SatExpander

REDEFINING LIVE CONTENT CONTRIBUTION ECONOMICS

High Efficiency and Agility Satellite Video Hub
for Occasional Use Networks

Application Note

CONNECTING TO NOW

Broadcast is a content-hungry market, and the demand for live content is growing strong. From live sports events and unfolding news stories to on-the-road programs and outdoor reality shows, more content is being produced as rights holders, broadcasters and media providers are looking to attract and grow their audiences. At the same time, audiences are presenting growing expectations for an intense viewer experience, driving new levels of video quality and immersive experiences.

MAXIMIZING COST EFFECTIVENESS AND AGILITY

The need to deliver more content at any time and at any location, while requiring vastly more capacity to keep up with service requirements, is pressuring the cost structure of live content contribution services. Answering the need for both flexibility and efficiency, SatExpander offers a unique solution for ad-hoc and periodic demands with NOVELSAT Xnet hub system. From satellite news gathering, sports and special event coverage, to studio-to-studio backhaul, SatExpander Xnet delivers new levels of satellite transmission efficiency and optimization for occasional use networks.

HIGHLIGHTS

- Compact and flexible video hub for scheduled and ad-hoc services

- Advanced resource management with SatExpander DynamiX engine

- Automated reservation, allocation and optimization of satellite capacity based on service characteristics

- Shared satellite capacity for multiple services / transmissions

- Dynamic allocation of space and ground resources

- Supporting multi-band, multi-beam, multi satellite connectivity

- High performance and efficiency with SatExpander NS4™ technology

- Integrated video encoding / decoding / transcoding (optional)

- Integrated content protection (optional)

- Carrier grade management functionalities

- Service-oriented management system

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FLEXIBLE, HIGH PERFORMANCE ARCHITECTURE

Presenting combined Point-to-Point and Point-to-Multi-Point connectivity and encompassing video and data delivery, NOVELSAT Xnet provides high-performance satellite connections to connect multiple occasional use transmissions, supporting very high transmission rates. The most bandwidth-efficient waveform, NOVELSAT NS4™, is used for the video transmissions, providing very high performance transmission and space segment efficiency as well as high robustness and resiliency. Built on off-the-shelf servers with software-defined modular architecture and carrier grade management system, NOVELSAT Xnet features modular design according to network resources and needs, allowing for a wide range of live contribution use cases and easing occasional use setup and operation.

DESIGNED FOR DYNAMIC AND DIVERSE USE

NOVELSAT DynamiX, an advanced dynamic resource management engine, provides dynamic allocation of transmission resources for occasional use networks, allowing multiple services on a shared satellite capacity. Supporting scheduled and ad-hoc transmissions, NOVELSAT DynamiX manages reservation and allocation of space segment resources. Administering satellite connections from setup to teardown, DynamiX eliminates service contention and interferences, as well as supports dynamic changes in capacity pools. Managing the network resources, DynamiX guarantees the availability of space and ground resources throughout the duration of each transmission. Offering multiple modes of operation and comprehensive configuration of session service characteristics, DynamiX optimizes and maximizes satellite capacity usage while meeting the defined SLA and QoS of each transmission session. Combining space segment and ground segment efficiencies, NOVELSAT hub system reduces transmission cost as well as simplifies capacity and equipment allocation and operation.
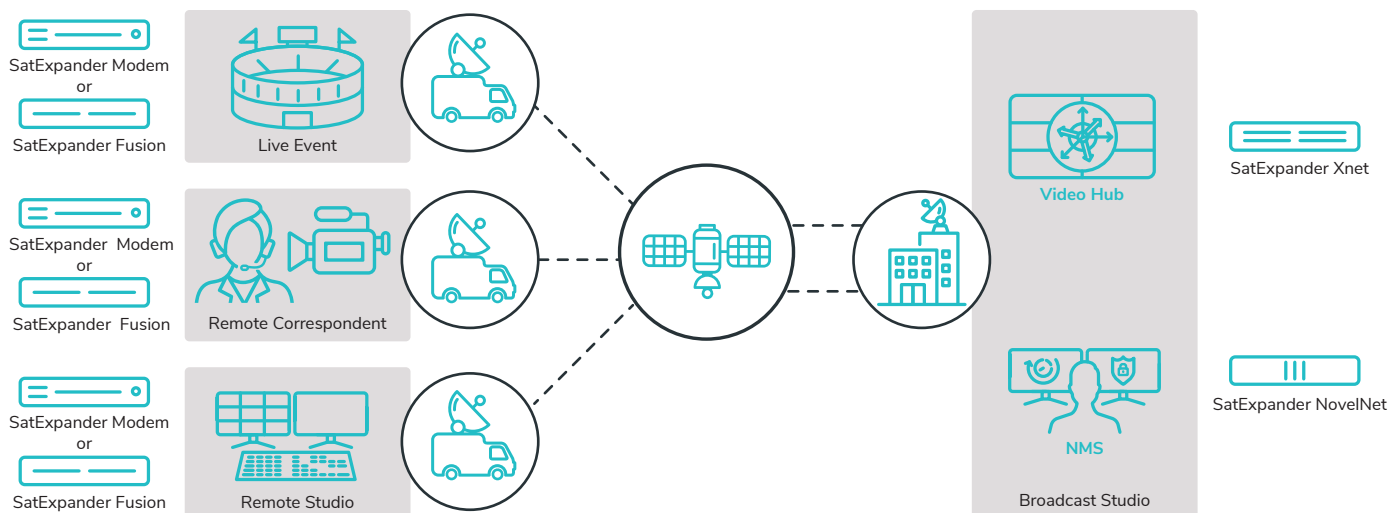

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INTEGRATED VIDEO PROCESSING

Complementing SatExpander Xnet hub system, SatExpander offers versatile satellite modems as well as an all-in-one solution for live content contribution. SatExpander FUSION, a powerful and agile solution for live contribution, provides broadcasters with all processing, transmission, and security options on a single platform. Incorporating up to 4K encoding / decoding / transcoding, ultra-low latency, High Dynamic Range (HDR) support, highest efficiency satellite transmission, and embedded multi-layer content protection, SatExpander FUSION presents the most optimized solution for any workflow.

POWERFUL OPERATIONS SUITE

Easy to install, configure, integrate, and operate, SatExpander Xnet includes a service-oriented management system, enabling to rapidly introduce and modify services, as well as maintain and monitor connectivity. Media flow and connectivity grid dashboards provide an overarching centralized view for easy orientation and monitoring, while advanced media, resources and interface configuration tools simplify service setup, resource reservation, and ongoing operations. Enriching system monitoring and analysis, visual graphs track system resources and activity, and problems are classified and flagged in real-time.

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For more information visit www.SatExpander.com