics
- High accuracy (tighter than 1m)
- Autoprotection from frequency range jamming
- Full area scan for mobile devices
- Biometric tags
- Encrypted communication
- Full-featured API

## Base units

Lock8.io deployment consists of base units equipped with 3D printed antennas to reach optimal antenna pattern and footprint. These then provide feedback about active RFID chips within a given area to a Lock8.io server, which calculates the position of every single one of them based on triangulation and custom algorithms.

Base units can be also equipped with remotely controlled camera motor drives for video monitoring applications.

## RFID chips

RFID chips come with multiple options and a practically unlimited number of designs (from classic tags for consumer goods to security cards, wristbands, etc.). Depending on the use case, chips can be extended by using input sensors such as heart rate sensors or accelerometers and alarm outputs.



Typical operational radius varies between 50m - 200m, depending on selected option. Chips are equipped with either standard or induction-rechargeable batteries.

## Integration and Extensibility

Lock8.io provides a standardized JSON-based API for easy integration with any modern security system (including new devices and backend software). The package is pre-integrated with the IVICE security suite.

## Technical parameters

- Main system components
- Base units (Ethernet connection with PoE)
- Active RFID tags
- Server with analytics engine
- Interconnects with common Ethernet / IP infrastructure
- Accuracy from 1m down to 30cm
- Operational radius from 50 to 200 meters (model dependant)
- Support for multiple frequency ranges (incl. 2,4/5Ghz)
- Autoprotection from frequency range jamming
- Encrypted communication with up to 1024-bit key
- JSON-based API for simplified integration

## Base unit

- PoE-powered
- 3D printed base unit antennas for precise antenna pattern
- Camera support with remote-controlled motor drive (optional)
- Detection & recognition of other wireless devices in the area

## RFID Tag

- Support for biometric sensors
- Protection from tag shielding
- Protection from local / low EMP (optional)
- Cryptographic hardware acceleration
- Secure boot and Flash encryption

