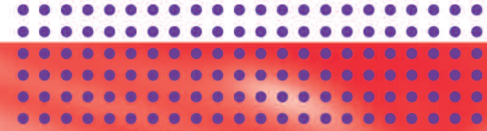
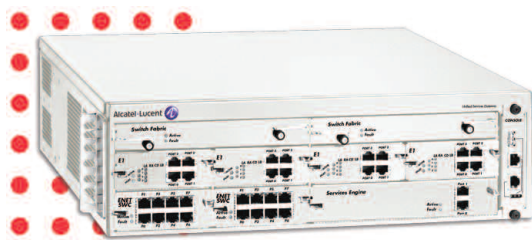


OmniAccess 780 Unified Services Gateway



The Alcatel-Lucent OmniAccess 780 Unified Services Gateway (USG) is an integrated networking device specifically designed for the regional or branch office with a streamlined form factor and support for a comprehensive set of interfaces. The OmniAccess 780 USG has six interface slots and supports a mix and match of interface types (see below).

The OmniAccess 780 USG is targeted to enterprise branch offices and campus gateways for applications and services that require the built-in resiliency and redundancy that the OmniAccess 780 offers. The OmniAccess 780 USG provides multiple services on one platform (Ethernet switching, IP routing, VoIP, video) to reduce the cost and complexity of the WAN access network infrastructure and allows new services to be implemented quickly and easily.



F E A T U R E S

- Integrates multiple services onto one platform
- Embedded encryption accelerator and an integrated digital signal processor for voice call processing
- Choice of optional interfaces
- Remote management
- Modular software design - ModuLive
- OnePass packet processing
- LifeLine management framework

B E N E F I T S

- Eliminates multiple devices and provides the same services on one unified, resilient, low-cost, small footprint platform
- Serves all IP communications needs of small enterprise branch offices and the service provide customer edge
- Supports a wide range of connectivity requirements
- Eliminates the need for on-site intervention
- Seamless addition of modules with no impact on other services in operation
- Provides true service unification and saves CPU resources while minimizing latency through the system
- Ensures management traffic reaches the system 100% of the time

The OmniAccess 780 USG offers superior high availability for a regional or branch site, along with comprehensive remote management by leveraging a highly modular system design and innovative management architecture. The OmniAccess 780 USG also integrates critical security features such as firewall, denial of service (DoS) protection, application level gateways, intrusion detection and prevention, and IPsec virtual private network (VPN), onto one unified platform.

With a separate management plane, dedicated management processors, and multiple access mechanisms to reach the system, Alcatel-Lucent's Lifeline management framework allows highly resilient remote system administration, independent of the state of the system. All services provided by the OmniAccess 780 can be managed remotely, thereby eliminating the need for on-site intervention.

The Alcatel-Lucent ModuLive software platform provides a fully modular, always live software base that

maximizes system availability by enabling in-service upgrades and configuration changes, and by ensuring that a fault in one service module has minimal or no impact on other services. It also allows for online insertion and removal of line cards, obviating the need for network outages during hardware upgrades. As multiple services are added, scalability and performance are maintained through Alcatel-Lucent's unique OnePass approach, which performs common packet classification across multiple services.

TECHNICAL SPECIFICATIONS

Hardware

- Module slots: 6 interface slots
- Interface cards
 - 8-port 10/100/1000 Mbps Ethernet
 - 4-port T1/E1
 - 4-port serial (V.35/X.21)
- Services engine (SE): 2-port 10/100/1000 Mbps Ethernet (built-in)
- Hot swappable line cards
- RAM (default/max): 512 MB/1 GB
- FLASH memory: 512 MB

Routing

- Static routes
- RIP v1/v2 dynamic routing
- OSPF/BGP dynamic routing
- Multicast routing – PIM
- IGMP (v1, v2)
- GRE tunnels
- VRRP
- Policy-based routing
- Packet forward rate (64 byte pkts): 930 kpps *
- Forwarding performance: 2Gbps *
- Max. number of BGP peers: 200 **
- Max. number of VLANs: 4096 **

Firewall

- Stateful packet inspection and filtering (ACL)
- NAT (Source and Destination NAT)
- DoS and DDoS protection
- Protocol anomaly: IP, TCP, UDP
- ALGs: TFTP, FTP, NFS, DNS, RTSP, SIP, DHCP, UA/NOE
- Common classification for all services
- Firewall performance: 2 Gbps *
- Concurrent sessions: 128,000 *

Quality of service

- L3/4 traffic policy definition
- Interface egress queues: 16 queues per interface
- Priority scheduling
- Weighted fair queuing
- Class-based queuing
- Hierarchical queuing: Up to 4 levels
- Ingress policing
- Egress shaping
- DSCP/TOS marking
- WRED
- DiffServ: RFC 3246, 2597, 2445

VPN (IPSec)

- Site-to-site VPN tunnels: Up to 1500 **
- Tunnel interfaces
- DES (56 bit), 3DES (168 bit), and AES (128, 192, 256 bit) encryptions
- MD-5 and SHA-1 authentication
- IKE with pre-shared key or PKI
- Perfect forward secrecy (DH groups): 1, 2, 5
- IPSec NAT traversal
- AES performance: 180 Mbps *
- Max. concurrent VPN tunnels: 1500 **

Intrusion detection/intrusion prevention

- Detection mode
- Prevention mode
- Automatic signature updates
- Group-based IDS/IPS: Priority/protocol/intrusion type

WAN protocols

- PPP
- MLPPP
- Frame relay
- MLFR
- HDLC
- PAP/CHAP Authentication

LAN protocols

- STP
- Bridging
- IEEE 802.1Q VLANs
- Per-VLAN STP (PVST+)
- IRB (Integrated Routing and Bridging)

Network services

- DHCP relay/server
- DNS client
- TFTP server/client
- FTP client
- ssh server/client
- HTTP server
- Transparent Firewall

VoIP Support

- SIP / NOE ALGs
- Priority scheduling
- Dynamic Pinholing in Firewall
- DSCP classification and marking
- TFTP Server for booting IP phones
- DHCP options for phones provisioning

* Performance numbers based on 2 GHz reference engine, capacity limits based on 512 MB RAM

** No preset limit in software. Numbers listed are verified. They could scale higher depending on services enabled.

TECHNICAL SPECIFICATIONS

System management

- CLI (console, USB, backup modem, Telnet, SSH)
- Web user interface (HTTP, HTTPS)
- SNMP (v1,v2)
- Local administrator database
- AAA – RADIUS, TACACS+
- Syslog forwarding: External, up to 4 servers
- Standard and custom MIBs
- Ping, traceroute
- Hitless component upgrades via ModuLive software platform
- Management plane for Alcatel-Lucent Lifeline framework

Dimensions and power

- Dimensions (H x W x D)
 - 5.25 in. x 17.5 in. x 17 in.
 - (13.34 cm x 44.45 cm x 43.18 cm)
- Weight: 50 lb (22.7 kg) fully configured
- Rack-mountable: 19-inch standard
- Power supply: 100 V AC to 240 V AC, 400 W per supply, 4 A
- Power consumption: Max 400 W
- Redundant power supply support

Environment

- Operating temperature: 0° C to 45° C (32° F to 113° F)
- Non-operating temperature: -25° C to +70° C (-13° F to +158° F)
- Operating humidity: 10% to 90% (non-condensing)
- Operating altitude: 10,000 ft (3048 m)
- Non-operating altitude: 15,000 ft (4572 m)

Certifications

- Safety: UL, CUL, CSA, CB
- EMC: FCC Class A

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
OA780-CB-A	OmniAccess 780 chassis bundle – modular chassis equipped with 6 interface module slots, 1 Service Engine card w/512 SDRAM and 2 10/100/1000 ports, 1 Switch Fabric card, 1 removable AC power supply and base software image including Firewall, VPN, and IDS/IPS services
OA780-RCB-A	OmniAccess 780 redundant chassis bundle – modular chassis equipped with 6 interface module slots, 1 Service Engine card w/512 SDRAM and 2 10/100/1000 ports, 1 Switch Fabric card, 2 removable AC power supplies for N+ 1 redundancy and base software image including Firewall, VPN, and IDS/IPS services
OA780-PS400A	400 watt AC hot insertable power supply for the OmniAccess 780 system
OA780-SF	Spare Switching Fabric card for the OmniAccess 780 chassis
OA7-SE	Spare Service Engine card for both the OmniAccess 740 and the OmniAccess 780 chassis
OA7-T1E1-4	OmniAccess 780/740 4-port T1/E1 interface module with integral CSU/DSU. Supports frame relay, MFR, PPP, multi link PPP and HDLC. Field installable
OA7-GE-8	OmniAccess 780/740 8-port 10/100/1000 Layer 2 LAN switching Ethernet module with RJ45 connectors. Field installable
OA7-USP-4	OmniAccess 780/740 4-port USP, (Universal Serial Port) module providing 2 SCSI connectors with each connector supporting 2 serial synchronous ports. Each port supports data rates from 64k up to 2M. Field installable
OA7-YSS-V35MT-3	OmniAccess 780/740 Y-Cable, 10-foot (3 meter), shielded, male-male, supporting two serial V.35 DTE connections
OA7-YSS-V35FC-3	OmniAccess 780/740 Y-Cable, 10-foot (3 meter), shielded, female-female, supporting two serial V.35 DCE connections
OA7-YSS-X21MT-3	OmniAccess 780/740 Y-Cable, 10-foot (3 meter), shielded, male-male, supporting two serial x.21 DTE connections
OA7-YSS-X21FC-3	OmniAccess 780/740 Y-Cable, 10-foot (3 meter), shielded, female-female, supporting two serial x.21 DCE connections

To learn more, contact your dedicated Alcatel-Lucent representative, authorized reseller, or sales agent. You can also visit our Web site at www.alcatel-lucent.com.

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