Intelsat General • IGC Sat-View

Constant Monitoring of Satellite-based, End-to-end Circuits

The new Intelsat General Sat-View provides near-real-time status on network operations, including both fault and performance management, interactive scheduling of events, and access to trouble tickets and technical information about customer circuits. With IGC Sat-View, users can:

- Increase responsiveness to problems
- Activate new circuits more quickly
- Instantly verify link performance and hardware status
- Make bandwidth management and optimization decisions swiftly and accurately

IGC Sat-View provides end-to-end connectivity status to aid in troubleshooting of circuit connectivity requirements. The combination of the increased circuit visibility and direct access to the owners of bandwidth and teleports results in a dramatically enhanced operational environment and reduces overall risk in network management and security. As part of the implementation of a network, Intelsat General provides IGC Sat-View training.

FEATURES	BENEFITS
Single, secure log-in	Provides strong security for access to customer information
Database	Collects statistical and historical data to support custom queries
Customizable reports	Allows for multiple options to query the data for performance trending
Near real-time monitoring	Saves time in addressing operational faults
Segment monitoring	Helps identify fault source faster
Global view with regional drill-downs	Allows users to see end-to-end circuit relationship to the network
Instant view into trouble tickets	Saves time in waiting for fault resolution updates
Auto refresh of near-real time data	Allows user to see most current information as captured by the M&C network
User friendly navigation	User will have access to tool sections via tabs visible on each page
Excel output for reports	Allows users to save performance reports on local drives for detailed analysis

IGC Sat-View Architecture

In order to effectively manage global network segments and resources, Intelsat General developed an impressive M&C network which provides situational awareness of the terrestrial and satellite communications systems and offers a means to evaluate the impact of performance degradation and outages to existing services. The information gathered from the M&C network components feeds IGC Sat-View which then p rovides near-real-time performance and fault data, as well as current and historical technical data for reporting purposes. With direct access to both the M&C Network and to IGC SAT-VIEW, Intelsat General can play a proactive role in managing a customer's network.
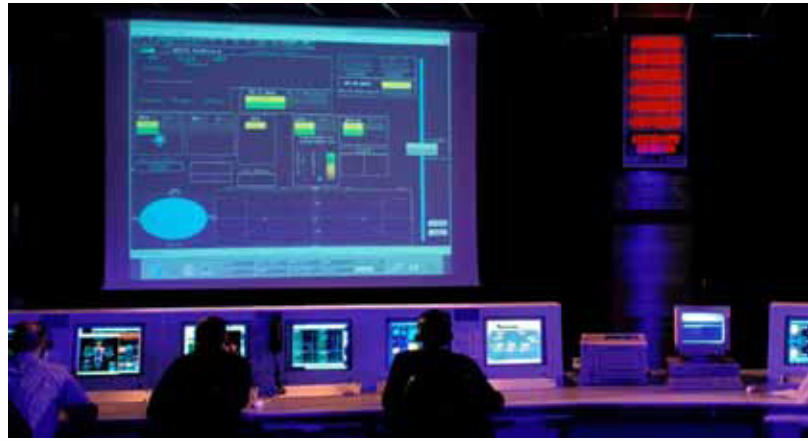
IGC Sat-View Security

IGC Sat-View features a proxy architecture that improves security. To prevent unauthorized access to IGC Sat-View, Intelsat General has implemented a Single Sign-On (SSO) feature that requires a user name and a password. Unlike other SSO approaches, this is a true SSO that enables a hierarchy of users, roles, and assigned domains. Access to IGC Sat-View is controlled by the assigned Intelsat General Engineering Department via the "User Administration" interface, where users can be created, edited, and deleted. Different levels of access to IGC Sat-View are provided to the users based on level of appropriate authorization to data and resources and also based on the credentials of the authenticated user.

Intelsat General addresses the potential vulnerabilities in the tool design to prevent unintended use through:

• Firewalls/DMZ to prevent unauthorized access

• At least the equivalent of 128-bit SSL for data encryption

• Role-based access control with techniques similar to One-Time-Password for authorization

• Digital signatures for non-repudiation and data integrity

• Certificates for server authentication

Even though the IGC Sat-View is hardened for security, it is essential to continually monitor access to detect, prevent, assess, and update the security framework. As part of the overall security framework, Intelsat General has implemented the following techniques to help a customer's administrators with intrusion detection on the live system by:

• Maintaining access logs and conducting periodic reviews

• Collecting logs from back-end systems, as well as the portal server in a single location in real-time to detect anomalies

All physical servers of the M&C components, including the IGC Sat-View servers, are located at Intelsat General's secure facilities. User activities on the IGC Sat-View are not accessible to the outside world.

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