BELDEN | **ProSoft** TECHNOLOGY

Streamlined and Secure Remote Connectivity for Water & Wastewater Applications

Reliable communications between automation devices is the cornerstone of any remote infrastructure utility network like those employed in the water and wastewater industries. In a controlled environment, remote communications would be easy to emulate as it would likely be through a physical switch.

Now, imagine having the same simplicity in a real system where geographically dispersed remote sites need to communicate with each other or to a central location, securely and reliably.
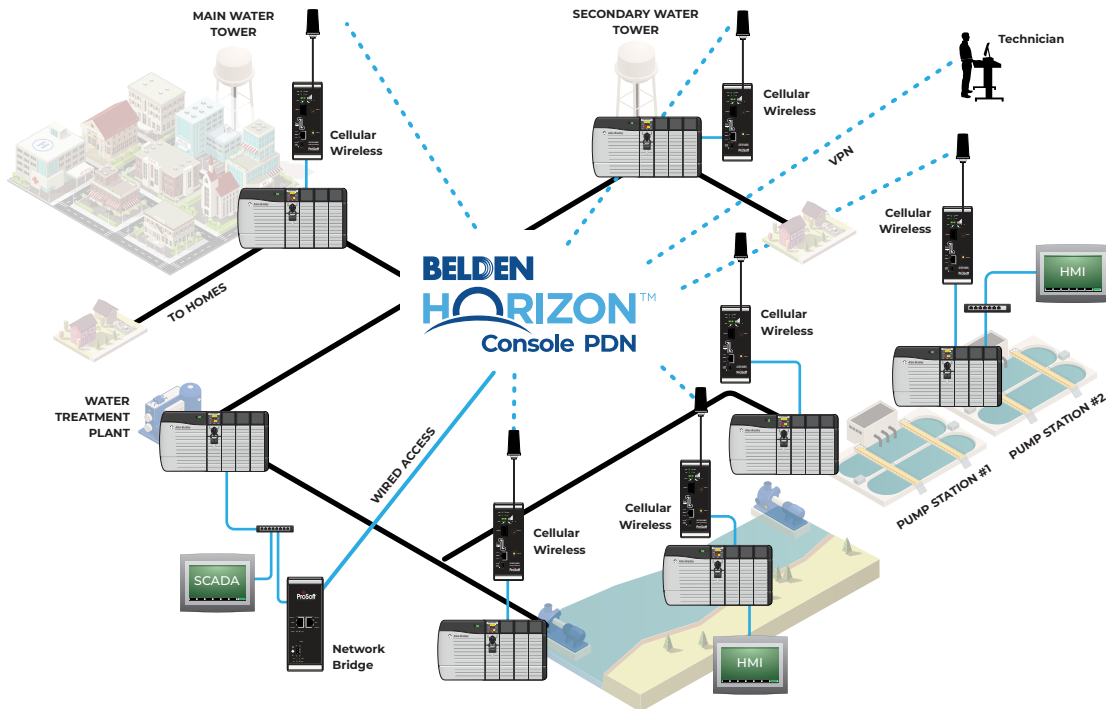
Persistent Data Network

SThe Persistent Data Network (PDN) is a subscription-based simple, secure, and managed remote always-on communications network that allows you to network geographically dispersed sites as if they were sedentary on an office desk! PDN is simple because to create the remote communications network, a user simply has to place the wired or wireless gateways in a project. The Belden Horizon™ Console platform is used to manage the network and the communication devices.

PDN is secure because Belden uses the Defense-In-Depth concept to ensure your data is safe from origin to destination. PDN achieves this by employing a number of security factors including:

- Gateways are activated using two-factor authentication
- Each gateway uses a unique one-time key to establish a tunnel to a local tunnel service
- Tunnels are encrypted using 256-bit AES encryption
- A separate and secure Web Sockets control path maintains communication with gateways
- Regular Pen testing
- Role-based access control
- Detailed activity log of user activity

Belden manages the PDN service. This allows customers to focus on their process and their main activity, which is to ensure the town's water supply and the wastewater network is functioning correctly. There are several key benefits to a customer employing PDN as their remote infrastructure communications network:

- High availability and reliability
- Multiple cell carriers can be used in a single network of wireless gateways
- Low-profile antennas reduce the cost of installation and maintenance
- Towers are installed and maintained by cellular service providers, reducing initial CapEx costs
- The gateways are easy to configure via the built-in web server
- Low-maintenance
- Anytime, anywhere remote access that allows the customer to create an on-demand secure connection to the remote site for diagnostics
- Defense-in-Depth, always-on security

Belden Horizon Console and vLOTO™

The anytime, anywhere remote access of PDN is enhanced with Virtual Lockout-Tagout (vLOTO), which allows authorized plant personnel to control when and how their remote PAC is accessed. The user requests access for a specific period of time, which the authorizer(s) must approve. The authorizer(s) can deny or revoke access at any time. Companies can also access a thorough activity log of permissions, acceptances, and denials to meet security requirements.

PDN and vLOTO are both accessed via Belden Horizon Console. At its core, this is a cloud-native platform designed to help users worldwide monitor and troubleshoot their remote equipment from anywhere they have an Internet connection. It doesn't require software installation, eliminating a common entry point for hackers. Layer 2 networking provides an avenue for secure connections.

Summary

Persistent Data Network is a simple, secure, and managed cloud-based infrastructure communications network that connects geographically dispersed sites. PDN is ideal for many small to medium municipalities that have limited CapEx and OpEx budgets as well limited personnel resources. The simplicity, reliability, and security of the PDN service, along with vLOTO and Belden Horizon Console, allows these municipalities to focus on what is important to them – the process and service to their customers.

Support & Expertise for your Projects

ProSoft provides a variety of resources and services for wireless applications from initial system design to site surveys to launch support and configuration support.

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