As a World Leader in Space Ground Solutions, Safran Data Systems is the only provider offering comprehensive Ground Segment Products to support any Spacecraft from GEO to LEO Constellation.
THE GEO BELT HOUSEKEEPER

One System Does It All

The only Command & Control (C2) modem validated on every platform, every Space Control Center, implementing flexible architecture for continuous improvement of signal processing.

- Simplified architectures with direct L-band satellite intermediate bandwidth interface
- Powerful software defined radio core, scalable to Spread Spectrum transmissions and reconfiguration of units
- The only time-proven sustained industrial product line for Satellite C2 modems
- On-board equipment design
- Satellite check-out
- Ground segment design
- Satellite support
- STIG/USGCB cyber security comprehensive packages
- Preserved and sustained remote control/communication interfaces over decades
- Compliant with most of national radio compliance specifications (Anatel)
ADDRESSING ALL NEEDS

Whatever Your Requirement

There is no problem the Cortex cannot solve. The Cortex handles all operations and is supported for the lifetime of the product.

ANY SIGNAL
- Fully CCSDS compliant
- Any modulation scheme: PM, FM, BPSK, QPSK, SS-BPSK
- Any decoder: Viterbi, LDPC, Reed Solomon, TurboCode
- I/O: 70 MHz & 950-2400 MHz
- Secured communication (COMSEC/TRANSEC)

DECENTRALIZED OR DISTRIBUTED ARCHITECTURE

Build your own network-oriented architecture with software based technology.

Cortex series is the only market-available solution capable of operating in mesh/decentralized architecture as well as in a network-distributed/centralized system.

DECENTRALIZED
Radio messages are processed at the Cortex’s location.
The content of messages (generally encrypted) travels between Cortex and Satellite Control Center.
- Network-disruption resilient architecture

DISTRIBUTED
Radio messages are centrally generated and only the digitized radio spectrum is transported over the network to the antennas.
- Scalable software-based architecture
PROVIDING ACCURACY

The Ranging Company

Determine where your satellite is using the Cortex CRT innovative ranging capabilities...

ACTIVE RANGING

- ESA tone and ESA code
- ESA-like and USB tone
- INMARSAT and LMCO tone

SEMI-ACTIVE RANGING

- Same accuracy as active ranging
- Simplify operations (no carrier transfer)
- Reduce operational time for ranging

SPREAD SPECTRUM RANGING

- No dedicated bandwidth/carrier for ranging, seamlessly ranging under the traffic

Space Situational Awareness

... and complement your orbit determination by using Safran Data Systems’ unique and accurate web-subscription based orbital data services.

WETRACK™ IS A FULLY PASSIVE SYSTEM ABLE TO PERFORM HIGHLY ACCURATE ORBIT DETERMINATION.

- More than 150 GEO satellites tracked
- 24/7 tracking
- Accurate TDOA, ephemerides and maneuver detection
A Comprehensive Suite Meeting Your Needs

Safran Data Systems’ monitoring suite meets all the industry standard...

- Carrier monitoring, logging and warning
- Frequency allocation database interface
- Calibration
- Carrier-under-carrier detection and analysis
- Advanced analysis and characterization package
- Carrier ID (CID) demodulator
- On-event signal recorder and circular buffer spectrum recorder
- Geoloc-ready recording settings

... opening new horizons with unique features.

A Single Point of Entry for All Your Applications

Make Safran Data Systems’ digital environment the pillar of your signal monitoring and geolocation needs.
The Market’s Sharpest Geolocation Solution

Safran Data Systems’ geolocation system on your premises increases your ability to locate and mitigate interference

- Take advantage of the powerful automated system to schedule your operation tasks
- Be trained by our experts in all the capabilities of our expert mode
- Scale-up to meet TDMA geolocation demands
- Leverage WeTrack™ ephemeris service to maximize geolocation accuracy

Leverage Our Services to Create More Business

It is not necessary to own a Geolocation System to identify an interferer’s position: Safran Data Systems’ services offer a range of solutions operated by our experts.

- **Geo Mapping**
  Comprehensive traffic categorization and origin mapping

- **Geo Deep**
  Geolocation experts providing you with service using our own systems

- **Geo Remote**
  Take advantage of your CSM to enable our experts to remote geolocation
WHAT’S NEXT?

Lean design of Ka tracking terminals
Mass production for quick deployment
No compromise on performance and reliability

Moving on to constellations? Safran Data Systems has a solution.

Antenna Refurbishment

Is your antenna at the end of life? Give your system a second life.

- Whatever antenna brands
- 4 to 13m antennas
- From motion system to tracking receiver
- RF equipment and feed
- State-of-the-art refurbishment

Safe and secure space link is the benchmark of any satellite communications operator or manufacturer. Challenging daily activities require systems, products and services maintained and supported by Safran Data Systems, your reliable long term partner.

Our mission at Safran Data Systems is to support customers with our extensive knowledge and wide range of application expertise. There is no substitute, for demanding operational requirements, than Safran Data Systems’ products and services which use the latest technology while building on years of experience. With Safran Data Systems, customers have the best value high quality products and services in the global industry.

With unique web-based services for orbital tracking, innovative ranging and monitoring solutions, worldwide state of the art modems as well as full motion antennas for your future LEO constellations, Safran Data Systems provides you today with reliable solutions for tomorrow.

We stand by our products and provide support to our customers to ensure mission success.

Safran Data Systems’ products, services and support are the risk-free choice for space communications.

Satellite Constellations

Whatever antenna brands
4 to 13m antennas
From motion system to tracking receiver
RF equipment and feed
State-of-the-art refurbishment