

**A reliable, cost-effective
approach to**
**Integrated
Access**



**The Total Access®
IAD Series**

ADTRAN®

Cost-Effective

Turn up new accounts, quickly and cost-effectively.

The Total Access® IAD Series is a family of low-cost, high-performance integrated access devices for quick turn-up of converged voice, data, and Internet services at small- to medium-sized business locations. Suitable for use by both enterprises and carriers, these compact, easy-to-install IADs offer one of the fastest, lowest cost approaches to turning up integrated services. There are several compelling reasons to implement an ADTRAN® Total Access IAD solution as part of your networking plan.

You need a reliable integrated access device to support profitable, low-maintenance VoIP, VoATM, or TDM accounts.

Using Total Access IADs, you can deliver voice, data, and converged voice/data over IP, ATM, or TDM network architectures using T1 or DSL circuits. Migration from one to another requires no more than a software upgrade, reducing truck rolls and minimizing service interruptions. Modular- and fixed-port models let you choose the most cost-effective implementation based on needs at each location.

The IAD you choose has to be versatile enough to support a variety of voice and data equipment at the customer location.

Total Access IADs are the only IADs in their class to offer analog and digital voice options on all models, enabling you to standardize on one piece of equipment to serve multiple customers. These IADs support delivery of traditional POTS interfaces to analog phones, key systems, multi-line phone systems, fax machines, and modems; and support advanced digital services, such as PRI and E&M trunking to PBX systems. These compact platforms install quickly and easily at the customer premises, with only a single network connection.

You prefer an integrated access solution that covers both ends of the local loop, eliminating the hassles often associated with a multi-vendor solution.

Total Access IADs ensure compatibility on the loop and minimize troubleshooting and maintenance operations when matched with ADTRAN Total Access 4303 Voice Concentrators in TDM installations and with any Total Access 3000, 1200, or 1100 Series DSLAM in packet



For part numbers and additional information, visit www.adtran.com/iad



Total Access 604/608 Fixed-port, multiservice TDM/ Packet IADs

- T1 TDM, T1 ATM, ADSL, SHDSL, and SDSL network interfaces plus 10/100Base-T Ethernet port
- Supports IP, ATM, or TDM network architectures
- Available with four or eight FXS ports
- Optional FT1/DSX-1 port for PBX connectivity over T1 networks
- Echo Cancellation (G.168) and ADPCM (G.726) compression resources
- 50-pin female amphenol connector for carrier-class analog POTS interfaces
- Integral IP router supports DHCP, NAT/NAPT, packet filtering, and RIP V1/V2
- Supports Layer 2 PPP, Frame Relay, HDLC, and ATM
- V.35 synchronous DTE interface
- Total Access EMS, SNMP, and Telnet management options



Total Access 612/616/624 Fixed-port, multiservice TDM/ Packet IADs

- T1 TDM, T1 ATM, SHDSL, and SDSL network interfaces plus 10/100Base-T Ethernet port
- Supports IP, ATM, or TDM network architectures
- Available with 12, 16, or 24 FXS ports
- Optional FT1/DSX-1 port for PBX connectivity over T1 networks
- Echo Cancellation (G.168) and ADPCM (G.726) compression resources
- 50-pin female amphenol connector for carrier-class analog POTS interfaces
- Integral IP router supports DHCP, NAT/NAPT, packet filtering, and RIP V1/V2
- Supports Layer 2 PPP, Frame Relay, HDLC, and ATM
- V.35 synchronous DTE interface
- Optional FXO ports (Total Access 624 only, eight ports)
- Total Access EMS, SNMP, and Telnet management options

Reliable

VoIP or VoATM

applications. These IADs are also compatible with any standards-compliant third-party Central Office device. Total Access IADs are also interoperable with most widely deployed gateways, softswitches, and media servers.

You need a vendor you can depend on in the long run.

ADTRAN has an 18-year history of financial stability, and a proven commitment to continuous product research and development. The support behind your equipment investment includes a 10-year warranty and responsive technical support from one of the industry's most successful companies. This security, complemented by high reliability and technological achievement, has positioned ADTRAN as the "vendor of choice" in many of today's highest volume networking applications. In any case, what is the most powerful, cost-effective solution for delivering integrated services today?

The Total Access IAD Series from ADTRAN.



Versatile



Total Access 600R

Fixed-port router/digital voice IAD

- T1 TDM, T1 ATM, and SHDSL network interfaces plus 10/100Base-T Ethernet port
- Supports DHCP, NAT/NAPT, packet filtering, and RIP V1/V2
- Supports Layer 2 PPP, Frame Relay, HDLC, and ATM
- Integral T1 CSU/DSU
- Optional FT1/DSX-1 port for PBX connectivity over T1 networks
- Echo Cancellation (G.168) and ADPCM (G.726) compression resources
- 802.1d Bridging (all protocols)
- Total Access EMS, SNMP, and Telnet management options



Total Access 750

Modular, multiservice TDM IAD

- Single T1/FT1 TDM network interface
- One Power Supply Unit (PSU) slot and one System Controller slot
- Interchangeable controller units for voice-only or voice/data operation
- Six access module slots plus special AB slot
- FXS, FXO, E&M, U-BR1TE, DSO DP, OCU DP, and Nx56/64 access modules
- Up to 24 FXS/FXO interfaces
- Rugged, compact 8.5" (22cm) W, 3.5" (9cm) H, 11" (28cm) D metal chassis
- Wallmount or rackmount installation
- AC and DC versions available



Total Access 850

Modular, multiservice TDM/Packet IAD

- T1/FT1 TDM, T1 ATM, FT1/DSX-1, or SDSL network interfaces
- One Power Supply Unit (PSU) slot and one System Controller slot
- RCU System Controller provides integral router supporting DHCP, NAT/NAPT, packet filtering, and RIP V1/V2
- Six access module slots support up to 24 FXS/FXO interfaces
- E&M, U-BR1TE, DSO DP, OCU DP, DSX-1, and Nx56/64 interface modules
- Echo Cancellation (G.168) and ADPCM (G.726) compression resources
- Rugged, compact 8.5" (22cm) W, 3.5" (9cm) H, 11" (28cm) D metal chassis
- Wallmount or rackmount installation
- AC and DC versions available

Total Access IADs

Voice & Data

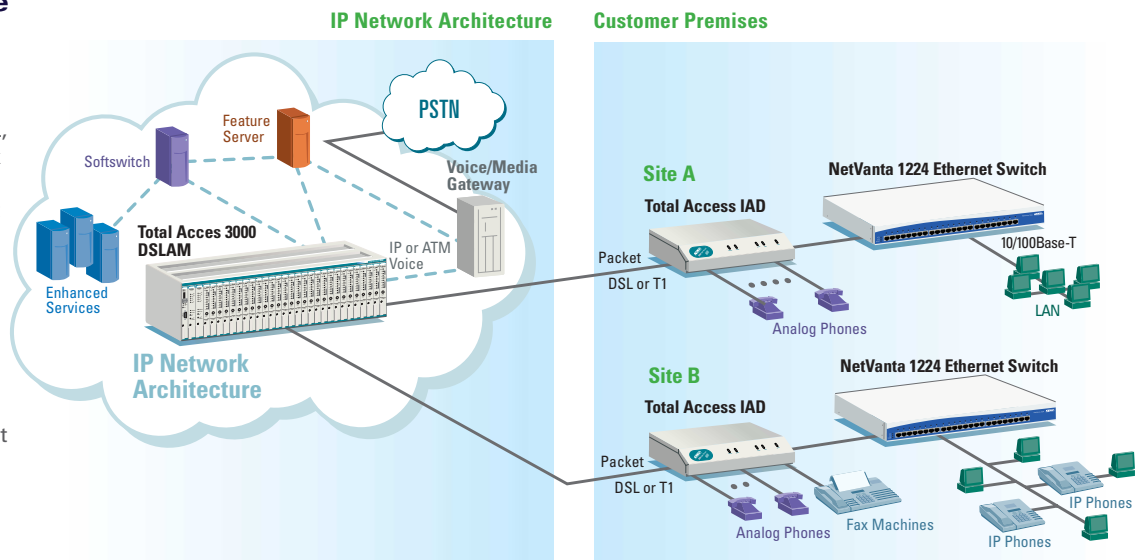
Building an integrated IP, ATM, or TDM network using

Voice/Data Consolidation over IP Network Architectures

In applications involving IP network architectures, a Total Access® IAD at the customer premises consolidates voice (packet, analog, and digital) and data traffic, and supports MGCP (Media Gateway Control Protocol) signaling over any Layer 2 protocol. This allows service providers to offer traditional telephony services, while taking advantage of a lower cost IP network architecture. Total Access IADs also support hosted PBX service offerings so that traditional analog services (POTS phones, fax machines, and other devices) can be combined with IP phone support.

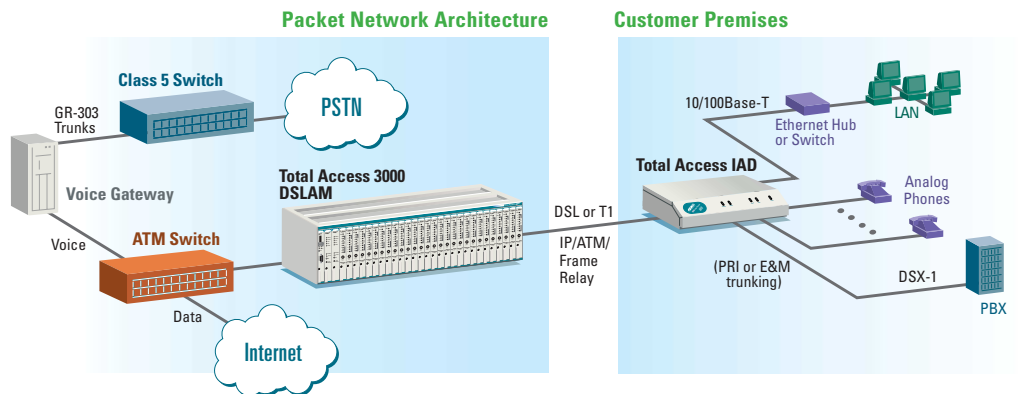
The Total Access Series At-A-Glance

- Low-cost, carrier-class Integrated Access Devices (IADs) and routers
- T1/FT1 TDM, T1 ATM, ADSL, SDSL, and SHDSL network interfaces plus integral 10/100Base-T Ethernet port
- Integral IP router
- Fixed-port or modular platforms
- Data-only, voice-only, converged voice/data, VoIP, and VoATM applications
- Comprehensive assortment of hot-swappable access modules for modular units
- FXS, FXO, E&M and DSX-1 voice interfaces
- TDM to packet migration with software-only upgrade (Total Access 600 Series and Total Access 850)
- Durable, compact metal chassis
- Optional battery backup system
- AC and DC versions available
- Reliable pre- and post-sales support
- Industry-leading 10-year warranty



Voice/Data Consolidation over Packet Network Architectures

In ATM networks utilizing existing Class 5 switches, the Total Access IAD consolidates analog and digital voice and data onto a single T1 or DSL circuit. Interoperability with packet-based DSLAMs and voice/media gateways creates a cost-effective solution for packet networks. An integral IP router provides access to the Internet. An optional DSX-1 interface supports digital voice, including PRI and E&M trunking for PBX or key systems.



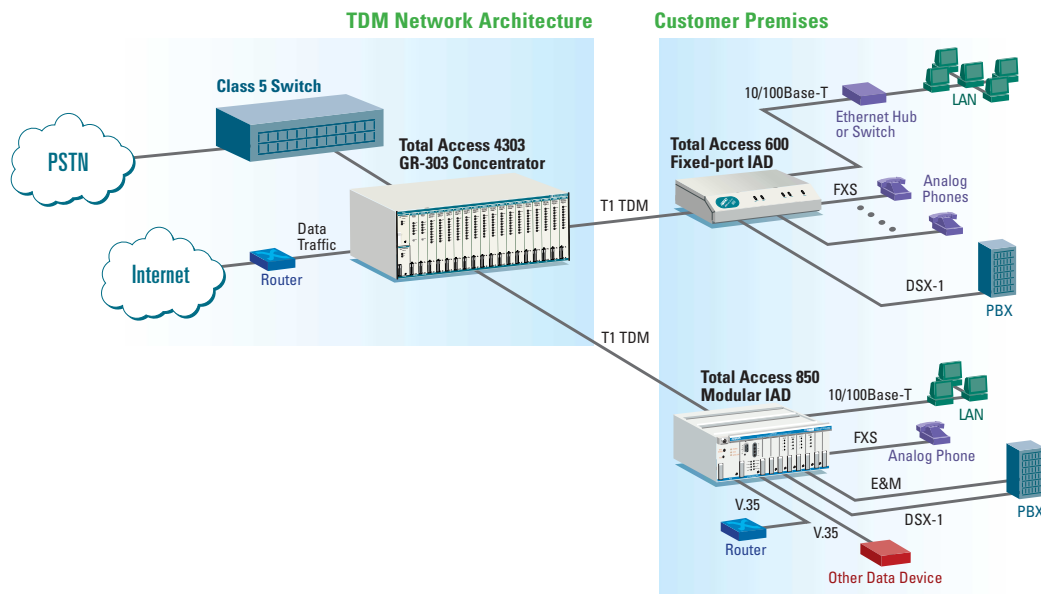
Flexibility

Cust

the Total Access IAD Series.

Voice/Data Consolidation over TDM Network Architectures

Fixed-port Total Access 600 Series IADs offer 4, 8, 12, 16, and 24-port options for T1/TDM networks. An integral IP router and optional DSX-1 enable Internet access and digital voice applications. For applications requiring a modular TDM IAD, ADTRAN® offers the Total Access 850 or 750. Both the Total Access 750 and 850 consolidate analog voice and data onto a single T1 circuit. The Total Access 850 is ideal for applications requiring multiple V.35 or DSX-1 interfaces, IP routing, analog phones, and special services (E&M, OCU-DP, U-BR1TE). The Total Access 850 also provides a migration path to packet network architectures.



Convert new business to revenue, quickly and cost-effectively. More than 59 percent of the worldwide T1 TDM IAD market has chosen cost-effective ADTRAN Total Access IADs.

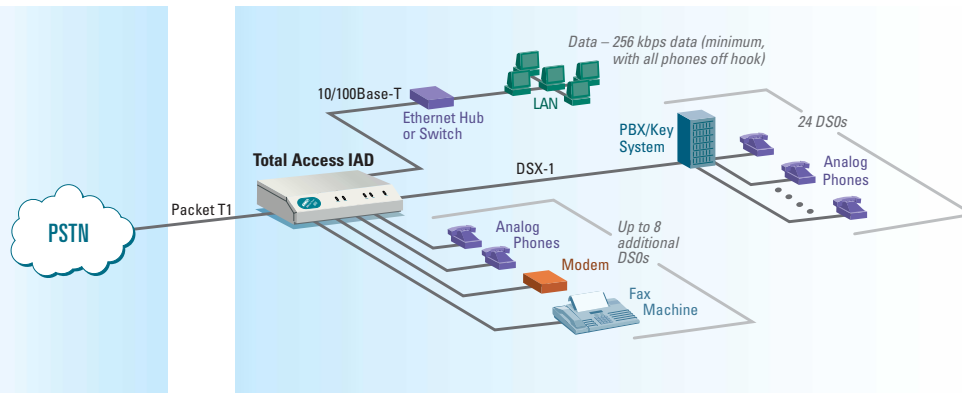
Source: In-STAT/MDR

Dynamic Bandwidth Allocation

Using G.726 ADPCM (Adaptive Differential Pulse Code Modulation) voice compression, Total Access IADs can provide up to 32 simultaneous voice calls and at least 256 kbps of data over a single T1 circuit. When phones are not being utilized, additional bandwidth is available for data applications. This increases the value of services to the subscriber, reducing churn.

Packet Network Architecture

Customer Premises



ADTRAN Total Access IADs are VoIP ready!

Successfully migrate to an IP network architecture. Contact an ADTRAN network engineer to find out more.

800.615.1176

Customer Satisfaction

Reliable solutions from the market leader.

ADTRAN® is a market leader; a partner you can count on for ongoing product support and long-range product development efforts. Today, ADTRAN holds number one market share positions in many key networking technologies, including integrated access devices, T1/HDSL equipment, T1 and subrate CSU/DSUs, Frame Relay/ DDS extension, and ISDN extension.

Ongoing product evolution

A strategy of relentless product improvement and cost reduction through technological innovation

remains one of the primary drivers behind ADTRAN's market leadership positions. A strong commitment to engineering and research and development activities ensures that customer demands are met with the most cost-effective solutions possible. The company recently extended its network access solutions to include ATM and IP Mini-DSLAMs, OSP DSLAMs, Ethernet switches, IP access routers, and license-free wireless bridge/switches.

Quality and reliability in every unit

Every Total Access IAD is backed by an indisputable reputation for quality and reliability—the result of ADTRAN's long-term, corporate-wide commitment to quality assurance in all phases of business and manufacturing operations. A TL 9000 3.0 and ISO 9001:2000 certified supplier, the company maintains extensive in-house labs for reliability, compliance, and post-production testing of every single unit shipped—all in the name of customer satisfaction.



ADTRAN is one of the world's most successful network access equipment suppliers. ADTRAN products are firmly entrenched in all leading service provider networks. With an 18-year history of success, ADTRAN is a company you can depend on for long-term, stable product development and support.

Best-in-class service and support

- Industry-leading 10-year warranty
- Ready-to-assist, toll-free telephone technical support
- Free pre- and post-sales network engineering assistance
- Customizable installation and maintenance assistance
- Comprehensive free and fee-based training programs

ACSP ACSE
ADTRAN Certified Solutions Professional ADTRAN Certified Solutions Expert

Enhance your career potential with ADTRAN Solutions Certifications.
For more information visit www.adtran.com/university

Quality

Total Access[®] TDM and Packet IADs Feature Matrix

	Total Access 600 Series	Total Access 750	Total Access 850
Network Interfaces	Max (1)	Max (1)	1+
T1 TDM	•	•	•
T1 ATM	•		•
ADSL	★		
SDSL	■		•
SHDSL	•		
Product Features			
T1/FT1 (SF/ESF, AMI/B8ZS)	•	•	•
TR-08 Support	•	•	•
Built-In CSU	•	•	•
Fixed-Port	•		
Modular		•	•
Expansion Slots		6 plus 7th special	6 plus AB special
Voice Features			
FXS	*	•	•
FXO	Option for 624 only	•	•
Analog E&M		•	•
Loop/Ground Start	•	•	•
Max Number of POTS	4, 8, 12, 16, or 24	24	24
DSX-1	Optional	BCU L2	RCU, BCU L2
Voice Over Packet Features			
FXS/VoIP/VoATM	•		•
Echo Cancellation	•		w/RCU
32k ADPCM	•		w/RCU
DSX-1	Optional		w/RCU
Data Support			
Integrated Nx56/64 V.35	•	V.35 Module Required	w/RCU
DSX-1	Optional T1 TDM	w/BCU L2	w/BCU L2 or RCU (T1 TDM)
Router Functions			
Ethernet Interface	10/100Base-T		10/100Base-T
Layer 2 PPP/Frame Relay/ATM/HDLC	•		•
Bridging	•		•
RIP V1/V2	•		•
DHCP Client/Server/Relay	•		•
Number of Frame Relay PVCs	10		10
NAT, NATP	•		•
Management			
Embedded SNMP	•		w/RCU
VT100 Terminal/Craft Interface	•	•	•
FDL Management	•		w/RCU
Remote Configuration Support	•		w/RCU
Test Capability			
Local/Remote Loopback (payload/line)	•	•	•
Power			
AC	•	•	•
-48 VDC		•	•
Battery Backup Available	▲	48 volt	48 volt
Warranty (years)	10	10	10

■ SDSL versions for Total Access 604/608/612/616/624 only (not available for 600R)

★ ADSL versions for Total Access 604/608 only (not available for 600R)

▲ 12 volt for 604/608; 48 volt for 612/616/624

‡ Up to 32 DS0s across the backplane

* Not available for 600R, applies to all other models

Please see ADTRAN's 2004 Enterprise Networks Product Catalog for a complete listing of Total Access 750/850 access modules, or visit www.adtran.com/iad

ADTRAN® has the formula for business success.

$$\text{tomorrow} \\ (\text{customer satisfaction})^{n^{\text{th}}} \times \int_{\text{today}} (\text{technology} + \text{value}) dt = \text{business success}$$

ADTRAN's Total Access® products are optimized for cost, performance and carrier business success.

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ADTRAN is a TL 9000 3.0 certified supplier.



ADTRAN is an ISO 9001:2000 certified supplier.

ADTRAN products are RUS accepted.

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ADTRAN®

The Network Access Company

For more information about how ADTRAN can help you incorporate cost-saving solutions into your network, visit *www.adtran.com* or call 800 615-1176 today.