DNX-1u Access Gateway

Cost-Efficient Consolidation and Remote Telemetry

A Single, Integrated System

As demand for mobile communications continues to grow around the world, network operators must deploy, scale, and manage an ever-widening range of voice and data services. At the same time, they are challenged to control expenses and extract maximum value from existing infrastructure. What's more, expanding services often lead to increased network complexity, especially at the base station. There is a clear need for solutions that consolidate multiple single-function devices, reduce capital and recurring costs (such as backhaul transmission expenses), and improve overall management of the radio access network (RAN). The Sycamore Networks DNX-1u Access Gateway answers the challenge, combining digital cross-connect, traffic grooming and remote management functions in a single, integrated system – and establishing a clear migration path to 3G services and beyond.

RAN Traffic and Equipment Consolidation

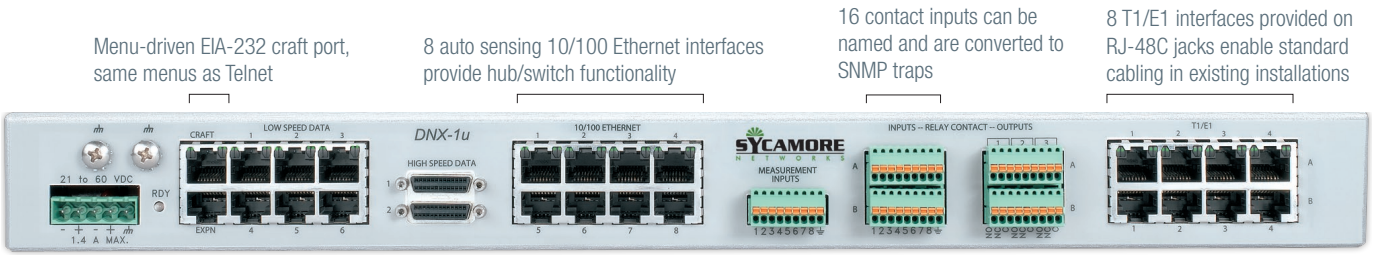
The DNX-1u consolidates equipment by integrating the functions of multiple network elements and enabling diverse services to share common transmission facilities. With up to eight T1 or E1 short/long haul interfaces, the DNX-1u eliminates the need for external CSU functionality. The Time-Slot Interchanger (TSI) provides grooming for cost-effective backhaul strategies and Automatic Protection Switching (APS) for maximum network availability. A PCM to ADPCM transcoder supports 2:1 compression of legacy voice traffic. Eight ports of 10/100 Ethernet connectivity, combined with Layer 2 switching and channelized/unchannelized routing, eliminate the need for additional devices such as hubs, switches, and routers. Two synchronous EIA-530/ITU X.21/V.35 interfaces provide access for Nx56/64 Kbps serial data, while six asynchronous EIA-232/ITU V.24 interfaces support the terminal server functionality required to manage legacy equipment.

Improving Management and Reliability

With the DNX-1u installed in a remote site or base station, virtually every device at the site can be managed from a Network Operations Center (NOC) or other centralized location. This alleviates the need to have technical personnel on site, yet properly equips them if dispatch is required.

Features and Benefits

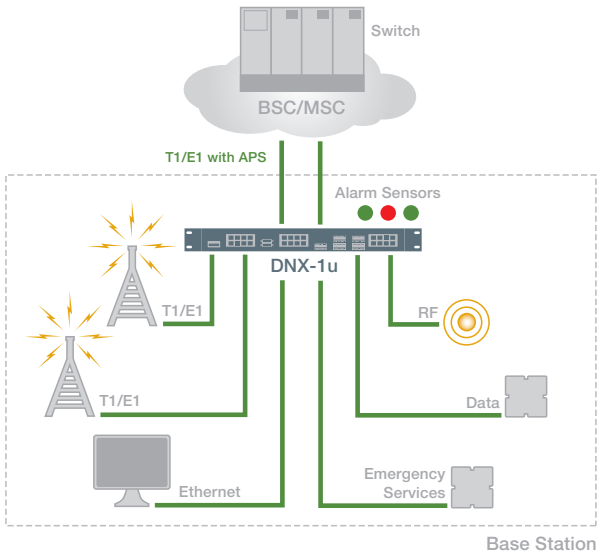
- Consolidates Mobile Base Station Equipment
- Enables Remote Management from Centralized NOCs
- Isolates Alarms Prior to Technician Dispatch
- Improves Problem Resolution and Service Restoration Times
- Reduces Capital and Operating Costs



By creating an IP management channel within the backhaul facilities, the DNX-1u delivers visibility to previously unmanaged elements of the network. Terminal server functionality enables remote control of devices limited to craft port access. Additional management features include contact closure inputs to detect and report failures of collocated equipment (such as air conditioning, access doors, tower lights, etc.), and contact closure outputs to toggle or reset other devices. Differential inputs with user-selectable thresholds offer monitoring and alarming of temperature and voltage. Dual power supplies with independent feeds further enhance reliability.

The DNX-1u Access Gateway from Sycamore Networks forms a foundation for transitioning mobile wireless networks to next generation technologies, while delivering a powerful economic proposition today.

For more information about our intelligent networking products and solutions, please contact your Sycamore Sales Representative.



Mobile Base Station Equipment Consolidation
The DNX-1u combines multiple functions in a single, integrated system for cost-effective bandwidth grooming and remote site management.

SPECIFICATIONS HIGHLIGHTS

8-Port 10/100 Ethernet Switch
- ANSI T1.617; IEEE 802.3; 8 x RJ-45 auto-sensing; IEEE 802.3x

2 High Speed Data Ports
- EIA-232; EIA-449/422; EIA-530; ITU X.21; ITU V.35; 2 x micro DB26
- 2 soft-selectable ports can be directed to the cross-connect or function as WAN ports to the routing engine; can operate at all Nx56/64 Kbps data rates with a maximum speed of 2.048 Mbps

6 Terminal Server Ports
- EIA-232 DTE; ITU V.24 DTE; 6 x RJ-45
- User programmable with regard to speed, character length, parity, and stop bit; maximum baud rate of any port is 38.4 Kbps; support one control signal per direction

8 Voltage Measurement Inputs
- Input voltage range is 0 to ±60 volts; single-ended or differential; ~100mv resolution; soft-configurable thresholds enable SNMP traps

Transcoder
- 32 channels of full duplex PCM to ADPCM transcoding at 2:1 compression; CCITT G.726 at 32 Kbps

16 Contact Inputs
- Form C 2 x 9 position Phoenix connectors; over-voltage and polarity protected up to ±60 volts; soft-configurable port definition and polarity enable SNMP alarms; TTL compatible

6 Contact Outputs
- Form C 2 x 9 position Phoenix connectors; soft-configurable output no/nc contact closures

Quad T1/E1 Module (system capacity of 2 modules or 8 T1/E1s)
- ANSI T1.403; TR 62411; TR 54016; ITU G.703; ITU G.704; ITU G.826
- (8 x RJ-48C); D4, ESF and G.70x framing; AMI, B8ZS and HDB3 line coding; short or long haul; integral BERT and loopback diagnostics; integral revertive/non-revertive APS 1:1 and 1+1

Cross-Connect Capacity
- Non-blocking 1/0 TDM switch fabric; 1024 x DS0 (64 Mbps) capacity

Channelized/Unchannelized Router
- CLI, RIP, RIP2, OSPF, Frame Relay, NAT/PAT, DHCP, Packet Filtering, MLPPP

Management
- Telnet, Reverse Telnet, SNMP, TACACS+, RS-232 craft interface (via RJ-45) Router CLI, ENvision Plus NMS

Power (system capacity of 2 modules)
- ±21 to ±60 Vdc; 1.4 Amps maximum; hot-pluggable, field-replaceable

Mechanical
- 1RU, 19" or 23" rack-mountable
- 420 mm W x 305 mm D x 45 mm H (16.5" x 12" x 1.75")
- 4.09 kilograms (9 pounds) fully configured

Environment
- NEBS-compliant design
- –20°C (–4°F) to +65°C (149°F); 0% to 95% humidity (NC)

Compliance
- CE, IC, FCC, UL/CUL, NOM, AS/NZ, ACA, TEC, CNACL, RoHS

Sycamore Networks, Inc. • 220 Mill Road • Chelmsford, MA 01824-4144, USA • Phone: 978-250-2900 • Fax: 978-256-3434 • www.sycamorenet.com

Sycamore Networks, Inc. (NASDAQ: SCMR) is a leading provider of intelligent bandwidth management solutions for fixed line and mobile network operators worldwide. From multiservice access networks to the optical core, Sycamore products enable network operators to lower overall network costs, increase operational efficiencies, and rapidly deploy new revenue-generating services.