

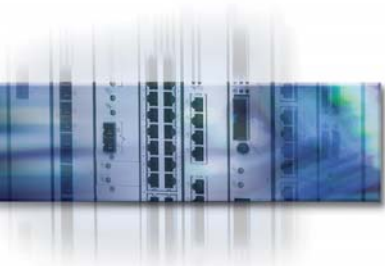


OmniSwitch ATM

Multi-Layer Intelligent Switching

ARCHITECTS OF AN INTERNET WORLD





The Alcatel OmniSwitch ATM switch is the answer for any network requiring an ATM solution. In the wiring closet or in the backbone, the OmniSwitch provides an intelligent switching platform with superior traffic management, and a high capacity distributed switching fabric that can handle up to 13.2 Gbps. The OmniSwitch ATM supports an array of interface cards including OC-3 (155 Mbps), OC-12 (622 Mbps), T1/E-1, DS3/E-3, and ATM25.

The OmniSwitch ATM

Regardless of the chassis size the OmniSwitch ATM provides a consistent, easy to manage feature set to ensure maximum network performance, availability, and security. It provides support for redundant components to ensure network availability. It also offers authenticated, secure switch access providing a high level of network security.

Features

The OmniSwitch ATM consists of three chassis models solution provides several chassis types to fit most applications ranging from a small wiring closet to the backbone of an enterprise network.

The OmniSwitch ATM chassis supports an array of interface cards to provide asynchronous transfer mode (ATM) speeds at OC-3 (155 Mbps) and OC-12 (622 Mbps) as well as T1/E-1, DS3/E-3, and ATM25.

Intelligent Performance

The OmniSwitch ATM provides intelligent performance through the use of traffic shaping and quality of service mechanisms, while the switching architecture provides high capacity non-blocking performance. The OmniSwitch ATM provides scalable bandwidth up to 13.2 Gbps through a fully distributed switching fabric, allowing upgrades at a later time when more bandwidth is needed.

OmniSwitch ATM provides intelligent performance through:

- Traffic shaping
- Advanced queuing and buffering mechanisms
- Non blocking distributed switch fabric

Alcatel OmniSwitch ATM



Availability

The OmniSwitch ATM is a NEBS level 3 compliant solution that integrates redundant and hot swappable components such as management modules and power supplies. The OmniSwitch ATM also allows dynamically loadable features so the switch can be upgraded or reconfigured without having to remove the switch from service, thereby maximizing network availability. Finally, the switching fabric of the OmniSwitch ATM is fully distributed and is not a single point of failure. Altogether the availability features of the OmniSwitch ATM allow it to remain operational during normal maintenance and during component failure.

OmniSwitch ATM provides high availability through:

- **Redundant Management Processor Modules**
- **Hot-swap for all modules and power supplies**
- **Fully distributed switching architecture**
- **Redundant and hot swappable fan tray**
- **Dual load-sharing, redundant power supplies**
- **NEBS level 3 compliant**

Security

The OmniSwitch ATM supports several different methods of authentication. The OmniSwitch ATM has an integrated authentication service called secure switch access, which allows an administrator to define a list of authorized users and the protocols they are allowed to use to gain remote access to the switch. In addition, the OmniSwitch ATM can integrate with LDAP and RADIUS authentication services to limit switch and network access.

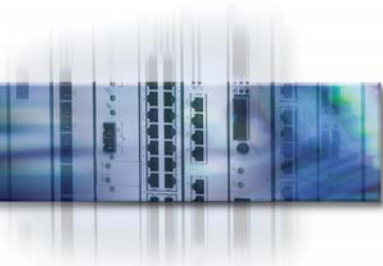
In a typical network management scenario, an administrator is either given full access to the system or none at all. Partitioned management is a technique where access can be given to specific part of the system based on the needs of the user. Partitioned management allows administrators access to the specific areas of the switch they need while denying access to the areas they do not. In all, partitioned management reduces the possibility of a bad configuration or a malicious attack on the switch.

OmniSwitch ATM provides security through:

Authenticated and secure switch access

LDAP and RADIUS authentication support

Partitioned management



Manageability

Through the use of VLAN mobile groups, the OmniSwitch ATM allows users to move throughout the network and access all the same services by simply connecting to the network and logging in as usual. Once mobile groups are configured, there is no additional reconfiguration needed by the administrator. The OmniSwitch ATM can track and authenticate the users anywhere in the network.

The OmniSwitch ATM is fully compliant with traditional network management protocols such as SNMP and RMON and can utilize LDAP services for policy-based management. Moreover, Alcatel's OmniVista provides a graphical user interface to manage and configure any number of OmniSwitch ATM switches with a click of the mouse.

OmniSwitch ATM provides manageability through:

[Dynamic IP addresses](#)

[Mobile groups](#)

[Policy-based management with LDAP](#)

Chassis Physical Characteristics

OmniSwitch 3-wide-slot chassis (OMNI-3WX)

Total slots: Three

Weight: 40 lb., fully populated with modules and power supplies

Maximum slots available for switching modules: Two

Power source: Built-in 150W power supply

Physical dimensions
5.25" high, 17.13" wide, 13.0" deep

OmniSwitch 5-wide-slot chassis (OMNI-5WX-PLUS and OMNI-5WX-48V-P)

Total slots: Five

Weight
65 lb., fully populated with modules and power supplies

Maximum slots available for frame and cell switching modules: Four

Power source
OMNI-5WX-Plus: 250W power supply
OMNI-5WX-48V-P: -48VDC 250W power supply

Physical dimensions
12.25" high, 17.13" wide, 13" deep

OmniSwitch 9-wide-slot chassis (OMNI-9WXP and OMNI-9WX-48V)

Total slots: nine

Weight
96 lb., fully populated with modules and power supplies

Maximum slots available for frame and cell switching modules: Eight

Power source
OMNI-9WXP: 725W power supply
OMNI-9WX-48V: -48VDC 500W power supply

Physical dimensions
24.5" high, 16.6" wide, 13.25" deep

Alcatel OmniSwitch ATM



Specifications

Operating temperature

50° to 104° F, 10° to 40° C

Relative humidity

8 to 80%

Electrical power

0.107 kVA

Noise level

44 dB

Safety certifications

EN60950, UL 1950, CSA 950

Standards Conformance

Electromagnetic compliance certification

FCC Class A (USA), VCCI Class1 (Japan), ICES-003 Class A (Canada), European Community mark of conformity (CE-Mark), EN55022 Class A (CISPR-22B)

ATM support for bridging, routing, and LANE

ATM Forum LANE 2.0, UNI 3.0 and 3.1, ITU-T Q.2110, ITU-T Q.2130, ITUT 2931, ITU-To I.363 AAL Type 5 common part protocol, ATM Forum LAN Emulation Server (LES) 1.0

ATM support for bridging, routing, and LANE

ATM Forum LANE 2.0, UNI 3.0 and 3.1, ITU-T Q.2110, ITU-T Q.2130, ITU-T 2931, ITU-To I.363 AAL Type 5 common part protocol, ATM Forum LAN Emulation Server (LES) 1.0

Standards support

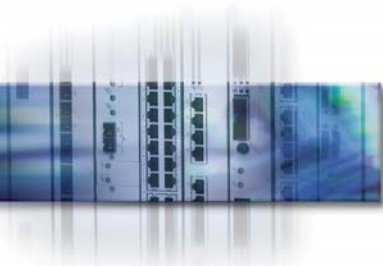
RFC 768, RFC 791, RFC 792, RFC 793, RFC 826, RFC 894, RFC 919, RFC 922, RFC 925, RFC 950, RFC 951, RFC 1009, RFC 1027, RFC 1042, RFC 1058, RFC 1112, RFC 1122, RFC 1155, RFC 1156, RFC 1157, RFC 1191, RFC 12133, RFC 1253, RFC 1256, RFC 1293, RFC 1483, RFC 1493, RFC 1519, RFC 1525, RFC 1541, RFC 1542, RFC 1573, RFC 1577, RFC 1583, RFC 1584, RFC 1626, RFC 1654, RFC 1657, RFC 1695, RFC 1716, RFC 1745, RFC 1755, RFC 1812

Bridging support

ISO 10038-ANSI/IEEE Std 802.1D:
Media access control bridges

IPX routing

IPX router specification, version 1.20- Novell Corporation, Novell IPX and RIP/SAP MIBs



Ordering Information

OmniSwitch chassis and power supplies

All chassis listed below contain both a 960 Mbps frame backplane and a 13.2 Gbps cell matrix backplane. All network interface modules listed in this document are supported. Each chassis is supplied with a single power supply; with optional redundant power supplies being sold separately. The wide slot chassis offers greater port density and ensures support for all of Alcatel Internetworking's current and future OmniSwitch modules.

| Model Number | Description |
|---|---|
| 3 Slot OmniSwitch Chassis | |
| OMNI-3WX | Omni-3WX (3 slots) wide version, built-in 150W power supply and rack-mount brackets. Supports Cell/Frame Bus. Redundant power is provided by purchasing a Backup Power System (BPS). CD-Manual is included. Requires management Module, not included. |
| 5 Slot OmniSwitch Chassis | |
| OMNI-5WX-PLUS | Omni-5WX (5 slots) wide version, OMNI-PS5-250 power supply and rack-mount brackets. Supports Cell/Frame Bus. CD-Manual is included. Requires Management Module, not included. |
| OMNI-5WX-48V-P | Omni-5WX (5 slots) wide version, OMNI-PS5-DC250 (-48VDC) power supply and rack-mount brackets. Supports Cell/Frame Bus. CD-Manual is included. Requires Management Module, not included. |
| 9 Slot OmniSwitch Chassis | |
| OMNI-9WXP | Omni-9WX (9 slots) wide version, OMNI-PS9-650 power supply and rack-mount brackets. Supports Cell/Frame Bus. CD-Manual is included. Requires Management Module, not included. |
| OMNI-9WX-48V | Omni-9WX (9 slots) wide version, OMNI-PS9-DC500 (-48VDC) power supply and rack-mount brackets. Supports Cell/Frame Bus. CD-Manual is included. Requires Management Module, not included. |
| OmniSwitch Chassis AC Power Supplies | |
| OMNI-PS5-250 | 250W power supply (PG). Redundant or spare power supply for 5-slot OmniSwitch. Can be used in Omni-5E, 5X, 5WX, and 5WX-PLUS chassis. |
| OMNI-PS9-725P | 725W power supply (PG). Redundant or spare power supply for 9-slot OmniSwitch. Can be used in 9WX-PLUS chassis. |
| OMNI-PS5-DC250-S | -48VDC 250W power supply (PG). Redundant or spare power supply for 5-slot OmniSwitch. Can be used in Omni-5E, 5X, 5WX, and 5WX-PLUS chassis. |
| OMNI-PS9-DC500 | -48VDC 500W power supply. Redundant or spare power supply for 9-slot OmniSwitch. Can be used in Omni-9E, 9X and 9WX chassis. |

Alcatel OmniSwitch ATM



OmniSwitch Management Processor Modules and HRE

Each OmniSwitch requires at least one MPM; a second can be installed for redundancy.

| Model Number | Description |
|---------------------|---|
| HRE-VX | Hardware Routing Engine, providing high speed layer 3 routing. The HRE-VX is an optional daughter card for the MPM-III. |
| MPM-C-16MB-T | Management Processor Module with a 10Base-T outband management port for the Omni-3WX, Omni-5WX, and Omni-9WX chassis. 32MB DRAM, 64MB SDRAM & 16MB FLASH memory. The MPM-C manages CSM modules only. REQUIRES SOFTWARE CODE 4.3.x OR GREATER. |
| MPMIII-16-T | Management Processor Module for the Omni-3WX, 5WX, and 9WX with a 10Base-T outband management port; 32MB DRAM, 64MB SDRAM and 16MB FLASH memory. Provides socket for optional HRE-VX. Can be used in combination with FCSM for ATM environments. REQUIRES SOFTWARE CODE 4.3 OR GREATER. Required for the Omni-3WX, 5WX and 9WX chassis. |

www.alcatel.com/enterprise

Alcatel

26801 West Agoura Road
Calabasas, CA 91301 USA

Contact Center

(800) 995-2612 US/Canada
(818) 880-3500 Outside US

www.alcatel.com/enterprise

Product specifications contained in this document are subject to change without notice. Contact your local Alcatel representative for the most current information. Copyright © 2003 Alcatel Internetworking, Inc. All rights reserved. This document may not be reproduced in whole or in part without the expressed written permission of Alcatel Internetworking, Inc. Alcatel® and the Alcatel logo are registered trademarks of Alcatel. All other trademarks are the property of their respective owners.

P/N 030976-01. 4/03

ARCHITECTS OF AN INTERNET WORLD

