

Integrates VoIP gateway, IP access router, IP VPN, Firewall, channel bank, 1/0 DCS, CSU/DSU, and DLC in a compact chassis

High-density architecture supports configurations up to 48 FXS or FXO ports, 18 T1s, or 12 10/100 interfaces

Two Adit 600s can be mounted side-by-side in a 2RU rack space

A Gateway that Combines Multi-Network Access and Multi-Service Delivery Capabilities into a Single Chassis

With over 120,000 units in service, Force10 Networks' Adit® 600 is the most widely deployed, carrier-grade Converged Services Access Gateway in the industry. Optimized for a wide range of applications, the Adit 600 combines multi-network access and multi-service delivery capabilities into a single chassis. This results in an extremely cost-effective, compact, and flexible access platform that simplifies the migration from TDM to next-generation VoIP and IP data services for service providers and small to medium business (SMB) customers.

Unlike competing devices which provide only fixed configurations, the Adit 600 supports a fully modular architecture and hot-swappable service cards – delivering greater system reliability, scalability and a longer product deployment lifecycle. Additionally, the Adit 600 does not require fans for cooling, further increasing the reliability of the NEBS level three certified platform. The compact, 6-slot Adit 600 shelf is also only 3.5 inches high, and 8.5 inches wide, enabling two chassis to be mounted side-by-side in a 2RU (rack unit) space.

A Broad Range of Services in a Single Scalable Platform

The Adit 600 integrates the functionality of a voice over IP (VoIP) gateway, Ethernet/IP access router, VPN/Firewall, channel bank, 1/0 digital cross-connect, CSU/DSU, and a digital loop carrier in a single chassis. The fully modular design of the Adit 600 is unique in its ability to support new revenue-generating services simply by installing new hot-swappable cards. Any service card can be placed in any of the six available slots. Flexible multi-T1 or 10/100 Ethernet WAN interfaces are supported, as well as a variety of standard customer interfaces and services including long reach FXS, FXO/DPT, 10/100 Ethernet, E&M/TO, V.35, ISDN BRI, Terminal Server Router (TSR), ADPCM, and T1. The Adit 600 provides a high-density design that supports up to 18 T1s, or 48 FXS/FXO ports per chassis.

Modular functions that can be added to the Adit 600 via specific service cards include Ethernet/IP routing features such as VPN (IPSec, PPTP, L2TP), Stateful Firewall/NAT, and VLAN tagging. High-capacity SIP- and/or MGCP-based VoIP gateway functionality can also be integrated – VoIP trunking (PRI/CAS) or line termination (FXS) – to enable the delivery of converged IP services.

Key Features

- Fully modular design simplifies the migration to new VoIP and data services, while preserving existing capital investments
- Expandable platform delivers greater system reliability and scalability while providing a future-ready service migration path
- Flexible Multi-T1 or 10/100 Ethernet WAN interfaces
- High-capacity integrated SIP- or MGCP-based VoIP gateway supports up to 40 simultaneous calls per chassis (G.711 or G.729 codecs and T.38 Fax)
- New revenue-generating services can easily be added by installing hot-swappable service cards
- Advanced Ethernet/IP routing functionality includes VPN (IPSec, PPTP, L2TP), Stateful Firewall, NAT, and VLAN tagging
- Supports up to 8 bonded T1s (WAN), and up to 2 PRI/T1 CAS voice trunks from a single chassis
- Remote management options enable operational efficiencies and provide high service availability to SMB customers

**Adit 600 Chassis
Maximum Interface Densities**

Interface	Ports
T1	18
10/100 Ethernet	12
FXS	48
FXO/DPT	48
ISDNBRI	40
V.35	12
Terminal Server Router	24
E&M/TO	24



Specifications: Adit 600 Converged Services Access Gateway



Chassis

Adit 600

Wall mount bracket (included)

Rack mount option: dual side-by-side

19 in (48.26 cm) or 23 in (58.42 cm) rack

Dimensions: 3.5 in (H) in (2RU) x 8.5 in (W) x 12 in (D)

8.9 cm (H) x 21.6 cm (W) x 30.5 cm (D)

Weight: 11.8 lb (5.35 kg) maximum (fully loaded)

Power

Standard 115 VAC/-48 VDC Power Supply/Charger

Power supply with integrated battery charger

AC power: 90 to 135 VAC, 60 Hz

DC power: -42 to -60 VDC @ 3.5 A max

Maximum power: 115 W

Battery backup unit option (for external mounting)

Optional 230 VAC/-48 VDC Power Supply/Charger

Power supply with integrated battery charger

AC power: 190 to 254 VAC, 47-63 Hz

DC power: -48 to -60 VDC @ 2.5 A max

Maximum power: 90 W

Battery backup unit option (for external mounting)

Optional 24 VDC Power Supply

Power supply with ringing generator

DC power: 21 to 29 VDC @ 6 A max

Maximum power: 90 W

Environmental

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)

Cooling method is by free air convection and requires long axis of unit to be mounted horizontally

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%

Components

Adit 600 chassis with six hot-swappable Service Card slots, single Controller Card slot and one Power Supply slot

Power supply options

Combination 115 VAC/-48 VDC Power Supply/Charger

Combination 230 VAC/-48 VDC Power Supply/Charger

24 VDC Power Supply

Dual T1 Controller

Service cards available include

8-channel FXS 8D Voice Service Card

8-channel FXO/DPT Voice Service Card

8-channel ISDN BRI Service Cards

Dual-Port 10/100Mbps Ethernet Multi-Service Router (MSR) Card (SIP-based VoIP)

Quad 4-Wire E&M/TO Service Card

Hardened Dual V.35 Service Card with V.54 test capability

Quad DS1 Network Access/Digital Cross-Connect Service Card

Quad-Port Terminal Server Router (TSR) Service Card

Customer Media Gateway-01 (CMG-01) Service Card

(MGCP-based VoIP)

Customer Media Gateway-02 (CMG-02) Service Card

(MGCP-based VoIP)

Management

SNMP in-band management over 10BaseT customer WAN connection or dedicated DSO for out-of-band management

Remote in-band management over T1 ESF Facility Data Link or dedicated DSO for out-of-band management

Hitless remote upgrade capable

Network Interfaces

Dual T1 included with T1 Controller

Framing for T1: SF (D4) or ESF

Line code for T1: B8ZS and AMI

Network Standards

ANSI/TIA T1.403 ESF FDL

T1.403-1995

Clocking

T1 reference timing with hold-over

Internal Stratum 4E clock with hold-over

Alarms

External Alarm: 6-pin connector (rear), one input, two outputs for major/minor alarms

T1: LOS, BPV, Yellow, LOF, AIS

Testing & Diagnostics

Configurable for CSU or NIU loopback codes, or disabled

V.54 loop codes, QRSS, 2047, 2E20-1, 2E15-1 Test Patterns

Regulatory Compliance

USA

UL60950, FCC Part 15, Class A, FCC Part 68 and RUS Listed

Designed to meet NEBS Level-3

GR-63-CORE and GR-1089-CORE

Canada

CSA C22.2 No. 60950-00, ICES-003, Class A and CS-03

European Union (CE Mark)

EN60950, EN55022, Class A, EN55024, Immunity, EN 300

386 V1.3.1, EN61000-3-2, Harmonics, EN61000-3-3,

Flicker and CTR 12 and CTR 13

Australia/New Zealand (ITE Applications only)

C-Tick (Datacom), AS/NZS 60950 and AS/NZS CISPR22, Class A

Brazil

Anatel-certified for specific telecom applications



Force10 Networks, Inc.

350 Holger Way

San Jose, CA 95134 USA

www.force10networks.com

408-571-3500 PHONE

408-571-3550 FACSIMILE

© 2011 Force10 Networks, Inc. All rights reserved. Force10 Networks, the Force10 Networks Logo, Force10, C-Series, E-Series, Traverse, and TraverseEdge are registered trademarks and ExaScale, FTOS, JumpStart, Open Automation, Open Cloud Networking, S-Series, ScriptStore, SmartScripts, SwitchLink, TeraScale, HyperLink, Z-Series, and ZettaScale are trademarks of Force10 Networks, Inc. All other company names are trademarks of their respective holders. Information in this document is subject to change without notice. Certain features may not yet be generally available. Force10 Networks, Inc. assumes no responsibility for any errors that may appear in this document.

A6DS01

611 v1.1