Estella™ HUB Network Management System

The Estella™ HUB NMS is a complete network management solution, built around the widely accepted FCAPS model

SpaceBridge Estella™ HUB Network Management System (NMS) manages the configuration of all HUB equipment and remote user terminals, VNO groupings and SLA/QoS profiles. It also collects essential statistics from all networking elements. A multitude of NCCs, RLSSs, FLSSs communicate with a single NMS to meet real-time satellite resources allocation across FLSS'/RLSS' as per UT requirements.

The NMS is a web-based application that configures, controls and monitors all active gateway devices.

SpaceBridge Estella™ HUB NMS directly provides access to element manager panel from NMS Monitoring page. This element manager is powered by PRTG and integrated into our management plane

Functions

- Management of the frequency plan, both on the forward and return links.
- Automatic configuration of gateway devices.
- VNO management.
- Automatic configuration of User Terminals, including batch configuration.
- Management of SLA/QoS per VNO level, UT group and UT level on the forward and return links.
- Logs and events.
- Monitoring and Statistics.
- Data Usage Reports.
- Network status reports.
- Automatic configuration of backups

Features and Benefits

- The NMS application runs on a single server platform. The physical platform is a powerful server able to process and handle every task and to store all logs and statistics.
- The GUI is web-based. Any (client) computer with an adequate web browser and with IP connectivity to the NMS is capable to access it.
- Secure access by authorized operator to the NMS over network by IP connectivity; concurrent access is possible.
- Each operator can access remotely with different level of authority, to view, operate or manage the system.
- Communication of the NMS with the HUB equipment is based on the secure standardized protocol.
- A standard API can be used for integration with external Network Management systems or billing servers. System status, accounting and basic configurations is available.

Specifications

Equipment Management

HUB Equipment	Configuration and monitoring of HUB equipment via element manager, powered by PRTG and Integrated into our management plane.
Inventory Management	Automatic discovery of HUB equipment, topology, and inventory management

User Terminals Management

User Terminals	Automatic configuration of Remote User Terminals (IP Address, Satellite Network settings), individually or in group Remote commands
Firmware Update	Remote firmware update, including delayed batch update

M&C

Protocols	- SNMPv2 (by PRTG) - Netconf
Monitoring and Control	- Visualization of real-time equipment operational parameters and telemetry (RF and traffic) - Failure detection and treatment - Customizable dashboards - Auditable configuration modifications
Data Storage	Up to 1 year (conditional) of telemetry available to review locally

SLA/QoS

SLA/QoS management per VNO-level, UT group-level and UT-level on the forward and return links.
Each subsystem is automatically configured.

Events and Alarms

Sophisticated representation of system events and alarms (including UT events) with extensive filtering, automation and email notifications.

Up to 1 year (conditional) of events and alarms is available to review locally

Reports

Reports available to NO	- RF telemetry - Link quality, packet loss reports - UT operational parameters - UT online status - Traffic reports (bit rate) - Data usage reports - Failures
Reports available to VNO	- UT operational parameters - UT online status - Traffic reports - Data usage reports - Failures
Other	- Customizable - Exportable