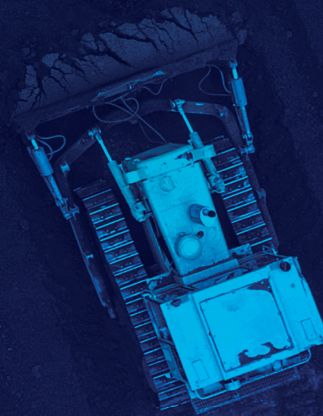# Secure Wireless Connectivity in the Field

Best known for creating advanced positioning solutions, Trimble was looking for a way to provide remote technical support and maintenance for their new machine control system called Trimble Earthworks. Since 2017, Trimble has been offering remote support for Earthworks devices through their Trimble Connected Site solutions known as Trimble Connected Community and Trimble WorksManager. These web applications offer remote support over their Virtual Private Internet (VPI) solution using remote.it to reduce the need for Trimble dealers to perform time-consuming on-site support visits. Dealers can now log in remotely and securely to configure or troubleshoot the Trimble Earthworks Grade Control Platform. As the remote.it VPI solution keeps the Trimble network in a "drop stance" mode, it eliminates open IP addresses or ports for hackers to detect or attack when scanning for connected devices.

Customer Challenge

In 2017, Trimble realized they needed secure, remote access to the technician interface for their new Earthworks precision-grading solution. Trimble had used a screen-sharing application for their previous machine control solution, which had performance limitations making it more difficult to work with for customers and Trimble's dealers alike.

❄ Trimble™

Trimble Inc. is a leading developer of advanced positioning solutions such as Global Navigation Satellite System (GNSS) receivers, laser rangefinders, unmanned aerial vehicles (UAVs), inertial navigation systems, and software processing tools. With $3 billion in revenues annually, the company employs over 11,000 people in 39 countries around the world. The Trimble Earthworks Grade Control Platform serves the construction industry and enables excavators, dozers, and graders with precision-grading capabilities.

Top 3 Reasons Trimble Chose remote.it

1 Adding remote.it's Virtual Private Internet connectivity to Trimble Earthworks was fast and easy

2 The secure port-forwarding nature of the remote.it VPI solution added secure remote access for all devices

3 Bulk licensing of remote.it VPI for thousands of devices ensured immediate scalability

remote.it Solution Overview

Trimble has been using the remote.it VPI solution to connect Trimble Earthworks devices for dealers and technicians over a secure, dedicated virtual private network overlay. Dealers and technicians connect to the devices mounted on earth-moving machines at construction sites to remotely configure or troubleshoot technical issues, saving them time-consuming on-site support visits and providing exceptional customer service at the same time.

Remote support, made possible via the secure connectivity built into the remote.it VPI, is offered for all Trimble Earthworks solutions, and is currently installed on thousands of Trimble systems. Trimble expects to increase the number of deployments of remote.it VPI five-fold by 2021.

Remote.it Solution Benefits

- Enables secure, scalable remote access to Trimble Earthworks systems saving dealers long trips to construction sites
- Enterprise licensing enables Trimble to offer secure communications on thousands of Trimble Earthworks solutions, which Trimble plans to expand to tens of thousands by 2021
- Secure port-forwarding gives Trimble the ability to provide cell and WiFi connections to Trimble Earthworks solutions without fear of cyberattacks

Solution Deep Dive

In 2017, Trimble was looking to upgrade the way it handled remote technical support for its new Earthworks Machine Control solution for heavy construction. Previous iterations of the software depended on a screen-sharing application that had performance limitations. Customers and dealers also found that it caused interruptions with the operator.

Trimble was about to introduce Trimble Earthworks, an innovative Machine Control solution that would enable an excavator, dozer, or grader operator to see a colorful map on a tablet and use precision sensors to quickly move and grade earth. When an earth mover was having technical problems at a construction site, a dealer would often have to drive as much as four hours to address the issue and keep the client's project on schedule. Trimble wanted to provide a secure remote technical interface that would enable dealers to provide technical support for their installed Machine Control systems on site. While searching for a replacement for their old screen-sharing system, Trimble found remote.it.

> *Having secure remote support integrated into our connect site solution made remote.it VPI a win-win solution for our customers, dealers, and Trimble.*
>
> **Geoffrey Kirk,**
> Site Integration Manager at Trimble.

> *A critical remote.it feature is the ability to cloak our endpoints by binding to localhost 127.0.0.1 while maintaining remote access. This allows us to be in full control from anywhere, while managing who can access our devices to maintain network security.*
>
> **Geoffrey Kirk,**
> Site Integration Manager at Trimble.

Trimble appreciated the simplicity of the remote.it VPI solution, and realized that if they moved their solution to a web module featuring a web-based UI for technician access, that would enable a range of technical tasks to be done without interfering with the machine's operator. With the remote.it VPI solution masking the address and ports of the device to anything outside of Trimble's dedicated Virtual Private Internet, Trimble quickly had a secure maintenance and support solution.

Installation and technical testing went quickly. Knowing that the secure communications portion was effective, Trimble invested time to build a registration system and UI for Earthworks that would enable dealers to set up remote.it on new Earthworks solutions using a web interface.

Trimble introduced Trimble Earthworks in 2017 with remote.it VPI support as a key enabler for a number of their dealers. Today, remote.it VPI is used to facilitate secure remote support on thousands of Trimble Earthworks systems, and is expected to include an increase of up to five times the remote.it systems they have in place by 2021.

> *Getting the Earthworks machine up and running with remote.it was easy*
>
> ———
>
> **Geoffrey Kirk,**
> Site Integration Manager at Trimble.
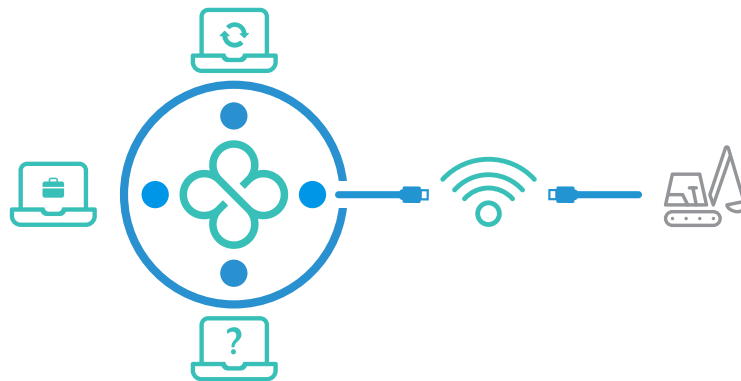
Dealers and technicians use remote.it to connect to Trimble Earthworks devices mounted on earth-moving machines at construction sites over a secure, dedicated virtual private internet overlay to remotely configure or troubleshoot technical issues.

remote.it's vision is to help telcos, ISPs, enterprises, and their channel partners to extend today's conventional internet into a secure, private one so connected assets, business, IP, and partners can be protected from exposure, theft, or attacks.

We started by empowering each connected device with its own protected, 'device DNS' and are taking that same concept to a global scale to provide 'private or personal' DNS which extends to anything done on the Internet. We work with other visionary companies to secure their connectivity and security on the conventional internet. Connect with us today to build a better Internet for all.

remote.it

For further information, contact your account rep or reach us at sales@remote.it

https://remote.it