

Tenor[®] DX Series for Service Providers

- Available with 2, 4, 6 or 8 T1/E1/PRI Spans
- Up to 120 VoIP channels
- Available in MultiPath or Gateway Configurations
- Intelligent Call Routing
- VoIP and Tandem Circuit Switching
- IVR/Radius AAA Compliant (Multi-lingual IVR)
- Support for external Quintum Call Routing Server*
- Support for external Quintum Tenor Monitor
- Support for external Remote Management Session Server*



Tenor[®] The Tenor VoIP MultiPath Switch Offers a Robust VoIP Switching Solution For Service Providers.

Quintum's Tenor switching/gateway solutions are deployed worldwide to provide highly reliable, easy-to-implement VoIP connectivity in a full range of enterprise and service provider environments. These highly adaptable solutions work with traditional PBXs, IP PBXs and IP phones, IVR and ACD systems, RADIUS servers, and other critical components of end-to-end H.323- and SIP-based communications environments. They are perfect for Service Providers deploying VoIP to the customer prem.

Tenor[®] DX Series Tenor S (Survivable MultiPath Switch) Offers a Survivable Branch Office VoIP Access Solution for IP PBXs and IP Centrex

Quintum's Tenor S line is a complete SIP-based VoIP solution for the branch office or for service provider customer premise equipment, providing full survivability in the event that access to the central and/or hosted IP PBX is lost. Because it delivers a complete solution in a single device - and because it offers such easy, scalable implementation and management - the Tenor S line significantly reduces the total lifecycle cost of VoIP deployment, while optimizing service reliability. Tenor S also offers PSTN connectivity for local access back up and E911 service..



A more intelligent way to enter the VoIP market

Service providers can benefit from a variety of valuable applications such as VoIP SIP Trunking, Wholesale VoIP Termination, Calling Cards, Tandem Switching and Least Cost Routing.

Carrier class intelligence delivers a complete application solution

- **Integrated VoIP and Circuit Switching**
Intelligently switches calls between circuits (DSOs) and IP, between multiple circuits, and between IP endpoints.
- **Enhanced Interactive Voice Response (IVR)**
Supports multiple user selectable languages and prompts.
- **Advanced Call Routing Support**
Quintum's external Tenor VoIP Call Routing Server* provides scalable, centralized network routing control and administration for larger networks. Provides enhanced network-wide routing flexibility including QoS routing, Least Cost Routing, Source-Based Routing, and extensive network routing statistics and report generation.

• Network Management Support

Quintum's external Remote Management Session Server* helps lower maintenance costs through centralized provisioning, alarm monitoring, and troubleshooting.

• MultiPath Architecture

Allows easy installation at the customer premise. Tenor is the only VoIP solution that can be installed without upgrades to the existing voice or data network.

More intelligence means less network congestion

With its PacketSaver™* Technology, the Tenor reduces bandwidth consumption up to 57%, by combining voice packets from several calls into a single packet to minimize bandwidth requirements.

More intelligence means better management

The Tenor comes with a set of easy to use configuration and management tools, including Tenor Configuration Manager (GUI) and Wizard, and the Tenor Monitor that offers realtime monitoring of alarms, call status and CDRs. Tenors can easily be remotely managed behind NAT firewalls utilizing the Tenor Remote Management Session Server.*

* Available for an additional cost

Tenor DX MultiPath Switch

CALL MANAGEMENT FEATURES

- Automatic call type detection: Voice/Modem/Fax
- Answer and Disconnect Supervision
- Trunk group support
- Public and private dial plan support
- User programmable dial plan support
- Forced routing
- Pass-through support for calls to Toll-Free, local and special services numbers (ie. emergency services)
- Automatic appending and stripping of digits to dialed numbers
- Call Detail Records
- Least Cost Routing with external Quintum VoIP Call Routing Server*
- Caller ID Name and Number

TECHNICAL SPECIFICATIONS

Telephony Specifications

- Voice algorithms: G.723.a and G.729ab, G.711
- Auto codec negotiation
- Fax Support: Group III at 2.4, 4.8, 7.2, 9.6, 14.4 Kbps, using industry standard T.38; Super G3 compatible up to 33.6 Kbps
- Modem support with G.711
- Choice of 2, 4, 6, or 8 T1/E1/PRI Spans
- Standard RJ-45 Connectors
- Coding: A-law, μ -law
- Enhanced (Carrier Grade) Echo Cancellation: ITU Rec. G 168, up to 128 msec tailsize
- PRI Signaling Protocols: National ISDN-2, Euro ISDN NET5, Japan INS-NET1500, KDD, 4ESS, 5ESS, DMS100
- T1 CAS (E&M, Loop Start, Feature Group-D, DTMF, MF)
- E1 CAS (R2 MF)
- DASS2
- Tandem/TDM switching
- Maximum Call Rate: 7,200 calls/hour
- VoIP to circuit, and circuit to circuit (Tandem/TDM) switching
- SS7/C7 support using an external SS7 signaling gateway*

IP Network Specifications

- LAN Interface: Fast Ethernet port (10/100Base-T)
- Standard RJ-45 Interface (IEEE 802.3) for 10Base-T or 100Base-T connections
- QoS Support: IP TOS, DiffServ

VoIP Network Specifications

- H.323 v.3 Gateway and Integrated Gatekeeper+
- Support for multiple SIP User Agents (RFC3261 compliant endpoint)
- DTMF Signaling via RFC 2833 or SIP Info
- SIP Supplementary Services
- Message Waiting
- SIP Refer Method Support
- IVR/RADIUS server support for AAA with integrated multi-lingual IVR+
- Adaptive Voice Activity Detection (VAD) with Comfort Noise Generation (CNG)
- Adaptive Jitter Buffer
- Packet Loss Concealment
- NATAccess™ - NAT/Firewall
- Security: IP Filtering
- Up to 120 simultaneous VoIP calls
- Support for DNS-SRV

Configuration / Management

- Quintum Tenor Configuration Manager (GUI) for configuration of remote individual Tenors.
- Quintum Tenor Monitor (GUI) for alarm monitoring, call monitoring and CDR monitoring
- SNMPv2 Agent
- Command Line Interface

GENERAL SPECIFICATIONS

Dimensions: (1U High Chassis)

- W 17 3/8" x H 1 3/4" x D 10 3/4"
- W 44.5cm x H 4.5cm x D 27.6cm
- Maximum weight: 8.25 lbs (3.75kg)
- AC Power: 100-240 Volts AC, 50/60 Hz, 50 watts
- Operating temperature: 40° - 104° F (5° - 40° C)
- Operating humidity: 20% - 80% non-condensing
- Telco: FCC Part 68, TS-016, TBR4, TS-038, CS03
- EMC: FCC Part 15, EN55022 EN55024, EN61000-2-3, EN61000-3-3
- Safety: UL60950, AS/NZS60950, EN60950



Tel: 012 665 0052
Fax: 012 665 0059
qkonsa@qkon.com
www.qkon.com

8 Pieter Street
Highveld Technopark
P.O. Box 9928
Centurion, 0046