

NSGDatacom

VoIP – Optimized for Satellite

- **Award winning voice clarity**
- **Field-proven in harsh environments**
- **Scalable and Flexible**
- **H.323 & SIP compliant**
- **Superior Point to Point Operability**
- **Optional Centralized NMS**

NSGDatacom manufactures an extensive range of **Netrix VoIP gateway** products that provide **efficient transport of voice and packet based data** protocols over IP. Our products are ideally suited for **maximizing throughput and maintaining high quality voice communications** on satellite links. Our **high fidelity voice and data compression** techniques lead the industry in bandwidth efficiency while retaining toll quality voice communications. They inter-operate with standards based products, and also allow **fast call set-up** on point-to-point connections without the need for an external soft switch to establish or tear down the connections.

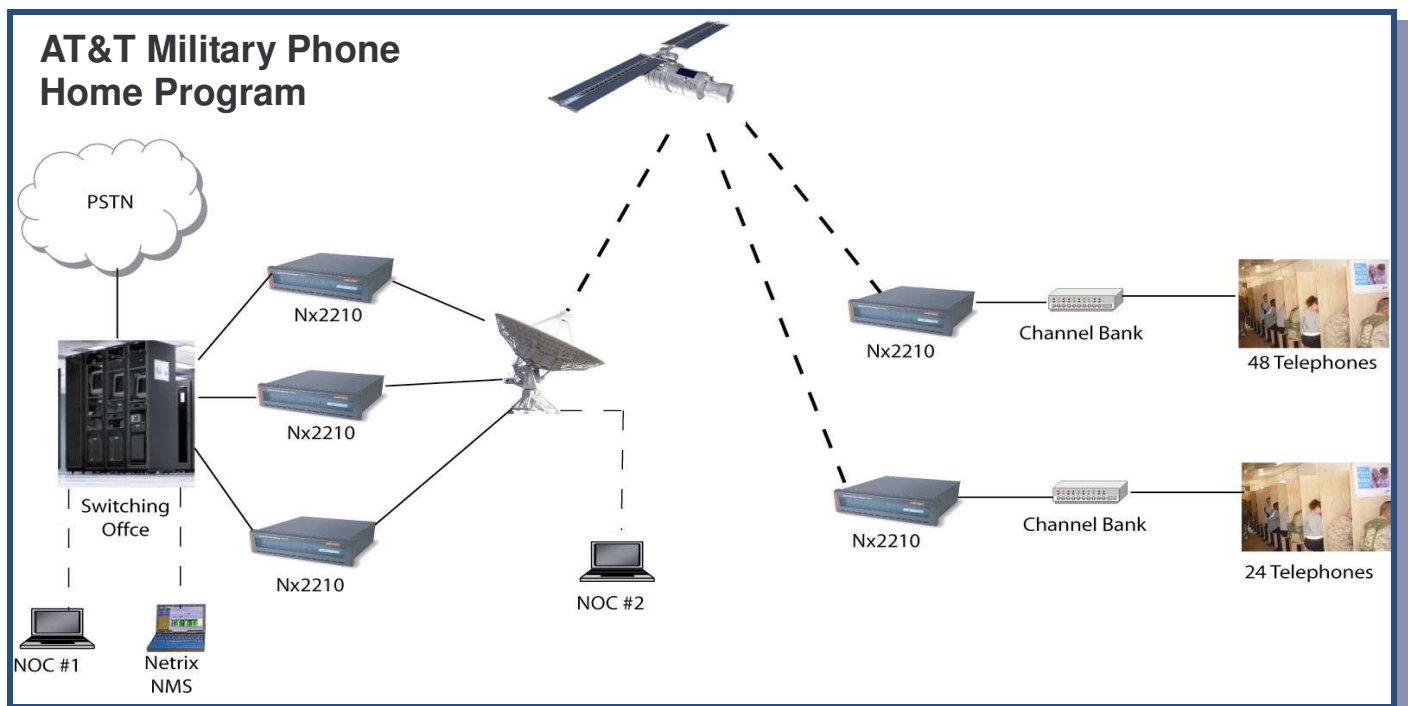
Our VoIP Nx2200 series products use proven, widely deployed technology to minimize bandwidth requirements. Standards-based and proprietary voice compression techniques deliver toll quality voice even over multiple satellite hops. High fidelity voice can be achieved with up to **12 simultaneous toll quality voice calls on a single DS0** (64Kbps).

Most VoIP solutions require all calls to be established by a centralized call router or soft switch. This adds significant delays on satellite networks and in some cases introduces an unnecessary double hop, which dramatically increases overall satellite bandwidth usage. With NSGDatacom solutions all **calls can be locally established** and routed between units without the need for unnecessary satellite hops. If a call is placed from one local port to a port on another local unit, no satellite bandwidth is used either for call setup or for the call itself.

In VoIP applications over satellite links, the propagation delay coupled with jitter introduced by the network can cause severe degradation to voice quality. NSGDatacom VoIP solutions incorporate **extensive echo cancellation** and **dynamically extended jitter buffers** to compensate for the long delays inherent to multi-hop satellite links.

NSGDatacom VoIP products also include **sophisticated prioritization and QoS processes that ensure voice quality** is not degraded when heavy data traffic is also present. Our products are extensively field proven to **support a combination of voice, fax, IP data, and a wide range of legacy protocols** over shared IP or other packet based network links, with optional VPN, IPSec compliant security.

Tens of thousands of our units are installed worldwide, from CPE devices to 1000+ port central office switches. Our VoIP compressed voice solutions are used by AT&T on satellite links to support the US Military **soldiers phone home** program in the Middle East. Many other carriers, air traffic control networks, world-wide delivery services and the European Space Agency, rely on our voice, fax and data products for extreme bandwidth efficient communications.



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Netrix VoIP Product Solutions

- Combined voice, fax and wide area networking over a **single integrated platform** with multi-protocol data support
- **High quality voice compression** for analog and digital interfaces (FXS, FXO, E&M, T1/E1, PRI and BRI)
- Mixes standards-based and patented voice compression technologies (Up to 12:1 voice compression) to deliver **high quality voice over a satellite** at efficient data rates
- Both standards-based and Netrix-developed codecs coupled with the product's sophisticated queue buffer, jitter buffer and echo cancellation mechanisms, **toll voice quality is sustained, even over multiple satellite hops**
- **Calls can be locally enabled** and routed between units without the need for unnecessary satellite hops.
- **Sophisticated prioritization and QoS processes that ensure voice quality** is not degraded when heavy data traffic is also present
- **Powerful Centralized NetrixView configuration, diagnostics and Network Management system**—optional
- IPsec compliant VPN—optional

Nx2201



- 4 analog ports or
- 1 T1 digital (24 ch) or
- 1 E1 digital (30 ch)
- 1 Ethernet port

Nx2210



- Up to 32 analog
- Up to 7 T1 digital
- Up to 6 E1 digital
- 4 Ethernet ports

Nx2205A



- 4-8 analog ports
- 2 Ethernet ports
- 1 Serial WAN port

Nx2205D



- 2-4T1/E1 voice or data
- 2-4 Ethernet ports
- 1-2 Serial WAN port

Nx2214



- Up to 32 analog
- Up to 7 T1 digital
- Up to 6 E1 digital
- 4 Ethernet ports
- Dual PSU AC/DC

NetrixView



- Full GUI network management system (NMS)
- Extensive monitoring, configuration, and diagnostics
- SNMP Manageable

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