SD4000
Secure Device Servers

Applications

- General data acquisition applications
- Central control of remote PC appliances
- Remotely turn on, off and reboot equipment
- Security and access control systems
- Industrial and building automation
- Network and power management
- Medical monitoring automation
- Remote energy metering
- Secure data acquisition
- Retail and point of sale

Features and Benefits

- Securely connects serial devices to 10/100Base-T Ethernet network
- Centrally access distributed PCs and smart appliances with X, VNC or RDP
- Secure remote browser control of devices with SSH tunneled HTTP and HTTPS connection
- Monitor and control RS-232/422/485 serial devices
- Powerful security support, SSH, SSL
- COM port/TTY redirection from Windows, Linux and UNIX
- Rock solid stability - robust Linux software
- User scripting with full Linux kernel access
- Automated alerts and alarm management
- Local and remote data logging
- Simple configuration and administration via Web, Telnet/SSH or serial port

The most secure way to remotely or locally access and control any device with an RS232/422/485 serial port or an Ethernet port

www.opengear.com

SD4000 Secure Device Servers connect serial and networked devices to the local Ethernet network or directly to the Internet; and provides a secure channel through which they can communicate. The SD4000 attaches to these devices through their serial or network ports, and secures incoming and outgoing information using the same stringent data transport and security standards used around the world by system administrators and IT professionals to securely manage data centers.

Users can now remotely monitor access and manage devices and machines over the Internet, confident their machine networks do not become a source of vulnerability. Their business and control applications can safely connect to distributed and remote devices.

The SD4000 provides secure, reliable and affordable local and remote access to the serial console ports on meters, SCADA appliances, PLCs, and sensors. The SD4000 secures otherwise insecure protocols such as HTTP, enabling secure monitoring and control of network infrastructure (switches, firewalls, etc.), and management of general appliances (security, power switches, etc.). By securing web browser, X Windows, VNC, Remote Desktop and VNC/RDP-over-serial, the SD4000 also allows secure control of distributed Windows PCs and embedded PC devices.

The compact size of the SD4000 Secure Device Server makes it the ideal choice for connecting RS-232/422/485 serial devices to an Ethernet network, enabling access to serial devices from anywhere on the network. Serial devices may even be connected to each over the Ethernet network, using the SD4000's serial tunneling capabilities.

The Most Secure Way to Access, Monitor and Control Devices

The SD4000 at a remote site can be accessed remotely through the Internet or a dial-up modem, or locally through the local network or a serial connection. All connections are secure, with encrypted access to remote systems using up to 128-bit AES encryption. The SD4000 also provides a selection of filtering and access logging facilities. All console logs can be archived off line. Access can also be restricted by IP address, by password, or by account. So managers can securely control and manage their distributed networks of devices.

Unlike basic Ethernet-to-serial appliances, the SD4000 family is rich in features. Communications with connected devices can be logged locally or remotely. Triggers to send email or raise other alerts can be set in response to defined events, e.g. when a particular data string is received from a nominated serial device. The SD4000 also works with the widest range of third party network equipment, power controllers, etc.

The SD4000 range has been optimized for stand-alone secure device management. The simple web browser interface allows the user to easily configure the appliance, set security levels and access the ports. The user also can interface directly at the command line with the embedded Linux kernel.

Opengear's Secure Device Servers are built on open source standards, leveraging the strength, the security and the broad services of Linux.

opengear
secure server management

SD4000 Family Specifications

FEATURES

Control Serial Port Connected Devices

- Telnet/SSH/Raw TCP connect
- COM port redirection software
- RFC 2217 -Telnet Com Port Control
- Serial port interconnect over IP
- Serial over IP access by TCP port
- Port monitoring triggers and alerts
- Offline data logging (Syslog, NFS, CIFS)
- Online data buffering
- Multiple users per port (with port sniffing)
- RDP over serial support
- Break over SSH support

Control Network Connected Devices

- Secure SSH tunneling and NAT port redirection
- Secure RDP/VNC/X access to Windows /Linux/Sun computers
- Secure HTTP/HTTPS access to browser controlled appliances
- Secure Telnet /SSH access
- Extensible to support custom services /ports
- Configurable point-n-click SDTConnector client
- User access limited by host, and by SDT service
- Unlimited number of LAN computers/appliances
- Unlimited number of connections per SSH session

Security and Authentication

- Secure Shell (SSH V2)
- TACACS+ , RADIUS and LDAP authentication
- PAP/CHAP authentication (dial up)
- Per port user access lists
- Dial back support
- Local authentication
- System event syslog
- IP forwarding support and IP packet filtering

SD System Management

- Secure Web management (HTTPS)
- Local browser management (HTTP)
- Command Line interface (Linux Shell)
- ARP IP assignment
- SNMP

Accessibility

- Local Ethernet or remote Internet
- Dial-up modem or local serial port access

Other Protocols Supported

- DHCP for dynamic IP assignment
- NTP for time synchronization
- PPP for dial up access

Upgrades

- Flash upgradeable - free from online FTP site
- FTP, TFTP client for file transfer

Operating System

- Linux - Source code access enables custom configuration

Models

- SD4002: 2 port unit, 10 concurrent SSH tunnels
- SD4008: 8 port unit, 10 concurrent SSH tunnels
- Cabling and adaptors

opengear
secure server management

HARDWARE

Ports
SD4002: 1DB9 RS-232 and 1DB9/connector block RS-232/422/485 (software selectable) serial port (2400 to 230,400bps. Surge protected)
SD4008: Eight RJ-45 RS-232/422/485 (software selectable) serial ports (2400 to 230,400bps, Surge protected) and one DB-9 RS-232 local / modem port (2400 to 115,200 bps)
Both SD4002 and SD4008: 1 RJ-45 10/100Base-T Ethernet port

Cables
RJ-45 CAT5 cables (6 ft)
RJ-45 to DB-9 adapters (straight & cross-over)

Power
SD4002: External +9V to +48V DC supply
Optional 12VDC wall mount adapter 100-240V AC, 50/60 Hz
SD4008: Includes 5VDC 100-240V AC adaptor, 50/60 Hz
Optionally use external -48V, +5V or +48VDC supply
Power consumption for SD4002 and SD4008 less than 20W

Dimensions
SD4002: 3.9 x 2.8 x 1.0 in (10 x 7.2 x 2.5 cm) Wall mount or DIN mount kit
SD4008: 8.2 x 4.9 x 1.2 in (20.8 x 12.6 x 4.5 cm) Desktop or wall mount

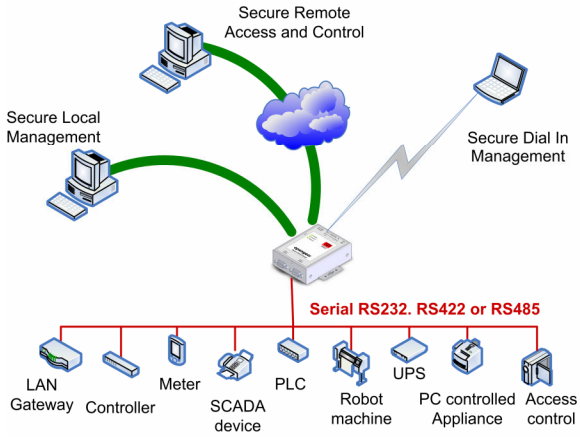
Environmental
Ambient operating temperature: 5°C to 50°C (41°F to 122°F)
Non operating storage temp.: -30°C to +60°C (-20°F to 140°F)
Hardened device operating temperature: -35°C to 70°C

Humidity
5% to 90%

Regulatory
FCC Part 15 A UL 1950
CE (EN55022 A, EN55024, EN60950)
TUV, C-Tick

CPU
166MHz ARM-based System on Chip (Micrel KS8695P)

Memory
16MB SDRAM 8MB Flash



Head Office: 630 West 9560 South Sandy UT 84070 USA Tel:+1 801 282 1387 sales@opengear.com www.opengear.com