

# Network Exchange 2210

- High density, modular chassis supports up to:
  - 32 analog voice ports
  - •180 digital voice channels (7 X T1/6 X E1)
  - •4 Ethernet ports
  - •32 Serial ports
  - •64 Async ports
- Chassis may be linked together for higher capacity
- Award-winning voice clarity over IP and Frame Relay
- Standards compliance ensures superior interoperability
- H.323 V 2 & SIP (with B2BUA) Compliant
- Soft configurable voice ports
  - Extensive voice feature set
- Multi-protocol support including IP, ATM, FR, X.25, and SNA

## **Voice and Data Gateway**

NSGDatacom's Network Exchange (Nx) 2210 is an Internet Telephony platform that delivers the benefits of voice, fax and wide area networking together with multiprotocol data support to enterprises and service providers alike. The Nx2210 offers a unique combination of switched compressed voice and data support in a single platform. As a stand-alone voice and data switch, or in conjunction with other NSGDatacom products, it gives your network unparalleled flexibility, scalability and efficiency.

The Nx2210 delivers high-quality, low-bandwidth compressed voice with connectivity for both analog and digital interfaces (T1/E1, PRI and BRI) over IP or Frame Relay, allowing enterprise and service providers to choose the most cost-effective transport for their voice and data traffic.

The Nx2210 allows calls to be switched from any port to any port across a public, private or hybrid network, whether Frame Relay or IP. The Nx2210's sophisticated traffic management capabilities achieve exceptional bandwidth efficiency without sacrificing quality or functionality. The Nx2210 is also able to "gateway" between the various voice over technologies switching voice calls from any port to any port over any protocol. In addition to voice support, the ability to detect fax modem tones at any stage of the call and on any port, and then carry that traffic across the network further enhances the Nx2210's flexibility.

The Nx2210 is able to deliver an industry-leading 10 voice/fax over IP calls over a single 64 Kbps link, and over 12 calls via Frame Relay. "Call flows" allows optimized line utilization for multiple calls to a single destination, thus reducing the overhead associated with Voice over IP and allowing bandwidth to be more efficiently used.

Delivering quality of service for all network calls, NSGDatacom's multi-class networking prioritizes calls on an individual basis, ensuring voice quality with sacrificing data performance.

The Nx2210 looks at the available bandwidth and traffic types present on a connection and shapes the traffic appropriately. Additionally, the Nx2210 supports the use of the Type of Service (TOS) bits or the Differentiated Services (DiffServ) octet within an IP packet, ensuring voice traffic is given priority across an IP network on a hop-by-hop basis.

Additional flexibility is offered by bandwidth-on-demand, provided automatically via ISDN or other dial services, depending upon traffic, network conditions or time of day.

Communication solutions from

**NSGDatacom** 

extend. evolve. innovate.



## **Product Features**



## Connectivity

- Voice/Fax
  - FXS/FXO/E&M
  - SIP, B2BUA, H.323 v2, H225.0 v2, Q.931, H.245 v4, RTP/RTCP, ETSI ISDN, NI 1/2, ISDN Cept, G.703, G.704, G.711, G.729a, G.723.1, G.732 @ 2.048 Mbps, AT&T DSX-1, D4, ESF, AMI, B8ZS, TDHS, CELP 4.8/7.4 kbps, ACELP 5.5/8.0 kbps
  - o V.27 ter, V.29, Group III
- IP
  - VoIP, RIPv1/2, OSPF, static routing, SNMP
  - o SIP, B2BUA, H.323
- Frame Relay
  - Frame Relay NNI, UNI, FRF4/ITU Q.933, Frame Relay Annex D, Annex G, LMI, Full FECN-BECN-DE
  - Switching and encapsulation
  - PVCs and SVCs
  - FRAD
- ISDN
  - Voice and Data
  - PRI and BRI S/T
- X.25 (1988ITU)
  - · PAD and switch support
  - ° X.3/X.28/X.28/X.121
- X.75 (1988 ITU)
- SNA
  - SDLC/QLLC Master & Slave PU
  - · PU/LU logical switching
  - SNA (RFC1490), HDLC/SDLC FRAD, SNA/SDLC, QLLC
- SFTM
- Digital cross-connect

## **Physical Interfaces**

- T1/E1, ISDN PRI
- Analog Voice
  - 2-wire FXO loop/ground start, 4-wire E&M Type I, II and V
- ISDN BRI (4-ports)
- High-speed Serial, DTE/DCE to 2.04 Mbps
  V.24/V.28, X.21, V.35, RS449, RS530
- Low-speed Serial, DTE/DCE to 64 Kbps
  - V.24 (8-ports, sync/async)
- Ethernet
  - o 10/100Base-T

## Scalability & Flexibility

- Up to 8 interface cards
- Up to 64 serial data/trunk ports at speeds to 2.048 Mbps
- Over 180 voice channels
- Up to 4 LAN (10/100Base-T) ports
- Multiple units can be "clustered" to provide well over 2,000 simultaneous voice calls and extend reliability through distributed processing
- Ports can be independently configured for any subscriber or trunk protocol

## Management

- Graphical User Interface (GUI) hosted by Microsoft Windows™ PC or Sun SPARC™ workstation
- Configuring, monitoring and troubleshooting over public, private or hybrid networks
- Distributed management of existing equipment via Simple Network Management Protocol

#### General

- Physical
  - Size: 19" Rack Mountable (4U) (6.95" H x 19" W x 18.5" D)
  - Weight: 35 lbs (15.9 kg)
  - Power: 100-240 VAC, 50-60 Hz
    900 Watts (8 Amps @ 115 VAC, 4 Amps @ 230 VAC)
  - Heat: 3,276 BTU/hr

### Environmental

- Temperature: Operating 0º-50ºF (32º-122ºC) Storage: -5º-70ºF (23º-158ºC)
- Humidity:
- •Operating 10%-90% Storage: 5%-95%
- 20-95% non-condensing
- MTBF: >65,000 hours @ 30°F(86°C)
- Card Slots: 4 PCI bus card slot for NIC 8 ISA bus card slots

#### Approvals

- Safety: UL, CSA, IEC 950, EN 60950 (73/23/EEC), CE Mark
- Telecom: 91/263/EEC, EMC: FCC Part 15 Class A, VCCI Class 1
- Immunity: 89/336/EEC

# NSGDatacom

## www.nsgdata.com

3863 Centerview Drive Chantilly, VA, 20151-3232 USA Phone: +(1) 703 793 2000 Fax: +(1) 703 793 2001 7435 New Technology Way Frederick, MD, 21703 USA Phone: +(1) 301 662 5926 Fax: +(1) 301 694 6279 The Brackens, London Road Ascot, Berkshire SL5 8BE, UK Phone: +(44) 1344 893 000 Fax: +(44) 1344 891 990