



CASE STUDY:

A Major Distributor of Natural Gas Reduces Critical Infrastructure Risks with Xona

THE SITUATION

This Utility is a major distributor of natural gas in North America and serves millions of residential and commercial customers. They have been looking for ways to be more competitive and efficient while also reducing cyber risks to operational safety and availability. Specifically, they needed a lightweight local wireless access solution to replace old paper recording calibration methods. The new method also needed to provide multi-factor authentication and secure access to critical Operations Technology (OT)/Industrial Internet of Things (IIoT) applications at gas distribution “gate stations” without any data in-transit or data-at-rest on endpoint and with strict role-based application visibility and control.

THE CHALLENGE

Current solutions on the market such as token code based Multi-Factor Authentication (MFA), Virtual Desktop Infrastructure (VDI), Virtual Private Networks (VPN) and Application Control with bastion hosts or firewalls required too much physical infrastructure, were too complex and were cost prohibitive for local gate station access to OT/IIoT applications. The solution needed to be simple and flexible enough to provide comprehensive secure access using multiple protocols and Serial-over-IP.

THE SOLUTION

Xona met this Utilities’ stringent efficiency and cyber requirements with its patent-pending Xona platform. Xona combined modern MFA with Yubikeys, encrypted TLS browser based display of VNC, RDP and SSH protocols, application access visibility and control as well as session logging and screen recording into a very lightweight din rail mounted appliance to deliver industrial-strength secure access to these critical infrastructure OT/IIoT applications, including a HMI and pump. In addition, Xona also enabled centralized management and video screen encoding with its Remote Orchestration Access Manager (ROAM) for forensics, predictive analytics and training.

INDUSTRY: UTILITY (Natural Gas Distribution)

Xona Clientless Adaptive Secure Platform Deployment

Medium: 50 sites

Xona key benefits:

- Secure “clientless” browser-based multifactor authentication (MFA) for local authentication at gate station
- Role-based technician to application mapping
- Secure application access with no data at-rest or in-motion
- Full user session logging
- Application screen recording for forensics and training
- Centralized management, visibility and control of gate station application access gateways

THE RESULTS

Reduction of Cyber Risks with Strong Application Access Protection

Local access to Human Machine Interface (HMI) operational technology is protected with strong multi-factor authentication and with no data-at-rest or in-transit.

Increased User Efficiency

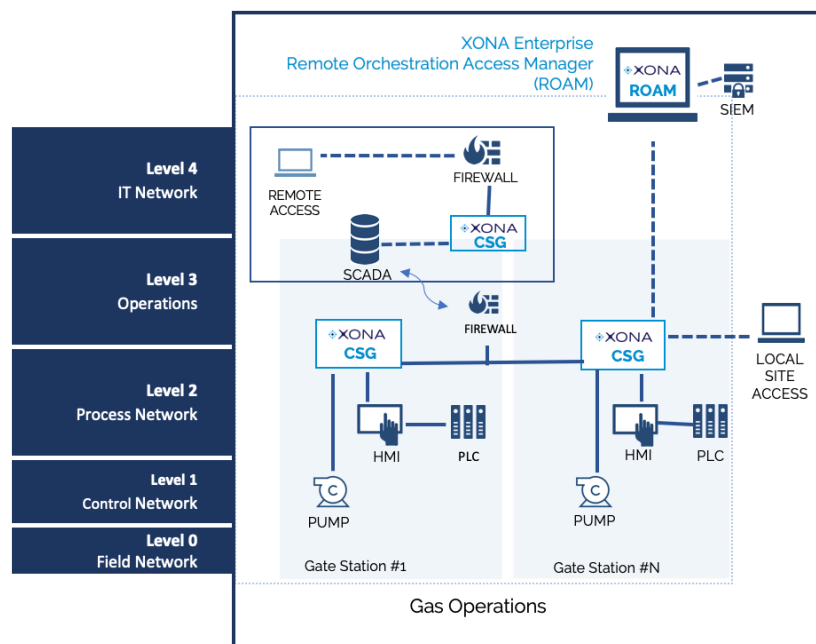
Utility workers and contractors can easily access gate station operational technology from a tablet or laptop using secure clientless multi-factor browser-based authentication.

Reduction in Costs with Simple Deployment and Centralized Management and Control

Utility now has complete visibility and control over local gate station garnering access forensics for both cyber effectiveness and training.

XONA PLATFORM

Architecture with Purdue Model



NOTE: XONA Platform includes ROAM (Enterprise Manager) and CSG (Clientless Secure Gateway)

ABOUT XONA

Xona's secure access platform provides comprehensive secure access from ANY device to ANY application by combining multi-factor authentication, SSL encryption, no data-at-rest or in-motion as well as complete application visibility and control for your most sensitive systems and applications. Xona combines comprehensive secure application access with simplicity and flexibility to meet the most demanding safety and availability requirements within Utilities, Manufacturing and Transportation Industrial Control Systems and Industrial Internet of Things (IIoT).