



# Network Exchange 2205BWD

## Broadband Wireless T1/E1 Voice and Data Access

- **Primary or Backup T1/E1 over Broadband Wireless Data Services**
- **Reduces T1/E1 costs by up to 75%**
- **EV-DO Rev A. and HSPA**
- **Compatible with most Cellular Operators**
- **SNMP Alarms**
- **Dynamically allocates bandwidth with voice prioritization**
- **Voice, Fax, Data, and PBX Signaling Supported**
- **Carriers**
  - AT&T
  - Sprint
  - Verizon Wireless
  - Alltel
  - Bell Mobility
  - Dobson
  - Rogers
  - Telus

The delivery time for installing traditional leased T1/E1 circuits is usually months and the operational cost is expensive. The Nx2205BWD uses a broadband wireless connection to provide the same level of service with significantly less installation time and at a greatly reduced cost.

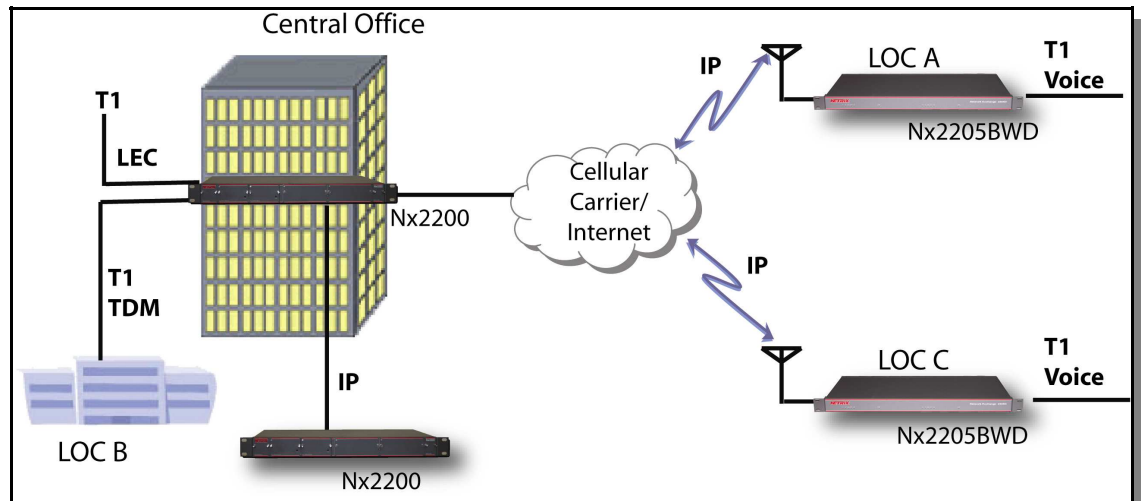
The Nx2205BWD is an integrated voice and data access router for broadband wireless applications. A Digital T1 or E1 voice circuit connected directly to the unit is compressed using toll quality voice compression and merged with other data streams for transmission over the broadband wireless connection. The widely deployed proprietary Netrix compression algorithms maintain voice quality indistinguishable from the PSTN, while reducing the bandwidth required for a full T1 to only 200Kbps, and a full E1 to only 256Kbps. Dynamic bandwidth allocation allows all unused bandwidth to be available for data.

The Nx2205BWD is a true voice and data device supporting all proprietary PBX signaling systems end-to-end with no loss of functionality, and requiring no reconfiguration of the attached switches. Any time slot can carry the signaling information such as CAS/CSS. Out-of-band signaling is also supported. Fractional T1/E1s are supported along with SS7.

On the network side, the Nx2205BWD's sophisticated traffic management capabilities preserve bandwidth efficiency and voice clarity without sacrificing functionality. Unlike many standards-based systems, the Nx2205BWD reduces packet overhead associated with multiple calls to a common destination, thus optimizing line utilization. Additionally, the Nx2205BWD uses QoS mechanisms (TOS & DiffServ) to ensure voice traffic is given the required priority.

The Nx2205BWD is a member of the extensive NSGDatacom range of products used worldwide for network solutions that scale from low-speed traffic to high-speed, ATM services. For applications utilizing a large number of T1/E1s at a central site the Nx2205BWD interoperates with other Nx2200 series products. Both are fully manageable from the sophisticated GUI-based NetrixView Network Management System.

### T1/E1 Cellular Access to a Local Exchange





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## Product Specifications

### Physical Interfaces

- **T1/E1**
  - Two T1 or E1 (one voice, one data)
  - Up to thirty voice channels can be compressed
  - Full drop and insert for all DS0/timeslots between interfaces
  - CAS and ISDN fully supported
  - Transparent pass through for signaling including SS7
  - ANSI T1.403, ITU G.703, ITU G.704, ITU G826, TR 62411, TR 54016
  - Framing: D4, ESF, or G.70x
  - Line Coding: AMI, B8ZS, HDB3
  - Physical: 2x RJ-48c
  - Selection by module for T1 or E1, Short or long haul, APS 1:1 and 1+1 functionality with revertive and non-revertive modes
  - BERT and loopback diagnostics, software enabled per line or per timeslot
- **Switched Ethernet (1 ports)**
  - ANSI T1.617/IEEE 802.3, 802.1p/Q
  - Physical: 1 x RJ-45
  - Autosensing 10/100 Mbps Switched Ethernet autosensing MDI/MDIX (auto-polarity)
  - Software configurable switching characteristics, QoS and ToS characteristics

- **Environmental**
  - Temperature:
    - Operating - 4° to +149°F (-20° to +65°C)
    - Humidity: 0-95% non-condensing
- **Safety**
  - FCC 47 CFR part 68,
  - IC CS-03,
  - IEC 950,
  - EN 60950,
  - ANSI/UL 60950-1-2002,
  - CAN/CSA-C22.2 No. 50950-1-03,
  - Telecordia GR-63,
  - Telecordia GR-1089
- **Other**
  - Telecordia GR-1244,
  - Telecordia GR-3108 (OSP, 07-2004)
- **Antenna Connection**
  - 50 Ohm SMA

### EV-DO

- **Radio Features**
  - EV-DO Rev. A with Fallback to EV-DO Rev. 0 and CDMA 1x (not recommended for EV-DO Rev 0 or CDMA 1x)
  - Dual-Band Support (800 MHz cellular and 1900 MHz PCS)
- **Certification**
  - Class 1 Div 2, Parts A,B,C, & D

### HSPA

- **Radio Features**
  - HSPA with Fallback to UMTS, EDGE and GPRS (not recommended for UMTS, EDGE or GPRS)
  - Dual-Band UMTS/HSPA (850 MHz and 1900 MHz)
- **Certification**
  - Class 1 Div 2, Parts A,B,C, & D

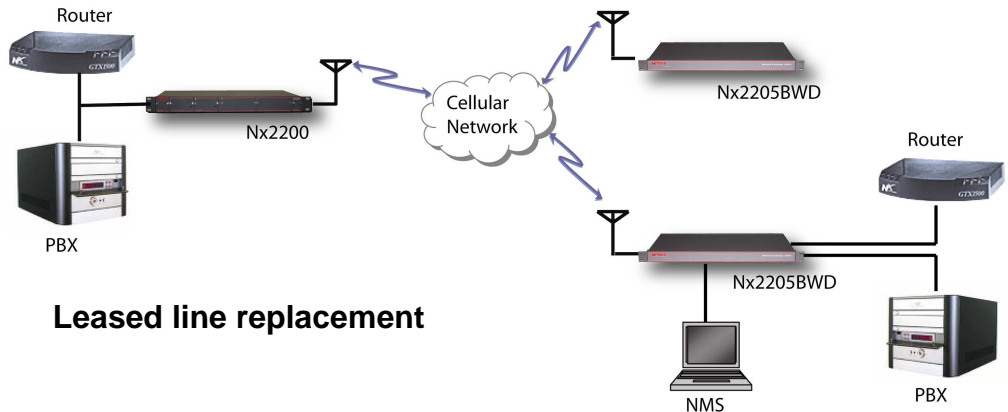
### Management

- NetrixView 2000 full GUI window (98, NT, 2000, Vista Pro) based NMS software included.
- SNMP, SNMPv2, Web browser (HTML, SHTML)

### General

- **Size:**
  - 16.6" w x 9"D x 1.75"H (IU height)
  - (419.1 mm x 228.6 mm x 44.45 mm)
- **Weight:**
  - 3.25 lbs/1.5 kg
- **Power:**
  - 100-240 VAC, 50-60 Hz 18 VA
- **MTBF**
  - >65,000 hours @ +45C

### T1/E1 Cellular Remote to Host



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