

VX900



VX900 Voice Exchange™

- **Integrated, multi-function voice switch**
- **Standalone remote survivability**
- **Extensive call system interoperability**
- **True telecom traffic management**
- **Advanced call security**
- **Expandable platform with optional software modules**
- **Provides intelligent, flexible, lower cost VoIP and FMC enablement**

THINK BEYOND THE PBX

The NET VX900 Universal Voice Exchange™ is the industry's first fully-integrated multi-service voice switch with Any-to-Any gateway functionality, creating a next-generation solution for enterprise VoIP enablement. With NET's 20 years of experience in designing and building multi-service network exchange solutions, the VX900 Voice Exchange is the clear choice for large corporations looking to obtain the benefits of VoIP through a versatile, integrated voice exchange solution that provides interoperability with existing PBX and IP PBX systems.

As a multi-function voice switch, the NET VX900 can be deployed in distributed networks to reduce and consolidate PBX infrastructure. The NET VX900 extends advanced call system features from centralized data centers to remote locations. With its remote survivability features, the NET VX900 provides continuous, local call service and intelligent trunk routing in the event of network connectivity failures.

MULTI-FUNCTION INTEGRATION

The NET VX900 Voice Exchange™ contains an integrated voice routing engine, session border controller, media gateway and protocol converter with support for T1/E1/ISDN and analog voice interfaces, full SIP and H.323 compliance, and industry leading bandwidth efficiency capabilities. This multi-function integration delivers powerful, low cost VoIP enablement and call system infrastructure convergence in one intelligent, manageable solution.

INTELLIGENT SESSION BORDER CONTROLLER

With advanced network control and security features including SRTP, VLAN support and advanced call manipulation, the NET VX provides a level of intelligence and capability that extends well beyond the typical, single-purpose session border controller. Unlike many other products in the market, the NET VX only utilizes standard protocols to provide vendor independent remote survivability.

TRUE TELECOM TRAFFIC MANAGEMENT

By converging legacy voice traffic onto the IP network, VX900 eliminates tie lines, multiplexers, tandem PBXs and long distance toll charges. The VX900 also preserves all existing dial plans, calling features and applications while simultaneously integrating newer SIP and H.323-based VoIP applications, products and networks. With a broad range of protocols on-board, the VX900 sits at the center of enterprise voice networks, seamlessly inter-working between TDM and IP based voice and data networks and services.

ADVANCED CALL SECURITY

The NET VX900 supports an extensive set call security protocols and features, including: IPSEC, SRTP, TLS, MD5 authentication, STU Relay support and DDoS and SPIT rogue packet ejection on a hardened OS. The NET VX900 has been intensely tested and deployed in mission-critical, high security government agency voice networks making it an ideal solution for security-conscious enterprises.

VX900 SPECIFICATIONS

Interfaces

- 2 10/100 Ethernet ports
- 1, 2, 4 and 8 port T1/E1
- FXS, up to 16 ports
- 1 and 4 port sync serial (both port and network sides)
- BRI WAN interface

VoIP Signaling

- SIP
- H.323
- BSP (BESTflow Signaling Protocol)

SIP

- SIP Back-to-Back User Agent (B2BUA)
- Transport Layer Security (TLS) encryption
- MD5 digest authentication
- Built in SIP registrar for mini IP-PBX functionality
- Call Admission Control with Static Local session control & management
- RFC2833 and in-band DTMF signaling over RTP
- Extends central SIP services to non-SIP devices
- Session Border Controller

TDM Signaling

- T1 CAS (E&M, DTMF, MF, Loopstart, R1)
- E1 CAS (R2 MF)
- ISDN - AT&T 4ESS, Nortel DMS-100, Euro ISDN (ETSI 300-102), QSIG, NTT (Japan), Harris 20/20, AT&T 5ESS, CoreNet and National ISDN-2 (NI-2)

Voice Features

- RTCP
- Automatic call type detection/pass through for voice/modem/fax
- A-law and μ -law encoding
- Voice compression: G.723 (5.3 or 6.3 Kbps), G.729A, G.729AB, G.711, G.726 (16, 24, or 32 Kbps), G.727 (16, 24, or 32 Kbps)
- G.168 echo cancellation (128ms tail size, full duplex)
- Fax: group 3 at 2.4 to 14.4 Kbps
- T.38 real time fax relay
- Voice activity detection, silence suppression, comfort noise generation
- Call progress tone generation - dial tone, busy, ring-back, and congestion

Routing

- Dynamic call routing/link quality management (LQM)
- Multiple routing tables per channel, per port
- Call Load balancing
- Static IP routing
- DiffServ-based IP QoS support (marking, queuing and scheduling)
- Least cost routing
- Hair-pinning - route backup over PSTN or secondary IP network 802.1Q and P VLAN support

Security

- Secured RTP (SRTP)
- Built-in VOIP optimized firewall
- SSH
- Smart card authentication
- IPsec
- Extensive ACL support
- Hardened operating system
- Denial of service (DOS) attack mitigation and protection
- Advanced remote access control
- Anti-spoofing
- DNIS, CLID, call type pre-authentication Rogue stream and host detection

Serial Trunk Interface

- IP over serial (HDLC and Cisco HDLC)
- SAToP (Structure-Agnostic TDM over Packet)
- DTE and DCE modes
- V.35, RS-449 and RS-530 interfaces

Configuration/Network Management

- SNMPv2 - traps, alarms, and statistics
- VXbuilder™ (GUI-based provisioning tool)
- VXwatch™ (real-time alarm monitoring tool)
- Network logging (syslog)
- Active Directory Integration

Interactive Voice Response (IVR)

- Full platform integration
- No utilization of network bandwidth - all .wav files are played locally
- IVR support on all TDM and IP interfaces
- Fully customizable using VXscript

Service Creation via VXscript

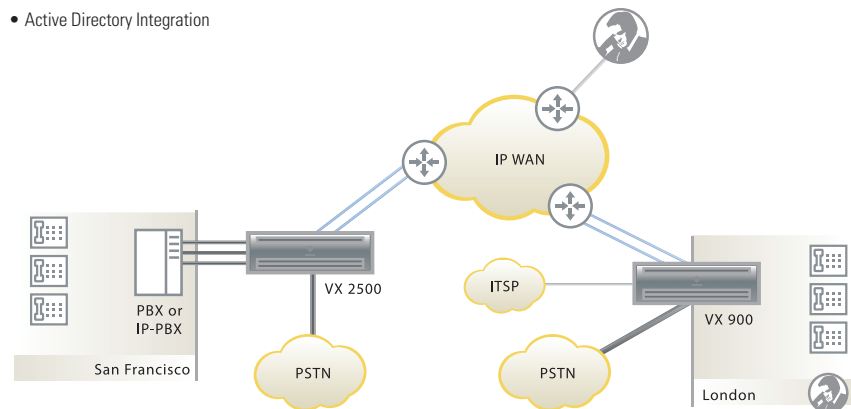
- Fully integrated programming and scripting language
- Playback and recording of audio to and from a call
- DTMF digit collection
- Complete access to call routing and CDR parameters
- Enables the creation of unique customer applications

Chassis Data

- Rack mount: 19in. (483mm) rack mountable with EIA and telco rack support
- Normal operating conditions: 40F to 104F (5C to 40C)
- AC power: 100 - 240 Volt, 50/60 Hz, 200 Watt
- Humidity: 20% to 80% non-condensing

EMC & Safety Compliance

- Meets EN 300 386, EN55022, EN55024, EN60950, UL60950, CB



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