

Av-Comm Space & Defence Deploys FirstWave STM to Turn OneWeb Into a Managed Service



As demand for reliable internet access grows in remote and underserved regions, satellite connectivity plays a critical role in bridging the digital divide. However, bandwidth remains significantly more expensive than terrestrial options like fibre, DSL, Wi-Fi, or mobile networks (4G/5G), placing pressure on satellite operators to optimise traffic, enforce policies, and deliver a consistent, high-value service experience.

The rise of Low Earth Orbit (LEO) networks, including OneWeb, Starlink, and Project Kuiper, has added new opportunities and new challenges. While these systems offer improved latency and global reach, they typically lack built-in tools for traffic management or quality assurance, making them unsuitable for enterprise and government customers who demand visibility, control, and guaranteed performance.

Av-Comm Space and Defence, a FirstWave partner based in Sydney, saw this gap and responded. By deploying FirstWave's Secure Traffic Manager (STM), they created an Over-The-Top (OTT) service that gives Satellite ISPs the tools they need to deliver true managed connectivity over LEO networks.

| BACKGROUND

Av-Comm is a leading Australian provider of satellite ground infrastructure and services, with a strong footprint across the Pacific. As LEO satellite networks became viable for broadband delivery in these regions, Av-Comm began offering services via the Eutelsat OneWeb network. However, their enterprise and ISP customers needed more than raw connectivity - they needed performance assurance, bandwidth control, and operational support.

Unlike consumer-grade LEO offerings that serve individual users with plug-and-play modems and no SLA, Av-Comm's customers manage fleets of modems and networks. They require:

Centralised monitoring and control across all connections

Real-time analytics and reporting to support troubleshooting

Traffic shaping to enforce service levels and rate plans

Operational visibility for help desk and customer service teams

"In the space and defence sectors, connectivity isn't just about access - it's about assurance. Our clients operate in some of the most remote and high-risk environments in the Asia Pacific region, where performance, visibility, and control are non-negotiable. With FirstWave STM, we can deliver managed services over LEO networks that meet the reliability and security expectations of mission-critical operations." Michael Cratt, CEO, Av-Comm Space & Defence.

| OBJECTIVES

Av-Comm aimed to develop an OTT QoS/QoE platform for satellite ISPs that would sit above the raw LEO service and provide true enterprise-grade connectivity. Their key requirements included:

Traffic Visibility:

Ability to monitor all flows between customer modems and the OneWeb network in real-time.

Policy Enforcement:

Intelligent control of bandwidth usage based on modem, application, or user profiles, enhanced by STM's patented AI-powered traffic classification.

Scalability:

A single solution that could support hundreds or thousands of modems without performance degradation.

Operational Efficiency:

Tools that could rapidly provide insights for support teams to resolve customer issues.

Independence from Satellite Vendor:

The OTT platform had to be modem-agnostic and operable regardless of underlying satellite provider.



| SOLUTION

OTT QoS/QoE Service Powered by FirstWave STM

Av-Comm deployed FirstWave's Secure Traffic Manager (STM) as the foundation of their QoS/QoE platform. Positioned strategically within Av-Comm's data centre, a single STM appliance monitors and manages all network flows to and from the OneWeb satellite link.

Key features delivered through STM include:

Traffic Analytics:

Real-time dashboards, historical reporting, and AI-driven traffic classification allow ISPs to detect anomalies, optimise service delivery, and proactively identify emerging issues.

Policy Control:

Fine-grained traffic shaping allows ISPs to enforce rate plans or prioritise critical applications.

User & Modem Level Reporting:

Instant access to performance data by modem or user enables fast, informed support responses.

Segment-Level Management:

Ability to manage groups of devices by network segment or customer for greater operational efficiency.

The STM platform empowers Av-Comm's ISP customers to offer a differentiated level of service on top of standard satellite connectivity - improving customer satisfaction and revenue retention.

"Security and compliance are critical for our customers, particularly in government and defence. FirstWave STM gives us the ability to apply consistent traffic policies, isolate network segments, and generate real-time reports – all from a single, centrally managed platform. It's a level of control and accountability that's simply not available through standard LEO services." Michael Cratt, CEO, Av-Comm Space & Defence.

| RESULTS

Enterprise-Grade Satellite ISP Services Delivered via OTT

The implementation of FirstWave STM allowed Av-Comm to immediately enhance their service offering with:

Full Network Oversight:

Av-Comm and their customers now have visibility into every connected modem and all associated traffic, dramatically reducing diagnostic times.

Customer-Centric Support:

Support teams can now access actionable insights on-demand, enabling faster, more accurate responses to issues.

Improved SLA Delivery:

Bandwidth and application usage can be automatically managed to enforce policy compliance, meet SLA obligations, and satisfy reporting requirements for regulated sectors.

Vendor Independence:

The STM solution allows Av-Comm to deliver the same service overlay across any LEO or GEO satellite provider, supporting flexibility and resilience in their offering.

This OTT platform is a game-changer for Satellite ISPs - proving that even in a LEO environment marketed as "plug and play", the real competitive advantage lies in delivering intelligent traffic management, service assurance, and proactive support.

With FirstWave STM, Av-Comm has transformed raw satellite bandwidth into a premium, fully managed service. For Satellite ISPs aiming to retain enterprise and government customers, differentiate in a crowded market, and unlock new recurring revenue, STM delivers the professional service layer that turns basic connectivity into a high-value, fully managed internet solution.

About Av-Comm

Av-Comm Space & Defence provides end-to-end satellite and defence communication services, partnering with governments and enterprises to enable reliable, secure connectivity in demanding environments. Learn more about their key capabilities at avcomm.com.au.



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