

Optimizing Network Performance for a Leading Healthcare Enterprise

Overview

Black Box successfully re-engaged with the India headquarters of a leading global healthcare enterprise after a period of dormancy. Entrusted with a high-stakes Wi-Fi and LAN infrastructure refresh at the Pune facility, the team delivered a seamless and timely network upgrade, demonstrating exceptional project management and deep technical proficiency. This initiative not only reinstated confidence in the partnership but also positioned Black Box as a strategic ally for future IT infrastructure initiatives, empowering the healthcare organization to drive greater operational excellence.

Challenges

Executing a seamless network refresh at a prominent headquarters involved navigating several complex challenges:

- **Compressed Timelines:** Delays in the delivery of essential power cords posed immediate constraints to the installation schedule.
- **Cross-Vendor Dependencies:** Last-minute modifications from AV and CCTV teams demanded agile adjustments to cabling plans and execution.
- **Advanced Network Configuration:** Ensuring accurate VLAN segmentation, robust security protocols, and optimized QoS parameters was critical for delivering a secure and high-performing environment.
- **Stringent Quality Control:** Faulty data inserts were swiftly identified and replaced to ensure consistent network reliability and uptime.

AT A GLANCE

CHALLENGES

- Strict timelines due to power cord production delays
- Third-party coordination for last-minute AV & CCTV changes
- Network configuration issues with VLAN, security, and QoS
- Requirement of Quality assurance for faulty data inserts
- Cabling constraints affecting installation efficiency

SOLUTIONS

- Structured project management with weekly client updates
- Fast-tracked equipment procurement via WESCO partnership
- Optimized network deployment with Aruba, VeloCloud, and Uplogix
- Upgraded cabling with high-performance CAT6A and CAT6 solutions
- Agile response to last-minute infrastructure changes
- Comprehensive testing for seamless cutover and security

RESULTS

- Restored client trust, positioning Black Box as a preferred partner
- Secured global support contract for 100+ office locations
- Expanded footprint with a \$500K project in Norway
- Optimized connectivity, enhancing operational efficiency

BENEFITS

- Reliable, scalable IT infrastructure for long-term success
- Future-ready network solutions supporting global expansion
- Seamless integration for enhanced security and performance
- Proven expertise in driving innovation and efficiency

Solutions

To address the multifaceted challenges and ensure a successful network transformation, Black Box executed a meticulously planned and expertly delivered solution:

- **Strategic Project Management:** Maintained consistent alignment with client stakeholders through structured weekly progress updates, ensuring transparency, accountability, and smooth execution.
- **Accelerated Equipment Fulfillment:** Collaborated with WESCO to fast-track the procurement and delivery of critical networking components, minimizing project delays.
- **Sophisticated Network Infrastructure Deployment:** Deployed and configured Aruba switches, access points, VeloCloud SD-WAN devices, and Uplogix appliances. The network architecture was optimized through precise VLAN segmentation, robust security configurations, and QoS tuning. A detailed site survey guided infrastructure readiness and deployment strategy.
- **High-Performance Cabling & Connectivity:** Installed premium-grade cabling, including Category 6A plenum UTP for 30 wireless access points and Category 6 plenum UTP for 100 newly established office locations. The installation included 105 faceplates and 250 RJ45 data inserts. Legacy copper patch cables were replaced, and (8) four-set vertical PDUs were integrated into four MDF racks to enhance power distribution.
- **Responsive Change Management:** Seamlessly accommodated last-minute cabling modifications to support additional AV and CCTV requirements through agile change order processes.
- **Rigorous Testing & Quality Validation:** Performed comprehensive Fluke testing to validate cabling performance, ensured accurate VLAN device mapping for a streamlined cutover, and established secure, resilient connectivity between on-premises infrastructure and cloud-based platforms.



Results

The successful execution of the project resulted in several key achievements:

- **Restored Client Confidence:** Black Box's flawless execution led to renewed trust, positioning the company as a preferred global partner.
- **Ongoing Global Support:** Secured a Day-2 support contract covering over 100 office locations worldwide for continued IT hardware and cable upgrades.
- **Expansion into Europe:** Following this success, Black Box won a major \$500K project in Norway and is set to execute multiple Wi-Fi and LAN refresh initiatives across Europe.
- **Enhanced Operational Efficiency:** The optimized network infrastructure ensures seamless connectivity and an improved user experience for corporate employees and stakeholders.

Why Black Box?

Through precise planning, expert execution, and agile problem-solving, Black Box successfully delivered a critical Wi-Fi and LAN refresh for the corporate headquarters. This renewed partnership has strengthened client confidence and paved the way for expanded global collaborations, reinforcing Black Box's position as a trusted leader in enterprise network solutions.

Black Box® is a trusted IT solutions provider delivering cutting-edge technology products and world-class consulting services to businesses across the globe in every industry. The breadth of our global reach and depth of our expertise accelerate customer success by bringing people, ideas, and technology together to solve real-world business problems.