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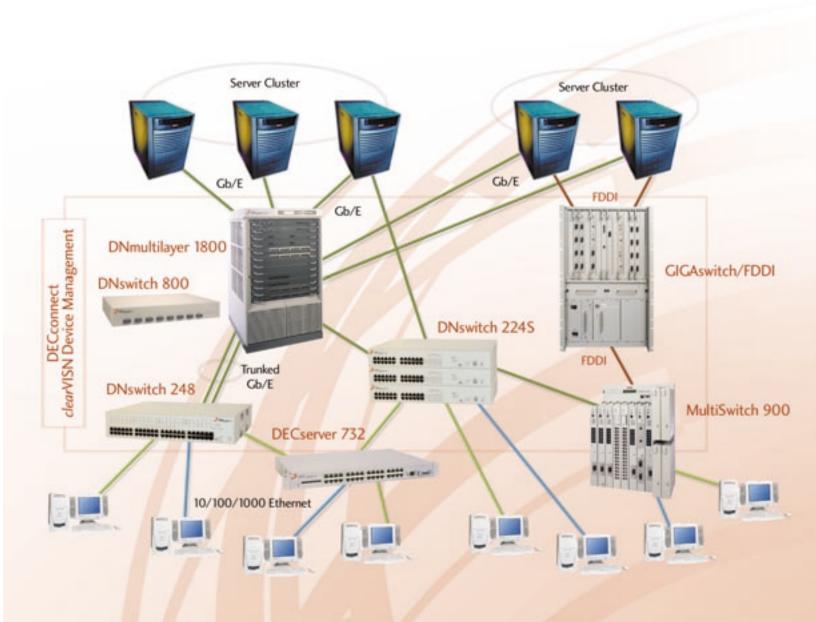


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July 2001 Product Catalog



# Integrated Networking



# **Product Catalog**

**July 2001** 

Digital Networks is proud to present you with our new product catalog. Profit-minded enterprises tell us they need solutions that support their growing network requirements while protecting their existing investments. Digital Networks offers the ideal solution with a full range of scalable and flexible products that offer innovative capabilities to meet the most daunting LAN/MAN/WAN connectivity demands.

In this edition of the Digital Networks Product Catalog you'll find descriptions, specifications and ordering information for our complete line of backbone, workgroup and wiring closet solutions—solutions that build on our 25-years of network expertise to deliver industry-leading multi-technology solutions for

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network switching, device connectivity, and management. It is our heritage, and our ongoing commitment, to bring you high-performance, low-cost networking products with the advanced features you need in support of your business applications.

Please take a moment to look at our newest products featured in the front of this catalog. Here you'll find the DNmultilayer 1000 switch family that excels at high-speed LAN/WAN/MAN connectivity, layer 2-4 switch routing and unique features such as Appletalk routing in hardware. Next you'll find the DNswitch family of stackable and standalone 10/100 and Gigabit Ethernet switching for workgroups that excels at networking features and connectivity options, price per port, integrated management and lifetime warranty.

Next in this catalog we highlight the popular award-winning DIGITAL-branded products such as the MultiSwitch 900, GIGAswitch/FDDI, VNswitch 900, DEChub 90, DECserver, and *clearVISN* device management software. Here you'll see that in addition to continuing to support your needs with existing products we have developed new members of these product families. New products include the DECswitch 90 that increases the performance of your DEChub 90 products by more than 10-fold and the DECserver 732 that offers higher density and lower cost for environments that need to connect asynchronous devices to the Internet (console port concentration etc.) Exactly what you'd expect from the leading supplier of these products in the industry!

Above all, we strive to ensure your complete satisfaction with our products and services. Please share your comments and questions with us by sending e-mail to digitalproducts@digitalnetworks.net or call us on the Digital Networks Hotline:

- U.S. and Canada +1.877.341.9594
- Europe 0800 2020 1000
- Others +1.978.474.8300

Please also visit us on the web at www.digitalnetworks.net and check for our product promotions.

Sincerely yours, Your Digital Networks Team

# DNmultilayer™ 1000 Family

High-speed LAN/MAN/WAN convergence based on Layer 2/3/4 switching



The DNmultilayer 1000 family provides high-speed switched network connectivity within a campus or local area network (LAN), a metropolitan area network (MAN), or a wide-area network (WAN). These versatile switches feature wire-speed IP, IPX, and AppleTalk routing within a LAN/MAN, along with IP WAN links over ATM OC-3 or V.35/X.21. Unique OC-48 links to the metropolitan area are ideal for transparent LAN services and MAN backbones, providing transport for any Ethernet-compatible data including VLANs—they are not limited to just IP or routable traffic. The OC-48-Ports support dark fiber up to 80 km, as well as WDM systems, so users can easily establish 2.5 Gbps backbone network connections between switches over any distance.

| ATTRIBUTES                                      | DESCRIPTION  |  |  |
|---|--|--|--|
| Full Wire-Speed Performance                     | Layer 3 IP, IPX, and AppleTalk   |  |  |
|   | RIPv1/v2, OSPFv2, PIM-DM, DVMRP, IGMPv2, IPX RIP/SAP, RTMP/ZIP/NBP   |  |  |
| Full Wire-Speed<br>Classification and Filtering | Traffic Classification and Filtering at Full Speed Based on Layer 2, Layer 3, and Layer 4 Parameters                         |  |  |
| Other High-Performance<br>Capabilities          | Supports up to 1024 VLANs with 802.1Q Tagging and GARP Group VLAN Registration Protocol (GVRP)                               |  |  |
|   | 802.1d Spanning Tree   |  |  |
|   | Multiple VLAN-Based Spanning Tree  |  |  |
| Reliability and Redundancy                      | Hot-Swappable Interface Modules, Management and Switching Modules, Fans and Power Supplies on the DNmultilayer 1800 and 1400 |  |  |
|   | Optional Redundant Management and Switching Modules and Power Supplies on the DNmultilayer 1800 and 1400                     |  |  |
|   | VRRP Virtual Router Redundancy Protocol  |  |  |
| Priorities and QoS for Voice                    | Supports 3 Internal Traffic Priorities   |  |  |
| and Data Traffic                                | 802.1p and DiffServ  |  |  |
| Link Aggregation (Trunking)                     | Complies with 802.3ad Standard   |  |  |
|   | Each Trunk Group Supports up to 8 Fast Ethernet, Gigabit Ethernet, and OC-48-Port in any Combination                         |  |  |
| Load Balancing                                  | Layer 2 Load Balancing Over Multi-Port Trunks  |  |  |
| G   | Layer 3 Load Balancing via Equal-Cost Multipath Routing (RFC2328) Over LAN/WAN Links   |  |  |
| Management                                      | SNMPv1/v2 and 4-Group RMON on all Ports  |  |  |
| -   | RS-232C and TELNET Console Connections   |  |  |
|   | clearVISN Web-Based Configuration and Management   |  |  |

### Features & Benefits

### **DNmultilayer 1800**

- 12-Slot chassis with redundant AC or DC power supplies and fans
- 8-Slots for network interface modules
- 4-Slots for primary and redundant management and switching modules
- 24 Mpps forwarding capability
- Supports up to 128 Fast Ethernet or 48
   Gigabit Ethernet ports
- LAN/MAN interface modules support 1 OC-48 SONET, 6 1000BASE-T, 2 and 6 1000BASE-SX/LX, 16 10/100BASE-TX, or 8 100BASE-FX ports per slot
- WAN interface modules support 1 ATM OC-3 or 4 V.35/X.21 ports per slot
- Full redundancy of all components for maximum reliability
- Full wire-speed IP, IPX, and AppleTalk routing
- Full wire-speed Layer 2/3/4 switching
- Complete IP Multicast routing support
- Full wire-speed Layer 3/4 filtering



**Backbone Solutions** 

### **Features & Benefits**

### **DNmultilayer 1400**

- 8-Slot chassis with redundant AC or DC power supplies and fans
- 4-Slots for network interface modules
- 4-Slots for primary and redundant management and switching modules
- 12 Mpps forwarding capability
- Supports up to 64 Fast Ethernet or 24 Gigabit Ethernet ports
- LAN/MAN interface modules support
   1 OC-48 SONET, 6 1000BASE-T,
   2 and 6 1000BASE-SX/LX,
   16 10/100BASE-TX, or 8 100BASE-FX
   ports per slot
- WAN interface modules support 1 ATM OC-3 or 4 V.35/X.21 ports per slot
- Three traffic priority levels assure proper delivery of IP voice traffic
- Unique OC-48 SONET capability for LAN/MAN Ethernet backbone extension
- OC-3 ATM and V.35/X.21 WAN interfaces
- Full redundancy of all components for maximum reliability
- Full wire-speed IP, IPX, and AppleTalk routing
- Full wire-speed Layer 2/3/4 switching
- Complete IP Multicast routing support
- Full wire-speed Layer 3/4 filtering

# DNmultilayer 1200 and DNmultilayer 1100

- Stand-alone units with built-in power supply, fans, CPU, and multilayer switching
- Wire speed layer 2/3/4 switching
- 11 Mpps (1200) and 6.6 Mpps (1100) forwarding capability
- Fixed configuration of 32 Fast Ethernet (10/100BASE-TX) ports on DNmultilayer 1200 and 24-Ports DNmultilayer 1100
- Fixed configuration of 2 Gigabit Ethernet (1000BASE-SX) ports
- 2 expansion slots (DNmultilayer 1200) support 1 1000BASE-SX/LX,
  2 1000BASE-T, 8 10/100BASE-TX,
  4 100BASE-FX, 1 ATM OC-3, or
  2 V.35/X.21 additional ports per slot

### INTERFACE MODULES

| ATTRIBUTES                                    | DNMULTILAYER 1800/1400 | DNMULTILAYER 1200 |
|---|------------------------|-------------------|
| 10/100BASE-TX                                 | 16-Port                | 8-Port            |
| 100BASE-FX                                    | 8-Port                 | 4-Port            |
| 1000BASE-SX or -LX                            | 2-Port                 | 1-Port*           |
| 1000BASE-T                                    | 6-Port                 | 2-Port            |
| 1000BASE-X (GBIC-based)                       | 6-Port                 | _                 |
| OC-48 SONET (2-Slot):<br>up to 80k            | 1-Port                 | _                 |
| ATM OC-3 (155Mbps): IPoA, VC/VP Shaping       | 1-Port                 | 1-Port            |
| V.35/X.21: up to DS2, IP over PPP, IPSec, VPN | 4-Port                 | 2-Port            |

<sup>\* 1000</sup>BASE-SX only

### **ORDERING INFORMATION**

| Part #    | DESCRIPTION  | LIST PRICE |
|-----------|--|------------|
| DRT18-AA  | DNmultilayer 1800 12-Slot Chassis, Switching Module, Management Module, 2 Power Units, 3 Fan Units | \$15,918   |
| DRT14-AA  | DNmultilayer 1400 8-Slot Chassis, Switching Module, Management Module, 2 Power Units, 2 Fan Units  | \$8,983    |
| DRSWT-18  | Optional DNmultilayer 1800 Switch Module   | \$6,279    |
| DRSWT-14  | Optional DNmultilayer 1400 Switch Module   | \$2,699    |
| DRMGT-AA  | Optional DNmultilayer 1800/1440 Management Module  | \$6,995    |
| DRPWR-AA  | Optional Power Supply for DNmultilayer 1800 and 1400   | \$1,995    |
| DRGE2-SX  | 2-Port 1000BASE-SX MMF   | \$3,995    |
| DRGE2-LX  | 2-Port 1000BASE-LX SMF   | \$5,995    |
| DRGE6-T   | 6-Port 1000BASE-T  | \$5,595    |
| DRT16-TX  | 16-Port 10/100BASE-TX  | \$5,995    |
| DRFX8-FX  | 8-Port 100BASE-FX  | \$8,299    |
| DRGE6-XX  | 6-Port 1000BASE-X (GBICs)  | \$7,995    |
| DRMMF-SX  | 1000BASE-SX MMF GBIC (550m)  | \$495      |
| DRSMF-LX  | 1000BASE-LX SMF GBIC (10k)   | \$1,495    |
| DRSMF-LH  | 1000BASE-LX LR SMF GBIC (80k)  | \$6,495    |
| DRFAN-AA  | Spare Fan for 1800 and 1400  | \$390      |
| DRC48-LR  | 1 OC-48 SONET (2.5Gb) Port (Long Reach, 80K)   | \$59,995   |
| DRC48-SR  | 1 OC-48 SONET (2.5Gb) Port (Short Reach, 2K)   | \$49,995   |
| DRWC3-AA  | 1 ATM OC-3-Port (155Mbps)  | \$7,495    |
| DRV35-4   | 4 V.35 Ports Each up to 6.1 Mbps or DS2  | \$4,995    |
| DRV35-BC  | V.35 Cable (V.35 Connector 3m)   | \$298      |
| DRX21-BC  | V.35 Cable (X.21 Connector) 3m   | \$298      |
| DRRMK-AA  | Rack Mount Kit for DNmultilayer 1800 and 1400  | \$430      |
| DRT12-AA  | DNmultilayer 1200 Stand-alone with 32 10/100 Ports,<br>2 Gb/E Ports and 2 Exp Slots                | \$10,860   |
| DRT11 -AA | DNmultilayer 1100 Stand-alone Switch, 24 10/100 Ports and 2 1000BASE-SX Ports                      | \$9,985    |
| DR12G-SX  | 1000BASE-SX 1-Port Module for DNmultilayer 1200  | \$1,995    |
| DR12G-LX  | 1000BASE-LX 1-Port Module for DNmultilayer 1200  | \$3,395    |
| DR12G-T   | 1000BASE-T 2-Port Module for DNmultilayer 1200   | \$2,795    |
| DR12E-TX  | 100BASE-TX 8-Port Module for DNmultilayer 1200   | \$1,995    |
| DR12E-FX  | 100BASE-FX 4-Port Module for DNmultilayer 1200   | \$4,995    |
| DR12W-C3  | ATM OC-3 1-Port Module for DNmultilayer 1200   | \$6,795    |
| DR12V-35  | V.35 2-Port Module for DNmultilayer 1200   | \$3,495    |

See them on the web at:

www.digitalnetworks.net/dr/npg/DNmultilayer\_datasheet.html

**Backbone Solutions** 

# DNswitch™ 224S

High performance stackable switching with a lifetime warranty



The DNswitch 224S is a managed 24-port 10/100 switch that can be used in stand-alone or stacked configurations. Up to six units can be stacked to form a single logical switch with up to 150 ports, providing enough bandwidth for the most demanding environments. It employs a high-speed switching fabric, which allows for simultaneous transport of multiple packets at low latency on all ports, along full-duplex capability on all ports. And it offers an optional 100Mbps fiber module for connecting to a remote site, or a Gigabit module for a high-speed backbone connection.

An RMON/SNMP Web Management Module provides a broad range of management options, providing a standards-compliant SNMP agent and RMON support for Statistics, History,

Alarm, and Event Groups. Network management can be performed in-band using TCP/IP or TELNET connection to the serial console port on the Management Module. This module also includes a built-in Web agent that provides management access via common http browsers. The console port allows out-of-band management using a PC, terminal, or modem connection.

The clearVISN Web Management Suite is also supported and can be easily integrated with popular enterprise network management systems on Windows 95, 98, NT, 2000 and UNIX.

### **Features & Benefits**

### Flexibility

- Low Cost Stand-alone/Stackable Switch
- Stack Manageable as a Single Entity
- Meets Connection Requirements: 1000BASE-X and 100BASE-FX

### Management

- Embedded Management
- clearVISN Web Management Suite

### Performance

- 8.8 Gbps Switching Fabric
- 6.55 → 39.3 Mpps

### Lifetime Warranty

### ORDERING INFORMATION

| PART #   | DESCRIPTION  | LIST PRICE |
|----------|--|------------|
| DST24-2G | DNswitch 224S 24-Port Stackable Switch w/2GbE Uplink | \$1,295    |
| DMGMT-AA | Management Module                                    | \$295      |
| DSMGT-AA | DNswitch 224S 24-Port Stackable Switch w/mgmt Module | \$1,395    |
| DSTAK-AA | Stack Interconnect Module                            | \$315      |
| DSFE1-FX | 1-Port 100BASE-FX SMF Uplink Module                  | \$1,495    |
| DSFE2-FX | 2-Port 100BASE-FX MMF Uplink Module                  | \$595      |
| DSGBE-LX | 1000BASE-LX SMF Uplink Module                        | \$1,595    |
| DSGBE-SX | 1000BASE-SX MMF Uplink Module                        | \$695      |
| DRPS1-AA | Redundant Power                                      | \$595      |

Note: Units are shipped with a US Power Cord; Our EMEA Distributors will add the appropriate country cord.

See it on the web at: www.digitalnetworks.net/dr/dnswitch/



High performance, industry standard switching with a variety of management options

### Features & Benefits

### High Performance

- 16 Gbps Switching Fabric and up to 10 Mpps Forwarding Rate (for 64-byte packet)
- Wire Speed for each 10/100 and 1000BASE Ports
- 12K MAC Addresses, Auto-Negotiation
- Advanced VLAN Support: Up to 256
- Latency: Under 10 Microseconds for Minimum Packet Lengths at 100Mbps

### Compatibility

- IEEE 802.1D Bridging/Spanning Tree
- IEEE 802.1Q VLAN Tagging
- IEEE 802.1 p Priority Queuing
- IEEE 802.3x Full Duplex Flow Control

### Manageability

- clearVISN Web Management Suite
- On-board Management

### Flexibility

- Highly Competitive Price per Port
- 10/100 and 1000BASE Connectivity
- Redundant Power

### **Lifetime Warranty**



A manageable, stand-alone 48-Port switch, the DNswitch 248 connects workstations and other network devices on networks of all sizes.

Software management for the DNswitch 248 is accomplished with Digital Networks' clearVISN Web Management Suite, which enables control on both a per-port and per-switch basis. clearVISN provides a common interface for Digital Networks' hubs, switches, and routers, and integrates with popular enterprise network management systems on Windows 95, 98, NT, 2000, and UNIX.

On-board management for the DNswitch 248 operates via a Management Module and is accessed either in-band via TELNET or TCP/IP, or out-of-band via the serial console port interface. Local console management can be used to configure a variety of network parameters, as well as to provide statistical and diagnostic information about an individual port or the entire device.

### ORDERING INFORMATION

| PART #   | DESCRIPTION                              | LIST PRICE |
|----------|--|------------|
| DSA48-2G | DNswitch 248 48-Port Switch, Stand-Alone | \$3,495    |
| DSFE1-FX | 1-Port 100BASE-FX SMF Uplink Module      | \$1,495    |
| DSFE2-FX | 2-Port 100BASE-FX MMF Uplink Module      | \$595      |
| DSGBE-LX | 1000BASE-LX SMF Uplink Module            | \$1,595    |
| DSGBE-SX | 1000BASE-SX MMF Uplink Module            | \$695      |
| DRPS1-AA | Redundant Power                          | \$595      |

Note: Units are shipped with a US Power Cord; Our EMEA Distributors will add the appropriate country cord.

See it on the web at: www.digitalnetworks.net/dr/dnswitch/

# DNswitch<sup>™</sup> 800

Gigabit Ethernet switching with superior performance at very low cost per port



The DNswitch 800 is a stand-alone Gigabit Ethernet switch that delivers superior performance, flexibility, manageability, and reliability all at one of the lowest costs per port on the market. The DNswitch 800 provides 8 1000Base-SX ports and includes an SNMP-based management agent with support for both in-band and out-ofband access for managing the switch. It also supports RMON for Statistics, History, Alarm, and Event Groups. It is easily installed and supports tiered or cascading switches. Other DNswitch family members such as the DNswitch 224S and the DNswitch 248 can be connected to any port on the DNswitch 800 for additional device connectivity.

The DNswitch 800 provides the quickest solution to meet the growing demands of today's small-to-medium sized networks. Each 1000Base-SX port can support connections up to 1800 feet (550 meters), providing high-bandwidth connectivity within or between workgroups, and increased capacity for server farms, giving users faster access to network-wide resources.

### ORDERING INFORMATION

| PART #   | DESCRIPTION                                 | LIST PRICE |
|----------|---|------------|
| DSA8G-SX | DNswitch 800 8-Port GbE Switch, Stand-alone | \$5,995    |
| DRPS1-AA | Redundant Power                             | \$595      |

Note: Units are shipped with a US Power Cord; Our EMEA Distributors will add the appropriate country cord.

### **Features & Benefits**

### Performance

- 16 Gbps switching fabric with forwarding rate of 12 Mpps
- 8K MAC address table
- 1MB packet buffering per port
- Full duplex on all ports
- Auto-negotiation
- Advanced VLAN support for up to 256 VLANs

### Reliability

- 1000BASE-SX connectivity using SC multimode fiber optic connectors
- Port mirroring for network traffic analysis and connection integrity
- Port trunking: up to 4-Port trunks per switch
- Redundant Power

### Compatibility

- IEEE 802.1D Bridging/Spanning Tree
- IEEE 802.1p Priority Queuing
- IEEE 802.1Q VLAN Tagging
- IEEE 802.2 Local Area Networks, Logical Link Control (LLC)
- IEEE 802.3 CSMA/CD
- IEEE 802.3z 1000Base-SX
- IEEE 802.3x Flow Control
- EIA RS-232C (DTE-to-DTE)
- EIA RS-310C (19" Rackmount)

### Manageability

- clearVISN Web Management Suite
- On-board management
- Highly competitive price per port

**Lifetime Warranty** 

See it on the web at: www.digitalnetworks.net/dr/npg/dn800.html

# GIGAswitch<sup>™</sup>/FDDI

### For high-performance computing and high-performance network backbones

### Features & Benefits

### **Performance**

- Reduces bottlenecks for multitechnology backbones with support for full-duplex FDDI, Fast Ethernet, and ATM
- Increases performance and reduces latency with optional IP packet switching, allowing for more efficient use of routers for firewalls and WAN access
- Reduces the cost of entry for highperformance switching with 2-port or 4-port packaged systems
- Protects investments with support for Fast Ethernet LANs and seamless growth from FDDI to multiple technologies

This multi-layer, multi-technology switch delivers industry-leading performance with nearly boundless scalability. The GIGAswitch/FDDI is the only FDDI switch that uses a crossbar switching fabric to handle the demands of multi-technology backbones, supporting FDDI, Fast Ethernet, and ATM technologies. It delivers plenty of bandwidth for network backbones, workstation farms, high-performance workgroups, disaster recovery/remote backup, and more.

Designed for the demands of the backbone

Hot-swap capabilities and optional redundancy are available for primary hardware components. Dual, mirrored GIGAswitch/FDDI systems can be configured for absolute fail-safe operation. This system is built to support mission-critical applications, online transaction processing, or disaster-recovery schemes.

### Easy to manage

Using Digital Networks' clearVISN MultiChassis Manager, the network administrator can graphically configure ports and hunt groups, assign virtual workgroups, and manage adds, moves, or changes all from a single PC or UNIX workstation.



### **ORDERING INFORMATION**

| PART #   | DESCRIPTION                                       | LIST PRICE |
|----------|---|------------|
| DEFGA-DA | 2-Port GIGAswitch/FDDI System                     | \$27,500   |
| DEFGA-EA | 4-Port GIGAswitch/FDDI System                     | \$25,500   |
| DEFGA-FA | 4-Port GIGAswitch/FDDI System with 4 SAS MIC PMDs | \$24,400   |
| DEFGA-BA | 48V D.C. Front End Power                          | \$1,328    |
| DEFGB-DA | GIGAswitch 20AMP Power                            | \$1,328    |
| DEFGB-DB | GIGAswitch 20AMP Power                            | \$1,328    |
| DEFGC-AA | FDDI - ATM Bridge Router                          | \$5,266    |
| DEFGF-AA | GS/FDDI 4 PT Fast Ethernet Card                   | \$5,307    |
| DEFGL-AA | 2-Port FDDI Linecard                              | \$5,466    |
| DEFGL-AB | 2-Port Linecard W/2XDAS MMI                       | \$7,611    |
| DEFGL-BA | 4-Port Linecard W/NO MOD PMD'S                    | \$6,570    |
| DEFGL-BB | 4-Port Linecard W/4XSAS MM                        | \$8,909    |
| DEFGL-BC | 4-Port Linecard W/4XUTP PMD'S                     | \$8,319    |

See it on the web at: www.digitalnetworks.net/dr/npg/defga-mn.html

**Backbone Solutions** 

# MultiSwitch™ 900 Product Family

### Multigigabit switching across all technologies

This flexible, multigigabit switching system delivers a broad range of network solutions—from simple shared LAN connectivity to high-speed multitechnology switching. Its unique software-definable backplane provides a high performance, distributed switching fabric for the seamless integration of Ethernet, Fast Ethernet, Gigabit Ethernet, FDDI and ATM, as well as WAN technologies and Access Servers. The MultiSwitch 900 also supports three 400Mbps backplane channels that enable any-technology to any-technology switching.

The MultiSwitch 900 has two chassis, both of which offer the same high performance capabilities.



### Features & Benefits

- Multi-technology backplane supporting Ethernet, Fast Ethernet, FDDI, ATM, and 400Mbps VNbus
- Firmware upgradeable allowing support for the latest technology and LAN support without concern for obsolescence
- Hot swappable, full N+1 power system maximizes uptime for your network

The MultiSwitch 900 backplane was

With its unique open technology, 5.6 Gbps distributed switching fabric, the Digital Networks MultiSwitch 900 system provides support for both packet and cell-based technologies. And thanks to a software-definable, multitechnology

designed for true investment protection.

 Web-based manageability through clearVISN

### MULTISWITCH 900 8 AND 4-SLOT COMPARISON

| ATTRIBUTES     | MS900<br>Modules | DECHUB 90<br>MODULES | 10 мвѕ | 100 MBS | FDDI | ATM | <b>VN</b> BUS |
|----------------|------------------|----------------------|--------|---------|------|-----|---------------|
| 8-Slot Chassis |                  |                      |        |         |      |     |               |

# 4-Slot Chassis MultiSwitch 900 Backplane Connectivity Matrix (Web-based Management using clearVISN) MS924TX MS924TXG VN900EE/EX VN900FX DECserver/ Hub MS916TXG VN900EL/EX VN900FX VN900FA VN900EA

MS924TX MS916TXG VN900EE/EX VN900FX DECserver/
Hub MS916TXG VN900EE/EX VN900FX PoutsAbout

DECrepeaters 90/900 VN900CC/CG VN900EF VN900FA VN900EA

VN900FF VN900FF ATM (4)

FDDI (4)

100Mbs (12)

See it on the web at: www.digitalnetworks.net/dr/npg/dmhub-mn.html

backplane, all it takes is a simple click of the mouse to reconfigure a network adding 10 or 100Mbps Ethernet channels along side FDDI, ATM, or VNbus LANs.

Since the backplane supports a wide variety of shared hub, switches, access server and routing products, it is also easy to migrate from shared to switched networking without compromise or complications. In fact, all existing Digital

Networks 90/900 series products are fully supported by the MultiSwitch 900

system as shown in the diagram.

Wiring Closet Solutions

VNbus 400Mbs (3)

# MultiSwitch<sup>™</sup> Fast Ethernet 924TXG MultiSwitch<sup>™</sup> Fast Ethernet 916TXG

### Features & Benefits

### MS924TXG

- 24 10/100 Ethernet ports (RJ45)
- 1 modular Gigabit Ethernet port
- MultiSwitch 900 Fast Ethernet backplane support
- 4.2 Gbps internal switching fabric
- IEEE 802.1Q/p compliant
- Port Trunking

### MS916TXG

- 16 10/100 Ethernet ports (RJ45)
- 2 modular Gigabit Ethernet ports
- MultiSwitch 900 Fast Ethernet backplane support
- 4.2 Gbps internal switching fabric
- IEEE 802.1Q/p compliant

High-density switched Fast Ethernet with Gigabit uplinks



The MultiSwitch 924TXG and MultiSwitch 916TXG bring high-density switched Fast Ethernet with Gigabit Ethernet uplinks to the MultiSwitch 900 platform. Using the 12 Fast Ethernet channels across the MultiSwitch 900 backplane, the MultiSwitch 924TXG and MultiSwitch 916TXG enable MultiSwitch 900 users to allocate bandwidth among existing Ethernet and Fast Ethernet repeaters and

port switches. Both switches offer industry-standard VLAN and priority queuing support.

As with all MultiSwitch 900 modules, both switches can be used as a stand-alone with the DEChub ONE or modular in either the 8- or 4-Slot MultiSwitch 900 chassis. Web-based management is provided via *clear*VISN.

### **ORDERING INFORMATION**

| ATTRIBUTES               | PART #   | DESCRIPTION   | LIST PRICE |
|--------------------------|----------|---|------------|
| 8-Slot Chassis           | DMHUB-AA | MultiSwitch 900 8-Slot Chassis with 1 Power Supply and Wall Rackmount Kit.  | \$3,600    |
|                          | H7894-MA | Redundant Power for 8-Slot Chassis (163w)   | \$1,015    |
| 4-Slot Chassis           | DLHUB-AA | MultiSwitch 900 4-Slot Chassis  | \$2,695    |
|                          | DLTDM-MA | Redundant Management Module for 4-Slot Chassis  | \$995      |
|                          | H7898-MA | Redundant Power Supply for 4-Slot Chassis   | \$1,295    |
|                          | H7896-MA | Rack Mount Kit for 4-Slot Chassis   | \$350      |
| 1-Slot Chassis           | DEHUA-** | DEChub ONE for Stand-alone Ethernet   | \$500      |
|                          | DEF1H-** | DEChub ONE MX for Stand-alone FDDI  | \$820      |
| Fast Ethernet            | DFETX-MA | MultiSwitch 924TXG, 24-Port 10/100 Switch with 1 Modular Gigabit Ethernet Port                                      | \$4,495    |
|                          | DFETX-MB | MultiSwitch 916TXG, 16-Port 10/100 Switch with 2 Modular Gigabit Ethernet Ports                                     | \$4,295    |
|                          | DLMT2-MA | MultiSwitch 924TX Repeater, 24-Port 100BASE-TX Repeater, 2 Additional Modular Ports Supporting TX or FX Connections | \$3,500    |
| Ethernet                 | DETPX-MA | PORTswitch 900TP/12, 32-Port 10BASE-T Ethernet PORTswitch with 12 Internal LAN Segments                             | \$4,495    |
|                          | DEFBA-MA | DECswitch 900EF, 6-Port Ethernet to FDDI Switch. Ethernet Ports: 4 10BASE-T (RJ45), 2 15 Pin Sockets, 1 DAS FDDI    | \$5,995    |
|                          | DETMM-MA | DECrepeater 900TM, 32-Port 10BASE-T Repeater (RJ45)   | \$3,065    |
|                          | DEF6X-MA | DECconcentrator 900MX, 6 Modular Front Panel Ports, 2 Backplane Connection Ports                                    | \$3,690    |
| FDDI                     | DEFHM-MX | DECconcentrator 900FH, 2 Modular Ports and 12 MMF (SC) Front Panel Ports, 2 Backplane Connection Ports              | \$9,950    |
|                          | DEFHM-MM | DECconcentrator 900FH, 2 Fixed ANSI and 12 MMF (SC) Front Panel Ports, 2 Backplane Connection Ports                 | \$10,950   |
|                          | DEFHU-MX | DECconcentrator 900 TH, 2 Modular Ports and 12 Fixed UTP Front Panel Ports, 2 Backplane Connection Ports            | \$6,150    |
|                          | DEFHU-MM | DECconcentrator 900 TH, 2 Fixed MMF Ports and 12 Fixed UTP Front Panel Ports, 2 Backplane Connection Ports          | \$7,200    |
|                          | DGMMF-AA | Gigabit Ethernet 1000BASE-SX MMF Connector (550m)   | \$495      |
| Modular Media Interfaces | DGSMF-AA | Gigabit Ethernet 1000BASE-LX SMF Connector (10km)   | \$1,295    |
|                          | DEXYM-AA | Fast Ethernet MMF with SC Connector   | \$795      |
|                          | DEXYU-AA | Fast Ethernet UTP-5 (RJ45)  | \$495      |
|                          | DEFXM-SC | FDDI MMF with SC Connector  | \$425      |
|                          | DEFXM-AA | FDDI ANSI MMF with MIC Connector  | \$513      |
|                          | DEFXS-BA | FDDI SMF with SC Connector  | \$3,588    |
|                          | DEFXU-BA | FDDI UTP Copper (R)45)  | \$256      |

See them on the web at:

www.digitalnetworks.net/dr/npg/dfetx-ma-mn.html www.digitalnetworks.net/dr/npg/dfetx-mb-mn.html

**Wiring Closet Solutions** 

# VNswitch<sup>™</sup> 900 Product Family

### High performance, multi-technology switching



The VNswitch 900 product family of multi-layer, multi-technology enterprise-class switches is designed to provide layer 2 switching and layer 3 IP routing to the wiring closet. When combined with the MultiSwitch 900 chassis, multiple VNswitch 900s can be connected together by one of three 400mbs

backplane channels called the VNbus. The VNbus provides a non-blocking, very low latency, multi-gigabit distributed switching fabric across the MS900 backplane, which delivers maximum data throughput across multiple technologies.

### Features & Benefits

- Provides seamless technology migration and integration across Ethernet, Fast Ethernet, FDDI, ATM, and Gigabit Ethernet
- Layer 3 IP routing and line rate layer 2 switching regardless of technology
- Maximizes network configuration flexibility by supporting a wide variety of modular cable media options for Fast Ethernet, ATM, FDDI, and Gigabit Ethernet
- Supports chassis-based and standalone configurations using either the 8 and 4-Slot chassis or the DEChub ONE

### **ORDERING INFORMATION**

| ATTRIBUTES               | PART #          | DESCRIPTION                                   | LIST PRICE     |
|--------------------------|-----------------|---|----------------|
|                          | DVNCC-MA        | VNswitch 900CC 16-Port 10/100BASE-TX Switch   | \$5,495        |
|                          | DVNCG-MX        | VNswitch 900CG 8-Port 10/100BASE-TX, 1 Gbe pt | \$5,500        |
|                          | DVNEA-MX        | VNswitch 900EA 12-Port 10BASE-T, 1 ATM        | \$6,661        |
|                          | DVNEE-MA        | VNswitch 900EE, 24-Port 10BASE-T              | \$7,196        |
|                          | <b>DVNEF-MM</b> | VNswitch 900EF 12-Port 10BASE-T, 1 FDDI       | \$6,627        |
|                          | DVNEF-MX        | VNswitch 900EF 12-Port 10BASE-T, 1 FDDI       | \$6,630        |
|                          | DVNEX-MX        | VNswitch 900EX 12-Port 10BASE-T, 2 FE Ports   | \$5,738        |
|                          | DVNFA-MX        | VNswitch 900FA 1 FDDI and 1 ATM Port          | \$6,962        |
|                          | DVNFF-MX        | VNswitch 900FF 2-Port FDDI                    | \$5,308        |
|                          | DVNFX-MX        | VNswitch 900FX 1 FDDI and 2 FE Port           | \$6,367        |
|                          | DVNLL-MA        | VNswitch 900LL 12 10BASE-FL                   | \$6,995        |
|                          | DVNXA-MX        | VNswitch 900XA 2 FE Ports and 1 ATM Port      | \$6,732        |
|                          | DVNXX-MX        | VNswitch 900XX 4 Modular FE Ports             | \$4,995        |
| Modular Media Interfaces | DGMMF-AA        | Gigabit Ethernet 1000BASE-SX MMF GBIC (550m)  | \$495          |
|                          | DGSMF-AA        | Gigabit Ethernet 1000BASE-LX SMF GBIC (10k)   | \$1,295        |
|                          | DEXYU-AA        | 100 BASE-TX MMI (UTP-5,RJ45)                  | \$495          |
|                          | DEXYM-AA        | 100 BASE-FX MMI (MMF with SC Connector)       | \$ <i>7</i> 95 |
|                          | DEFYU-AA        | FDDI MMI UTP-5, RJ45                          | \$595          |
|                          | DEFYM-AA        | FDDI MMI MMF with SC Connector                | \$ <i>7</i> 95 |
|                          | DEFYS-AA        | FDDI MMI SMF with SC Connector                | \$3,495        |
|                          | DAGGM-AA        | ATM MMI 155mbs MMF                            | \$800          |
|                          | DAGGS-AA        | ATM 155mbs SONET/SDH SMF                      | \$3,500        |
|                          | DAGGU-AA        | ATM UTP/ScTP SONET/SDH                        | \$700          |

### See them on the web at:

www.digitalnetworks.net/dr/npg/dvnex-mn.html www.digitalnetworks.net/dr/npg/dvncc-mn.html



Fast Ethernet switching for the DEChub 90 chassis

### Features & Benefits

### Performance

- -3.2 Gbps Switching Fabric with a Forwarding Rate of 2.3 Mpps
- -Full Wire Speed Packet Forwarding
- -Supports up to 8,000 MAC Addresses
- -Store and Forward Architecture Prevents Bad Frames from Traversing the Network and using up Valuable Network Bandwidth

### Monitoring

- -Provides Two LEDS Per Port: One for Link & Activity; another for Full Duplex/Half Duplex
- -Provides LEDS for Power OK and Module OK

### Compatibility

- -802.1p Priority Queuing
- -802.3u Auto-Negotiation
- -802.1D Bridging
- -802.3 Compliant
- -802.3X Flow Control

### • Investment Protection

-Go from 10Mbps to100Mbps without Removing the DEChub 90 Chassis, Changing Cabling, or Rewrite Existing Ethernet Applications



The DECswitch 90 is the ideal solution to alleviate contention for network resources—and put an end to bottlenecks. This scalable, flexible Fast Ethernet switch enables organizations to incrementally expand both the number of ports and the speed of the network as business growth and new networking applications demand—while utilizing the existing platform.

The DECswitch 90 brings 16-Port of unmanaged, Fast Ethernet switching to the DEChub 90 shared platform. This maximizes the value of investments in existing DEChub 90 installations, while providing improved service to LAN users—

all at a reasonable cost. This flexible switch enables businesses to incrementally grow both the number of ports and the speed of the network as network requirements dictate, while utilizing the existing platform.

In addition to the DEChub 90 chassis, the DECswitch 90 can be used the MultiSwitch 900TM backplane or with the MultiStack System Stacking Unit for stand-alone and stacked configurations. The unit is fully operational at power up.

### ORDERING INFORMATION

| PART #   | DESCRIPTION   | LIST PRICE |
|----------|---|------------|
| DFE16-MA | DECswitch 90, 16-Port 10/100 Switch, Hub Based Module | \$845      |
| DETRX-S* | MultiStack System Stacking Unit                       | \$250      |

<sup>\* =</sup> Country Code

3: No Power Cord A: United States, Canada, Japan; D: Denmark; E: United Kingdom; I: Italy; K: Switzerland; T: Israel; X: Central Europe; Z: Australia; J: India/South Africa

See it on the web at: www.digitalnetworks.net/dr/decswitch90/index.html

# DEChub™ 90

### Stackable, hub-based workgroup solution



The DEChub 90 workgroup chassis is the industry's only stackable and hub-based solution in one product. It is designed to support the communication needs of today's workgroups in small to mid-sized companies, and expanding communication needs in corporate enterprise networks.

Built as a multi-functional Ethernet-based backplane, the DEChub 90 chassis provides

mounting, power, and ThinWire Ethernet backbone connections to accommodate up to eight Digital Networks 90-series modules. This family of modules includes a variety of Digital Networks repeaters, access servers, bridges, wide area routers, and an SNMP management module. Each of these hotswappable modules can be configured for use as a stand-alone device, a stackable in the MultiStack System, or a module in the DEChub 90 chassis.

### Features & Benefits

- Plug-and-play functionality
- Hot-swappable module replacement
- Higher throughput without a common single point of failure by eliminating the central processor
- Simple, graphical SNMP management
- A rich variety of module functionality, including repeater and bridge fiberoptic support and wide area routing

### **ORDERING INFORMATION**

| PART #   | DESCRIPTION   | LIST PRICE      |
|----------|---|-----------------|
| DEHUB-B* | DEChub 90 Chassis - Includes Power Supply, Rackmount Brackets, Documentation and One ThinWire Cable. Note: For Central Europe Variant, Order DEHUB- | CB <b>\$790</b> |
| DETRX-S* | MultiStack Unit – Allows Any One Module to be Utilized Alone or Stacked up to 16 Units High (Includes Rackmount Kit and Integral Power Supply)      | \$250           |
| DETAX-U* | MultiStack Unit with AUI for DECrepeater 90T-16   | \$350           |
| DETML-MA | DECrepeater 90T-16, 16 10 BASE-T, 1 10BASE 2 Hub Based Module   | \$750           |
| DETML-S* | DECrepeater 90T-16, 16 10 BASE-T, 1 10BASE 2 Stackable Hub  | \$795           |
| DETML-U* | DECrepeater 90T-16 Stackable Unit with AUI  | \$895           |
| DEFAR-MA | DECrepeater 90FA, 1 10BASE-FL/FOIRL, 1 AUI, 1 10BASE 2 Uplink Hub Based Module  | \$895           |
| DEFAR-S* | DECrepeater 90FA, 1 10BASE-FL/FOIRL, 1 AUI, 1 10BASE-2 Uplink Stackable Hub   | \$935           |
| DETMI-MA | DECrepeater 90TS, 8 10BASE-T, 1 10BASE-2, or 1 AUI Uplink Hub Based Module  | \$950           |
| DETMI-S* | DECrepeater 90TS, 8 10BASE-T, 1 10BASE-2, or 1 AUI Uplink Stackable Hub   | \$995           |
| DEFMI-MA | DECrepeater 90FS, 2 10BASE-FL/FOIRL, 1 AUI, 1 10BASE 2 Uplink Hub Based Module  | \$1,550         |
| DEFMI-S* | DECrepeater 90FS, 2 10BASE-FL/FOIRL, 1 AUI, 1 10BASE 2 Uplink Stackable Hub   | \$1,595         |
| DEFMR-MA | DECrepeater 90FL, 4 10BASE-FL/FOIRL, 1 10BASE 2 Uplink, Hub Based Module  | \$1,650         |
| DEFMR-S* | DECrepeater 90FL, 4 10BASE-FL/FOIRL, 1 10BASE 2 Uplink, Stackable Hub   | \$1,695         |
| DECMR-MA | DECrepeater 90C, 6 10BASE 2, 1 10BASE 2 Uplink, Hub Based Module  | \$1,345         |
| DECMR-S* | DECrepeater 90C, 6 10BASE 2, 1 10BASE 2 Uplink, Stackable Hub   | \$1,390         |
| DENMA-MA | DECagent 90, Management for the DEChub 90, Hub Based Module   | \$750           |
| DENMA-S* | DECagent 90, Management for the DEChub 90, Stackable Hub  | \$795           |
| DEWGB-MA | DECbridge 90, Hub Based Module  | \$1,945         |
| DEWGB-S* | DECbridge 90, Stackable Hub   | \$1,995         |
| DEWGF-MA | DECbridge 90FL, Hub Based Module  | \$1,945         |
| DEWGF-S* | DECbridge 90FL, Stackable Hub   | \$1,995         |
| DFE16-MA | NEW! DECswitch 90, 16-Port 10/100 Switch, Hub Based Module  | \$845           |

<sup>\* =</sup> Country Code

### See it on the web at:

www.digitalnetworks.net/dr/npg/dehub-mn.html

<sup>3:</sup> No Power Cord A: United States, Canada, Japan; D: Denmark; E: United Kingdom; I: Italy; K: Switzerland; T: Israel; X: Central Europe; Z: Australia; J: India/South Africa (Hub and MultiStack only) For stackable hub modules for India and South Africa, order –TJ.

# FDDIcontroller/PCI Adapters

Optimized for high throughput performance, even in heavy network traffic

### Features & Benefits

### Performance

- -High-performance, Low-Latency DMA Chip Supports High Throughput and Low CPU Utilization
- -On-board CPU for SMT Processing
- -1 MB Buffer RAM
- -Full-Duplex Capability
- Easy to Install and Use
- SNMP Manageable
- Full Suite of Software Drivers
- Variety of Platforms

**Three-Year Warranty** 

The Digital Networks FDDI controller/PCI adapters are ideal for heavily used FDDI networks. These 32-bit adapters feature an on-board CPU, DMA chip, and 1 MB buffer to support demanding high-bandwidth applications such as video, file transfer, and system backup operations – without taxing systems. Full-duplex capability extends bandwidth up to 200 Mb/s.



These adapters are designed to work with a variety of platforms and are easy to install and use. They have undergone extensive interoperability and standards testing and are backed by a three-year warranty.

### ORDERING INFORMATION

| PART #   | DESCRIPTION                        | LIST PRICE |
|----------|------------------------------------|------------|
| DEFPA-AC | FDDIcontroller/PCI – SAS MMF Model | \$1,195    |
| DEFPA-DC | FDDIcontroller/PCI – DAS MMF Model | \$1,695    |
| DEFPA-MC | FDDIcontroller/PCI – DAS UTP Model | \$995      |
| DEFPA-UC | FDDIcontroller/PCI – SAS UTP Model | \$695      |

See them on the web at: www.digitalnetworks.net/dr/npg/defpa-mn.html

# **DECconnect Systems Interconnect Products**

### Features & Benefits

- Mixed media support
- High density
- Designer look
- Flexible installation configurations
- Easy access
- Uses existing components

Variety and reliability from the backbone to the desktop supporting the connection of Digital Networks products

Standards-based: DECconnect interconnect products are rigorously tested at the component and systems level to support your hardware investment.

The products include Gigabit, ATM, FDDI, and Fast Ethernet-ready equipment cables supporting both twisted pair and fiber optic media. All are designed and manufactured to the highest quality for trouble free connections at the backbone and the desktop.

The Digital Networks Multimedia Outlet (MMO) is the reliable way to connect multiple users and services within a work



group or office cluster. It is the ideal solution for users in a classroom or lab environment, providing flexible support of up to 12 independent communications ports.

See them on the web at:

www.digitalnetworks.net/dr/npg/wiring\_connectivity/DECconnect\_components.pdf

# **DECserver**<sup>™</sup> Family

### Multi-protocol asynchronous device servers



The DECserver family of asynchronous device servers connects terminals, printers, modems, bar-code readers, scanners, cash registers, laboratory instruments, numerically controlled factory equipment, or system console ports to an Ethernet network. The DECserver family includes models with a range of features and performance to meet the needs of most applications, including factory and laboratory automation, retail point-of-sale, telecommuting, legacy terminal-to-host, and console port management.

The DECserver family includes the 8-Port DECserver 90M, 8-Port DECserver 700-08, 16-Port DECserver 700-16, the 32-Port DECserver 732, and the 32-Port DECserver 900TM. A variety of configuration options are supported, including Stand-alone, Rackmount, or mounting in the DEChub 90 or MultiSwitch 900 backplanes. All DECserver models include Network Access Software CD-ROM with firmware, documentation, and utilities files.

### **ORDERING INFORMATION**

| PART #    | DESCRIPTION  | LIST PRICE |
|-----------|--|------------|
| DSRVH-RA  | DECserver 90M Access Server with 2MB FLASH (Stand-alone)           | \$1,527    |
| DSRVH-PA  | DECserver 90M Access Server with 2MB FLASH (Hub Version)           | \$1,389    |
| DSRVW-GA  | DECserver 700-16 No FLASH for U.S./Canada                          | \$2,295    |
| DSRVW-GC  | DECserver 700-16 with Factory Installed FLASH Card for U.S. Canada | \$2,595    |
| DSRVZ-MC  | DECserver 900TM Network Access Server                              | \$4,915    |
| DEHUA-CA  | DECserver 900TM Docking Station                                    | \$500      |
| H8585-AA  | DB9 to MJ8 Console Port Adapter for PC Serial Port                 | \$11       |
| BN25G-03* | Patch Cord for Console Port Connections                            | \$7        |
| H0345-AA  | Flash Card for DECserver 700/900TM                                 | \$815      |
| DSRVW-EA  | DECserver 700-08 No FLASH for U.S. Canada                          | \$2,095    |
| DSRVW-EC  | DECserver 700-08 with Factory Installed FLASH Card for U.S. Canada | \$2,395    |
| DSRVW-KA  | DECserver 732 No FLASH   | \$3,095    |
| DSRVW-KC  | DECserver 732 with FLASH Card                                      | \$3,395    |

 $<sup>^{\</sup>ast}$  -03 denotes cable length in meters. Other lengths are available.

### Features & Benefits

- Multi-protocol support for IP, IPX, and AppleTalk networks
- Models available with 8 to 32-Port for Stand-alone, DEChub, or rackmount environments
- Asynchronous port speeds to 115.2Kbps for performance-intensive asynchronous applications
- LAT, TELNET, Rlogin, TN3270, and DNS support for terminal-to-host connections
- Reverse LAT, LPD, TELNET listener/server, raw TCP listener/server for serial printing and device serving
- PPP, CSLIP, and SLIP to connect legacy IP clients and support asynchronous WAN connections
- Innovative AUTOLINK software detects the type of remote access connection request and automatically reconfigures ports on the fly
- Wide array of authentication features including PAP, CHAP, RADIUS, Kerberos V4, RSA SecurID, and CBCP or standard dial-back
- DHCP and WINS Auto-configure provide automatic and reliable distribution of IP addresses
- FLASH RAM allows DECserver operating software to be stored onboard in nonvolatile, upgradeable memory—no network load host is required when configured with FLASH

### **Special Cost-Saving Features**

Inactivity Timers control telecommunications costs by tracking per-port data traffic activity and tearing down connections that exceed configured thresholds. In addition, a TCP Keepalive Timer saves line costs and improves server availability by continually probing remote host activity and disengaging them if no activity is detected.

### **RADIUS Server Utility**

The bundled RADIUS server utility provides time-of-day and session authorization services, further controlling actions of authenticated users on the network. In addition, RADIUS accounting tracks user activity, providing audit trails and data for reports.

### **Device-to-Host-Support**

Device-to-host connections are supported for TCP/IP, LAT, and PC-based networks. For TCP/IP, both Telnet Listener and raw TCP listener options are available. The raw TCP listener option eliminates the TELNET protocol layer overhead. For VMS or other environments where the LAT protocol is used, reverse LAT is supported. For PC-based networks, "COM Port redirectors" can create large arrays of "virtual COM ports" on a single PC. The "virtual COM ports" are used to tunnel serial data over an Ethernet network installed between the PC application and the remote device.

### Management

Management support is provided via Access Server Manager (ASM)—a Windows-based graphical user interface—the DECserver command line interface, or SNMP and *clear*VISN.

### **DECSERVER COMPARISON CHART**



| ATTRIBUTES                | DECSERVER 90M                                     | DECSERVER 700-08                        | DECSERVER 700-16   | DECSERVER 732  | DECSERVER 900TM  |
|---------------------------|---|---|--|--|--|
| Ports/Connectors          | 8-Port/MJ8 (RJ45)                                 | 8-Port/DB25                             | 16-Port/MJ8 (RJ45)   | 32-Port/MJ8 (RJ45)   | 32-Port/MJ8 (RJ45)   |
| Performance<br>Asynch/LAN | 57.6 Kbps/10MB<br>Ethernet                        | 115.2 Kbps/10MB<br>Ethernet             | 115.2 Kbps/10MB<br>Ethernet  | 115.2 Kbps/10MB<br>Ethernet  | 115.2 Kbps/10MB Ethernet   |
| Control Signals           | DTR/DSR   | Full 8-Signal<br>RS232                  | CTS, RTS, DTR, DSR<br>or RI, DSRS, DTR, DCD<br>Software Selectable | CTS, RTS, DTR, DSR<br>or RI, DSRS, DTR, DCD<br>Software Selectable | CTS, RTS, DTR, DSR or<br>RI, DSRS, DTR, DCD<br>Software Selectable |
| Flash RAM                 | Onboard Flash                                     | Order with or<br>without Flash RAM Card | Order with or without -<br>Flash RAM Card                          | Order with or without<br>Flash RAM Card                            | Order Flash RAM Card<br>Separately                                 |
| LAN Connection            | DEChub 90, MultiSwitch<br>900, 10BASE-T, ThinWire | AUI, 10BASE-T                           | AUI, 10BASE-T  | AUI/10BASE-T   | MultiSwitch 900 or AUI with DEHUA Docking Station                  |
| Environment               | DEChub or<br>Stand-alone Tabletop                 | Stand-alone:<br>Tabletop or Rackmount   | Stand-alone:<br>Tabletop or Rackmount                              | Stand-alone:<br>Tabletop or Rackmount                              | MultiSwitch 900<br>Stand-alone VIA Docking Station                 |

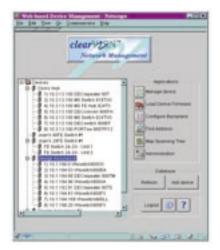
### See them on the web at:

www.digitalnetworks.net/dr/npg/dsrvh-mn.html www.digitalnetworks.net/dr/npg/dsrvw-mn.html www.digitalnetworks.net/dr/npg/dsrvw-mn2html www.digitalnetworks.net/dr/npg/dsrvw-mn3.html www.digitalnetworks.net/dr/npg/dsrvz-mn.html

**Access Devices** 

# clear VISN™ Management Suite

### Web-based device management to eliminate downtime



clearVISN is the most comprehensive device management suite available for Digital Networks devices. This integrated set of applications uses a common device database and a common look and feel to reduce setup time and training costs. clearVISN puts high-level network control at the user's fingertips—simplifying configuration and management of complex devices and technologies, while delivering a clear picture of vital network data.

Using a policy-based approach, clearVISN allows management of the network as a whole, rather than one device at a time, providing abstracted views of real-time configuration, enabling proactive problem resolution. It is the ideal way to reduce the cost of network ownership while increasing network availability.

clearVISN is extraordinarily powerful, yet easy to implement. It provides device management support for a wide range of MultiSwitch 900 devices, including the MultiSwitch 916TXG and 924TXG, the VNswitch 900CC, 900CG, and 900GV, as well as the DNswitch 224S, DNswitch 248, and DNswitch 800.

### Workgroup Management

For most workgroup environments choose the MultiChassis Manager, *clear*VISN Flash Loader, *clear*VISN Recovery Manager, and *clear*VISN Router Configurator. These graphical tools are the perfect way to manage the suite of Digital Networks' workgroup products.

### Site Management

To manage a site network, the *clear*VISN Fault Policy Manager uses the same intuitive interface that's used for Digital Networks workgroup solutions. Combined with the *clear*VISN MultiChassis Manager, this is the perfect way to manage all Digital Networks products. In addition, *clear*VISN Traffic Policy Manager can be used to optimize existing bandwidth on MultiSwitch 900 and PORTswitch modules.

### Campus Management

Configure campus networks with *clear*VISN VLAN Manager, a powerful tool that sets up VLANs on switches.

### Features & Benefits

### Performance

- Enables network device management from anywhere using common web browsers
- Simplifies moves, adds and changes with graphical, point-and-click interface from a PC or UNIX workstation
- Distributed intelligent agents move fault monitoring to network devices, reducing polling overhead and improved response time
- Provides abstracted views of real-time and historical network intelligence, to address issues proactively, rather than reactively

### **ORDERING INFORMATION**

| PART #      | DESCRIPTION   | LIST PRICE |
|-------------|---|------------|
| QA-5FVAB-H8 | clearVISN Multi CD-ROM KIT                                  | \$150      |
| QB-5QMAA-WA | clearVISN SITE Multi License/CD-ROM Packaging               | \$2,525    |
| QM-0MWAA-BA | clearVISN MultiChassis Manager Multi UNIX System 1 License  | \$4,995    |
| QM-0MWAA-BB | clearVISN MultiChassis Manager Multi UNIX Upgrade 1 License | \$1,500    |
| QM-4YFAA-BA | clearVISN VLAN Multi System1 License                        | \$1,500    |
| QM-4YFAA-BB | clearVISN VLAN Multi Upgrade 1 License                      | \$250      |
| QM-4YGAA-BA | clearVISN STACK Multi System 1 License                      | \$500      |
| QM-4YGAA-BB | clearVISN STACK Multi Upgrade 1 License                     | \$100      |
| QM-4YJAA-BA | clearVISN Recovery Multi System 1 License                   | \$500      |
| QM-4YJAA-BB | clearVISN Recovery Multi UPGRADE 1 License                  | \$100      |
| QM-5M2AA-BA | clearVISN FAULT Multi System 1 License                      | \$1,500    |
| QM-5M2AA-BB | clearVISN FAULT Multi Upgrade License                       | \$240      |
| QM-62KAA-BA | clearVISN TPM Multi License                                 | \$2,000    |
| QM-MQDAA-BA | clearVISN MultiChassis Manager Multi System 1 License       | \$4,995    |
| QM-MQDAA-BB | clearVISN MultiChassis Manager Multi Upgrade 1 License      | \$1,500    |

See it on the web at:

www.digitalnetworks.net/dr/npg/clrvn-mn.html

**Web-based Device Management** 

### Features & Benefits

- Simplified network operations by streamlining network management, while ensuring optimal performance and availability
- Improved network availability through expert planning and implementation of Digital Networks and third-party products
- LAN/WAN technology solutions and tiered service offerings to achieve the lowest cost of ownership in the industry
- Increased flexibility and scalability with comprehensive support to augment in-house capabilities
- Investment protection gained from the insights and innovation of a worldclass service organization

# Global DNservices

Knowledge and experience to maximize network performance and availability

Building on our 25-year heritage as a networking innovator, Digital Networks offers a broad portfolio of services—available through our global team of authorized resellers—to maximize the value of an enterprise's network investments.

Global DNservices are the key to minimizing cost of ownership, ensuring the highest levels of network availability and scalability, and protecting network investments over the long term. Digital Networks provides a full range of services, from installation and warranty services, to telephone assistance and parts replacement, to on-site maintenance and software support. It's one-stop shopping for a complete service solution.

"Call Packs" Service, which includes up to 10 calls for remedial phone support and 24 x 7 access to a Digital Networks Authorized Service Provider's electronic service bulletin board.

### **Installation Services**

Digital Networks provides a variety of installation services, ranging from design and implementation, to network verification and review support. We also offer help in customizing and building turnkey solutions, or special assistance in wiring, moving, reconfiguring, deinstalling, or correcting faulty equipment.

### **Enhanced Warranty Service**

This service provides a cost-effective way to obtain replacement parts, while allowing the enterprise to use its own internal technical personnel for maintenance and service.

### SafetyNet Services

Digital Networks SafetyNet Services offer technical phone support with a variety of response times and coverage plans to meet specific network availability objectives.

### **On-site Maintenance Service**

This service provides vendor-qualified and certified technical experts on-site to augment internal staff when needed, with up to 24 x 7 response.

# Technical Support Hardware "Call Packs" Service

For technical phone support to assist internal staff, Digital Networks offers Technical Support Hardware

### clearVISN Software Maintenance Service

The *clear*VISN Software Maintenance Service provides  $24 \times 7$  phone access to *clear*VISN technical support personnel, formal maintenance and major software releases, and  $24 \times 7$  access to a Digital Networks Authorized Service Provider's electronic service bulletin board

### **Support Services**

Comprehensive, easily accessible support for customers and partners

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All Others + 1.203.720.8295

Or send email to: digitalproducts@dnpg.com

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Services



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