Adit® 600

The scalable

broadband solution

for delivering

converged voice, IP

and data services

CarrierAccess™
solve for x ®

Is your current broadband voice and data approach preventing you from capitalizing on new revenue opportunities?

The need to generate new revenue has never been greater than it is today. Yet, ironically, many service providers and other enterprises inadvertently create an obstacle to achieving incremental revenue by opting for inflexible voice and data solutions. These solutions provide a short-term fix but lack the versatility to handle service expansion. Additionally, migrating to Voice over IP (VoIP) service delivery with a fixed-platform product can pose unexpected expenditures of time and capital that often block revenue generation.

The Carrier Access solution: Maximize all service revenue opportunities

With Carrier Access it is easy to add services and enjoy revenue today, while ensuring your ability to migrate to future services. The Adit 600 ® Multi-service Delivery Terminal was specifically designed to be the ideal combination of low capital investments along with the industry's most forward-thinking solution for capturing new revenue initiatives. The solution combines multi-network access and multi-service delivery into one platform. The result is an extremely cost-effective, compact, and flexible approach for wireline, wireless, and IP network applications. In addition, this flexible, broadband service platform is field-proven, time-tested and carrier-certified. Bottomline: The Adit 600 gives you multiple revenue opportunities that are simply not possible from fixed-platform solutions.

The Adit 600: Versatility in one multi-function platform

The Adit 600 consolidates the functionality of several different products into one shoebox-sized platform. It enables enterprises and service providers to converge T1/E1, IP and DS0 service types into a single access platform. By combining the functions of a mini digital cross-connect with DS0 voice interfaces, IP and voice routers, digital Centrex, and a variety of standard data interfaces, the Adit 600 replaces and consolidates a number of products. These include channel banks, CSUs/DSUs, cross-connects, routers, subrate multiplexers, VoIP gateways and digital loop carrier terminals.

The Adit 600 is one of the most versatile and scalable service terminals on the market. It can provide the most dense service delivery available in a single unit, or can be configured to deliver a variety of applications, replacing bulky, multi-platform solutions in the following areas:

- Traditional channel bank solutions
- Common data networking solutions
- Integrated voice and data service delivery solutions
- Digital cross-connect solutions
- VoIP service delivery solutions
- Wireless infrastructure management

The Adit 600's two-rack unit (RU) form factor and integrated battery charger minimizes its footprint, enabling space-saving deployment in the cramped confines of common enterprise wiring closets, central offices, and wireless radio sites.

Reduce operating expenses

Since it integrates voice and data services into a single access device, the Adit 600 can dramatically reduce your operating costs (spares inventory, etc.) and truck rolls. Its integral 1/0 cross-connect functionality cuts costs by eliminating unnecessary redundant circuitry, maximizing deployed T1/E1 circuits and cable plant, and reducing T1/E1 backhaul traffic.

Several local and remote management options are also available. Locally, you can configure the Adit 600 through either the 10Base-T Ethernet management port or the RS-232 serial interface using a text-based Command Line Interface (CLI) or the graphical configuration interfaces in the NetworkValet™ Element Managment System (EMS). The local configuration options provide a simple product installation on-site.

Remotely, you can access the Adit 600 via a separate SNMP Ethernet management network connection or through the Access Navigator® either over the T1 Facility Data Link (FDL) or directly over an in-band IP-enabled DS0 connection into the NOC management system. Remote management functions can also be performed using either the CLI or the robust management tools available with the NetworkValet EMS.

Slash installation and training time

Traditional methods of deploying voice, IP and data services are grossly inefficient and often require separate products, installation teams and truck rolls for each service installed. By standardizing on the Adit 600, separate installation teams and multiple truck rolls are things of the past. The Adit 600's ability to deliver all voice and data services dramatically slashes installer training, installation time, and deployment costs. The result: significantly more customer turn-ups in less time.

Built to last

A carrier-quality Multi-service Delivery Terminal, the Adit 600 is built for service providers and enterprises who demand a single, proven and reliable platform. Constructed without fans or fuses using professional-grade components, it eliminates the most common points of failure experienced by most common Integrated Access Devices (IADs). In addition, all power supply options feature integrated polyswitches to protect the unit from complete system failures from environmentally generated overcurrent and overvoltage conditions.

Always-on availability

Designed to be the most dependable product in its class, the Adit 600 meets exceptionally high design standards. It is manufactured at a world-class ISO 9001 facility and complies with safety and quality assurance standards, such as UL60950 and NEBS Level-3.

We solve for x

We're Carrier Access – since 1992, we've manufactured broadband communications equipment that enables telecommunications companies to accelerate service revenues, lower operating costs and extend capital budgets. We focus on three segments of telecommunications: wireless infrastructure, enterprise service delivery, and fiber access. Our products have delivered more than 3.0 million voice and data lines for customers and meet the industry's highest reliability and broadband interoperability standards, including Telcordia™ TIRKS®/OSMINE, NEBS Level-3 and ISO 9001.

What makes the Adit 600 different?

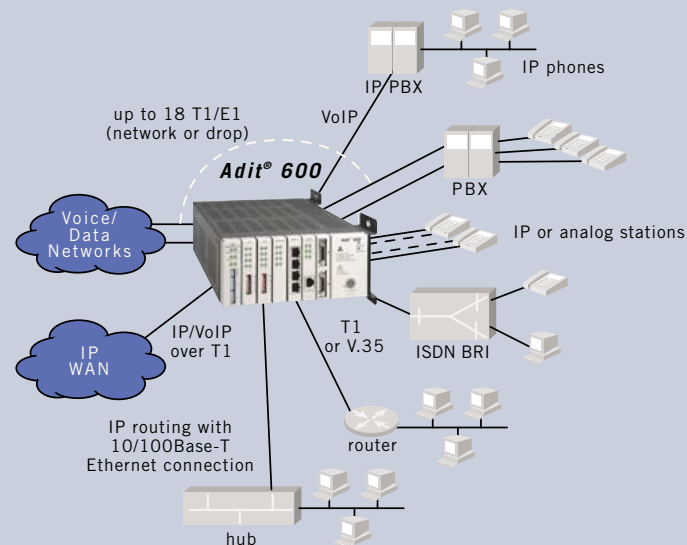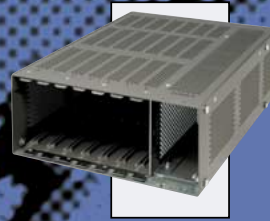| Feature	Benefit
Combined multi-network access and multi-service delivery into one highly compact platform	Consolidated functionality across network types and services and saves capex, space, requires management of only one platform while maximizing T1 circuits.
Expandable architecture up to 18 T1s per Adit 600 offers high service density and multi-T1 scalability	Allows service providers to scale across service types, network architectures, and bandwidth requirements to fit a dynamic service delivery environment and provide a future-ready service migration path.
Supports unique mix of TDM and IP on a single platform	Allows cost-effective and seamless migration to VoIP while preserving existing investments in analog equipment. Delivers VoIP services without requiring re-engineering of the LAN.
New revenue-generating services can be added easily by installing a new hot-swappable card	Allows rapid turn up of new services and avoids cost of new platform. Grows from 8 to 40 FXS lines in one device and a single IP address.
Interoperable with leading softswitch vendors for VoIP applications	Leverages the benefits of industry-leading softswitch solutions to deliver reliable voice services via IP over Ethernet with Quality of Service (QoS) for voice applications.
Remote management	Reduces operational cost of ownership by reducing the number of truck rolls required for routine configuration, maintenance and troubleshooting activities.
Carrier-quality design	No fuses, no fans, an integrated battery charger, bladed and bundled voice and data, plus voice prioritization, dynamic call routing and IP Centrex features.

The Adit 600 is the most scalable service terminal on the market.

It can be equipped it to provide the densest service delivery available in a single unit, and can be configured to deliver the following applications:

- 1 to 18 T1/E1 multi-service digital cross-connect system
- GR-303/TR-08/DLC remote terminal
- 48 FXS/FXO/DPT channel bank
- 40 FXS Voice over IP (VoIP)
- 2 T1 Voice over IP (VoIP)
- 40 ISDN BRI shelf
- 6 Ethernet IP Router/WAN nest
- 24-port RS-232 and Ethernet
- 2 V.35 or synchronous RS-232 port drop-and-insert CSU/DSU
- 24 OCU-DP Digital Data Service (DDS) terminal
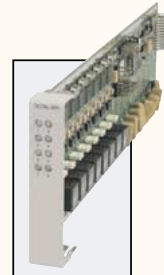- 47-station P-Phone (Meridian Digital Centrex) terminal

The Adit 600 Chassis features a 2 rack unit (RU), "shoebox-sized" form factor and includes one Controller Card port, six service interface card ports and a Power Supply port. Its backplane includes two sets of tip and ring amphenol connectors, AC and DC power inputs, six alarm inputs, two RJ-48C T1 connectors, an AC reset switch, and 10Base-T Ethernet and RS-232 serial management port. The Adit 600 Chassis is NEBS Level-3 compliant and is certified for customer premises and central office deployments.
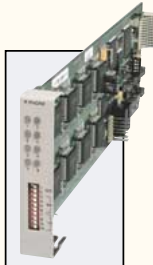
Integrated solutions deliver flexik

A variety of service cards is available for the Adit 600,

The CMG Service Card combines IP router functionality with the ability to translate circuit-based voice services into IP packet voice services and converges TDM voice, IP voice and data service onto a single WAN. It provides a cost-effective migration path to VoIP applications. Utilizing Media Gateway Control Protocol (MGCP), it allows standards-based voice processing, call control and signaling communications with the service provider's call agent or softswitch. Using multiple CMG Service Cards for T1/E1 to Ethernet gateway applications, up to eight T1s or six E1s of VoIP conversion can be implemented in a single Adit 600.

The Dual, Quad, and Octal ISDN BRI Service Cards enable enterprises and service providers to deploy high-density, standards-based ISDN Basic Rate Interface (BRI) services over one or more T1/E1 access lines. ISDN voice, data and real-time video applications are cost-effectively deployed as part of integrated broadband service delivery. Up to 40 BRI circuits can be provisioned from a single Adit 600.

The Octal P-Phone Service Card enables service providers to deliver Enhanced Digital Centrex services via existing Meridian® Digital Centrex (P-Phone) handsets. Each Adit 600 chassis provides from 8 to 47 P-Phone interfaces and will allow scalable support of thousands of P-Phone lines using multiple chassis. Plus, a customizable, self-contained turnkey centrex cabinet solution supports high-density deployments, scaling from 48 - 386 lines. The Adit 600 with an Octal P-Phone Service Card is hosted from a Carrier Access Access Navigator® supported with GR-303 trunks from a Nortel DMS Class 5 Switch.

The Single Port Router Service Card delivers high-speed Internet and Intranet connectivity to small- and medium-sized businesses, as well as remote and branch-office users. It employs a dedicated processor to help ensure high performance and product feature expansion.
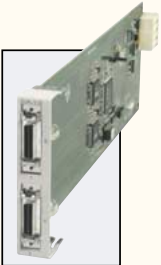
The Dual T1 Controller Card drives the Adit 600 platform. It features a built-in 1/0 cross-connect matrix that provides full, non-blocking connectivity between the Dual T1 TDM Controller Card and any of the six Adit 600 Service Card slots. The Controller Card also provides the management function of the Adit 600 system and Service Cards. It also features two T1 ports with integrated CSUs, automatically supporting two T1s without additional interfaces. An E1 version of the Controller is also available.
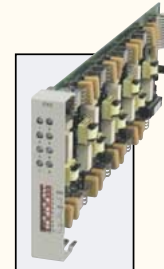
The 115 VAC/-48 VDC and the 230 VAC/-48 VDC Power Supplies/Chargers include an integral battery charger and ringing generator. Integrating AC and DC power options, battery charger and ringing generator functions dramatically reduces installation time, space and cost requirements, and inventory considerations in comparison to separate power conversion or Uninterruptible Power Systems (UPS) equipment.

ble, seamless next-generation servic

enabling enterprises and service providers to cost-effectively deliver a customized mix of voice, video and data communications services. The

The Dual V.35 Service Card provides two individual interfaces for connectivity to high-speed serial synchronous Data Terminal Equipment (DTE) devices such as legacy routers, Frame Relay Access Devices (FRAD), video conferencing, and cell site equipment. Up to six Dual V.35 Service Cards can be equipped in an Adit 600 chassis. It is also available with or without V.54 loopback testing capabilities.

The FXO/DPT 8-Channel Voice Service Card provides high-density provisioning of reliable Foreign Exchange Office (FXO) or Direct Inward Dialing (DID) telephone services. It provisions up to 48 FXO or DPT lines in a single Adit 600 chassis and up to 96 lines in two side-by-side chassis occupying just two rack units.

The Single-Port and Quad-Port OCU-DP Service Cards allow Digital Data Service (DDS) circuit terminations on the Adit 600 platform. The OCU-DP Service Cards provide the electrical and physical termination of a four-wire DDS baseband connection, which interfaces with a remote CSU/DSU to interconnect lower-speed serial synchronous Data Terminal Equipment (DTE) devices. These cards permit the delivery of transport for legacy enterprise data networking or Common Channel Signaling (CCS) circuits commonly used in Signaling System 7 (SS7) telephone networks.

The Quad-Port Terminal Server Router (TSR) Card combines the performance and expandability of a selectable four-port RS-232 terminal server or a 10/100Base-TX Ethernet switch with dedicated routing functionality. The TSR Card provides a low-cost solution to help service providers remotely manage RS-232 and 10/100Base-TX Ethernet devices such as Location Measurement Units (LMUs), alarm monitors, tests-sets, adjustable antenna arrays, and switching devices, as well as deliver routing capabilities needed to offer 3G applications services.
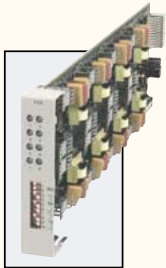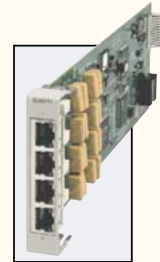
The 24 VDC/48 VDC Power Supply integrates 24 VDC power with a ringing generator, dramatically reducing installation time, space requirements and costs compared to separate 24 to 48 VDC power conversion equipment for wireless equipment bays or other 24 VDC applications.

es with carrier-quality reliability

e service cards can be inserted into any slot of the Adit 600 chassis.

The FXS 8-Channel Voice Service Card provides high-density provisioning of cost-effective telephone services. It provisions up to 48 FXS lines in a single Adit 600 chassis and as many as 96 lines in two side-by-side units occupying just two rack units. Supported features include caller ID, calling party disconnect, distinctive ringing, three-way calling, and E&M signaling conversion.

The Quad T1 Service Card provides up to four T1 tributary ports with integrated CSU functionality supporting full drop-and-insert, fractional and full T1 data, and DS0 trunking for optimal T1 bandwidth utilization. When fully equipped with four Quad T1 Service Cards, plus the two ports from the Dual T1 Controller Card, an Adit 600 supports up to 18 T1 access lines. An E1 version of the card is also available.

The Order Wire Single-Channel POTS Card gives service providers a standard FXS voice circuit. The card can be used for communications with the operations support group when remote cell site locations or service locations are being serviced, or for providing a voice line without installing an additional external two-wire POTS line from a local carrier. Order Wire Single-Channel POTS Card features a single RJ-11 telecom connection and is available with or without an integrated V.34 modem.

The Dual RS-232 Service Card allows service providers to provision connectivity to RS-232 serial synchronous Data Terminal Equipment (DTE) devices commonly deployed in cell sites and customer locations. Up to six Dual RS-232 Service Cards can be equipped in an Adit 600 chassis, providing up to 12 RS-232 connections from any network T1 connected to the Adit 600 platform. Integrated Digital Cross-connect System (DCS) capability supports service grooming and full drop-and-insert functions not available in traditional CSU/DSU offerings.

CarrierAccess™
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