

## Campbell Hosted Services

Global data connectivity for Campbell Scientific CR data loggers.

Simple, reliable connectivity to Iridium and cellular networks for Campbell Scientific CR series data loggers.



### Overview

MiChroSat 2403 is a satellite communication solution developed by Wireless Innovation for deployment in remote locations. Proven to work with Campbell Scientific CR Series of dataloggers MiChroSat 2403 offers data connectivity globally.

For Iridium based asynchronous connections, Wireless Innovation recommends Iridium to Iridium as the optimal solution for several reasons:

- **Cost** - Calls from either PSTN or Cellular providers to Iridium can be hugely expensive, sometimes up to 10 times as costly as Iridium to Iridium calls.
- **Call Success** - Calls that do not stay on the Iridium network may be transmitted over many carriers. The transmission path may be switched to a more efficient packet based circuit at times. This has no effect on voice traffic, but data calls may experience reduced call success rates as a result. Iridium to Iridium ensures the correct transmission path is always used.
- **Call Duration** - Optimised call times are a means of reducing call charges. By using Iridium to Iridium call paths the handshaking time prior to data transfer is as short as possible keeping call times and costs to a minimum.

### Details

Manufacturer:	• Wireless Innovation
Network:	• Iridium
Device Type:	• Service
Markets:	• SCADA / Telemetry • Military

The easiest way to achieve Iridium to Iridium connectivity is to mount a MiChroSat 2403 adjacent to the Loggernet server being used to connect to the remote CR-xxx Loggers in the field.

However many users do not have clear, unfettered access to a suitable Antenna mounting location at their data collection site.

### Hosted Loggernet Headend

Wireless Innovation offers a solution to this issue by providing clients with a dedicated Loggernet installation with access to a bank of Iridium modems based at its UK Headquarters. Each Loggernet instance operates on a client-specific Windows virtual machine. This allows full client access to all standard features of Loggernet combined with the security of a resilient modem and server infrastructure and secure data backup services.

Via the hosted service, direct MiChroSat connections are provided allowing the hosted Loggernet service to dial remote sites configured through Loggernet. Data downloaded from sites can be automatically transferred directly from the Loggernet host to the client via multiple methods including FTP, Email, SCP/SFTP.

The client remains in full control of the Loggernet host allowing configuration changes to be made, calling schedules to be adjusted or new scripts to be uploaded to the logger as required. Full Windows Remote Desktop access is provided into the host machine allowing the client to configure the Loggernet host as though they were locally connected.

The hosted head end system is full scalable allowing the client to connect as many remote sites through the system as they wish, Wireless Innovation automatically manage the modem pool to ensure availability when the host attempts to place a call.

The hosted head end service also supports loggers connected via GPRS/3G/CDMA using the Cellubi static IP SIMs provided by Wireless Innovation. Through secure VPN based remote access, directly from the Loggernet host, this functionality allows bi-directional connectivity via IP to GSM based sites providing both remote connectivity and scheduled download of data from Loggers.

This combined provides a simple, resilient and secure solution for managing a Campbell Logger fleet.

