Husky Energy

Summary

- Upstream Service group required high speed access to remote offices with secure and reliable VPN Capabilities
- SCADA division required modem with basic connectivity for PLC/RTU interface
- Both groups required a modem management solution for large scale deployment

IPn4G Highlights

- Fast 4G, LTE, HSPA+
- 2 - RS232/485 Serial Ports
- 10/100 Ethernet
- Optional High Power WiFi
- Multiple Tunnel Support
- IPSec VPN, Gre Tunneling
- Configurable Firewall
- MAC/IP ACL
- NMS Compatible
- Integrated GPS
- SMS Alerts
- Data Usage Alerts
- Carrier & Network watchdogs/ Keepalives to prevent lockups
- Industrial Temp (-40ºC - +85ºC)

Oil & Gas SCADA and Upstream Services

Husky is one of Canada's largest energy companies in the Oil & Gas sector. Active in the exploration and production of heavy oil, light crude oil, natural gas and natural gas liquids, Husky is experiencing rapid growth in all business units.

The Issue(s)

Husky Energy required two solutions for two different groups. The *Upstream Services* group required a high speed VPN capable cellular device that could provide secure and reliable network access for their remote offices. This was paramount to ensure productivity and to provide workers with complete access to company resources.

The *SCADA* group had a more basic requirement in terms of speed, but also needed a robust and reliable product, with large stock availability to interface with remote PLCs, RTUs and other automation and monitoring equipment. A solution with flexible local interfaces such as RS232, RS485 and Ethernet, was critical.

As with most Energy companies, installations are typically located in remote areas and extreme environmental conditions where sending personnel to the site would be cost and time intensive, meaning reliability is extremely important. Due to the sheer volume of locations included in the project it was also important to have a mechanism to monitor and manage all cellular devices remotely.

The Solution(s)

Microhard Systems Inc specializes in developing and manufacturing rugged wireless solutions that excel in demanding conditions. With several M2M cellular devices designed specifically with harsh, industrial environments in mind, the *IPn4G Cellular 4G LTE Ethernet/Serial Gateway* was ideal for the *Upstream Services* group. Utilizing the latest in LTE technology, the IPn4G provides an amazingly fast, secure, and robust Gateway-to-Gateway VPN connection to network remote offices allowing field personnel unprecedented access to corporate resources.
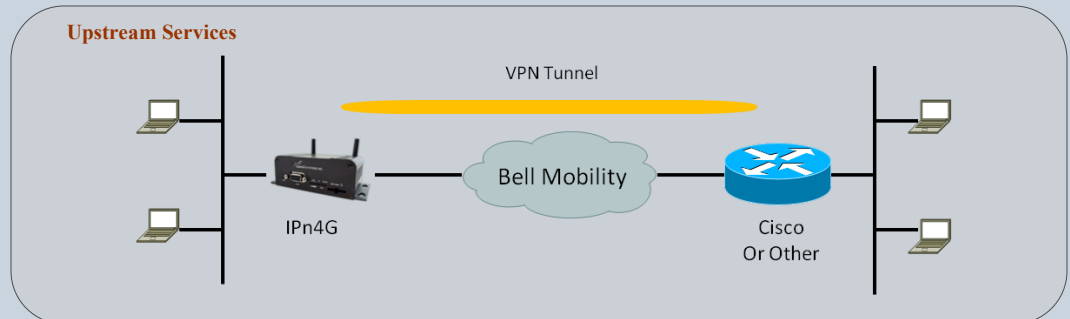
Providing a more basic, but robust cellular connection, the *IPn3G Cellular Ethernet/ Serial/USB Gateway* was the perfect solution for the SCADA group. The IPn3G is mature product with proven, field tested reliability, large install base, and stock availability made field installations seamless.

◆ **LTE** ◆ **RS232/RS485** ◆ **NMS** ◆ **Ethernet** ◆ **IPsec VPN**

Rev 1.0

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The industrial grade RS232/485 Serial interface and the 10/100 Ethernet interface made connecting a large variety of SCADA devices possible, without the need for additional adapters, converters or complex wiring. With the use of simple port forwarding capabilities, and/or integrated serial to IP conversion, critical SCADA data & measurements could be brought back to the head office.
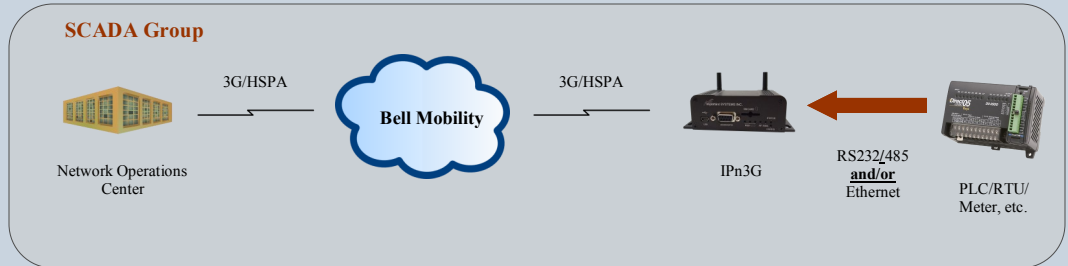
The *Microhard NMS* software was a key component to the overall project providing Husky the ability to not only monitor, but also manage the large scale deployment of IPn3G & IPn4G devices. Microhard NMS allows the health of all deployments to be monitored in a glance, highlighting trouble modems. NMS also allows for automated, bulk firmware updates, the ability to backup configurations, and statistic data to analyze and aid in troubleshooting.
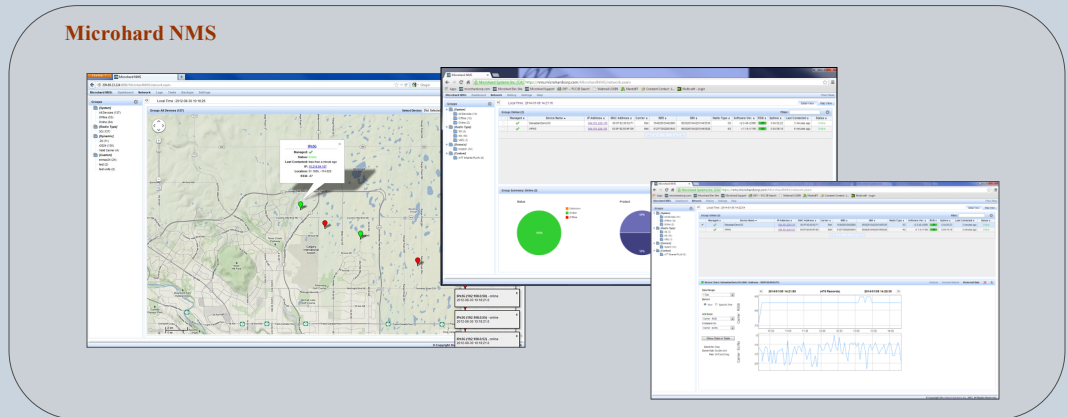
Results

Microhard Systems was able to provide a rugged, reliable, innovative solution that met or exceeded all requirements of the project. Responsive technical support and assistance allowed both Husky groups to quickly and easy integrate the Microhard Devices into their network.

The current installation progress as of January 2014 is well over 200 units with a total project scope of around 1000 units planned for the coming year.

Husky Energy

IPn3G Highlights
- Fast 3G, HSPA
- 2 - RS232/485 Serial Ports
- 10/100 Ethernet, USB
- Serial to IP Conversion
- Port Forwarding
- MAC/IPACL
- NMS Compatible
- Integrated GPS
- SMS Alerts
- Data Usage Alerts
- Carrier & Network watchdogs/ Keepalives to prevent lockups
- Industrial Temp (-40ºC - +85ºC)

NMS Highlights
- Detailed Map View
- Advanced Filtering
- Quick Status View
- Centralized Bulk Updates
- Server Based Installation
- Complimentary Service
- Microhard or Privately Hosted System
- Customizable Groups
- 7 Day Event History
- Event & Action Logs