BLACK BOX

CASE STUDY
ENTERPRISE NETWORKING

Cementing Always-On Operations with a Future-Ready Enterprise Network

Overview

A leading Indian cement manufacturer operates a distributed network of manufacturing plants and corporate offices across the country. Reliable connectivity across these locations is essential for supporting critical applications, employee productivity, and day-to-day business operations.

The company's aging network infrastructure was increasingly difficult to maintain and no longer provided the performance, reliability, and scalability required by the business. It partnered with Black Box to modernize its network across more than 14 factory and office locations and establish a resilient foundation for continued growth.

Challenges

The customer's plants and offices were operating on aging, end-of-life network infrastructure. The legacy environment resulted in recurring downtime, inconsistent network performance, and disruptions to critical applications and services.

Limited visibility also made it difficult for the IT team to identify and resolve issues quickly. The lack of scalability and continued OEM support further increased operational risk and restricted the company's ability to support evolving business and technology requirements.

The customer needed a comprehensive network modernization program that could improve reliability, reduce downtime, simplify management, and support future digital initiatives.

AT A GLANCE

CHALLENGES

- Aging, end-of-life network infrastructure
- Recurring downtime across plants and offices
- Inconsistent application and network performance
- Limited scalability, visibility, and OEM support

SOLUTIONS

- Modernized networks across 14+ locations
- Deployed high-performance Juniper switches
- Improved network reliability and manageability
- Established a scalable architecture for future growth

RESULTS

- Reduced unplanned downtime and service disruptions
- Improved network stability and application responsiveness
- Enabled faster troubleshooting and proactive monitoring
- Created a future-ready foundation for digital initiatives

BENEFITS

- More reliable plant and office operations
- Improved productivity and user experience
- Faster identification and resolution of issues
- Reduced risk from obsolete infrastructure
- Greater readiness for expansion and automation

Solutions

Black Box designed and implemented a network modernization solution across more than 14 manufacturing and office locations.

The engagement included technical consultation, network design, topology planning, solution architecture, implementation, and deployment support. High-performance Juniper switching solutions replaced obsolete infrastructure, improving network stability, application performance, and overall reliability.

The new architecture also enhanced network visibility and manageability, enabling the customer's IT team to monitor performance more effectively and troubleshoot issues faster.

Black Box established a scalable, standards-based network foundation capable of supporting future expansion, digital transformation programs, and advanced automation.

Results

The modernization significantly reduced unplanned downtime and network-related service disruptions across the customer's plants and offices. Improved network stability and application responsiveness supported smoother operations and a better experience for employees using critical business systems.

The IT team gained greater visibility into the network environment, enabling faster troubleshooting and more proactive monitoring. Replacing end-of-life infrastructure also reduced operational risk and created a more stable and supportable technology environment.

The scalable architecture now provides the customer with a strong foundation for business expansion, increased application demand, digital initiatives, and emerging technology requirements.

Why Black Box?

The customer selected Black Box for its expertise in designing and deploying complex, multi-site enterprise network infrastructure.

Black Box managed the engagement end to end, combining consultation, architecture, network planning, implementation, and deployment support. This integrated approach enabled the delivery of a resilient, high-availability network aligned with the operational requirements of the customer's distributed manufacturing environment.