

SERIMUX CONSOLE SWITCH

Securely control up to 32 RS232 devices via the Internet



SERIMUX-SECURE-16 (Front and Back)

Features & Applications

The SERIMUX® SECURE SSH Console Switch delivers secure management of up to 32 serial devices via Ethernet, LAN or dial-up modem connections. It combines the advanced security of Secure Shell v2 with unlimited access to remote network management, providing optimum system performance and availability.

Enhanced WebUI (User Interface) provides an easy-to-use way for system administrators to find the information they need quickly. It provides visibility to all ports on one screen, with point and click capability.

- Securely and intelligently monitor and control multiple RS232 network devices.
- Provides remote control of servers, switches, routers, LAN/WAN components, power supplies and PBXs through a single interface.
- Powerful diagnostic and event management features (data capture, notification and scripting) assist in the quick location of the source of equipment failures, and minimize network downtime.
- Provides fast access—even when the network is down or the operating system locks up.
 - In-band management of network devices over wired/wireless LAN.
 - Out-of-band management via dial-in access. Supports Dynamic DNS or PPPoE protocols for broadband network connectivity.
 - PCMCIA slot for enhanced functionality. Supports many PC cards (Wired/Wireless LAN card, phone-line modem card, and Flash Memory card).
- Port logging/buffering assists in trouble-shooting failures by using built-in RAM disk or ATA storage card, NFS server or syslog server to save the last 8KB of data output from each device.
- 1RU rackmount enclosure for space-effective co-location with network hardware.
 - Rackmount kit sold separately for 8-port switch.
- Supports Windows Server 2003 Emergency Management Services – helps IT/Telco administrators perform emergency recovery tasks when the server is not accessible through the network.
- Compatible with OpenSSH Client.
- Enhanced security features protect your system:
 - Secure Shell (SSH v2) with public key encrypts data to protect against unauthorized users “sniffing” passwords.
 - Individual port authentication provides strong user authentication and protection for port access.
 - IP filtering has firewall functionality and a configurable list of IP addresses and protocols, allowing the network administrator to set access policies and permit or deny access.
 - HTTPS secures browser connections to the console server’s web interface.
- Supports secure clustering of up to 16 slave units. Allows encrypted access of up to 512 devices connected to multiple master or slave switches.
- Easy, user-friendly installation. Configuration can be done over the Internet, via Telnet or SSH.
- Simplified cabling. The 8-pin configuration matches all SUN and Cisco RJ45 console port configurations, allowing administrators to use CAT5 cabling without pin-out concerns.
- Sun Solaris safe.

Flash Upgrade

- Upgrading to the latest firmware is quick and simple with the In-System Programmability of the SERIMUX SECURE SSH Console Switch.
- To upgrade the switch, a computer running terminal emulation software should be connected to the Console port.

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Specifications

Compatibility

- Supports most devices with an RS232 serial port.

Serial Interface

- 8, 16 or 32 RJ45 EIA-232 serial port connectors.
- One RJ45 EIA-232 console port connector.
- Use CAT5/5e/6 Ethernet cable for console access to SUN Netra/Cisco equipment.
- Flow control:
 - Hardware RTS/CTS.
 - Software XON/XOFF.
- Signals: RS232 Rx, Tx, RTS, CTS, DTR, DSR, GND.
- Modem controls: DTR/DSR and RTS/CTS.
- Data transfer rate up to 230 Kbps.

Network Interface

- One RJ45 10/100BaseT Ethernet port.
- Supports static and dynamic IP address.

PC Card

- One PCMCIA interface slot supports the following:
 - CompactFlash storage card.
 - Wireless LAN adapter (802.11b).
 - Ethernet LAN adapter.
 - PSTN/CDMA modem card.

Clustering

- Supports NAT-based efficient and secure clustering.
- Access to up to 16 slave units.

Power

- 110 or 220 VAC at 50 or 60 Hz via IEC connector.

Protocols

- ARP, IP/ICMP.
- TCP, Telnet, SSH v2.
- DNS, Dynamic DNS.
- HTTP, HTTPS, SMTP, DHCP.
- PPPoE.
- SNMP v1 and v2 (MIB II).
- RIP, Static routing.

Memory

- 64MB SDRAM.
- 8MB Flash.

Logging & Buffering

- Deliver system log messages to NFS, syslog server, ATA Flash memory.
- Store port buffer data to NFS, syslog server, ATA Flash memory.
- Supports the flexible buffer size management according to the media and the application.
- Email alarm notification from the port alarm messages.

Downloads

- Visit www.nti1.com/srvsw-term-ssh.html to download a client program that supports SSH.

Regulatory Approvals

- CE, UL 1950, FCC Part 15, MIC.

Control Methods

- Web, Telnet/SSH, System console port.
- Supports Linux command line interface for power users.
- Firmware: Downloadable through Telnet or system console.
- Full-featured system status display via LED indicators:
 - CPU: Power.
 - Ethernet: In-USE/ PCMCIA/ Link/ Act/ 100BaseT.
 - Each Serial Port: Serial Ready/RX/TX.

Security

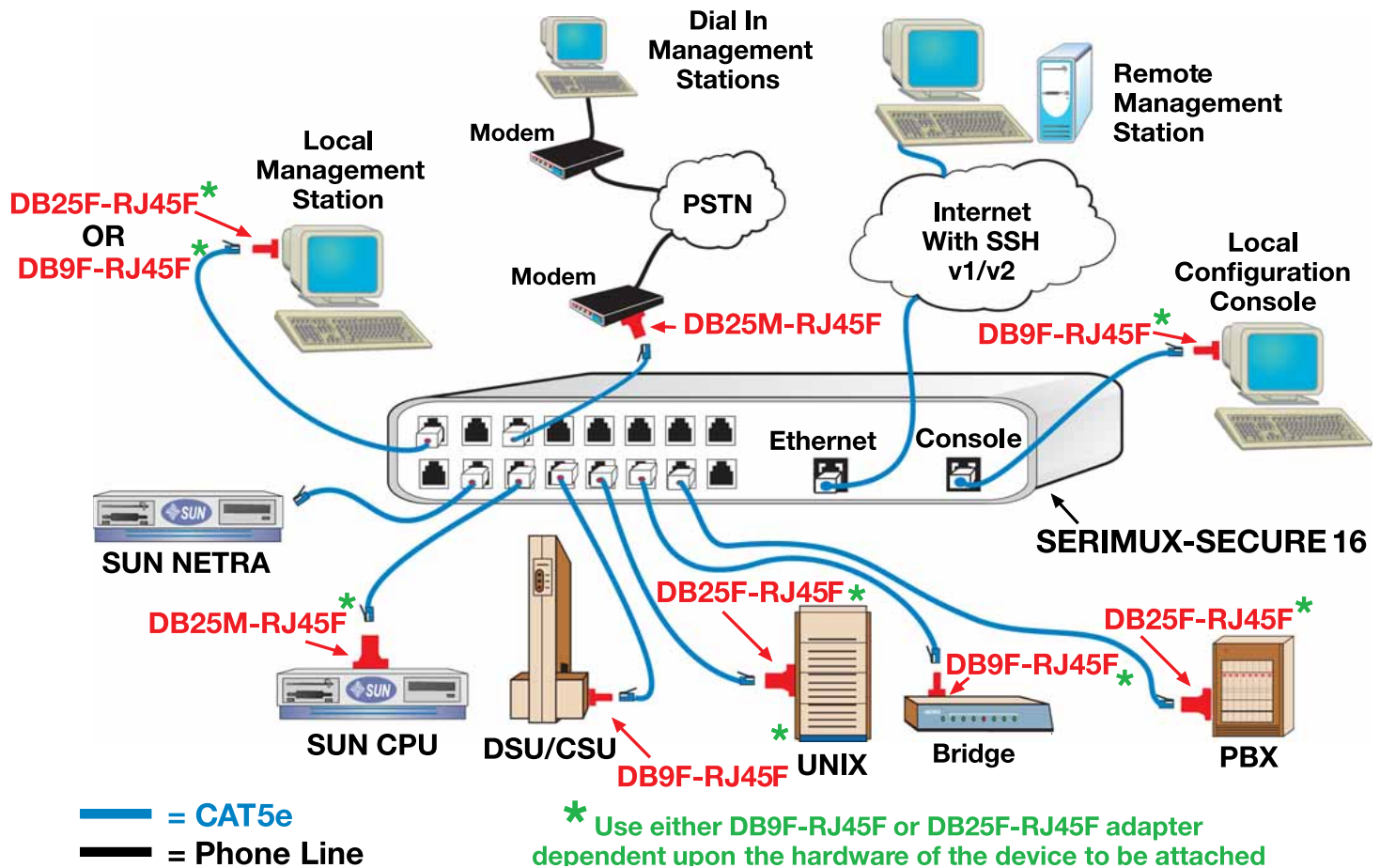
- User access control to the system and the ports.
- Four User Management Levels: Root, Admin, Port Admin, User.
- SSH v1/v2 with public key support. The SERIMUX SECURE console switch provides secure access to attached devices by using an SSH client instead of Telnet.
- RADIUS with SSH, LDAP, TCACS+ and Kerberos authentication protocols.
- IP filtering for the system and ports.



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Configuration and Cable Illustration



— = CAT5e
 — = Phone Line

* Use either DB9F-RJ45F or DB25F-RJ45F adapter dependent upon the hardware of the device to be attached

SSH Console Switch Models

NTI Part#	# of Ports	Rack Units	Size WxDxH(in)
SERIMUX-SECURE-8	8	NA	9.5x6.3x1.3
SERIMUX-SECURE-16	16	1RU	17x8.5x1.75
SERIMUX-SECURE-32	32	1RU	17x8.5x1.75
NTI Part #	Description		
SERIMUX-RK-8	Rackmount kit for SERIMUX-SECURE-8		

Adapters

NTI Part#	Description
DB9F-RJ45F	Adapter to connect DB-9M serial ports to the SERIMUX
DB25F-RJ45F	Adapter to connect DB-25M serial ports to the SERIMUX
DB25M-RJ45F-T	Adapter to connect DB-25F serial ports to the SERIMUX
DB25M-RJ45F-C	Adapter to connect a modem to the SERIMUX

Cables

- Use CAT5, CAT5e or CAT6 UTP straight through cable for TIA/EIA-568B wiring terminated with standard RJ45 connectors.
- Cables not included.

Adapters

- Four cable adapters are included with the SERIMUX SECURE.
 - Male DB-25 console adapter.
 - Male DB-25 modem adapter.
 - Female DB-9 console adapter.
 - Female DB-25 console adapter.
- Additional adapters can be purchased.