

EVIDEN

SkyMon STS

Satellite Tracking System

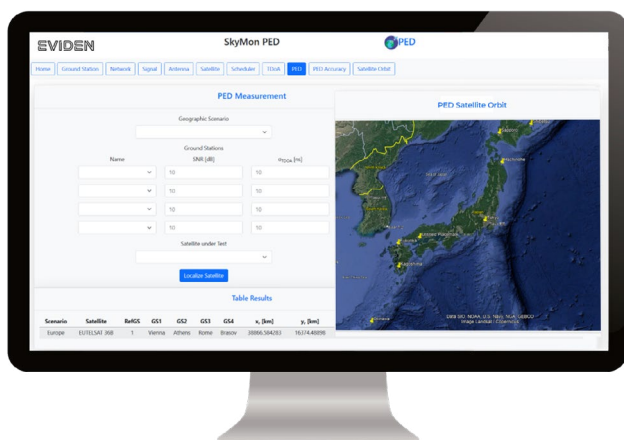
The emergence of mega-constellations, along with innovative technologies like small, mobile VSAT terminals, and high throughput satellites (HTS), has created a significant requirement to track specific satellites and determine their exact location in orbit.

Telecommunication regulators and national security agencies alike need precise information about where satellites are positioned in orbit. This is crucial for identifying and addressing satellite signal interference and for various other sensitive security applications. However, traditional systems used to determine satellite orbital position have been limited in terms of their accuracy.

The SkyMon Satellite Tracking System (STS) provides with exceptional precision, it determines the accurate positions and trajectories of all observable satellites in GEO, MEO and LEO orbits. Serving as an RF sensor, this system contributes to situational awareness by not only calculating satellite positions, but also displaying their exact orbits on a map.



Enhance geolocation accuracy and satellite orbit tracking



Introducing SkyMon STS, our Passive Ephemeris Determination (PED) system that seamlessly and continuously calculates crucial satellite ephemeris data. This precision significantly enhances geolocation systems, resulting in improved tracking of satellite orbits.

Experience a new echelon of operational efficiency as you gain invaluable insights into satellite maneuver scenarios. The STS system provides ephemeris data for active satellites by simultaneously receiving signals from the same satellite across different locations on Earth (Rx-Stations). It accomplishes this by measuring the Time Difference of Arrival (TDoA) between pairs of stations (passive ranging).

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Benefits at a glance

With Skymon STS - your solution to ensuring uninterrupted operational services without any interference risks. Our system is designed to seamlessly coordinate with satellite operators, eliminating any potential disruptions. Moreover, you'll benefit from cost savings as our technology eliminates the need for costly transmitting hardware and provides precise antenna tracking equipment.



Independence

Independence from cooperation with other sources providing ephemeris data: no need to wait until precise ephemeris data may be provided from other sources to act.



Continuity

Measure orbital elements at regular intervals to ensure a constant stream of accurate satellite ephemeris data.



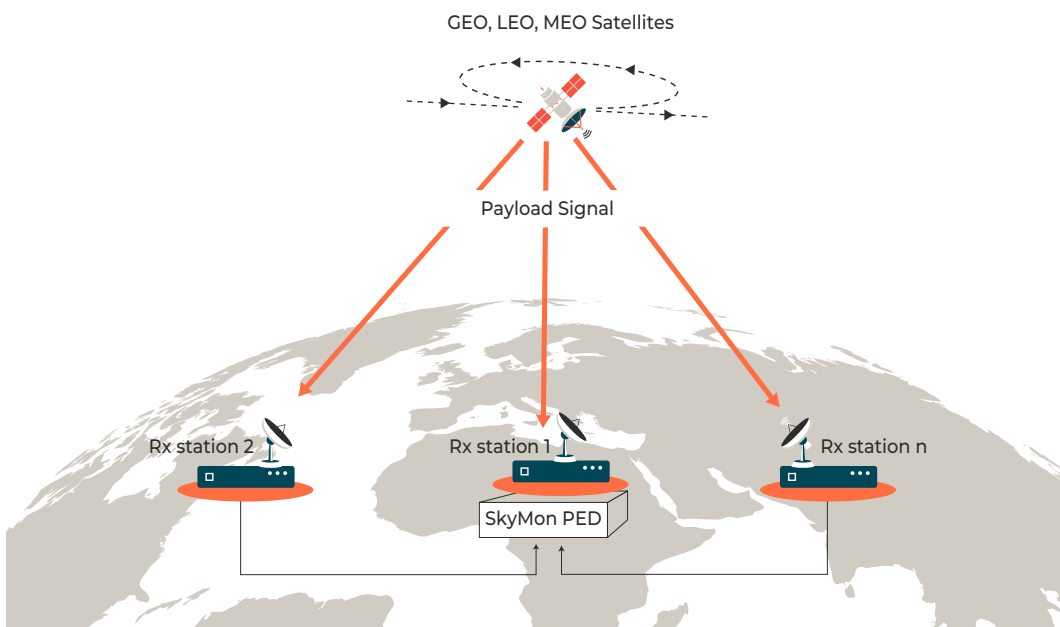
Accuracy

Precise knowledge of satellite maneuver situations to improve geolocation systems and traditional ranging systems accuracy to determine the orbital position of satellites.

Features

- Precise determination orbital elements
- Calculate and display of satellite trajectory
- Support of GEO, MEO and LEO satellites
- Support different formats (Cartesian, NORAD-TLE)
- Detection of satellite manoeuvres
- No need for additional reference signals

System architecture



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