Success Story

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Segregating IT and OT Networks at Enterprise Scale

Enterprise-Wide Legacy Firewall Replacement Enabling Secure IT/OT Segregation for a Leading Waste & Environmental Services Company



258
Legacy ASA firewalls replaced

5,000+
OT devices brought under centralized visibility

100%
Sites successfully migrated

About Client

The client is a leading North American provider of waste management and environmental services, operating across thousands of locations nationwide. Its growing OT footprint includes more than 5,000 devices that automate, control and monitor field equipment such as pumps, flares, compressors, water-treatment units and material sorters.

To address internal audit findings and align the OT environment with enterprise security standards, the organization launched a program to modernize the network security architecture protecting its OT and field technology estate.

Key Challenges

With **5,000+ OT devices** supporting business-critical field operations, network security modernization could not come at the expense of operational continuity. Yet **258 end-of-support firewalls,** incomplete asset visibility, connectivity gaps and limited maintenance windows were increasing security and operational risk, driving the need for a secure, scalable IT/OT segregation strategy across the enterprise.

Obsolete Firewall Estate
258 legacy Cisco ASA firewalls had reached end-of-support, creating vulnerability and obsolescence risk.

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Constrained Downtime
Business-critical field systems required carefully coordinated maintenance windows.

Continuous Fire Monitoring
FireRover systems had to be failed over to LTE during migration and restored after cutover.

Dedicated IP Constraints for OT Firewalls
ISP aggregators at multiple sites did not provide dedicated public IP addresses for OT firewalls, limiting separate IT and OT network paths and secure network segmentation.

Incomplete OT Asset Visibility
Many sites lacked a validated inventory, requiring device identification and confirmation before migration.

Inter-Building Connectivity Gaps
Missing physical network links between sites required new fiber installations and wireless bridges before network segregation could proceed.

Enterprise-Scale Coordination
258 geographically dispersed sites required consistent governance, repeatable execution and minimal disruption.



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Solution

Microland executed a structured five-phase migration framework to replace the legacy firewall estate and establish a secure, segregated OT network architecture while protecting continuous field operations.

PHASE 1



Discovery & OT Asset Identification

- Site contact/vendor-led device list collection
- Cross-validation against OT network subnet data
- Risk and dependency assessment per site
- Established baseline to support phased planning

PHASE 2



Physical Infrastructure Enablement

- Site surveys to identify connectivity gaps
- Wireless bridge deployment between buildings
- Install fiber between the MDF and IDF to provide reliable network connectivity

PHASE 3



Pre-Stage, IP Assignment & Security Approval

- New firewall configurations were built and validated
- Subnet allocation and IP address assignment per device
- Firewall request and provisioning ahead of go-live

PHASE 4



Coordinated Cutover & Firewall Replacement

- Downtime windows negotiated with site operations teams
- Phased, site-by-site cutover execution
- Post-cutover functional and connectivity validation
- Rollback readiness maintained throughout

PHASE 5



Monitoring & Operational Visibility

- Integrated all deployed firewalls with Entuity for unified monitoring across the OT environment.
- Enabled OT asset health and performance monitoring
- Proactive issue detection and support timely intervention
- Transition to operations and support teams

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Business Value Delivered

The program delivered against the success criteria defined at kickoff: firewall replacement, improved visibility, alignment with security standards and successful migration across the complete project scope.

258 of 258

Legacy firewalls replaced

Removed unsupported ASA devices and addressed the obsolescence and exposure risk identified through internal audit.

100%

Sites migrated

Completed the planned enterprise-wide rollout across all 258 sites in scope.

Modernized

Physical infrastructure

Used wireless bridges and new fiber to close building-to-building connectivity gaps and strengthening the overall network architecture

IT / OT

Clear segregation

Created distinct IT and OT network paths to strengthen security and auditability.

Centralized

Health monitoring

Integrated deployed firewalls with Entuity to monitor health, performance, availability and connectivity.

Protected

Operational continuity

Coordinated firewall cutovers within approved OT maintenance windows to minimize disruption and protect continuous field operations.

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Recognized by Global Analysts

Gartner

Leader in Magic Quadrant for Managed Network Services, 2026 (6 times in a row)

Everest Group®

Leader in Everest Group's Network Transformation & Managed Services PEAK Matrix® 2026

AVASANT

Leader in RadarView - Network Managed Services, 2023-2024

ISG

Leader in Provider Lens Study - Networks - Software Defined Solutions and Services, 2024

About Microland

Microland is a leading AI-first, platform-led technology infrastructure services company. We have enabled enterprises to build intelligent, resilient and future-ready operations and are a trusted partner to global enterprises. We bring over 35 years of expertise in digital networks, cloud, data centers, workplaces and cybersecurity, combined with customer centricity, delivery excellence and continuous innovation.

Our operations in more than 100 countries are supported by a strong global delivery model and our AIOps platform, intelligeni, powered by Agentic AI, which is shaping the future of autonomous technology operations across enterprises.

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