SLC™ 8000

TEST LAB APPROVED!
Advanced Modular Console Manager

ADVANCE CONSOLE MANAGER FOR THE DEMANDS OF TODAY'S TEST & DEVELOPMENT ENVIRONMENTS

LANTRONIX® ConsoleFlow™

With engineering resources often spread between multiple locations, the combined solution of hardware and centralized and automated monitoring management software can provide an efficient and cost-effective means for development teams to collaborate and test new products.

Scalable Connectivity and Modular Design

Today's test lab environment has moved far from simple serial based solutions to include newer devices that offer only USB console ports. T&D labs need to be capable of handling multiple existing remote locations and accommodating rapid expansion to support additional locations and engineering teams. Each Lantronix® SLC™ 8000 advanced console manager comes with a modular chassis that is expandable up to 48 ports. Most other console server solutions providers still only offer serial connectivity and address USB connectivity requirements with clunky adapters that insert potentially crippling points of failure to the critical part of infrastructure management schema.

With support for both serial and the next-generation high density USB equipment, the SLC 8000 console manager allows administrators to connect to the latest networking equipment and to bridge the gap between legacy and new infrastructure solutions. **The SLC 8000 is the only console manager on the market today with the ability to build or upgrade your own solution with user-swappable USB and RS-232 modules.** This helps busy lab managers to deploy modular infrastructure management solution by simply adding an I/O module to support new devices and reduce time for set up and configuration.

High Bandwidth and Performance

Horsepower is always a concern, and console managers should never be a bottleneck. T&D lab managers need a console manager that can run at full bandwidth on every port concurrently without over-subscription. With the ability to handle up to 15 users per port and support up to 396 concurrent sessions, the SLC 8000 advanced console manager delivers double the bandwidth of other console managers in the marketplace today.

Key Requirements of T&D Labs

- In-band communications
- Out-of-band management communications
- Remote reboot/restart of failed infrastructure
- Flexible and multi-tiered access control
- Auditable logging for global and local teams
- Port/event specific triggers integrated with power management and load balancing

Build Any Combination Up To 48 Managed Console Ports

1. Pick a Baseline Configuration

8 Port RS-232 OR 16 Port RS-232 OR 16 Port USB

2. Add up to Two Modules

16 Port RS-232 OR 16 Port USB

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Robust and Flexible Infrastructure

A T&D lab typically runs 24/7 thus requiring a robust and flexible environment that allows for testing both typical and extreme product deployment and usage scenarios. T&D labs are often used by organizations to deliberately "break" things to see how their products, services and applications will recover under typical and extreme situations and assist in ensuring that the finished products deliver the desired end-user experience.

For IT managers and quality assurance (QA) engineers responsible for building and maintaining these environments, an advanced console manager is often a must have to help manage critical infrastructure resources that form the backbone of the T&D lab. The SLC 8000 advanced console manager's out-of-band remote management allows busy lab managers to quickly connect (and reboot) - from anywhere and anytime.

Fast Deployment, Policy Setting, and Management

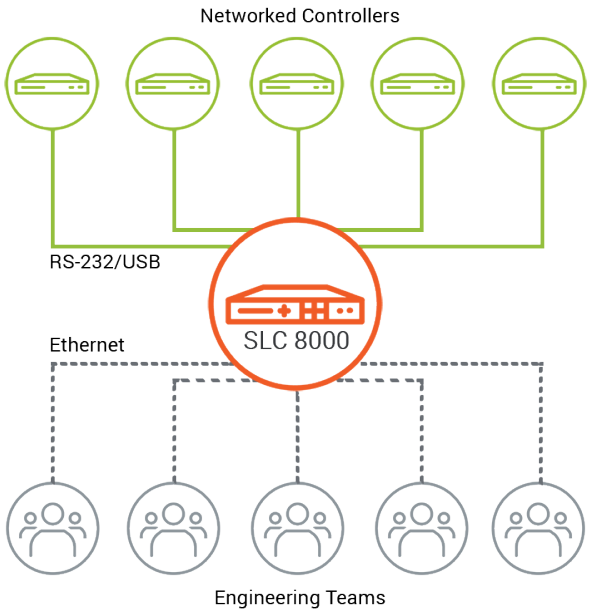
The SLC 8000 advanced console manager's easy to use management tool enables administrators to speed up deployment. Context sensitive help menus and an intuitive user interface assist administrators to quickly make configuration changes, establish access levels and policies, and manage T&D lab resources.

Compatibility With a Wide Range of IT Infrastructure Solutions

In addition to supporting Cisco, Juniper, HPE, F5, Arista and other leading manufacturers' USB and serial switches and routers, the SLC 8000 advanced console manager supports 140+ PDU vendors and other leading IT infrastructure equipment manufacturers.

Benefits to the Lab Manager

- Makes it easier to deploy new configurations
- Allows for administration across multiple levels of users (basic, expert, admin)
- Provides secure access to shared resources for geographically dispersed development teams



Key Benefits of Deploying the SLC 8000 Advanced Console Manager in the Test and Development Lab

- Reduce test case deployment times - The SLC 8000 advanced console manager's easy to use GUI and CLI and the Lantronix ConsoleFlow™ centralized management tool help administrators and lab managers reduce the time required to deploy new test configurations and access rights, accelerating deployment of test environments from anywhere and at anytime.
- Ability to upgrade and adapt to diverse test scenarios - Mix and match USB and serial port modules allow T&D managers to leverage both legacy and new infrastructure systems while minimizing capital expenditures.
- Accelerate test cases with open, multi-vendor management - The SLC 8000 has the ability to manage and interface with many vendors products to automatically restart third party equipment to ensure recovery from testing failure through the Lantronix ConsoleFlow.
- Improve time to market and product quality - Audit level logging provides the data required for rapid analysis to find root causes of failures and deliver higher quality products.

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The SLC 8000 Advanced Console Manager Supports Test and Development Lab Requirements

Test and Development Lab Requirement	SLC 8000 Advanced Console Manager
24/7 Access Support	✓
In-band Communications	✓
Out-of-band Communications	✓
Legacy and Next-Generation IT Infrastructure Equipment Support	✓
Scalable Performance	✓
Ability to Do Rapid and Remote Deployment of New Configurations	✓
Environmental Testing Support	✓
Supports Continuous Software Changes	✓
Supports New Hardware Development	✓
Maximum Workload Stress (Max # of Concurrent Sessions at Full Line Rate)	396 per SLC 8000, 15 users per port
DUT Software Fault Injection Support	✓
PDU & UPS Power Management	✓
Load Balancing	✓
Agency Testing	✓
Enables Daily Restarts of DUTs	✓
Detailed Logging of All Errors and Anomalies	✓

Lantronix SLC 8000

Advanced Modular Console Manager

Features and Specifications

Device Access

- In-Band (10/100/1000 Base – Ethernet) 2 GbE (10/100/1000BT) ports on RJ45 or 2 SFP Fiber/Copper port
- Out-of-Band (Local terminal, internal modem, external gateway)

Security and Authentication

- Enterprise-grade security
- Secure Shell (v2)
- Secure Sockets Layer (TLS v1, v1.1, v1.2, v1.3)
- Packet filtering (firewall)
- Per port user permissions
- Configurable user/group rights
- Remote authentication: LDAP, RADIUS, Kerberos, TACACS+, AD, NIS
- Local username/password
- NIST-certified implementation of AES (Advanced Encryption Standards) as specified by FIPS-197
- FIPS 140-2 compliant cryptography (Certificate #1878)

Serial Device Port Access

- Software programmable device ports
- Telnet/SSH to SLC command line
- Telnet/SSH/RAW-TCP direct to IP address and port number
- HTML5 support for Java-free web based WebSSH/WebTelnet remote access to console ports
- Multiple Telnet/SSH sessions
- Simultaneous access on the same port
- No inadvertent "breaks" - Sun break-safe
- Customizable multi-level user menus
- USB modem access
- Automatic port-initiated connections to network host or neighboring port
- Enable terminal login on any device port
- SD card and USB

Data Capture and Notification

- Port buffering—256 KB per port
- Port logging to local files, syslog, USB thumb drive, SD card, and NFS share
- NFS files (simultaneous)
- System event logs
- Console event notification via email
- Event string recognition (RegExp)

Management

- Front panel keypad and LCD display for network setup
- Quick setup and configuration web interface (SSL)
- CLI setup script
- CLI (Telnet, SSH, Web Telnet/SSH or direct serial)
- SNMP (MIB II) compatible—v1, v2, v3, custom MIBs
- Integrates with the Lantronix SLP™ remote power management tool and Server Technology PDU
- Integrated support for Sensorsoft devices
- Diagnostics and port status counters
  - Performance monitoring utility
  - Packet generation utility
  - Network trace utility
  - Configuration audit log
- Active user list display, port monitoring and timeout
- Local subnet search for other Lantronix console solutions
- Maximum of 396 concurrent sessions and maximum 15 users per device port at 9600 baud rate (typical)

Additional Protocols Supported

- DHCP and BOOTP for dynamic IP address assignment
- NTP for time synchronization
- FTP, TFTP, SFTP, SCP client for file transfers
- DNS for text-to-IP address name resolution
- SSH, SSL, Telnet and UDP, PPP with PAP/CHAP, NFS and CIFS for connections in and out of the SLC
- IPsec/VPN
- RIP and RIPv2
- IPv6 Ready Certified

Interfaces

- Front Panel: USB Host port, SD/SDHC slot, POTS (RJ11) modem, RS-232 console
- Back Panel: Dual Gb Ethernet or Dual Gb fiber SFP ports; RS-232 (RJ45) 300 to 230400 bps or USB in 16, 32, 48 ports

Environmental Sensors Support

- Plug and go connectivity support for sensors and accessories used to measure/detect temperature, humidity, power availability and dry-contact closures

Power

- AC model input (single/dual): 100-240 VAC, 50 to 60 Hz
- DC model input (dual): -20 to –72 VDC
- Power consumption: Less than 30W

Central Management

- Compatible with the Lantronix ConsoleFlow™ central management software

Environmental

- Operating: 0 to 50˚ C (32 to 122˚ F), 30 to 90%RH, non-condensing
- Storage: -20 to 80˚ C (-4 to 176˚ F), 10 to 90%RH, non-condensing
- Heat flow rate: 68 BTU per hour

Physical

- Front-mid-rear mounting brackets
- Dimensions (L x W x H): 30.5 x 43.8 x 4.4 cm (12 x 17.25 x 1.75 in), 1U
- Weight: 11.1 lbs. maximum, depending on option
- Shipping weight: 15.1 lbs. maximum, depending on option

Warranty

- 3 year limited warranty (extended warranty and support options available)

Certifications

- FIPS 140-2
- FCC, CE, VCCI, UL/CUL, RCM, CB Scheme, KC*, CCC*, IPv6 ready Certified

* KC and CCC for select models only. Ask your regional Lantronix sales associate for details.

Part Numbers

Ports	SLC 8000 Part #	Description
16	SLC81161201S	16 Ports USB, Single AC Supply (North American power cord included; Regional power cords sold separately)
	SLC81162211S	16 Port Serial USB 16-Port, Dual SFP, Dual AC PSU
	SLC81162411S	16 Port Serial USB 16-Port, Dual SFP, Dual DC PSU
	SLC82322201S	RJ45 16-Port, USB 16-Port, AC-Dual Supply
	SLC81162201S	USB 16-Port, AC-Dual Supply
	SLC81161211S	16 Ports USB, Single AC Supply, SFP
32	SLC82321201S	RJ45 16-Port, USB 16-Port, AC-Single Supply (110V AC North American power cord included; Regional power cords are sold separately)
	SLC81322201S	USB 32-Port, AC-Dual Supply
48	SLC81482201S	USB 48-Port, AC-Dual Supply
		Field Replaceable Modules
16	FRRJ451601	16 Device Port RJ45 I/O Module
	FRUSB1601	16 Device Port USB I/O Module
	FR1ACPS01	100-240 VAC, Single Power Supply Module
	FR2ACPS01	100-240 VAC, Dual Power Supply Module

Accessories

		Compatible Accessories
	930-077-R	Power Cord, Israel, 250VAC 10A, 8FT, ROHS
	930-075-R	Power Cord, UK, 250VAC 10A, 8FT, ROHS
	930-074-R	Power Cord, European 250VAC 10A, 8FT, ROHS
		Secondary Connectivity Accessories
	CCKLTE450-NA	LTE Connectivity Kit - North America
	CCKLTE450-EA	LTE Connectivity Kit - Europe / Asia
	PXC2102H2-01-S	3.5G Cellular Out-of-Band Connectivity Intelligent Gateway (Wireless data plan sold separately)
	56KINTMODEM-01	56K v.92 Internal Modem for Dial-Up Out-of-Band Connection

Additional accessories are available (i.e. SFP) please check our website for the full list.

Ordering Information

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