Telecommunications, navigation

ANTI-DECOYING/ANTI-SPOOFING ENCRYPTED POSITIONING

Innovative, secure positioning systemfor a group of users

Technological benefits

Securing and guaranteeing authentication of location

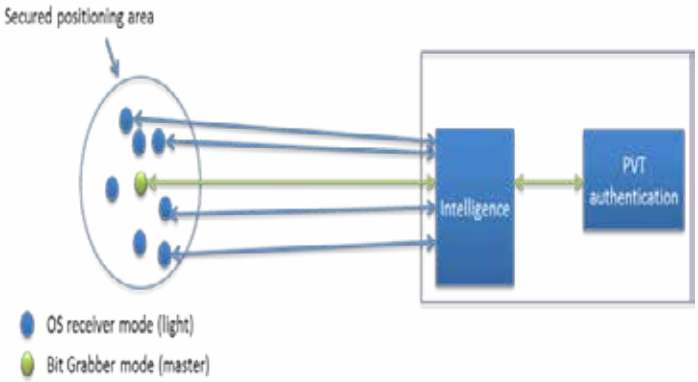
Guarantee of authentication by the GNSS
Possibility for a terminal to become a server (switch from attacked PVT to a secure solution (encryption))

A more compact, lighter solution

A single secure receiver (grabber) to secure the whole system
Possibility of having light terminals (not only grabbers)
Adaptation of the intelligence quality in the server and the terminals

Improved effectiveness in the event of an attack

Attack detection
Possibility of direct communication between user terminals
Raw data instead of PVT guarantees authentication



Invention overview

New method based on delocalised verification of the authenticity of GNSS signals by an authentication centre. The authentication centre (right-hand part of the image) verifies the authenticity of the GNSS signals received by the user receivers. This verification enables the detection of a spoofing attempt and the tracking of the suspected source.

Commercial benefits

Filtering/identification

Reduced cost due to single secure transmitter-receiver per operating group

Fewer losses (equipment, human, etc.)

Better effectiveness in the field

All-terrain operation

Potential applications

Army, Police
Coast-guards, fleets
Customs, special services, critical fleet management
All types of group

TRL : 9

Invention patented by CNES

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Space technology applications and value-enhancement serving the industry