Improving secure, reliable satellite communications while reducing support costs with local management of remote sites

“Uplogix significantly improves the efficiency and scalability of managing our remote and offshore communication infrastructure. Our investment in Uplogix provides us with intelligent virtual administration in locations that are challenging to staff and enables automation of traditional support and maintenance functions that are typically handled by engaging an on-site technician.”

The Challenges of Managing Remotely Connected Sites

The Global Connectivity Services business of Schlumberger was acquired by Harris and combined with CapRock Communications and continues to provide secure, reliable communications for oil and gas customers with locations around the world. A core team of highly skilled network engineers manages this global communications infrastructure, providing 24/7 proactive monitoring and management of the underlying network and communications equipment.

The group’s primary objective with Uplogix was to optimize their service offering by deploying a next generation communication management solution that could automatically detect, diagnose and resolve network-related faults and improve end-to-end communications from global teleports to customers’ remote locations. Having this type of solution in place would help the IT staff provide more proactive technical support, reduce trips to resolve service outages and enhance management of the communication infrastructure supporting the customer network. Management also wanted to offload and improve the routine maintenance operations being performed manually, such as provisioning and configuring devices.

In addition, an out-of-band solution was required that could maintain constant communications and manageability even when the main communications link was down or disrupted.
Benefits of the Local Management Solution

By deploying the Uplogix Local Management Platform, the demanding requirements were met in full. Uplogix Local Managers (LMs) and the Uplogix Control Center deliver localized remote control of the networks under management.

The appliances serve as on-site, virtual network assistants and are typically deployed at remote locations to improve network availability and out-of-band connectivity in a low cost manner. Operational staff utilizes Uplogix to automate network fault diagnosis and recovery, perform routine network maintenance, such as the configuration and provisioning of devices, and ensure network availability, even when the primary connection is down.

If the main broadband satellite link goes down or is disrupted, the LM deployed at the remote disconnected location automatically dials out to a low earth orbit (LEO) satellite via an integrated external modem to re-establish an alternate, out-of-band network connection. This unique capability helps to ensure constant connectivity and secure management even during an outage.

The Uplogix Control Center is used by operational staff to centrally manage all satellite and terrestrial network equipment from a single screen via the web-based portal. The Control Center is integrated with the MyVSAT engine providing aggregation of all remote information and non-stop connectivity to the service portal (both in- or out-of-band). From the Control Center, administrators schedule and coordinate all network maintenance and management operations being performed by the LMs. In addition, the Control Center serves as the central repository and reporting interface for all data collection and audit logs provided by the remotely deployed Uplogix appliances.

Minimizing Tech Support Trips

Uplogix continuously monitors, diagnoses and autonomously repairs service-related problems within minutes. If the collocated appliance cannot fix the problem on its own, it forwards, through a secure out-of-band path, detailed performance and diagnostic data, as well as recommended recovery actions to teleport engineers so that they can remotely repair the problem and restore service without having to send a technician on-site.

Reducing Configuration Errors

A rules-based engine automates routine maintenance like reconfiguring and re-provisioning devices, such as satellite modems, antenna controllers and other communications equipment by applying best-practice procedures provided by the device manufacturer. The Uplogix platform’s automated capabilities provide a secure, consistent and repeatable approach to remotely perform these routine maintenance tasks error-free with minimal manual intervention required.

Ensuring Constant Connectivity

By leveraging out-of-band capabilities, Uplogix appliances are always able to manage—even when the main satellite broadband link is down or degraded. Since the LM is serially connected to all devices under management, it continues to monitor and control connected devices in the case of an outage. And the LM will automatically establish an alternate management connection via integration with an external modem to a low earth orbit satellite in order to send important monitoring, logging and audit data back to the Uplogix Control Center for teleport staff to see and use.

A reliable remote management solution was needed that would:

- Minimize tech support trips and calls in response to network service disruptions
- Reduce network outages due to configuration and provisioning errors
- Maintain non-stop availability and management control even when the main broadband communication link was unavailable

As a result of this deployment, staff has been able to:

- Significantly reduce tech support calls and trips to customers’ remote locations
- Increased overall network service availability by reducing configuration errors
- Ensure constant connectivity with and management of remote network sites

ABOUT UPLOGIX // Uplogix provides the industry’s first local management solution. Our co-located management platform automates routine administration, maintenance and recovery tasks—securely and regardless of network availability. In comparison, traditional network and systems management depends on the network, uses multiple tools, and remains labor intensive. Uplogix puts the power of your most trusted IT administrator everywhere, all the time.

Uplogix is privately held and headquartered in Austin, Texas with international offices in London and Monterrey. For more information, please visit www.uplogix.com.