GRAPHICAL NETWORKS

Pan American Silver

Case Study

Overview

Mining IT streamlined with powerful, user-friendly visualization

Pan American Silver, a major global silver producer, manages a sophisticated IT network within the depths of two of its Ontario mines. Below ground, where safety is paramount, a complex ecosystem (including cameras, Wi-Fi hotspots, laptops, offices,and fans) keeps workers safe and connected.

Like many organizations, Pan American Silver relied heavily on paper-based maps, manual processes, and employee knowledge to understand its infrastructure. A lack of reliable and accessible documentation when sending workers into a mine led to longer repair times and increased costs.

Luc Martineau, IT Systems Administrator for the two Ontario mines, knew his team needed accurate documentation and visualization that could be accessed from anywhere (above ground or below).

His team selected netTerrain as it could give them the comprehensive documentation and visualization of all of their network components, even at depths reaching 1600 meters or greater, and be accessible from any web-based browser, onsite or off.

With netTerrain, the team has brought about significant time and money savings.

Before netTerrain

Physical inspections create big cost & efficiency headaches

Managing IT infrastructure in mines comes with significant, and unique, challenges. Luc Martineau and his team were tasked with overseeing a constantly evolving underground infrastructure at increasing depths in which keeping the network up and running is essential for operational efficiency and safety.

They relied heavily on paper diagrams (primarily drawn for compliance), institutional employee knowledge, and physical inspections: physical access to the mine sites - and the IT within them - however, was anything but simple.

Difficulty in accessing the many levels of the mines not only increased the time to resolve IT issues but also significantly raised operational costs. Professional work in harsh underground conditions comes with premium wages, leading to substantial expenses when a physical inspection is required - let alone routine IT maintenance: a few hours of IT work can run thousands of dollars due to the pay bonuses associated with under-ground work.

With such large costs (which only increased during Covid) and operational dependance on IT for safety and workflow, the team knew they needed a comprehensive documentation and visualization solution.

Goal

Enhance efficiency & safety, reduce costs

The team wanted to find a solution that would help them achieve the following:

- Streamline infrastructure maintenance to save time and resources

- Reduce the need for complicated physical inspections (cutting costs and enhancing safety)

- Enhance the accessibility and accuracy of network data to facilitate rapid decision-making and emergency responses
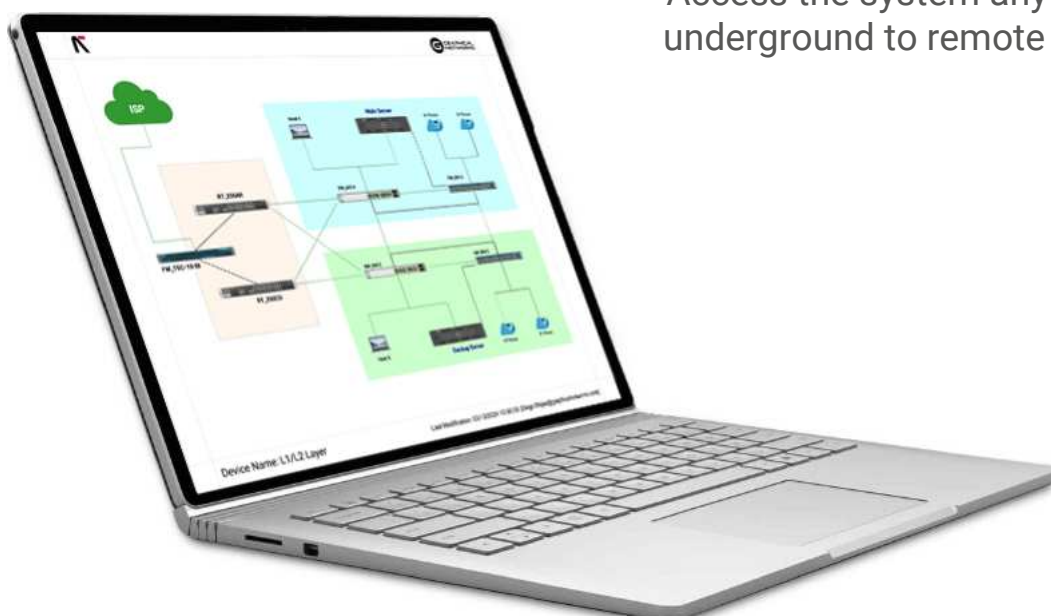
Challenge

Diverse network requires multifaceted visualization

Luc's team faced many challenges, some of which were unique to the mining industry, in finding the right software.

They needed software that could:

- Make it easy for everyone, including other departments and contractors, to use

- Map diverse IT infrastructure, including fiber and network details

- Import data and automatically discover and map the network quickly

- Streamline physical site visits with detailed work orders

- Access the system anywhere, from underground to remote locations

Solution

User-friendly IT management platform that delivers results for complex network

After evaluating other options, Luc's team ultimately selected netTerrain as it would allow them to:

• Create centralized documentation that's accessible from anywhere (crucial for adapting to evolving mine layouts)

• Automatically discover network information and import existing data and maps into dynamic diagrams

• Simplify updating diagrams and documentation with minimal manual entry

• Generate work orders that provide techs with the information they need to locate IT issues and descend to sites equipped with everything they need for maintenance

Implementation

Platform so user-friendly that even non-IT workers were able to use it

Luc's team found implementing netTerrain straightforward. The platform was so user-friendly enough that a non-IT mine worker (on desk duty for medical reasons) was able to start using netTerrain and actually enjoyed helping the team get sites documented.

netTerrain's built-in discovery engine simplified getting the network documented and visualized without manual data entry.

Detailed work orders, essential for saving time and money spent on expensive underground work, were easy to create and assign.

Results

Efficiency, savings, and safety achieved

The team effectively transitioned from relying on employee knowledge and outdated compliance maps to having a dynamic platform, full of the infrastructure information they needed, accessible from anywhere: any depth, above ground sites, tablets, and remotely from any workstation.

• Visualization of everything from fiber to cameras and Wi-Fi hotspots, thanks to automatic discovery and software so user-friendly even non-IT workers can use it

• Significant cost reductions were achieved by minimizing the need for costly manual, on-site inspections

• Safety and operational efficiency were boosted with immediate access to detailed network information, crucial during emergencies

"Before, finding a cable in our large underground network was like trying to solve a puzzle in the dark. Now, I can easily create detailed work orders and diagrams so our team knows exactly what to do and where to go. Thanks to netTerrain, we can save thousands of dollars in just a few hours."

Luc Martineau,
IT Systems Administrator

Learn More

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