LANTRONIX®

DeviceLinx™

Ethernet Terminal and Device Server

- Dual-purpose Ethernet terminal server and device server design
- Put just about any piece of equipment with a serial port on the enterprise network with robust "data center grade" security, including SSH and SSL
- A fully programmable device computing platform based on corporate IT standards – Cisco®-like CLI, XML, RSS
- True IEEE 802.3af compliant Power over Ethernet (PoE)
- Print server functionality (LPR/LPD)
- Powerful web manager for easy device configuration

EDS4100

Ethernet Terminal and Device Servers

Remotely Monitor, Manage and Share Devices Over a Network or the Internet

RoHS WEEE COMPLIANT

EDS4100 is a unique, hybrid Ethernet terminal and multi-port device server product designed to remotely access and manage edge devices such as medical equipment, kiosks, POS/retail terminals, security equipment and much more.

Featuring Lantronix Evolution OS™, our powerful real-time Networking Operating System, the EDS4100 delivers an unprecedented level of intelligence and security to networked equipment, complete with SSH and SSL security built-in. With this powerful product, just about any piece of equipment with a serial port can become a fully secure member of the corporate network so it can be accessed and managed remotely from virtually anywhere.

Easy to Setup

Without requiring any special software, the EDS4100 can put up to four RS-232 and/or 254 RS-485 serial devices on the network in a matter of minutes. Serial data from the device is encapsulated into packets and transported over Ethernet using a method called "serial tunneling." Set up is a breeze with the included Windows-based web manager software. The EDS4100 can also be set up locally through its serial port, or remotely over a network using Telnet, a web browser or SNMP.

Bullet-proof Security

Evolution OS provides 'data center grade' level of protection so that each device on the M2M (machine-to-machine) network carries the same level of security as IT equipment in the corporate data center.

The EDS4100 has robust defenses to hostile Internet attacks such as denial of service (DoS) and port mapping that can be used to take down the network. The hardened OS and mature protocol stack prevents it from being used to bring down other devices on the network. And with built-in SSH and SSL, it includes robust key management algorithms that:

- Verify the data received came from the proper source
- Validate that the data transferred from the source over the network is unchanged when it arrives at its destination
- Provide ability to run popular M2M protocols over a secure SSH connection

With SSH and SSL, the EDS4100 supports a variety of popular cipher technologies including 128/256/512/1024-bit AES (Rijndael), 3DES and RC4 Encryption Public/Private-keys and hashing algorithms such as SHA-1 and MD5. HTTP authentication uses Base-64, Digest Authentication and SSL.

Standards-Based Communications

Cisco-like CLI – The EDS4100 uses a Cisco-like command line interface (CLI) with syntax that is very similar to that used by data center equipment such as routers and hubs. This industry-standard tool simplifies configuration and control, making it easier to integrate edge devices into the enterprise network.

XML-based Architecture – XML is a standard tool for web services, data transfer and rich content management that encapsulates data into a text-based format. XML-based configuration and setup records in EDS4100 make the device configuration transparent and easily modified with a standard text or XML editor.

PoE (Power over Ethernet)

EDS4100 features true IEEE 802.3af-compliant Power over Ethernet (PoE) using both Ethernet pairs. Eliminating the need for an external power supply and associated labor costs, EDS4100 is ideally suited to add immediate networking functionality for remote equipment located virtually anywhere.

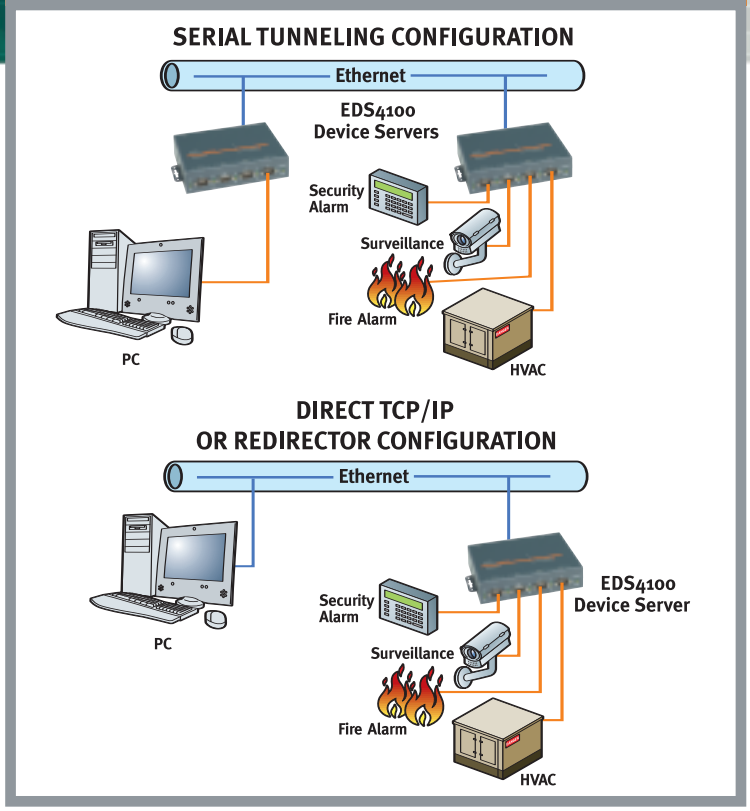
Powerful

Eight MB of Flash memory provides maintenance-free nonvolatile storage of web pages, and enables future system software upgrades. Featuring a 32-bit XScale processor and 64MB of RAM.

Com Port Redirector

Lantronix Com Port Redirector™ software is included. It redirects application data destined for a local serial (COM) port on a PC to a serial port on the EDS4100. Data sent from the device to the EDS4100 is transmitted back to the application over the network. Com Port Redirector then presents the data to the application as if it were from a local serial COM port.

EDS4100 Example Configurations



Features and Specifications

Serial Interface
Interface: Software selectable RS-232/422/485 customizable baud rate support for non-standard serial speeds
Connectors: Four DB9M serial ports; two RS-232, two RS-232/422/485
Data Rates: Software selectable standard baud rates from 300 to 230 KBaud
Characters: 7 or 8 data bits
Parity: Odd, even, none
Stop Bits: 1 or 2
Control Signals: CTS, RTS, DTR, DCD
Flow Control: XON/XOFF (software), CTS/RTS (hardware), None

Network Interface
Software selectable Ethernet speed 10/100/Auto
Software selectable Half/Full/Auto duplex
Connector: RJ45
Standards: HTTP, HTTPS, FTP, TFTP, Telnet, TCP, UDP, LPD, XML, DHCP, SSHv2, SSLv3, SNMPv2, AutoIP, RSS, ARP, ICMP, SYSLOG, AES, SMTP, DNS, BOOTP, Traceroute

LED Indicators
10Base-T and 100Base-TX Link
Ethernet Activity
Serial Transmit Data
Serial Receive Data
Power
Diagnostics

Processor
CPU: Intel XScale IXP420 Network Processor running at 266MHz
32k Instruction Cache
32k Data Cache
Memory: 64 MB SDRAM
8 MB Flash
2 KB EEPROM

Management
Internal web server, SNMP v2 (MIBII, RS232MIB), Serial login, Telnet login, XML
Firmware: Upgradable via the Web Manager, TFTP or FTP
Internal Web Server: Static and dynamic CGI-based pages and applets
Storage capacity: 6 MB using industry-standard file system

Power
9-30VDC - Barrel connector
42-56VDC - Screw Terminal
PoE-compliant power source - 802.3af (when populated)

Environmental
Operating: 0° to 55° C (32° to 131° F)
Storage: -40° to 70° C (-40 to 158° F)
Relative Humidity: 10 to 90%, non-condensing

Packaging
Material: Metal enclosure with removable wall mounts
Dimensions (LxWxH): **3.81 x 17.65* x 12.7 cm** (1.5 x 6.95* x 5 in.)* **with mounting brackets = 20.14 cm** (7.93 in)
Weight: .86 Kg (1.9 lb)

Compliance
Ethernet: Version 2.0/IEEE 802.3 (electrical)
Ethernet II frame type
IEEE 802.3af (when PoE is populated)

Safety Standards
UL 60950-1, CSA-22.2 No. 60950-1-03, EN60950-1, CB Report - IEC 60950-1

Security
SSL v3, SSH v2
MD5, SHA-1
Rijndael/AES 128-bit encryption
3DES encryption
ARC4 128-bit encryption
Password protection
IP address filtering
Hardened OS and stack

Agency Approvals
UL/CUL, FCC, CE, TUV, C-Tick, GS, CB scheme, VCCI

Warranty
2-year limited warranty

Shipping Dimensions
Dimensions (LxWxH): **242 x 191 x 115 mm** (9.5 x7.5 x 4.5 in)
Weight: 1.44 kg (3.19 lbs)

Included Software
Windows® 98/ME/NT/2000/XP/Vista-based DeviceInstaller™ configuration software, Com Port Redirector™ software and related utilities

Product Label Markings
FCC Part 15 Statement Class A Device, C-Tick, VCCI, CE Marking, UL-CUL Mark, TUV-GS Mark, RoHS

Emissions

FCC Part 15 Subpart B Class A	Radiated Emissions 30MHz – 1000MHz
ICES-003 Issue 4 February 2004 Class A	Radiated Emissions 30MHz – 1000MHz
AS/NZS CISPR 22: 2004 Class A	Radiated Emissions 30MHz – 1000MHz
EN55022: 1998 + A1: 2000 + A2: 2003 Class A	Radiated Emissions 30MHz – 1000MHz
VCCI V-3/2005.04 Class A	Radiated Emissions 30MHz – 1000MHz
EN61000-3-2: 2000 Class A	Harmonic Current Emissions
EN61000-3-3: 1995 + A1: 2001	Fluctuations and Flicker

Immunity

EN55024: 1998	+A1: 2001 +A2: 2003
IEC_61000-4-2: 1995	ESD 8KV Air Discharge (Direct), 4KV Contact Discharge (Direct/Indirect)
IEC_61000-4-3: 1995	Radiated Immunity 3.0V/m, 1KHz AM Sine Wave at 80%
IEC_61000-4-4: 1995	EFT/Burst 1.0KV Power Lines, 0.5KV I/O Lines
IEC_61000-4-5: 1995	Surge Immunity 1.0KV Common Mode, 1.0 KV Differential Mode
IEC_61000-4-6: 1996	Conducted Immunity 3.0 Vrms, 80% AM Modulated (1KHz)
IEC_61000-4-8: 1993	Magnetic Field Immunity 50Hz 1.0 Arms/m
IEC_61000-4-11: 1994	Voltage Dips and Interrupts (>95%, 0.5 periods), (30%, 25 periods), (>95%, 250 periods)

Isolation
Designed with protection against transients and ESD for use under harsh environments.
Serial Port: 15 KV ESD protection on RS232 and RS422/485 transceivers
Power Input: 2kV common mode and 1kV differential mode power surge protection
Ethernet Port: 1500 VAC isolation shielded

Ordering Information

Part Number	Description
ED41000P0-01	Four Port Device Server, PoE, no power supply, RoHS
ED41000P2-01	Four Port Device Server, PoE, with universal power supply and regional adapters, RoHS

LANTRONIX®

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 910-494 01/09 PDF