



Network Exchange 2205A

Voice and Data Gateway for IP services

- **2/4/8 analog voice ports**
1 serial WAN port
2 Switched Ethernet
10/100 ports
- **Award-winning voice clarity over IP and Frame Relay**
- **Extensive voice feature set**
- **Advanced Quality of Service mechanisms**
- **H.323 v2 & SIP compliant**
- **Standards compliance ensures superior interoperability**
- **Optional soft configurable voice ports**
- **Optional WAN support via Frame Relay over high-speed serial interface**

Internet standards and developments in VoIP technology have made the combination of voice and data – long treated as separate services – not just a good technical concept, but a sound business decision. With the Netrix Network Exchange (Nx) 2205A from NSGDatacom, managers now have the ability to add high quality voice to a multi-service network, making convergence a simple and affordable reality.

The Nx2205A is an integrated VoIP gateway and data access device for LAN and WAN applications. Analog voice circuits can be connected directly to the unit and merged with other data streams, enabling the realization of benefits previously available only to those willing to make major compromises. One such compromise is between voice clarity and bandwidth efficiency. With many VoIP implementations there is a trade-off between quality and efficiency; improve one and you negatively impact the other. Not so with the Nx2205A, which combines the use of industry standards with proprietary compression techniques to ensure interoperability, toll quality voice and high bandwidth efficiency. Drawing from Netrix’s heritage of nearly twenty years experience in voice and data integration, the Nx2205A eliminates the need to compromise voice quality when combining data and voice traffic over the same network.

The Nx2205A’s compression algorithms include the common standards along with Netrix-developed codecs. Independent testing proved the the Netrix 8Kbps codec to be indistinguishable from the PSTN. High quality voice codecs are only just the start for high quality voice over a converged network. Sophisticated queue buffer, jitter buffer and echo cancellation mechanisms need to be deployed to maintain this quality. Here again the Netrix heritage shows. Netrix’s experience in voice and data integration has resulted in the creation of unique, robust solutions to the problems inherent to using satellite services. The Nx2200 product family maintains toll quality connections over one or more satellite hops.

On the network side, the Nx2205A’s sophisticated traffic management capabilities preserve its bandwidth efficiency and voice clarity without sacrificing functionality. The system reduces the overhead associated with multiple calls to a single destination, thus optimizing line utilization. Additionally, the Nx2205A uses QoS mechanisms (TOS & DiffServ) to ensure voice traffic is given the required priority. Interoperability is another key element in the Nx2205A’s design. It conforms to H.323 v2 and SIP, enabling integration with soft switches, PC-based telephony and other gateways.

The Nx2205A is a member of the extensive NSGDatacom range of products that are used worldwide for network solutions that scale from low-speed traffic to high-speed, ATM services.



Communication solutions from

NSGDatacom

extend. evolve. innovate.

NETRIX

Network Exchange 2205A

Product Features

Physical Interfaces

• Analog Voice

- Two, Four or Eight analog voice interfaces
- Fixed two-wire FXS loop start or two-wire FXO loop/ground start
- Optional soft configurable two-wire FXS loop start, two-wire FXO loop/ground start and two/four-wire E&M.
- Signaling types include Wink start, delay dial, immediate start, hoot-and-holler and phone
- Dialing can be either DTMF or pulse

• LAN Connectivity

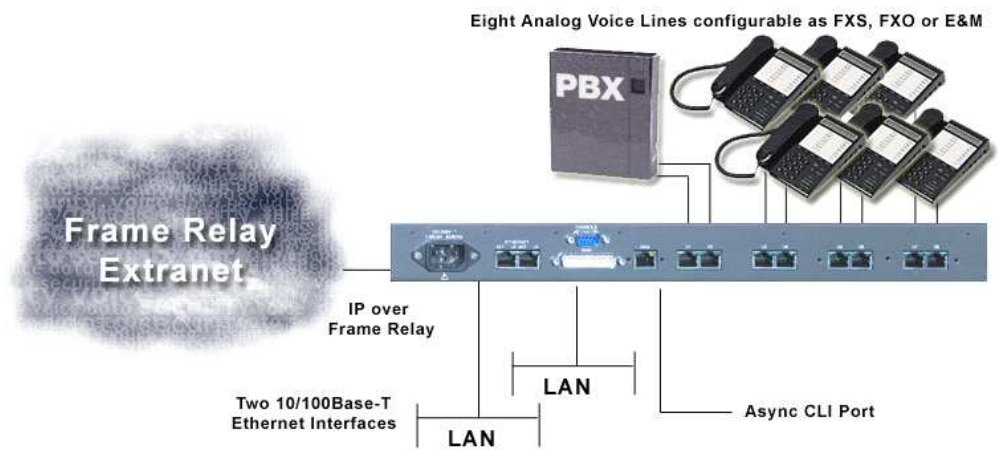
- Two integrated switched Ethernet interfaces
- Auto sensing, 10BaseT or 100BaseT user or hub connection independently on each Ethernet connection
- RJ-45 physical interface

• High Speed Serial Interface

- One optional high-speed serial interface, internal or external clocking to 2.048 Mbps
- Software configurable
- Supports V.24/RS-232/V.35/RS-449, X.21 physical level
- Speeds from 1200 bps to 2.048 Mbps

• Async Serial Interface

- V.24 9600bps Console Port



Connectivity

• Voice/Fax

- FXS/FXO/E&M
- H.323, SIP, B2BUA, G.711, G.729a, CELP 4.8/7.4 kbps, ACELP 5.5/8.0 kbps
- V.27ter, V.29, Group III
- DTMF or Pulse (10 or 20 pps)

• IP

- VoIP, RIPv1/2, OSPF, Static Routing, SNMP, SFTM
- H.323, SIP, B2BUA

• Frame Relay

- Frame Relay NNI, UNI, FRF4/ITU Q.933, Frame Relay Annex D, LMI
- PVC and SVC support

Management

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

General

• Physical

- Size: 17.25"W x 10"D x 1.75"H (43.8 W x 25.4 D x 4.5 H cm)
- Weight: 2.25—3.25 lbs (1.0 kg—1.5 kg)
- Power: 100-240 VAC, 50-60 Hz 18 VA

• Environmental

- Temperature: Operating - 32°-122°F (0°-50°C) Storage: 23°-158°F (-5°-70°C)
- Humidity: 20-95% non-condensing
- MTBF: >65,000 hours @ 86°F(30°C)

• 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

Flexibility

- Up to Eight voice channels
- High quality, low bandwidth compressed voice over IP or Frame Relay
- Ports are software configurable via the Network Management System

NSGDatacom

www.nsgdata.com

3863 Centerview Drive
Chantilly, VA, 20151-3232 USA
Phone: +(1) 703 793 2000
Fax: +(1) 703 793 2001

The Brackens, London Road
Ascot, Berkshire SL5 8BE, UK
Phone: +(44) 1344 893 000
Fax: +(44) 1344 891 990

5303 Spectrum Drive
Frederick, MD, 21703 USA
Phone: +(1) 301 662 5926
Fax: +(1) 301 694 6279