

LANTRONIX®

INDUSTRY: IT / Data Centers

Powering Resilient AI Infrastructure with Lantronix SLC 8000



SLC™ 8000

Success Highlights

- Centralized out-of-band access to all GPUaaS rack components
- Reduced deployment time and operational costs
- Improved uptime with proven network resilience
- Enhanced security across distributed environments
- USB and serial port flexibility for vendor-neutral connectivity
- Fewer on-site visits through reliable remote management

Overview

A leading provider of on-premises GPU-as-a-Service (GPUaaS) platforms turned to **Lantronix** and its **SLC™ 8000 advanced console manager** to deliver secure, scalable, and resilient out-of-band (OOB) access to its AI infrastructure.

These custom-built GPUaaS platforms—deployed in data centers and edge environments—support scalable AI training, real-time inference, and predictive analytics. With 20+ interdependent devices per rack, the provider required centralized and secure remote management to ensure uptime, simplify maintenance, and streamline deployments. The **Lantronix SLC 8000** delivered all of this and more.

Challenge

Ensure Secure and Reliable OOB Access to Distributed GPUaaS Infrastructure

With growing demand for edge and data center AI processing, the GPUaaS provider needed a dependable way to perform system bring-up, firmware upgrades, and ongoing maintenance across distributed installations.

Key requirements included:

- Enterprise-grade security
- Centralized, vendor-neutral console management
- Proven reliability in high-density, mission-critical environments

Solution

Lantronix SLC 8000: Console Management for AI-Ready Infrastructure

The manufacturer selected the **Lantronix SLC 8000** for its unmatched flexibility, reliability, and modular design. The solution enables secure out-of-band management of all rack components—including switches, servers, power units, and proprietary hardware—via serial, USB, and Ethernet connections.

Chosen by the rack architecture team, the SLC 8000 offered:

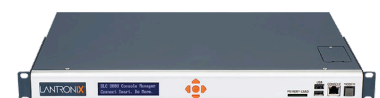
- Enterprise scalability
- Robust remote access even during network outages
- Secure, role-based authentication
- Full compatibility with diverse device types and interfaces



Key Benefits of the Lantronix SLC 8000 Console Manager

The **Lantronix SLC™ 8000** delivered robust functionality that met the GPUaaS provider's operational, security, and scalability needs. Designed for high-performance infrastructure, it provides reliable remote management that scales effortlessly as deployments grow.

- **Cost-Effective Scalability** - Modular, swappable I/O cards support RJ45, USB, and Ethernet interfaces—giving the customer flexibility to adapt to evolving rack configurations without costly hardware replacements.
- **Vendor-Neutral Console Access** - Universal support for serial (RS-232), USB, and Ethernet console connections ensures seamless integration with switches, routers, servers, PDUs, UPSs, and proprietary GPUaaS components.
- **Enterprise-Grade Security** - Built-in security features include user authentication, role-based access controls, encrypted protocols, and audit logging—ensuring secure remote access from the core to the edge.
- **Centralized Intelligence & Visibility** - Integration with **Lantronix Perception™ for Networking** provides centralized monitoring, automated alerting, and remote control across all connected devices, enabling proactive infrastructure management from anywhere.



“The SLC 8000 allows our teams to remotely manage and troubleshoot complex GPUaaS environments with confidence, helping us deliver uninterrupted AI services at scale.”

– Network Rack Architect
Leading Manufacturer of Onsite GPUaaS

Results: Reliable Out-of-Band Management for Mission-Critical GPUaaS Deployments

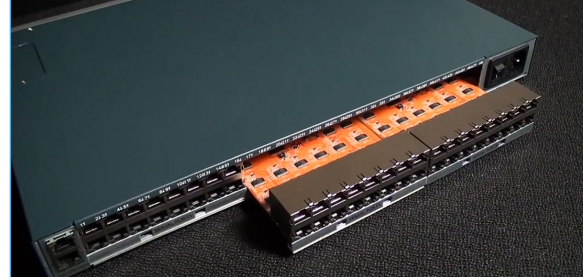
The **Lantronix SLC™ 8000** has become a foundational component in the management architecture of the GPUaaS provider's platform, which includes up to 20 tightly integrated devices per rack—ranging from high-bandwidth access switches and managed power systems to proprietary compute modules.

Deployed at the top of each rack, the SLC 8000 **provides comprehensive out-of-band (OOB) access** to every IT device—even during system outages or network failures. This ensures that system bring-up, initial configuration, and ongoing maintenance can be handled securely and remotely, without requiring on-site intervention.

With 24/7 accessibility and built-in resilience, the SLC 8000 enables the provider's technical teams to:

- Perform rapid remote diagnostics
- Push updates and firmware to edge-deployed infrastructure
- Restore services faster in the event of failures
- Deliver consistent technical support across geographically distributed sites

The result: **greater uptime, lower operational costs, and a scalable foundation for AI services at the edge and in the data center.**



Key Capabilities of the Lantronix SLC 8000

- **Modular Design** for scalable deployment and easy port expansion
- **Out-of-Band Access** to network, server, and power equipment—even during network outages
- **High-Density USB Support** for managing large-scale, vendor-diverse GPU and compute platforms
- **Enterprise Security** with role-based access, encryption, and remote logging
- **Remote Automation** via CLI, APIs, and integration with Lantronix's PercepXion™ platform

Whether deployed in centralized data centers or edge AI sites, the SLC 8000 helps IT teams maintain **business continuity, reduce operational overhead, and respond to incidents faster**—even in lights-out environments.

About Lantronix

Lantronix Inc. (NASDAQ: LTRX) is a global provider of secure compute and connectivity solutions for **Edge AI, IoT, and out-of-band infrastructure management**. Serving high-growth sectors including **Smart Cities, Enterprise IT, Transportation, and Industrial Automation**, Lantronix delivers customizable solutions that span every layer of the IoT and edge infrastructure stack—from device to cloud.

With a commitment to innovation, reliability, and customer success, Lantronix empowers organizations to manage and scale critical infrastructure with confidence.

About GPU-as-a-Service (GPUaaS)

As demand for AI, machine learning, and real-time data analytics accelerates, organizations are increasingly adopting **on-site GPU-as-a-Service (GPUaaS)** to rapidly expand their high-performance computing capabilities. These scalable, turnkey solutions offer the flexibility and performance needed to support AI training, inferencing, and data processing workloads—without the delays or limitations of traditional infrastructure expansion.

According to recent market research, the global GPUaaS market is **expected to surge from \$8.2 billion in 2025 to \$26.6 billion by 2030**, representing a compound annual growth rate (CAGR) of **26.5%**. As enterprises race to deploy AI at scale, solutions like **Lantronix's SLC 8000** play a vital role in maintaining the uptime, security, and manageability of these next-generation platforms.

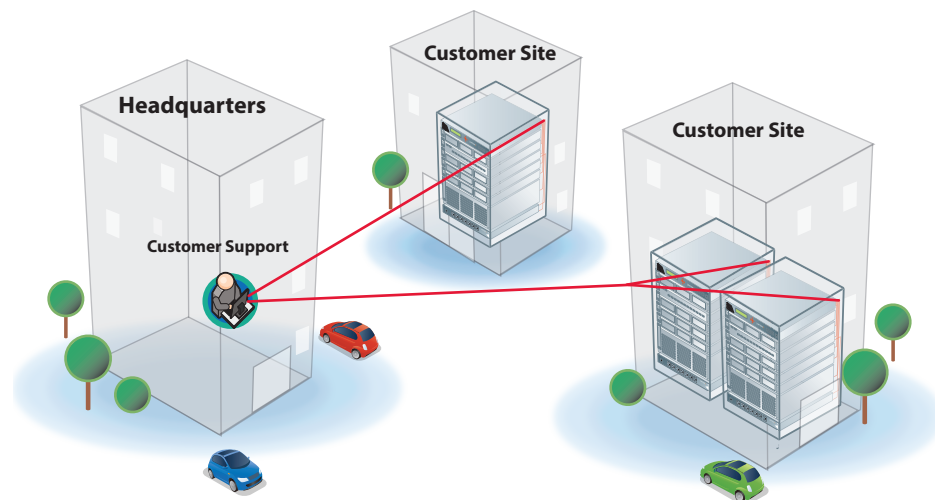
“The SLC 8000 has become a cornerstone of resilient infrastructure for our customers—delivering continuous access, faster recovery, and trusted performance at scale.”

– Todd Rychecky
GM, Out-of-Band Management, Lantronix

SLC 8000: Advanced Out-of-Band Management for High-Density AI Infrastructure

The **Lantronix SLC™ 8000** is a modular, enterprise-grade console manager that provides **secure, out-of-band** access to IT equipment via **RS-232, USB, and optional Ethernet console connections**. Built for high-density environments, it is the **only solution on the market that supports up to 48 high-density USB console ports**, making it ideal for managing diverse infrastructure in complex GPUaaS deployments.

With full compatibility across multiple vendors' USB and serial interfaces, the SLC 8000 delivers the flexibility required for today's multi-vendor, AI-ready architectures.



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Learn more:
[Lantronix SLC 8000 Product Page](#)