S-TrackS
Reliable positioning validation

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. Using manipulated satellite signals, criminals re-route a scheduled delivery of cash to a remote location where they can then steal it. Unfortunately, this isn’t fiction. Rather, it’s 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 the earth. As a result, they are relatively easy to spoof without detection. 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 serve potentially as proof within a court of law.

GALILEO AND S-TRACKS
S-TrackS relies on Galileo, Europe’s Global Navigation Satellite System (GNSS), which is similar, for example, to the American Global Positioning System (GPS). Galileo uses a government-regulated service called Public Regulated Service (PRS) for positioning, but this secure service is available only for European government-authorized users that have complied with stringent security measures. S-TrackS provides these government-authorized users with the advanced technology required to take advantage of PRS in accurately tracking people and goods.

S-TrackS receives continuously transmitted PRS signals, validates the signals, and compares their positioning data with the expected positioning of people and goods.

The potential uses of S-TrackS are endless—from monitoring maritime, aviation and road transport, to electronically identifying individuals, to optimizing road pricing, to speeding up customs clearance.