

COSMOS

Secure, Resilient Communications for Remote Control of Unmanned Platforms



COSMOS provides secure remote control of unmanned platforms through a unified, managed network connecting the operator station to the remote site. Its platform-agnostic architecture integrates command and control, video and telemetry across satellite, LTE, fiber and RF links, with dual-layer encryption and automatic link failover to maintain operational continuity. COSMOS is built into every SKYNEST hive. COSMOS G, shown above, is its ground-side unit, and COSMOS AIR extends the network to the airborne platform.



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SYSTEM HIGHLIGHTS

Platform-Agnostic Connectivity

One managed network over satellite, LTE, fiber and RF, regardless of equipment manufacturer.

Secure by Design

Two encryption layers and mutual authentication secure every connection and protect mission data end to end.

One Console, Zero Integration

One console for the whole fleet; the Virtual Switch puts every platform on one flat network at any distance.

No Single Link to Lose

Traffic rides the best available link, packet by packet, with no downtime for critical streams.

KEY ADVANTAGES

- Zero integration effort
- Architecturally separated networks
- Customer data stays private
- Minimal attack surface
- No single point of failure

APPLICATIONS

- Remote control of unmanned platforms
- Built into every SKYNEST hive
- Airborne connectivity

COSMOS G · GROUND UNIT

- Ground-side network hardware
- Built into every SKYNEST hive
- Hybrid satellite and LTE links
- Automatic failover between links

COSMOS AIR · AIRBORNE UNIT

- Airborne cellular communications unit
- Four-modem architecture, encrypted links
- Automatic failover between cellular links
- Extends link management to the platform

TECHNICAL SPECIFICATIONS

Parameter	Specification
Network Support	Satellite · LTE and 5G · fiber and Ethernet / IP · IP-based SDR RF links
Device Interfaces	Direct analog and HDMI video · CRSF radios (Crossfire, ELRS)
Carried as One	Command and control · video and telemetry · mission data and recordings
Network Security	Separated networks · short-lived credentials · tamper-evident audit trail