

IOLAN SDSC Rack Terminal Server

Serial to Dual Ethernet Terminal Server



- 8, 16 and 32 software selectable RS232/422/485 serial port interfaces
- Dual 10/100/1000 Ethernet with **Redundant Path Technology**
- Advanced security features for data encryption, user authentication and event management

The **IOLAN SDSC Terminal Server** (also used as a Device Server or Console Server) is the most advanced product for **serial to Ethernet** applications.

Delivering the highest performance in a 1U form factor, an IOLAN SDSC offers robust security, reliability flexibility and next generation IP (IPv6) technology. It is ideal for applications that require remote serial device communication, data capture or device monitoring. With 8, 16 or 32 RJ45 ports, the IOLAN SDSC has the right fit for your serial to Ethernet application. The built-in dual Ethernet and **Redundant Path Technology** on the IOLAN SDSC provides dependable serial port access, making it the most reliable solution for connecting remote RS232, RS422 or RS485 equipment to Ethernet... all at the best price performance.

IOLAN SDSC Terminal Servers are ideal for:

- Network engineers and Project Managers requiring a high performance **serial to Ethernet** interface for serial RS232 or RS485 based devices
- Environments where redundant network paths provided by Dual Ethernet interfaces are critical.

Why IOLAN SDSC Terminal Servers are the preferred choice:

- **TrueSerial®** delivers the most authentic serial connections across ethernet
- Universal, software selectable RS232/422/485 (EIA-232/422/485) serial ports prevents mechanical tampering in the field
- High performance 400 MHz, 750 MIPS, 32 bit processor with integrated hardware encryption processor for the best throughput
- **Clustering** – Provides a single view of all out of band console ports. Ideal for large data centers
- Next Generation IP support (IPv6) for investment protection and network compatibility
- Primary/Backup host functionality enables automatic connections to alternate hosts should the primary TCP connection go down
- RJ45 serial ports with Cisco pinouts for use with common CAT5 “rolled” cabling
- **EasyPort Web** – Access equipment serial console ports by using your java-enabled Internet browser
- **Dynamic DNS** – Easy console management access from anywhere on the Internet
- Java-free browser access to remote serial console ports via Telnet and SSH
- Lifetime warranty – best investment protection available

Software Features - IOLAN SDSC Dual Ethernet RS232 / RS485 / RS422 Terminal Server

Serial Port Access

- Connect directly using Telnet / SSH by port and IP address
- **Connect with EasyPort menu by Telnet / SSH**
- **Use an internet browser to access with HTTP or secure HTTPS via EasyPort Web menu**
- Java-free browser access to remote serial console ports via Telnet and SSH
- **Ports can be assigned a specific IP address (aliasing)**
- Multisession capability enables multiple users to access ports simultaneously
- **Multihost access enables multiple hosts/servers to share serial ports**

Accessibility

- In-band (ethernet) and out-of-band (dial-up modem) support
- **Dynamic DNS enables users to find a console server from anywhere on the Internet**
- **Domain name control through DHCP option 81**
- IPV6 and IPV4 addressing support

Availability

Primary/Backup host functionality enables automatic connections to alternate host(s)

Security

- SSH v1 and v2
- PCI DSS Compliance: TLS v1.2, TLS v1.1, TLS v1.0, SSL v3.0, SSL v2.0
- SSL Server and SSL client mode capability
- SSL Peer authentication
- **IPSec VPN : NAT Traversal, ESP authentication protocol**
- SSH ciphers: AES-CTR, AES-GCM and ChaCha20-poly1305
- SSL encryption: AES-GCM, key exchange ECDH-ECDSA, HMAC SHA256, SHA384
- Encryption: AES (256/192/128), 3DES, DES, Blowfish, CAST128, ARCFOUR(RC4), ARCTWO(RC2)
- Hashing Algorithms: MD5, SHA-1, RIPEMD160, SHA1-96, and MD5-96
- Key exchange: RSA, EDH-RSA, EDH-DSS, ADH
- X.509 Certificate verification: RSA, DSA
- Certificate authority (CA) list
- Local database
- RADIUS Authentication, Authorization and Accounting
- TACACS+ Authentication, Authorization and Accounting
- LDAP, NIS, Kerberos Authentication
- RSA SecureID-agent or via RADIUS Authentication
- SNMP v3 Authentication and Encryption support
- IP Address filtering
- Disable unused daemons
- Active Directory via LDAP

Terminal Server

- Telnet
- SSH v1 and v2
- Rlogin
- Auto session login
- LPD, RCP printer
- MOTD - Message of the day

Serial machine to Ethernet

- **Tunnel raw serial data across Ethernet - clear or encrypted**
- Raw serial data over TCP/IP
- Raw serial data over UDP
- **Serial data control of packetized data**
- **Share serial ports with multiple hosts/servers**
- Virtual modem simulates a modem connection - assign IP address by AT phone number
- Virtual modem data can be sent over the Ethernet link with or without SSL encryption
- **TruePort com/tty redirector** for serial based applications on Windows, Linux, Solaris, SCO, HP UX, NCR UNIX and AIX. For a complete list of all the latest drivers click **here**
- **TrueSerial** packet technology provides the most authentic serial connections across Ethernet ensuring serial protocol integrity
- RFC 2217 standard for transport of serial data and RS232 control signals
- Customizable or fixed serial baud rates
- **Plug-ins allow customer or Perle provided plug-ins for special applications**
- **Software Development Kit (SDK) available**
- **Serial encapsulation of industrial protocols such as ModBus, DNP3 and IEC-870-5-101**
- **ModBus TCP gateway enables serial Modbus ASCII/RTU device connection to ModBus TCP**
- **Data logging will store serial data received when no active TCP session and forward to network peer once session re-established - 32K bytes circular per port**

Console Management

- **Sun / Oracle Solaris Break Safe**
- Local port buffer viewing - 256K bytes per port
- External port buffering via NFS, encrypted NFS and Syslog
- Event notification
- **Clustering - central console server enables access ports across multiple console servers**
- **Windows Server 2003/2008 EMS - SAC support GUI access to text-based Special Administrative Console**

Remote Access

Dial, direct serial	PPP, PAP/CHAP, SLIP
	HTTP tunneling enables firewall-safe access to remote serial devices across the internet
Automatic DNS Update	Utilize DHCP Opt 81 to set IOLAN domain name for easy name management and with Dynamic DNS support , users on the Internet can access the device server by name without having to know its IP address. See Automatic DNS update support for details

IPSEC VPN client/servers	• Microsoft L2TP/IPSEC VPN client (native to Windows XP) • Microsoft IPSEC VPN Client (native to Windows Vista) • Cisco routers with IPSEC VPN feature set • Perle IOLAN SDS/STS and SCS models
OA&M (Operations, Administration and Management)	
• SNMP V3 - read and write, Perle MIB • Syslog • Perle Device Manager - Windows based utility for large scale deployments • Configurable default configuration • Installation Wizard • Set a Personalized Factory Default for your IOLANs	
Protocols	
IPv6, IPv4, TCP/IP, Reverse SSH, SSH, SSL, IPSec/IPv4, IPSec/IPv6, L2TP/IPSec, CIDR, RIPV2/MD5, ARP, RARP, UDP, UDP Multicast, ICMP, BOOTP, DHCP, TFTP, SFTP, SNTP, Telnet, raw, reverse Telnet, LPD, RCP, DNS, Dynamic DNS, WINS, HTTP, HTTPS, SMTP, SNMPV3, PPP, PAP/CHAP, SLIP, CSLIP, RFC2217, MSCHAP	
* Available on 2 and 4 port models	

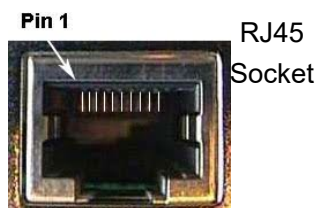
Specifications				
Lifetime limited warranty	Reach, RoHS and WEEE Compliant	HTSUS Number: 8517.62.0020	UNSPSC Code: 43222625	ECCN: 5A992
				CCATS Number: G168387
CPU				
Processor		MPC8349E, 400 Mhz, 750 MIPS		
Memory				
RAM MB		IOLAN SDS8C 64	IOLAN SDS16C 64	IOLAN SDS32C 128

Flash MB	IOLAN SDS8C 16	IOLAN SDS16C 16	IOLAN SDS32C 16
Interface Ports			
Number of Serial Ports	IOLAN SDS8C 8	IOLAN SDS16C 16	IOLAN SDS32C 32
Serial Port Interface	Software selectable RS232 / RS485 / RS422 DTE on RJ45 - RS485: full and half duplex		
Sun / Solaris	Sun / Oracle 'Solaris' Safe - no “ <i>break signal</i> ” sent during power cycle causing costly server re-boots or downtime		
Serial Port Speeds	50bps to 230Kbps with customizable baud rate support		
Data Bits	Configurable for 5,6,7 or 8-bit protocol support Use TruePort to transparently pass 9-bit serial data		
Parity	Odd, Even, Mark, Space, None		
Flow Control	Hardware, Software, Both, None		
Serial Port Protection	15Kv Electrostatic Discharge Protection (ESD)		
Local Console Ports	RS232 on RJ45 with DB9 adapter (provided)		
Network	• Dual 10/100/1000-base TX ethernet RJ45 • Software selectable Ethernet speed 10/100/1000, Auto • Software selectable Half/Full/Auto duplex		
Power			
Power Supply	• USA models - IEC320-C13 to NEMA 5-15P line cord • UK models - IEC320-C13 to BS1363 line cord • EU models - IEC320-C13 to CEE 7/7 Schuko • South Africa Models - IEC320-C13 to BS546 line cord • Australia models - IEC320-C13 to AS3112 line cord		
Nominal Input Voltage	110/230v AC		

Input Voltage Range	100-240v AC		
AC Input Frequency	47-63Hz		
Typical Power Consumption (Watts)	IOLAN SDS8C 14.0	IOLAN SDS16C 15.0	IOLAN SDS32C 16.0
Indicators			
LEDs	• Power • System Ready • Network Link activity for each ethernet port • Serial: Transmit and Receive data per port		
Environmental Specifications			
Heat Output (BTU/HR)	IOLAN SDS8C 47.77	IOLAN SDS16C 51.18	IOLAN SDS32C 54.59
MTBF (Hours)	IOLAN SDS8C 124,366 Hours	IOLAN SDS16C 106,970 Hours	IOLAN SDS32C 87,003 Hours
	Calculation model based on MIL-HDBK-217-FN2 @ 30°C		
Operating Temperature	0°C to 55°C, 32°F to 131°F		
Storage Temperature	-40°C to 85°C, (-40°F to 185°F)		
Humidity	5 to 95% (non condensing) for both storage and operation.		
Case	SECC Zinc plated sheet metal (1 mm)		
Ingress Protection Rating	IP30		
Mounting	1U - 19' rack, front and rear mounting hardware included		
Product Weight and Dimensions			
Weight	IOLAN SDS8C 3.0 Kg, 6.6 lbs	IOLAN SDS16C 3.1 Kg, 6.8 lbs	IOLAN SDS32C 3.2 Kg, 7.0 lbs
Dimensions	1U Rack form factor - 26.4 x 43.4 x 4.4 (cm), 10.38 x 17.1 x 1.75 (in)		

Packaging			
Shipping Weight	IOLAN SDS8C 4.2 Kg, 9.2 lbs	IOLAN SDS16C 4.3 Kg, 9.5 lbs	IOLAN SDS32C 4.5 Kg, 9.9 lbs
Shipping Dimensions	59 x 36 x 9 (cm), 23 x 14 x 3.5 (in)		
Regulatory Approvals			
Emissions	• FCC Part 15, Subpart B, Class A • CFR47:2003, Chapter 1, Part 15 Subpart B,(USA) Class A • ICES-003, Issue 4, February 2004 (Canada) • CISPR 32 / EN 55032 • EN55011 (CISPR11) • EN61000-3-2 : 2010, Limits for Harmonic Current Emissions • EN61000-3-3 : 2010, Limits of Voltage Fluctuations and Flicker		
Immunity	• CISPR 35 / EN 55035 • EN61000-4-2: Electrostatic Discharge • EN61000-4-3: RF Electromagnetic Field Modulated • EN61000-4-4: Fast Transients • EN61000-4-5: Surge • EN61000-4-6: RF Continuous Conducted • EN61000-4-8: Power-Frequency Magnetic Field • EN61000-4-11: Voltage Dips and Voltage Interruptions		
Safety	• UL/EN/IEC 62368-1 • CAN/CSA C22.2 No. 62368-1 • IEC 60950-1(ed 2); am1, am2 and • EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 • CAN/CSA-C22.2 No. 60950-1-03 and ANSI/UL 60950-1, First Edition April 1st 2003 (Recognized Component)		

IOLAN RJ45 Serial Connector Pinout



Pinout	Direction	EIA-232	EIA-422	EIA-485 Full Duplex	EIA-485 Half Duplex
1	out	RTS	TxD+	TxD+	DATA+
2	out	DTR	N/A	N/A	N/A
3	out	TxD	TxD-	TxD-	DATA-
4	N/A	GND	GND	GND	GND
5	N/A	GND	GND	GND	GND
6	in	RxD	RxD+	RxD+	N/A
7	in	DSR	N/A	N/A	N/A
8	in	CTS	RxD-	RxD-	N/A

Product List



IOLAN SDS8C Secure Device Server (Terminal Server) - 8 x RJ45 connector with Sun/Cisco pinout, 1U rack mount, software selectable RS232/422/485 interface, dual 10/100/1000 Ethernet, advanced data encryption, user authentication and event management security features included, IPv6, COM port redirector, 15kv ESD

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS
04031604	04031601	04031602	04031605	04031606



IOLAN SDS16C Secure Device Server (Terminal Server) - 16 x RJ45 connector with Sun/Cisco pinout, 1U rack mount, software selectable RS232/422/485 interface, dual 10/100/1000 Ethernet, advanced data encryption, user authentication and event management security features included, IPv6, COM port redirector, 15kv ESD

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS
04031614	04031611	04031612	04031615	04031616



IOLAN SDS32C Secure Device Server (Terminal Server) - 32 x RJ45 connector with Sun/Cisco pinout, 1U rack mount, software selectable RS232/422/485 interface, dual 10/100/1000 Ethernet, advanced data encryption, user authentication and event management security features included, IPv6, COM port redirector, 15kv ESD

Power Cord & Part Number(s)

USA	UK	EU	SA	AUS
04031624	04031621	04031622	04031625	04031626

Related Accessories

Cable Accessories



3 meter RJ45 to RJ45 CAT5 Straight-thru cable #1100360-10

04005120



3 meter RJ45 to RJ45 CAT5 Rolled (crossover) cable #1100370-10. For use with Perle

04005130



DBA0010C - RJ-45F to DB-25F crossover (DTE) adapter #1100270-10 for IOLAN.

04007010



DBA0011C - RJ-45F to DB-25M crossover (DTE) adapter #1100280-10 for IOLAN.

04007020



DBA0013C - RJ-45F to DB-25M straight-thru (DCE) adapter #1100290-10 for modems on IOLAN.

04007030



DBA0020C - RJ-45F to DB-9F crossover (DTE) adapter #1100300-10 for Perle serial console

04007040



DBA0021C - RJ-45F to DB-9M crossover (DTE) adapter #1100310-10 for IOLAN.

04007050



DBA0031C - RJ-45m to RJ-45F SUN/Cisco crossover adapter #1100320-10 for

04007060



C Model Kit Includes: (1) RJ-45 to DB-25 DTE Male adapter, (1) RJ-45 to DB-25 DCE Male adapter,

04007070



DBA0023C - RJ-45F to DB-9M straight-thru (DCE) adapter #1100350-11 for modems on IOLAN

04007210



DBA0031C 8pck - 8 pack of #04007060 RJ45M to RJ45F Sun/Cisco crossover adapter for IOLAN.

04031290



DBA0010C 8pck - 8 pack of # 04007010 RJ45F to DB-25F (DTE) crossover adapter for IOLAN.

04031300



DBA0011C 8pck - 8 pack of #04007020 RJ45F to DB25M (DTE) crossover adapter for IOLAN.

04031310



DBA0020C 8pck - 8 pack of #04007040 RJ45F to DB9F (DTE) crossover adapter for IOLAN.

04031320



DBA0021C 8pck - 8 pack of #04007050 RJ45F to DB9M (DTE) crossover adapter for IOLAN.

04031330



DBA0013C 8pck - 8 pack of #04007030 RJ45F to DB25M Straight-thru adapter for modems on IOLAN.

04031340

Accessories



DIN Rail Mounting Kit for select IOLAN Rack models

04032490

Maintenance agreements - Console Server / Device Server / Terminal Server



8 Port
Terminal/Device/Console
Servers - Express
Replacement 1 Year
Maintenance Contract

SERNSS08



8 Port
Terminal/Device/Console
Servers - Express
Replacement 1 Year
Maintenance Contract,

SERNSS08F



16 to 18 Port
Terminal/Device/Console
Servers - Express
Replacement 1 Year
Maintenance Contract

SERNSS16



16 to 18 Port
Terminal/Device/Console
Servers - Express
Replacement 1 Year
Maintenance Contract,

SERNSS16F



32 to 34 Port Terminal/Device/Console Servers - Express
Replacement 1 Year Maintenance Contract

SERNSS32



32 to 34 Port Terminal/Device/Console Servers - Express
Replacement 1 Year Maintenance Contract, French

SERNSS32F