Modernizing a Multi-Site Manufacturing Network with Zero Downtime

Case Study: A four-location network upgrade completed with zero unscheduled downtime

Overview

Client: Crescent Brands, a multi-location manufacturing and distribution company with facilities in two states, including a 280,000-square-foot warehouse and corporate office.

Objective: Upgrade and modernize network infrastructure across four locations without disrupting production.

Challenge

Crescent Brands faced significant risks due to outdated network hardware:

- End-of-life legacy firewalls, switches, and wireless access points
- No available security patches or firmware updates
- Increased risk of failure and downtime
- Inconsistent wireless coverage and performance issues
- Limited scalability for future growth

The modernization needed to be executed across four dispersed locations with zero network downtime or production interruption.

Before Modernization

- Aging, unsupported firewalls
- Unstable wireless coverage
- No vendor security patches
- Multi-site inconsistency

After Modernization

- Next-gen firewalls + active patching
- Seamless enterprise Wi-Fi
- Standardized multi-site architecture
- Strengthened security posture

Solution

Prescient Solutions implemented a zero-downtime network modernization plan:

- Replaced every firewall, switch, and wireless access point across all locations.

- Standardized architecture for consistent performance and centralized management.
- Implemented redundant and secure connectivity between sites.
- Leveraged preconfigured hardware and overnight cutovers to avoid disruption.

The complex upgrade of the 280,000 sq. ft. warehouse and office was completed in a single weekend with no production interruptions.

Results

- **Zero Operational Downtime**: All upgrades completed within scheduled maintenance windows without disrupting manufacturing or warehouse workflows.
- **100% Hardware Refresh**: Next-generation firewalls, new switching infrastructure, and enterprise-grade wireless coverage.
- **Stronger Security Posture**: Fully supported devices with active vendor patching and reduced cybersecurity risks.
- **Standardized Multi-Site Management**: Centralized monitoring, faster troubleshooting, and a scalable foundation for future growth.

Business Impact

Post-modernization, Crescent Brands benefited from:

- Faster, more stable connectivity across all departments.
- Improved wireless coverage throughout warehouse and office spaces.
- Reduced network interruptions and fewer end-user issues.
- Greater visibility and control over multi-site environments.
- A secure, future-ready platform for continued growth.

Conclusion

Prescient Solutions successfully modernized Crescent Brands' entire network environment without any production downtime, providing a secure, high-performance network that supports warehouse logistics, manufacturing systems, and corporate operations with confidence.