

OpenSpace™ OpsCenter™

Unified Management Across the Ground Station



In today's new space world... innovations in satellite technology are bringing more capacity and capabilities than ever before. From multi-constellations, flexible payloads to space based payloads these advancements are driving the ground to keep pace with the innovations in the sky.

Delivering on the promise of space means the ground station needs to dramatically improve operational efficiencies. The management approach needs to move beyond monitoring the network, carriers, VSATs and other domains as independent silos to a unified approach that drives scalability, automation and intelligence.

Unify management across the ground station in single platform

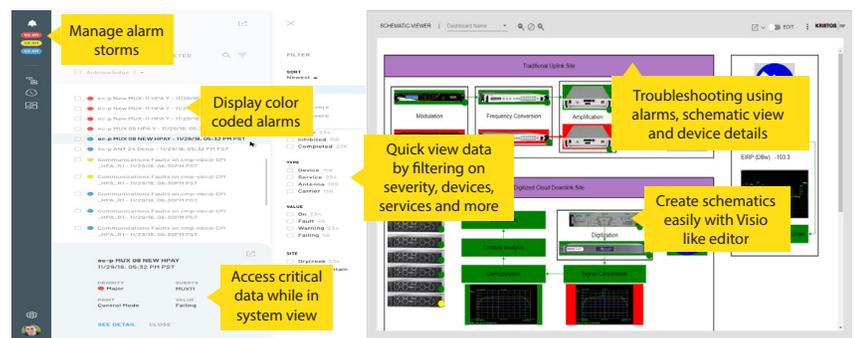
Kratos enables satellite operations center staff to maximize operational efficiencies across the ground station by monitoring carriers and signal quality, the health of IP networks and monitor and control RF equipment using a unified, simplified and scalable management product. OpenSpace OpsCenter consists of a common database, rules engine, GUI and integrated modular suites that eliminate the traditional monitoring silos across the ground station to provide an end-to-end view of operations. OpsCenter monitors across multiple domains such as RF, IP networks and carriers in real time to deliver new analytical insights. The product is highly secure and enables your organization to scale, automate and maximize operations to increase efficiencies.

Network Management System (NMS) Suite

Core to OpsCenter is the Network Management System (NMS) suite that helps manage the rapidly growing infrastructure and services on the ground. The NMS suite addresses several challenges in managing today's dynamic satellite networks.

Streamline management of complex space networks

The NMS suite streamlines the management of the growing volume of RF and IP devices, services and SLAs in your increasingly complex network operations. A key driver in delivering this simplicity is the Graphical User Interface (GUI) which was designed from the ground up based on insights from operations and engineering personnel to maximize staff productivity and accelerate troubleshooting.



▲ Minimize alarm storms and accelerate troubleshooting with a simplified user interface.

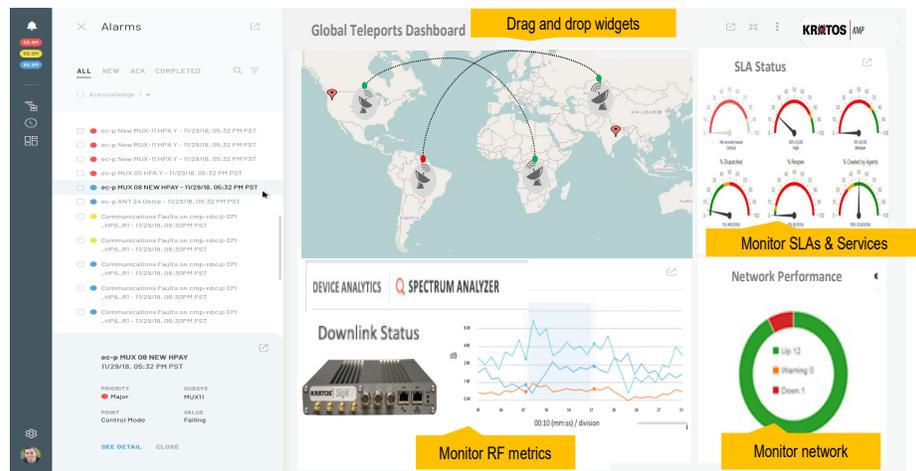
Several key features of the GUI help your staff achieve efficiencies.

- Create highly visual schematics to map out signal flow with a Visio like editor
- Discover and generate graphical maps of your IT infrastructure including servers, routers, switches, etc
- Avoid time consuming alarm storms with color coded alarms that can be filtered, suppressed, and correlated to simplify management
- Turn tens of thousands of alarms into a limited number of actionable ones to determine the root cause faster
- Find identified issues faster with a powerful search capability
- Narrow down troubleshooting issues with a filter function by sorting on severity, equipment type, status, location and additional parameters
- Display key performance metrics for your operations with customizable dashboards
- Monitor and control RF infrastructure including antennas, amplifiers and frequency conversion equipment

Scale to manage growing infrastructure, services and SLAs

The NMS suite provides unprecedented visibility into operations from an infrastructure, service and business standpoint. The platform scales to manage hundreds of thousands of assets, services and alarms seamlessly.

- Infrastructure layer –enables you to fully monitor and control any device from any vendor, regardless of the interface or protocol. Delivers visibility and service transparency from source to destination across circuit (satellite/microwave) and packet (IP) networks.
- Service layer - sits on top of the multi-vendor infrastructure management layer, so your operations staff can model services to trace their path across any vendor and technology borders to gain instant service impact information.
- Business intelligence layer – enables your operations staff to keep track of all your service health and SLAs in real time. Effectively manage your network for optimal business impact by minimizing SLA penalties, allocating resources to the highest priority services and addressing areas where QoS is at risk.



▲ Monitor key performance metrics from a device, service and SLA standpoint.

Automate to save time and increase operational efficiency

The NMS suite helps your staff automate manual and time consuming processes in today's increasingly complex environment.

- Save time by creating rules using a wizard to automate operations without the need for complicated scripts
- Optimize productivity by easily developing workflows to help your operators manage the growth in services
- Reduce outages from minutes to seconds by creating events that trigger actions – such as automated recovery
- Create automation scripts with the language of your choice – Python, PowerShell or JavaScript

Reduce infrastructure and admin costs

OpenSpace OpsCenter and its NMS suite can be deployed on premise or in the cloud to meet your needs. With a cloud deployment you can reduce infrastructure costs, ease the administration effort, scale as needed and assure a highly secure environment.