tosi

The fastest way to connect, protect and control OT networks and critical infrastructure.

Case Study

BREAKING THE SILO IN RETAIL OT

Streamlining, Securing, Saving

EXECUTIVE SUMMARY

Retailers face unique challenges when it comes to managing their operational technology (OT). Multiple systems—from HVAC and lighting to refrigeration and solar (PV) solutions—must work in harmony across hundreds of geographically dispersed locations. Yet too often, each technology stack is treated as a standalone system, driving up costs and complicating both management and security.

In this case study, we describe how one major retail chain addressed these challenges by implementing Tosi—a solution that helped them break free from a siloed approach.

CHALLENGES

A prominent retail customer was struggling to manage a wide variety of OT assets: Controls, HVAC, PV, Refrigeration, Lighting, Network.

Initially, each vendor's technology would have required its own gateway or remote access device. That meant an average cost of $1,000 per gateway—not counting the separate WAN/Internet connections. Given the retailer had to support several technologies at each site, the hardware bill was spiraling out of control.

Moreover, each system needed ongoing maintenance, configuration, and cybersecurity oversight, often managed by different teams or service providers. This siloed arrangement made troubleshooting extremely time-consuming and introduced substantial cybersecurity risks.

CHALLENGE OVERVIEW

1 **Complex Management**
With up to four gateways per site, the company found itself juggling configurations for hundreds of locations—over 600 sites.

2 **Mounting Cybersecurity Risks**
Each additional gateway and its internet connection created more attack surfaces. Monitoring and updating all those endpoints required significant resources.

3 **No Centralized View**
Different departments and service providers handled separate systems, producing data silos and operational blind spots.

SIMPLIFYING AND SECURING RETAIL OT

By deploying Tosi as a unified remote access solution, the retailer replaced multiple gateways at each site with a single, secure gateway—reducing hardware costs by approximately **80%**.

Here's how:

1 **One secure point of access**
Instead of maintaining separate hardware for HVAC, lighting, refrigeration, and more, Tosi enabled the retailer to consolidate them into one secure device, saving roughly $4,000 per site.

2 **Streamlined user management**
The retailer now uses a single platform for login and VPN management. Administrators can quickly assign or revoke access by role, ensuring teams (e.g., lighting, HVAC) only view their relevant systems.

3 **Reduced cyber risk**
With fewer endpoints and strong encryption, the risk of intrusion is minimized. Tosi ensures that only authenticated users can access the network and specific devices they need.

4 **Substantial cost savings**
Across 600 sites, eliminating multiple gateways saved the retailer roughly $1.2 million in hardware alone, not to mention the operational and maintenance savings gained from centralized management.

UNLOCKING CLOUD-BASED SERVICES AT SCALE

After consolidating OT systems into a single secure gateway, the retailer turned its attention to cloud-based energy optimization. Under a traditional approach, connecting a third-party cloud solution would require up to 600 IPsec tunnels—a massive administrative burden that also increases overhead costs and network complexity.

With Tosi, the retailer established a single, secure connection to the cloud service. Every site can seamlessly relay data and receive optimization insights, all while enforcing strict access controls.

Instead of creating and managing hundreds of separate VPN tunnels, Tosi gives the retailer:

- **A unified, centralized interface** for monitoring and controlling energy usage across all 600 sites.

- **Protocol-agnostic integration** that supports vendor devices or protocols, eliminating compatibility issues.

- **Reduced operational costs** by integrating multiple standalone networks into one central, convergent system.

Where the retailer once had siloed OT networks, it now enjoys a convergent environment that enables analytics, AI-driven optimizations, and consistent user experiences. No matter the OEM or technology, Tosi ties everything together under one robust, secure umbrella.

The company's new convergent approach yields significant savings in hardware and operational expenses, all while improving security and enabling next-level services like cloud-based energy optimization.

BENEFITS FOR RETAIL

Faster issue resolution: Teams can diagnose and fix problems from a single dashboard.

Stronger security posture: Centralized access control, combined with Tosi's secure connection management, reduces cyber risk.

Scalable growth: Adding new sites, assets, or services requires minimal infrastructure changes.

Greater business agility: Retailer can quickly add services like third-party analytics or IoT expansions without managing multiple IPsec tunnels or gateways.

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