

# NovelNet NMS

Satellite Service Automation and Bandwidth Optimization



**NovelNet NMS** (Network Management System) is a scalable network orchestration platform that can be used to dynamically provision, manage and maintain services in satellite and mixed satellite-terrestrial communication networks. NovelNet NMS simultaneously optimizes bandwidth and enables fast and simple network segment and element reconfiguration. It provides link assurance and essential NMS functionality for a wide range of satellite services.

**NovelNet NMS** provides basic network management functions such as technology agnostic resource allocation, network/element monitoring, configuration and reporting, plus a range of network and service workflow automation features that can optimize resource utilization, saving you money and ensuring customer SLA compliance.

**NovelNet NMS** can manage all NovelSat satellite modems, modulators and demodulators along with all types of standard and non-standard satellite and terrestrial network elements. Its intelligent network optimization functionality enables:

- Standard and non-standard element management: IP infrastructure such as (Layer 2 & 3), Servers, Virtual machines, Routers, etc., Applications and services running over the managed infrastructure. Layer (6 & 7), Environmental systems such as power and security systems
- Dynamic, scheduled on-demand bandwidth allocation and service activation
- Satellite bandwidth management and performance analysis
- Fully automated SNG deployment
- Drag and drop network planning and provisioning
- Automated network and service workflow management
- SLA assurance
- Automated carrier power tracking and control
- Contention-based bandwidth saving
- Browser based, with easy to use graphical tools and dashboard
- Mobile apps



NovelNet NMS Dashboard

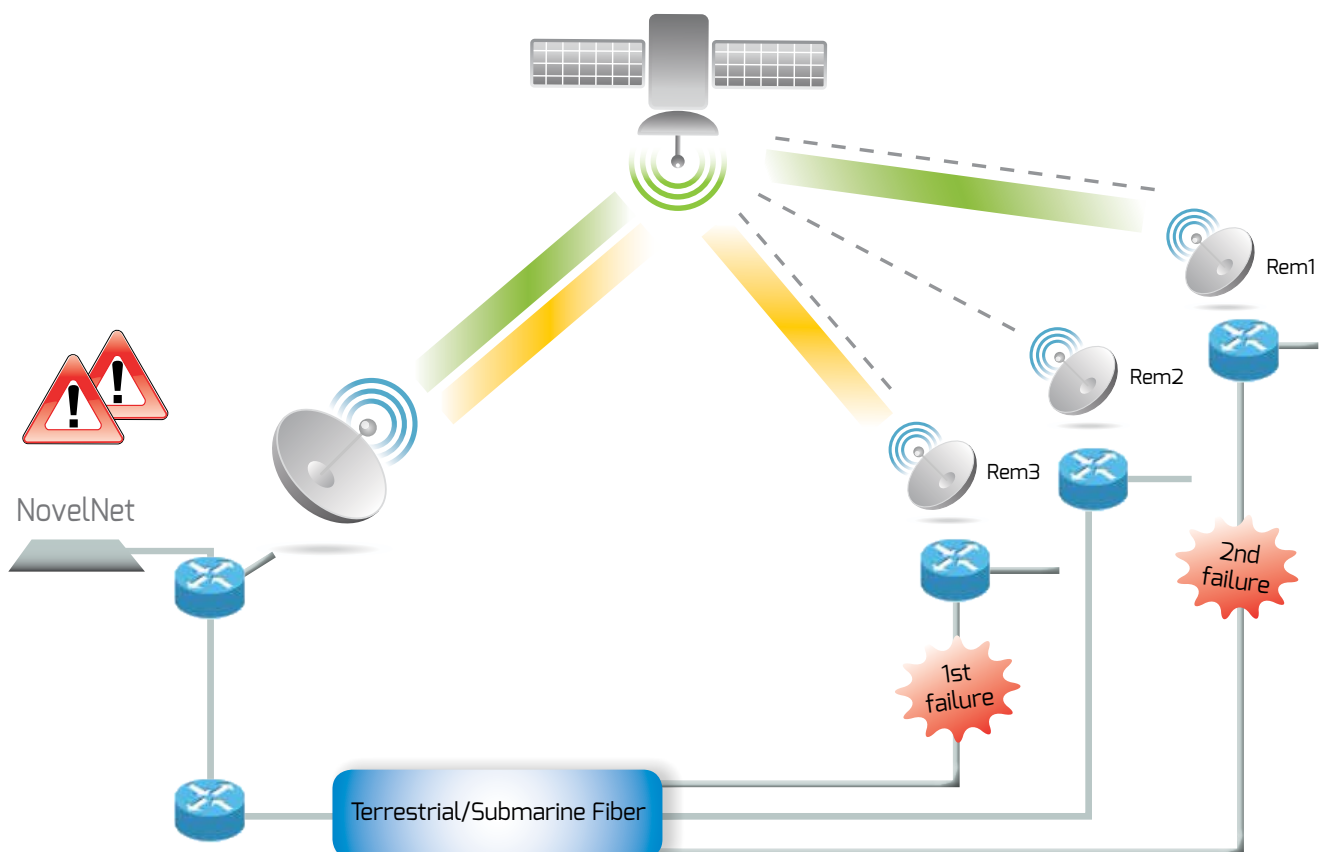
The following are some of the most valuable applications of the NovelNet NMS platform for satellite networks.

## Terrestrial Service Continuity

Terrestrial telecom and data network managers need to plan for infrequent yet potentially crippling service outages caused by failures in terrestrial links. Such failures may happen as a result of physical line cuts, equipment failure, power supply failure, and the like. Using a satellite link as a backup dramatically reduces the service outage and increases Quality of Service.

Easily created configuration files are automatically loaded to dynamically respond to a terrestrial link failure and

trigger NovelNet NMS to calculate the amount of bandwidth that needs to be allocated to restore the failed link. Then, that bandwidth is dynamically allocated from a pool that is set aside to backup multiple links. Since all the links backed up by the satellite bandwidth pool are not likely to fail concurrently, a reduced amount of bandwidth needs to be blocked for backup. When the terrestrial link is restored, a trigger is automatically sent to NovelNet NMS which returns the allocated satellite bandwidth to the pool.



*Dynamic Link Recovery*

# Satellite Bandwidth Optimization

## Bandwidth Scheduling

Rather than allocating precious satellite bandwidth for full-time access, NovelNet NMS can prioritize and schedule satellite bandwidth allocation for specific applications and customers so that service providers can meet their SLA requirements with the lowest possible bandwidth costs.

In many applications there is a need for occasional satellite connectivity for remote mobile units such as DSNF fleets, flyaways and first responders. The available bandwidth is usually not sufficient for all remote units to connect simultaneously. With NovelNet NMS you can pre-schedule uplink establishment, bandwidth allocation,

maintenance and tear down for remote units in point-to-point and point-to-multipoint satellite networks.

## Dynamic Bandwidth Allocation

Unlike applications that require constant or scheduled satellite bandwidth, there are cases of on-the-fly demand for satellite resources, such as DSNFs, flyaways, cellular backhaul and disaster recovery/first responders. Using NovelSat NovelNet NMS, bandwidth allocation can be dynamically triggered in real-time by events in the network.

For example, NovelNet NMS can receive a request from a remote unit and automatically allocate available bandwidth that is returned to the bandwidth pool once the transmission requirement has ended. Even complex workflow automation can be defined using standard scripting languages.



### Related products:

NovelSat NS3000 & NS300X Professional Satellite Modems,  
NS1000 Satellite Modulator, NS2000 Satellite Demodulator,  
NSR9100 & NSR9800 N+1 Redundancy Switches



[www.novelsat.com](http://www.novelsat.com) • [info@novelsat.com](mailto:info@novelsat.com)  
Hayetzira 3, Raanana 4366348 Israel