TERMONT

Industry
Maritime transportation

Location
Montréal, Québec

Focus
Network reliability
Dual SIM failover
Remote device management

Solution
- CTM-200 device
- Cypress IOT

Category
Remote industrial

Termont Montréal Inc. improves network reliability with dual SIM failover

For more than 25 years, Termont Montréal Inc. has been operating at full capacity at the Maisonneuve Terminal, Québec. The business has operational expertise in handling cargo and container services, ensuring that products from all over the globe reach the people who need them. With this mission-critical statement in mind, Termont went through a digital transformation from a radio, paper-based communication system to enhance its network reliability. Termont's operations require all field equipment to be connected at all times. Therefore, the terminal operator is leveraging the CTM-200 wireless gateway in a dual SIM failover solution and Cypress IOT for managing remote devices at the Port of Montréal.

The Challenge: Absence of a robust LTE-based network

Previously, Termont did not have any outdoor wireless networks. In the maritime transportation industry, time is money - where time is tied up in unloading vessels, reorganizing freight, and time in transit. This means the entire operation needs to be fully connected with a reliable wireless communication network that the traditional Wi-Fi systems cannot provide.

"Our terminal used to be a giant warehouse with no wireless networks. Many terminals across the world are using Wi-Fi. However, that approach has been proven unreliable

and hard to maintain. Hence, we were looking to expand connectivity with options like LTE or 5G. This allows us to have a reliable wireless connectivity infrastructure with minimal downtime." said Émeric Doutriaux, IT and Project Director at Termont.

The Solution: Using dual SIM failover with the CTM-200 device

Termont implemented the first batch of the CTM-200 devices for its terminal equipment with a single SIM card. The CTM-200 was selected for various reasons. Émeric stated "Using LTE devices was a brand new experience for us when we first started the project. We did not know what bandwidth or throughput rate we needed. Eventually, we needed to remotely troubleshoot the devices as well. With the anticipated growing demand for additional services, we determined the most important requirement for hardware is flexibility. The CTM-200 is a powerful device with multiple ports and it is a Linux-based firmware that we can configure and easily access. With that being said, the device is truly ruggedized, which is completely suitable for Montréal's harsh winter."

The IT team at Termont soon realized they could not rely on a single SIM for such mission-critical deployments. Therefore, a dual SIM failover solution was implemented the following year to prevent delays in instances when the network is down. "The CTM-200 device checks the connectivity periodically and will do an automatic switch from our primary carrier to the secondary carrier if communication fails," explained Émeric.

Troubleshooting remote devices with Cypress IOT management platform

The CTM-200 also collects telemetry data in real-time and delivers the data to the Cypress IOT platform every 40 seconds. The collected data includes the equipment location and important cellular parameters such as signal quality indicator and speed for monitoring and troubleshooting purposes. This data is displayed in a custom dashboard that

was designed by the Cypress Solutions team for convenient access and reporting. "Within Cypress IOT, we need to push new firmware and commands to the fleet. The platform also works as a great tool for us to monitor and troubleshoot devices, especially when it comes to resolving issues with our suppliers regarding LTE coverage," said Émeric.

The Result: Maximized network availability with minimal downtime

The benefits of the solution go beyond just implementing wireless communications to keep pace with best practices for terminal operators. With the CTM-200 cellular gateway, connectivity can reach all corners of the terminal at Termont. This means higher opportunities to increase cargo capacity and operational efficiency where the operating system and terminal equipment are 'always on, always connected'.

"Now with this dual SIM failover solution in place, our IT department has complete peace of mind with a reliable cellular network where we have that redundancy between two carriers. The business operation is active 24/7, but our IT team is not," said Émeric.

Image 1: Close up of Termont's terminal forklift

Image 2: CTM-200 device installed in one of Termont's forklift electrical control boxes

Continuous support from Cypress Solutions

To date, Termont has approximately 125 units of the CTM-200 devices installed in its terminal equipment, including tractors and forklifts. Looking ahead, Émeric and his team hope to continue this valued partnership with Cypress Solutions for its product life cycle management.
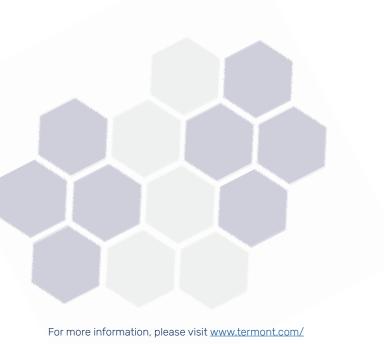
"Although we do not have immediate plans for the next order, as we have new equipment or replacements, there will be additional requests for sure. The CTM-200 device has reached its end-of-life, so I am looking forward to the next generation 5G product line that Cypress Solutions will bring to market."

In the case of Termont, an LTE-based network with a dual SIM failover is the solution to meet the critical connectivity and automation that a smart port needs.

"The product and service offering at Cypress Solutions is A1. The CTM-200 is truly a futureproof device. The cellular gateway in conjunction with the Cypress IOT platform is a one-stop solution that answers all of our business operations needs."

- **Émeric Doutriaux,** IT and Project Director, Termont Montréal Inc.

Find out how Cypress Solutions can help your business operations.

Visit **www.cypress.bc.ca** or email **info@cypress.bc.ca**

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