Tenor AF MultiPath Switch

QUINTUM

The Perfect Fit

- 2, 4, 6 or 8 Analog line and trunk interfaces
- Up to 8 simultaneous VoIP calls
- Available in MultiPath or Gateway configurations
- Perfect for small enterprises, SOHO and branch office locations
- Support for external Quintum Tenor Monitor
- Support for external Remote Management Session Server*

Intelligent VoIP Access Solutions for Small Enterprises and Remote Locations

Tenor®

The Tenor VoIP MultiPath Switch Offers a Robust VoIP Switching Solution For Remote Offices and SOHO Environments

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, legacy analog equipment, 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 deploying VoIP in small enterprises, SOHO or remote offices of larger enterprises, where analog and modem-based devices are common.

Tenor® S™

AF Series

survivable

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 offer 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 and legacy equipment integration for both analog and modem based devices.

Both versions of Tenor still include the features that made Quintum the VoIP market value leader.

- **MultiPath architecture** for easy integration with existing voice and data infrastructure, meaning little or no re-programming of the PBX, or upgrades are required and no need for special dialing plans.

- **Transparent MultiPath Call Routing** to intelligently route calls between the PBX, the PSTN, and the IP network to achieve the best combination of cost and quality. The Tenor can also route calls over IP to reduce costs, and then transparently "hop off" to the PSTN, to reach off-net locations.

- **Auto Provisioning** interface allows the Tenor solution to be deployed worldwide, and configured automatically by acquiring the configuration information from a central server, upon installation. The same auto-provisioning capability allows the Tenor to be configured from a VoIP application, thus supporting a single user interface between the VoIP application and the Tenor configuration.

- **Unified Communications Proxy (UCP)** provides 'Any to Any' connectivity: SIP - SIP, TDM - TDM and SIP - TDM, for easy integration with any network.

- **PacketSaver™ Technology** multiplexing to reduce bandwidth consumption by up to 57% by combining voice packets from multiple calls into a single packet.

- **NAT*Access*™** to allow Tenor to operate behind NAT firewalls to translate internal IP addresses into public addresses when a VoIP call is established with an outside party.

- **Remote Management** for anywhere, anytime remote management even behind NAT firewalls with Quintum's Remote Management Session Server.

Tenor and Tenor S now assure that VoIP can be deployed easily in existing voice and data networks, offering unmatched voice quality and survivability, network-wide scalability, and easy, secure remote management for installation, configuration, upgrades, troubleshooting and repair. All this adds up to lower TCO than any other VoIP solution on the market!

* Available for an additional cost

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 IP routing and IP port mapping
- Pass-through support for calls to Toll-free, local and special service numbers (ie. emergency services, etc.)

- Automatic appending and stripping of digits to dialed numbers
- Call Detail Records
- Least Cost Routing with external Quintum VoIP Call Routing Server*
- Type 1 Caller ID/Name Support (Telcordia, ETSI, NTT and DTMF)

TECHNICAL SPECIFICATIONS

Telephony Specifications
- Voice algorithms: G.723.1a, G.729ab, G.711
- Auto codec negotiation
- Fax support: Industry standard T.38 and Group III at 2.4, 4.8, 7.2, 9.6, 14.4 Kbps
- Modem over IP
- Choice of 2, 4, 6 or 8 FXS and/or FXO configurations
- Standard RJ-11 connectors
- Coding: A law, µ law
- Enhanced (Carrier Grade) Echo Cancellation: ITU Rec. G168, up to 128 msec tailsize
- Loop Start, Reverse Battery, Battery Disconnect
- Tandem/TDM Switching
- Maximum Call Rate: 900 calls/hour

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

VoIP Network Specifications
- H.323 v.3 Gateway and Integrated Gatekeeper+
- SIP User Agent (RFC3261 compliant endpoint)
- SIP RFC2833 In-band DTMF signaling
- SIP Supplementary Services
- Message Waiting Indicator
- 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 Compensation
- NAT*Access™*
- Security: IP Filtering
- Up to 8 simultaneous VoIP calls
- Support for DNS Addressing

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 8 1/4" x H 2" x D 7"
W 21cm x H 5.1cm x D 18.73cm

- Maximum weight: 1.3 lbs. (0.6kg)
- AC Power: 100-240 Volts AC, 50/60 Hz, 22 watts
- Operating temperature: 40° - 104° F (5° - 40° C)
- Operating humidity: 20% - 80% non-condensing
- Telco: FCC Part 68, AS/ACIF S003, CS03, JATE AS/ACIFS002:2001
- EMC: FCC Part 15 Class B, EN55022, EN55024, EN61000-2-3, EN61000-3-3, AS/NZS3260
- Safety: UL60950, EN60950, AS/NZS60950

	Tenor AF Series	MultiPath AFM Series	Station AFG Series	Trunk AFT Series	Enterprise AFE Series
2 VoIP Calls	2 FXS/2 FXO	2 FXS/0 FXO	0 FXS/2 FXO	N/A
4 VoIP Calls	4 FXS/4 FXO	4 FXS/0 FXO	0 FXS/4 FXO	4 FXS/2 FXO
6 VoIP Calls	N/A	N/A	N/A	6 FXS/2 FXO
8 VoIP Calls	N/A	8 FXS/0 FXO	0 FXS/8 FXO	N/A