NEXIUM SAT SYSTEM OVERVIEW

**Military & commercial satellites**

- Homeland Main Operation Node
- Air & naval
- Land

**Thales Communications & Security**

1, Avenue des Louvresses – 92622 Gennevilliers Cedex – France – Tel: +33 (0)1 41 30 30 00

**SEND-TO-SEND SECURITY**

- Thales Sat implements several security mechanisms at transmission, network and service levels: frequency hopping in satcom modems, multi-level data encryption, advanced network protection, user management.

**Unified Management System**

- Transmission management/security management, frequency planning, unified management interface
- Transmission security management
- Network management (interconnect with user networks)

**Main station/hub**

- Main transmission point of the network
- Entry point to an infrastructure network
- Single or multi-satellite communications (Ku, Ka, EHF, C, Ku, L bands)

**Networking Optimization**

- End-to-end QoS management
- MILS technology applied to defence satellites
- Military services management

**Transmission solutions**

- **Thales Sat** (STANAG 4606)
  - Keynote of Thales’s satcom transmission
  - Software reconfigurable modes
  - Anti-jamming, ESM, CPA, ADA
  - On-demand reconfigurable channels
  - Full IP optimized waveforms
  - Commercial DVB-S2 waveforms

**Terminals**

- Wide range of military terminals
- Single, multi-band, land, naval and air terminals
- Deployable, On-The-Move (OTM), manpacks
- Commercial terminals for industrial use

**EXTERNAL OPERATIONAL NETWORKS**

- Infrastructure networks, land, naval and air

**EXIUM  SAT**

Satcom systems solutions
Based on its long experience and worldwide leadership in military communications and Battlespace digitization, Thales presents NEXIUM SAT, its solution to provide secure and resilient satellite communications all over the theatre of operations. Through an efficient and modular approach, NEXIUM SAT guarantees information superiority for deployed forces facing situations such as extensive combat, peacekeeping activities, disaster relief operations...

Thales’s NEXIUM Sat solution features a comprehensive portfolio of land, naval and air terminals together with an integrated system offer encompassing transmission, networking and security. These solutions are fully designed to meet the most demanding requirements such as communications, On-The-Move (OTM) and Military On-The-Move (MOTM) field-proven equipment. NEXIUM SAT is ready to integrate future technology evolution, while taking into account the customer’s legacy. NEXIUM SAT is also ready to provide efficient voice-oriented services such as voice, data, messaging, chat, video...

From system engineering to terminals design and integration of land, naval and air platforms, Thales’s experience is the assurance of long-term performance and reliability.
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As part of a complete ground segment system offering, Thales delivers a full management system cost optimizing satellite operations.

Thales’s satellite ground segment solutions are compatible with either private or sovereign geostationary satellites (from C to Ka bands). By using modular architectures based on Commercial-Off-The-Shelf (COTS) and Military-Off-The-Shelf (MOTS) field-proven equipment, NEXIUM Sat is ready to integrate future technology evolutions, while taking into account the customer’s legacy. NEXIUM Sat is also ready to provide efficient customer-oriented services such as voice, data, messaging, chat, video...

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**LAND**

**Air & naval platforms**

**Acquiring & data deployment**

**TRANSMISSION SOLUTIONS**

- Broadcast, internaut, On-The-Move waveforms, On-Demand

**NETWORKING & SERVICES**

- Customised security

**EXTERNAL OPERATIONAL NETWORKS**

- Infrastructure networks, land, naval and air

**MANAGED SERVICES**

- Central & local management

**FIELD DEPLOYMENT & OPERATION**

**INT-TO-END SECURITY**

**NETWORKING OPTIMISATION**

- End-to-end QoS management

**TRANSMISSION SOLUTIONS**

- Software multi-waveform modems

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