Industrial Networking and SCADA Deployments
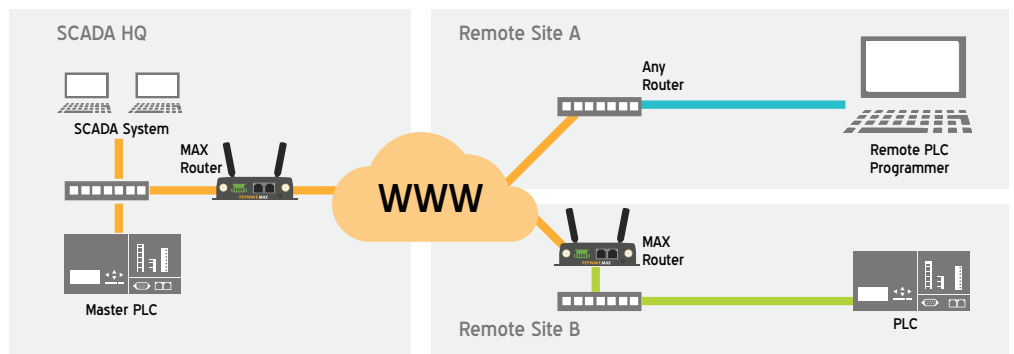
The Demands of Industrial Networking

Modern SCADA (Supervisory Control and Data Acquisition) systems, the ones that manage the power grid, transportation systems, water, pipelines, and our factories, have increasingly distributed assets.

Increasing operational efficiency requires real-time monitoring that is secure, reliable, and scalable to maintain connectivity to these PLCs, RTUs, Flow Computers, Pump Controllers, Serial Device Servers, Ethernet I/O, IP Cameras, etc. and keep this valuable data available 24/7/365. As the number and distribution of these assets seems to go up by the day, customers need solutions that minimise infrastructure investment (think material and labor costs associated with traditional radio networks) while providing the coverage and reliability required; this is why SCADA over cellular has dramatically increased in adoption over recent years. And as transferring data over a third party network can introduce questions regarding security, the chosen solution must also include features to alleviate the risks.
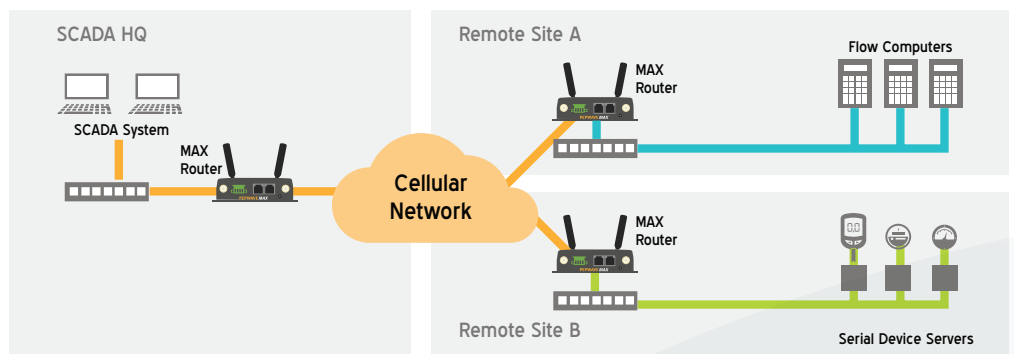
The Peplink MAX series of industrial 4G routers are designed to meet the demands of industrial networking. How?
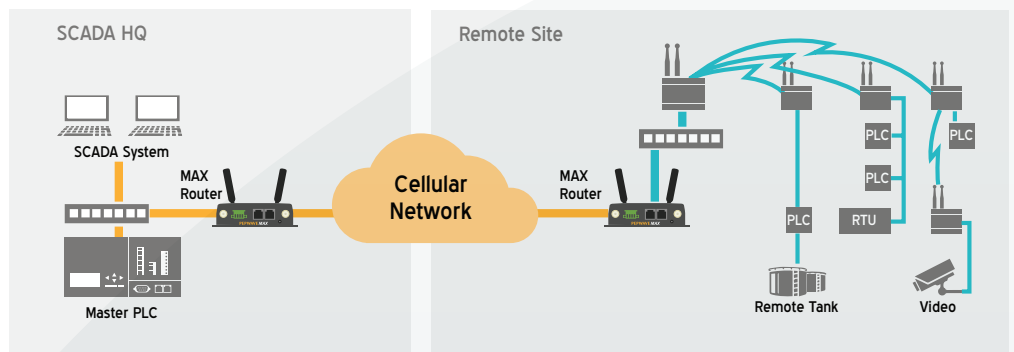
Deployments

SCADA/PLC network & Remote Access
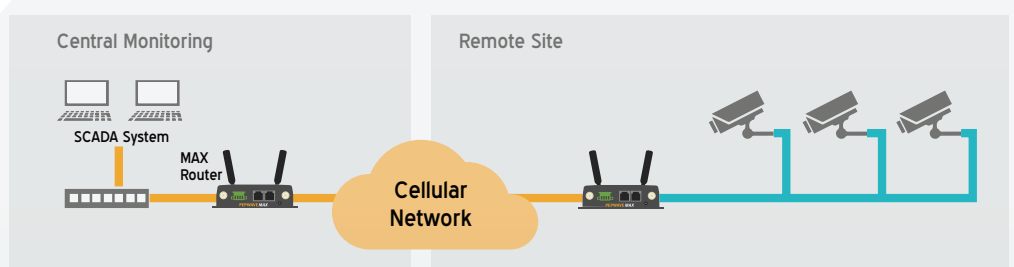

SCADA HQ		Remote Site A

SCADA System
MAX Router
Master PLC

Any Router
Remote PLC Programmer

MAX Router
Remote Site B
PLC

WWW

Data Collection/Metering

SCADA HQ
SCADA System
MAX Router

Remote Site A
MAX Router
Flow Computers

Cellular Network

MAX Router
Remote Site B
Serial Device Servers

SCADA Radio System Backhaul

SCADA HQ
SCADA System
MAX Router
Master PLC

Cellular Network

Remote Site
MAX Router
PLC
PLC
PLC
RTU
Remote Tank
Video

Remote Site Surveillance

Central Monitoring
SCADA System
MAX Router

Cellular Network

Remote Site

When managing a large scale network, you are often faced with questions such as:

"Are all of our routers up and running currently? Are they on the latest firmware?"

"Why was our carrier bill a little larger this month? Which location used more data? Which device consumed this data?"

InControl²

Enter InControl 2, our cloud based device management, monitoring, and reporting tool designed specifically for Peplink devices.

- See the current firmware version of all your devices. Schedule automated firmware updates for groups of devices.

- Never lose device configurations again. When you save device settings, InControl 2 backs them up to the cloud.

- View real-time bandwidth usage and spot usage anomalies for each live device.

- Really understand your network and how clients are using it. Spot potential bandwidth capacity issues before they become a problem. Identify your heaviest bandwidth consumers.

- Coordinate email notifications between administrators with two-stage escalation. Combine with our free smartphone Router Utility app for push notifications on WAN failure.

VPN

WAN

WAN

InControl²
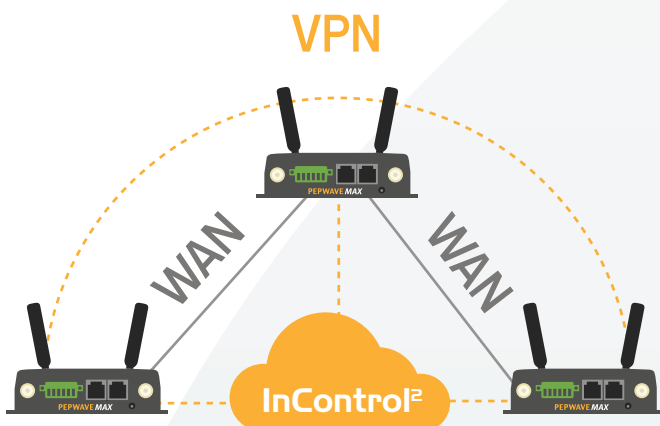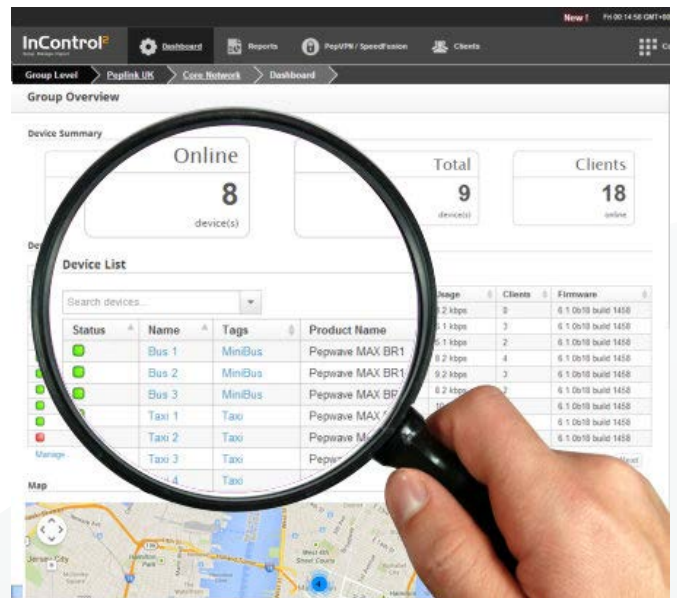
Solution Flexibility − Secure Overlay Networks

Peplink devices and technologies can act as a complete connectivity platform for networks of industrial sensors as they are deployed both inside and outside of the enterprise.
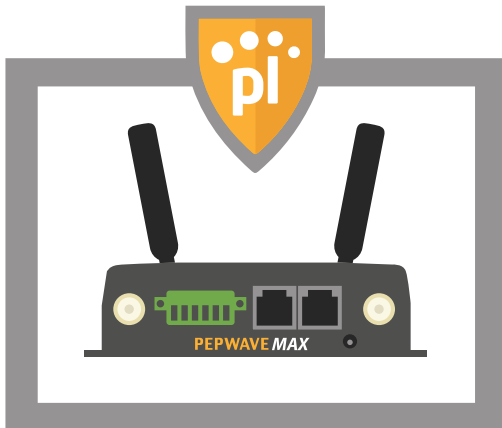
The platform enables secure, centrally managed, isolated industrial sensor overlay networks to be installed on top of existing physical network infrastructure.

The Peplink Advantage

Reliability

Rugged metal enclosures with industrial temperature, shock, and vibration specifications and DC terminal block power input ensure the hardware is built and rigorously tested to survive in the most demanding applications. And if your deployment calls for the highest levels of uptime, many features are available to increase your 9s such as High Availability and Multi-WAN, including Multi-Cellular. And this isn't your grandmother's Multi WAN tech; Peplink's patented SpeedFusion technology includes unique capabilities such as Hot Failover and Bandwidth Bonding to push that availability to the next level.

Uptime: 99.999%

Security

All Peplink products are designed from the outset with industry leading security features built in. With dual boot firmware capability, 256-bit AES VPN encryption as standard, and all of the most insecure features (that often are enabled on other vendor devices) disabled by default, your network is as safe as it can be right from the start. Furthermore, Peplink MAX routers are certified for deployment on carrier private networks or can simply be deployed in IP Passthrough to provide uplink connectivity to an existing site firewall.
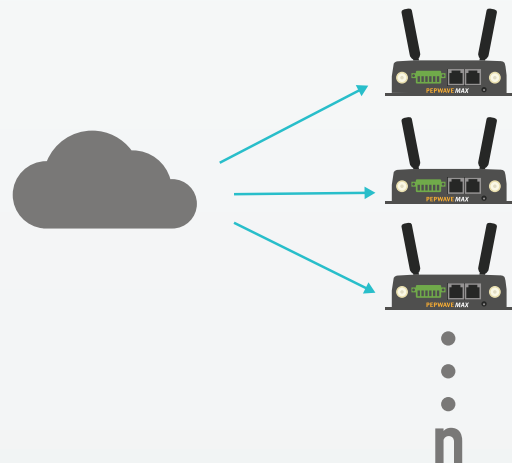
Scalability

Whether the point of connectivity is the field, the office, or the cloud, Peplink has you covered. You can leverage MAX routers, Balance routers, or FusionHub, tie all the locations together, and manage it all in one place. This brings us to one of the biggest challenges with scaling an industrial network for distributed assets – management and monitoring. Manual spreadsheets and individual device maintenance can easily overburden the most capable personnel.
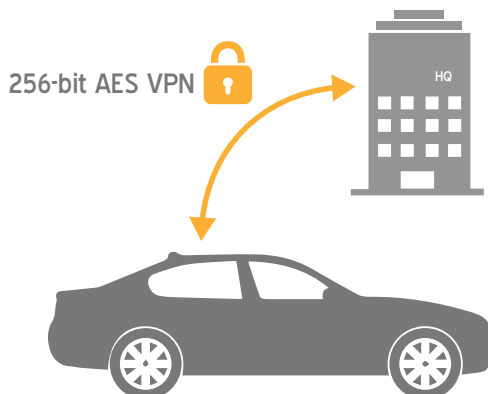
n

256-bit AES VPN

VPN Flexibility – Secure Remote Access

Many of these systems require secure remote access to facilitate a technician to verify parameters or even make configuration changes without having to go to the site. Fortunately Peplink supports not only PepVPN and IPSec for site-to-site secure connectivity but also L2TP which is a great fit for client-to-site a.k.a "road warrior" VPN as the client side is native to all major desktop and mobile operating systems (no specific client software installation required) including Windows, OSX, Android, iOS, etc.

Ease of Use

We specialize making complicated technologies simple to use. Our proprietary VPN technology that allows customers to configure complicated Multi-connection, Multi-Site Wide Area Networks with just a few clicks. InControl 2, our cloud based monitoring and management platform, allows customers to manage thousands of devices through a single interface.

Why Rising Connection is using equipment designed and built by Peplink?

- Industry leader in both ISP & Data Bonding across multiple technology platforms
- Reliable hardware from entry level professional equipment through to advanced Enterprises solutions
- Worldwide supported and local support here in Australia by fully trained technicians
- Reliable and secure redundancy paths for mission critical sites
- Designed for maximum possible business uptime

This demonstrates to Rising Connection that you will have the Quality, Reliability and Product Support.