

CASE STUDY

A Public Utility Company Using the Engage IP Tube with a Cell Modem - HDLC with a Synchronous Protocol

Challenges

A public utility company has one of the largest telecommunications networks in the world, spanning 10,000 miles north to south. The company provides service in every corner of this large area, which means constantly communicating with a number of **remote, unstaffed plants**.

In the past, the company leveraged a leased line from a local telephone supplier. Unfortunately, phone companies have started ripping up these copper circuits, meaning they needed a new solution.

This company was faced with a choice: spend a fortune to lay their own fiber-optic cable, or find a way to continue using their legacy equipment.

To make that happen, a lot of things need to work in concert. The incoming signal was HDLC, and it had to be handled in a specific way- completely invisible to the outside world.

They started looking for solutions, and that's where Engage Communication came in.



"With our legacy network, the cost of updates is passed on to the citizens of Quebec. The IP-Tube works with our existing system. I didn't need to put in miles of fiber-optic cable, and I don't have to deal with my local cell phone provider. **Engage handled the HDLC protocol better than the competition.**"

Network Operations Engineer

Products Used

- IP-Tube
- BlackTube

Specific Needs

- Compatible with cell modems
- HDLC messaging

Engage Solution

The public utilities company chose the IP-Tube over other options because it, almost uniquely, allowed them to support HDLC over a stable, synchronous circuit.

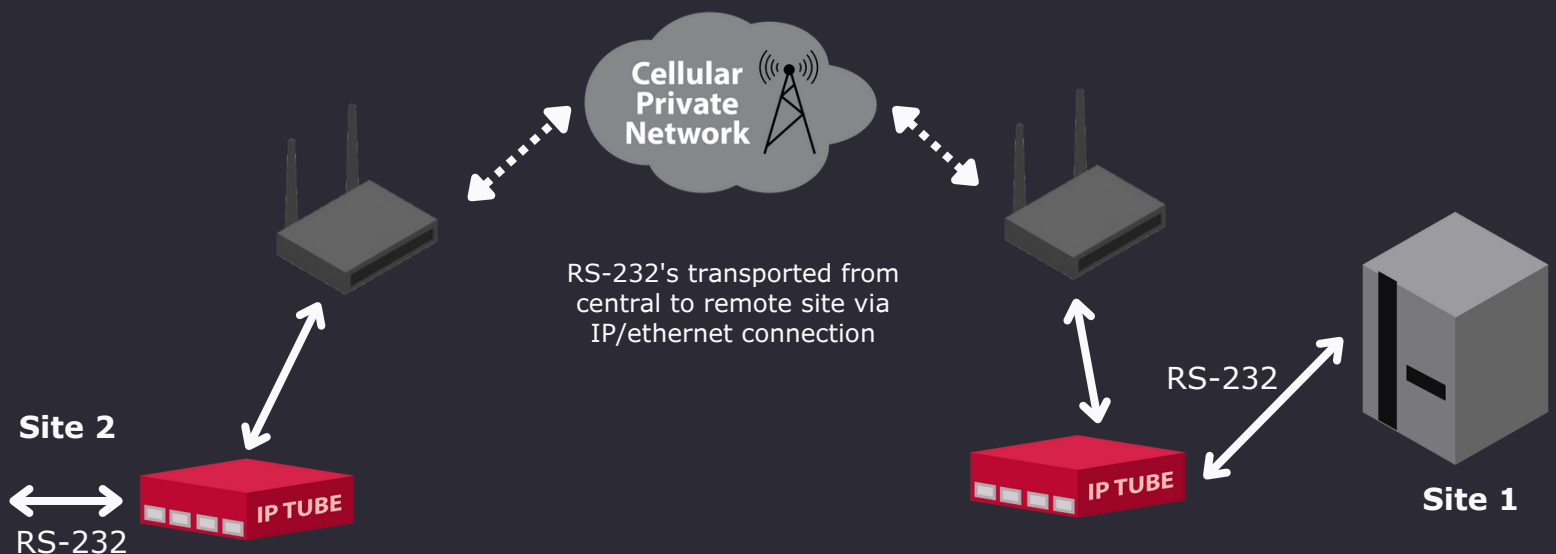
The core need was to avoid changing the circuits that control the electric grid. Those circuits send a 9600-baud HDLC message, and it's a synchronous circuit. The company also wanted to send the signals over a cell modem. Latency requirements are very strict, so that was also a major concern, as was uptime.

Engage tackled the HDLC network challenge differently than the competition. The team knew it had to be tight messages in packets. It all needed to be done quickly because of short time-out periods in equipment, and it was also important not to drop messages. The IP-Tube managed to handle all of this reliably.



“The goal was accomplished. I can set up the configuration in the cell modem, and then set it up in the IP-Tube. Then, for Hydro-Quebec, the journey from site 1 to site 2 is invisible. **It's like I sent the signal in a straight line.**”

Network Operations Engineer



- Port forwarding using LAN1 and MLAN
- Only the IP address is visible to the outside network