

Black Box Simplifies Construction-to-Production for Semiconductor Giant

Overview

A leading global semiconductor company required a consistent, high-performance infrastructure to support its expanding footprint across the United States. However, existing vendors lacked the expertise to operate in complex, mission-critical environments. To scale rapidly without disrupting operations, the company partnered with Black Box®. Over a decade-long collaboration, Black Box has deployed embedded teams, implemented standardized processes, and provided comprehensive end-to-end support, ensuring seamless transitions from construction to production and enabling sustainable, long-term growth.

Challenges

As the company accelerated its expansion, underlying inefficiencies in infrastructure operations began to surface. Service quality was inconsistent across sites, and the reliance on multiple vendors made it difficult to maintain uniform standards and accountability. The organization required more than conventional vendors; it needed a strategic partner with the technical expertise to operate seamlessly across diverse environments, from fabrication facilities to data centers. The most critical challenge lay in achieving a smooth transition from construction to a fully operational, production-ready state, a goal that remained elusive in the absence of expert, consistent support.

AT A GLANCE

CHALLENGES

- Inconsistent service quality across multiple locations
- Difficulty transitioning from construction to operations
- Need for a skilled, versatile infrastructure partner

SOLUTIONS

- On-site and on-demand Black Box teams at major campuses
- End-to-end support for labs, offices, clean rooms, and data centers
- 24x7 support team exceeding SLAs

RESULTS

- 187 on-time, on-budget projects in 2024
- 42,000 devices managed with consistent standards
- Scalable support minimizing downtime

BENEFITS

- Smooth transitions from build to production
- Trusted partner, enabling growth and innovation
- Standardized, high-quality service delivery across sites



Solutions

Black Box delivered a comprehensive, hands-on solution tailored to the client's evolving infrastructure needs. Full-time personnel were deployed across key campuses, supported by agile regional teams to ensure responsive and scalable service delivery. From the design and installation of DAS, ISP, OSP, and data center systems to ongoing maintenance and support, Black Box managed the entire infrastructure lifecycle. By working in close coordination with construction teams, they ensured precise installation and seamless transitions into production environments. A dedicated 24/7 support team was rapidly established, consistently meeting and surpassing SLA requirements while proactively mitigating potential issues. With managed services providing centralized oversight, the client achieved streamlined operations, enhanced performance, and dependable service continuity.

Results

The engagement with Black Box marked a pivotal turning point in the client's operational journey. Historically, Black Box had managed over 42,000 network devices across the U.S. under a unified managed services framework, finally delivering the consistency and centralized control the client had long sought. In 2024 alone, Black Box successfully executed 187 projects, each delivered on schedule and within budget. Persistent downtime, once a major challenge, was dramatically reduced, thanks to a highly responsive 24/7 support team that consistently outperformed expectations. Most notably, the previously complex and unpredictable transition from construction to full-scale operations was transformed into a streamlined, repeatable process. This operational clarity enabled the client to accelerate execution, mitigate risk, and focus on their core priority: scaling innovation.

Why Black Box?

This decade-long partnership transformed how one of the world's top semiconductor manufacturers approaches digital infrastructure. From managing construction site chaos to maintaining pristine data centers conditions, Black Box delivered continuous support, embedded expertise, and scalable solutions that have become essential to the client's growth. The result is a resilient, future-ready infrastructure foundation that supports not just operations, but innovation, continuity, and competitive edge in a fast-moving industry.

Let's secure the future. Contact@blackbox.com or visit **BLACKBOX.COM**. Learn more about Black Box's semiconductor solutions here (<https://www.blackbox.com/campaigns/elevate-your-semiconductor-operations/>)

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