# S-TrackS
# Reliable positioning validation

**CGI**

Secure Tracking Services (S-TrackS) is a CGI solution for validating the geographic position of both people and goods. Using secure signals from Galileo (Europe's satellite navigation system) S-TrackS delivers accurate Galileo-generated positioning that not only serves as proof of the positioning of people and goods, but also helps to prevent fraudulent positioning.
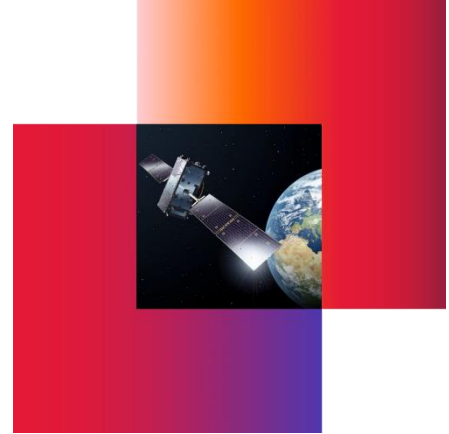
It sounds like something from a crime novel. Criminals re-routing a scheduled delivery of cash to a remote location using manipulated satellite signals so they can steal it. Unfortunately, this isn't fiction but a technique known as spoofing (i.e. the intentional manipulation of a satellite navigation signal). Satellite signals are relatively weak because the satellites are located far from earth. As a result, they are relatively easy to spoof without that being noticed. However, with S-TrackS, spoofing becomes easy to detect.

S-TrackS also delivers reliable positioning evidence of people and goods required for commercial, security or judicial requirements. For example, it can provide evidence of an asset's historical or current position for customs, licensing or insurance purposes. In addition, a legal authority might need to monitor an individual under house arrest. Because of the high reliability of S-TrackS, its positioning validation can potentially serve as proof within a court of law.

## Galileo and S-TrackS

S-TrackS relies on Galileo, Europe's Global Navigation Satellite System (GNSS), an equivalent of the American Global Positioning System (GPS). Galileo provides a government-regulated service called Public Regulated Service (PRS) for positioning, but this secure service is only available for European government-authorised users that comply with stringent security requirements. With S-TrackS the security measures are taken care of and users can take advantage of the advanced technology of PRS to track people and goods with certainty.

S-TrackS receives transmitted encrypted PRS signals, validates the signals, and compares their positioning data with the expected positioning of people and goods to identify tampering with GNSS. The potential uses of S-TrackS are endless – from monitoring maritime, aviation and transport, electronically tracking individuals, to optimising road pricing and speeding up customs clearance.

## Key benefits

- Positioning validation for both people and goods
- Validation that's sufficiently reliable to serve as legal evidence
- Use of Europe's global navigation system, Galileo, and its highly secure Public Regulated Service
- Use of the latest mobile, space, cybersecurity and satellite technology
- Endless potential applications - from all types of asset monitoring, to electronic identification of people, to optimised road pricing, to customs clearance.

**For more information**
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