

HOW THE IOT ENABLES MOBILE ASSET TRACKING

TRACKING ASSETS AS THEY MOVE THROUGH THE SUPPLY CHAIN IS A HUGE ADVANTAGE FOR BUSINESSES

But generating real-time data on mobile assets is hard, due to:



Limited cellular connectivity in remote areas



Assets located indoors where connectivity is spotty



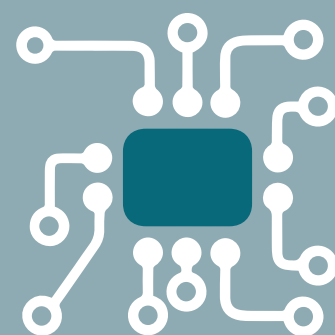
High bandwidth consumption of data-heavy applications



Limited battery life of remote devices in the field



Advances in IoT and sensor technology have resulted in a new generation of asset tracking solutions, capable of not just remotely tracking an asset, but also sensing the environment that it is in.



These technological advances mean that companies can now track the location and condition of IoT-enabled assets wherever they are in the supply chain



Benefits of tracking assets

Reducing in-transit damage



\$2.4bn of cargo is lost or damaged each year just at sea

Eliminating delays



81% of businesses experience one supply chain disruption a year

Cutting costs



Cargo theft costs companies more than **\$30bn** a year

Innovation



IoT could generate **\$2.1trn** globally by enabling new business models

Source: International Union of Marine of Insurance, PwC, FBI, Cisco

ASSET TRACKING – BUILD VS BUY

Companies can build their own asset tracking solution with embedded connectivity or buy a pre-packaged, market-ready solution. Answering these questions can help define which solution is right for you.

- 🔍 How quickly do you need to deploy the solution?
- 🌍 What type of geographic coverage do you need?
- 🏠 Do you have the in-house resources to build you own solution?
- 🔧 Does your solution need to be customised or have additional sensors?
- 📶 Will you need to track in remote or low-coverage areas?

BUY

Good option if:

- ✔ Need short time to market
- ✔ Lack of in-house development resources
- ✔ No special customisation or sensors required
- ✔ Lack of up-front capital to build a solution

Pre-packaged Solution:

- ✔ Wired, OBD or battery-powered devices
- ✔ Network connectivity
- ✔ Cloud-based application
- ✔ Satellite solution if cellular not available
- ✔ AirVantage® IoT platform

BUILD

Good option if:

- ✔ Have time to develop a solution
- ✔ Require customisation or sensors
- ✔ Have in-house expertise and resources
- ✔ Have financial resources to build a solution

Semtech offers the following stand-alone components and services:

- ✔ Smart Connectivity
- ✔ Ready-to-Connect solution
- ✔ IoT Modules and Gateways
- ✔ AirVantage® IoT platform

START WITH SEMTECH

The new generation of asset tracking solutions present major business opportunities. By partnering with Semtech, companies can benefit from the competitive advantages offered by these cutting-edge technologies



Resilient Global Connectivity with Smart Connectivity



- ✔ Designed for IoT devices
- ✔ Offers global connectivity across multiple networks
- ✔ Simplifies cross-regional network support
- ✔ eSIM allows customers to change connectivity provider at any time

Simplify IoT with READY-TO-CONNECT



- ✔ Industrial grade GNSS positioning modules with pre-integrated Smart SIMs
- ✔ Simpler development with SIMs pre-connected with carriers around the globe
- ✔ Reduce time-to-revenue
- ✔ Streamlined operations – dealing with one supplier
- ✔ Enhance end-to-end security

Deploy Quickly, Efficiently and with Low Up-Front Capital Costs with a MANAGED SERVICE



- ✔ OBD 'in cab' solutions for car fleets and trucks to monitor driver behavior
- ✔ Wired solutions for tractor-trailers or trucking applications
- ✔ Wireless, battery-powered devices for cargo and shipping
- ✔ Satellite solutions for remote tracking where cellular is not available like disaster relief or transmodal shipping

Manage Your Asset Tracking Deployment Through a Single Point of Management



- ✔ Monitor and control devices across entire global IoT network with single interface
- ✔ Tracks device health and performance from a central dashboard and can remotely upgrade device firmware
- ✔ Track operational behavior in the field and upgrade the device
- ✔ Manage your whole suite of SIMs, whether that is a Semtech SIM or a SIM from a third-party MNO