# Adit 3302 Series High-Bandwidth Multi-Service Router

Release 1.2.3



# **Key Benefits:**

- · Voice and data convergence on a single access circuit
- Comprehensive wire-speed routing, Stateful Firewall protection, mini-DCS functionality, CSU/DSU capability and 8 to 24 voice lines in a single platform
- High performance IP routing under the most difficult conditions with streaming video, voice and security features running simultaneously
- Protection of corporate network assets through state-of-the-art security features including NAT, stateful packet inspection, flow classification, Application Layer Gateway, Intrusion Detection and Denial of Service filtering
- Carrier-grade design, features and performance at a disruptive price

# Speed, Security, and Voice to Unleash the Potential of WAN Services

The Adit® 3302 High-Bandwidth Multi-Service Router consolidates network access into a single, large IP pipe, while providing the speed that a growing business needs. Carrier-class performance is delivered, while securing voice and data traffic on the corporate network. All of these features are packaged into the Adit 3302 at an unmatched performance and price.

The Adit 3302 integrates the features of a wire-speed router, security appliance, TI CSU/DSU, and integrated access device into a single element – without sacrificing speed or security. It replaces multiple elements in an enterprise location that typically provide voice, data and security between the LAN and WAN.

# Carrier-class Services

Designed to deliver carrier-class features and unparalleled performance at the customer's premises, the Adit 3302 scales beyond the typical fixed-configuration integrated access device with two routed Ethernet ports and up to 24 voice lines. Units are ordered with increments of none, 8, 16, or 24 FXS ports. Should customer needs expand, the units can be field upgraded in 8 FXS increments up to 24 lines. All voice interfaces are carrier-grade, exceeding intra-building premises specifications. The network side of the Adit 3302 is also scalable. Bandwidth can be allocated between voice circuits and data in DS0 increments through the integral digital cross-connect. The second Ethernet port can be utilized for metro Ethernet WAN service with bandwidth scaling to 100 Mbps. IP packets are routed between the TI WAN and Ethernet ports.

The Adit 3302's scalability does not increase the complexity of the system. All T1 and 10/100Base-T interfaces are included in its rugged package. The interfaces are not fixed function so the second Ethernet port can serve not only as a WAN port, but also as a second LAN segment utilized for

voice over IP (VoIP) or as a Demilitarized Zone (DMZ). Best of all, configuration updates can be performed remotely to increase performance and manage the system; reducing cost, personnel, and support to maintain the network.

The telephony interfaces operate over a variety of operating environments and with almost any telephone, key system, or PBX. An optional eight-hour battery backup unit keeps the system operational in the event of a power interruption.

# **IP Security Without Sacrificing Performance**

The Adit 3302 maintains wire-speed throughput with low latency – even with small packets used for streaming media – while stateful packet inspection, network address translation, and Denial of Service protection are enabled. These stateful firewall features keep the network and LAN segments secure from attacks while allowing authorized access to network resources. Whether hosting e-commerce or web services or using VoIP, the Adit 3302 routes and secures data packets.

# **Simplified Configuration and Management**

Adit 3302 units are shipped configured for quick turn-up and operation. Just select the right configuration for the application and we will ship it ready for service. There are no complex hardware modules or software packages to select. New features can be activated remotely through a software download.

Configuration and maintenance is performed locally or remotely. The command line interface is accessed locally through the serial port on the unit or remotely through Telnet. SNMP is used for alarm and performance monitoring. Best of all, no site visits are required to increase the capabilities or manage the system; thereby reducing cost and personnel required to support the system.



#### Solution Diagram for the Adit 3302 Instant **Applications** Call Multimedia Secure Wireless Voicemail Messaging Conferencing Workgroups Circuit-Service Private IP Switched Services Provider or Internet Voice Network DCS 1 T1 (or Ethernet) WAN Access DM2 Adit 3302 Ethernet -Web Server Ethernet E-Commerce Server Corporate Network Existing LAN Existing Phone Systems 8 - 24 FXS

### **Technical Specifications for the Adit 3302**

#### Components:

- Adit 3302 Platform
- · Hardware Upgrades
- Adit Series 8-Port FXS (max. 3 modules/system)
- · Included Accessories
  - System software
  - AC power converter (AC models only)
  - DC power cable (DC models only)
  - Wall mount bracket

#### Interfaces:

- 2 I0/I00Base-T Ethernet (RJ-45 connector) ports
- LAN, WAN, or DMZ

- I TI ports (RJ-48C connector)
  Framing for TI: SF (D4) or ESF
  Line Code for TI: B8ZS or AMI
- Internal or line timed with dual sourcesTI Loop Codes and BERT Testing
- Non-blocking DS0 time-slot interchange
- 8, 16, 24 FXS ports (RJ-21 connector)
- FXS signaling: Loop Start, Loop Start Reverse Battery, Ground Start, Ground Start Reverse Battery, Ground Start Wink, Ground Start Wink Reverse Battery
- Terminating impedances: 19 selectable impedances
- DC loop range: 1000 feet, 26 AWG ERL: ≥19 Db
- -SRL: ≥II dB
- Maximum ringers: 5 REN per line, FCC Class B ringers
- Ringing Voltage: ≥50 Vrms @ 20 Hz
- Modem support: full compatibility with V.90 modems
- RS-232 console port (DB-9 connector)
- · Battery status/general alarm interface

# Network Standards:

- ANSI/TIA T1.403
- ANSI/TIA T1.231
- ITU G.703, G.704, G.712
- TIA/EIA-464
- Telcordia™ GR-57-CORE

# Voice Processing:

• Voice CODEC support for G.71 Ia/μ-law

#### Voice Signaling:

- FXS loop/ground start
- DTMF signaling
   CLASS<sup>SM</sup> support

#### Routing and Policy Management:

- IPv4
- · Static routes RIP v1, v2
- OSPF
- · PPP, ML-PPP
- DHCP Server/Client/Relay
- DNS Relay and Resolver
- BootP Relay
- PAP, CHAP, & RADIUS authentication
- Ping, Trace RouteIPCP

#### Router Performance:

Wire-speed on T1 and 100Base-T interfaces (≥100 Kpps) (Actual router performance depends on features enabled)

#### Firewall Features:

- Stateful Firewall
- NAT/NAPT, NAT Bypass, NAT Pin-Holes
- LI-L4 Flow Classification
- Application Layer Gateway
- Intrusion Detection
- Denial of Service (DoS) Filtering

#### Management:

- Visual status indicators
- SNMP v1, v2 (via 10/100 Base-T or in-band network)
- Standard MIB
- Command Line Interface via telnet or craft port
- File transfer via TFTP
- Syslog

#### Power:

- AC Input Voltage: I20/240 VAC @ 60/50 Hz
- DC Input Voltage: -48 VDC, 0.7 Amp
- Internal solid-state (fuseless) protection
- 8-hour battery backup (optional)

#### Regulatory Approvals:

- USA
  - UL60950-I
- FCC Part 15, Class A
- FCC Part 68 and TIA-968-A
- Canada
- CSA 60950-I
- ICES-003 Class A
- CS-03

#### Physical:

- Wall mount brackets (included)
- Rack mount option: 19 in or 23 in rack

- 1.75 in (H)  $\times$  8.25 in (W)  $\times$  12 in (D)
- 4.4 cm (H)  $\times$  21 cm (W)  $\times$  30.5 cm (D)
- Weight: 6.25 lb (2.83 kg)

#### Environment:

- Operating temperature range: 32 °F to 104 °F (0 °C to 40 °C) Storage temperature range: -40 °F to 158 °F (-40 °C to 70 °C) Maximum operating altitude: 10,000 ft (3,048 m)

- Maximum non-operating altitude: 40,000 ft (12,192 m)
- Relative humidity (non-condensing) range: 0% to 95%

AIRLINX Communications, Inc.

Box 253

Greenville, NH 03048

E-mail: sales@airlinx.com

Tel: (888) 224-6814 Fax: (603) 878-0530

