

CBX 3500™ Multiservice Edge Switch



Meet the demanding service requirements for the multiservice edge. The CBX 3500™ Multiservice Edge Switch maximizes the profitability of ATM, Frame Relay, and private line services while adding new services and converging multiple services over an MPLS core. This scalable, flexible switching system delivers high-performance Layer 2 and Layer 3 services with unmatched field-proven, carrier-class reliability and availability. The CBX 3500™ switch optimizes your network with increased port densities, standards-based interworking, universal input/output modules, and module sharing with the CBX 500® Multiservice Switch. The CBX 3500™ platform also reduces operating costs by seamlessly integrating into Lucent multiservice networks using existing MXOS™ operating software and Navis® network management.

Applications

- Scale profitable ATM, Frame Relay (FR), and private line services at lower prices
- Add new revenue-generating IP/MPLS and Ethernet services through cost-effective multiservice capabilities
- Converge and interwork multiservice traffic over an MPLS core

Features

- Industry-leading port densities and low price per port
- Multiservice (ATM, IP/MPLS, Ethernet) interfaces ranging from Channelized DS0 to OC-48c/STM-16c
- Universal Input/Output Modules
- Fully redundant hardware, control, and power components; 1+1 APS or N:1 redundancy protection
- Non-service impacting software upgrades
- Module sharing with CBX 500® switch
- Hot swappable components

Benefits

- Cost-effectively grows existing services and adds new services
- Converges and interworks multiple services across an IP/MPLS core while preserving QoS and SLAs
- Delivers all services with unprecedented field-proven, carrier-class reliability and availability while dramatically reducing costs
- Simplifies network management and reduces operating costs with Navis® network management software
- Integrates seamlessly into existing Lucent multiservice networks

Technical Specifications

Description

Specifications

1. Protocol Features Supported

ATM

UNI 3.0, 3.1, 4.0, 4.1, and TM 4.1, IISIP, PNNI v1.1, H-PNNI, B-ICI, ATM Forum IMA v1.0 and 1.1, Resilient UNI, Fast APS, APS trunk backup, PVC redirect

Frame Relay

FRF.5 and FRF.8-ATM network and service interworking, FRF.16.1 Multilink Frame Relay (MFR), Subrate DS3, RFC 1490 Translation FRAD, UNI (DTE and DCE), NNI, Priority Frame, SVCs, RLMI, FRF.12, FRF.13, FRF.18, FRF.19

Ethernet/IP/MPLS

BGP-4, OSPF, RIP, Static, MOSPF, DVMRP, IGMP, PPP (RFC 2917), Packet over SONET (POS), MP-iBGP, OSPF-TE, RSVP-TE, LDP, PWE3 encapsulation, 10/100 Mbps, GigE, VLAN (2 levels), service interworking of Ethernet with FR or ATM over MPLS or ATM core, Ethernet to ATM interworking (RFC24a), Ethernet to FR Interworking Bridged mode (RFC 2684), 802.3 Ethernet-like MIB (RFC 2684)



Technical Specifications *(continued)*

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2. Interface Cards

Universal Input/Output Modules (ATM, POS, GigE)

- 24-port DS3 ATM IOA
- 16-port OC-3c/STM-1 ATM IOA
- 4-port OC-12c/STM-4 ATM/POS IOA
- 1-port OC-48c/STM-16 ATM/POS IOA
- 2-port GigE (R10)

ATM Input/Output Modules

- 4-port OC3/STM1 ATM*
- 8-port DS3 ATM*
- 1-port Ch STM-1/E1 ATM w/ IMA*
- 3-port Ch DS3/1 ATM w/ IMA*
- 60-port Ch T1/E1 Circuit Emulation*

FR/IP/Ethernet Input/Output Modules

- 6-port Ch DS3/1/0 Frame Relay with MFR*
- 32-port E1 Frame Relay with MFR*
- 8-port DS3 Subrate Frame Relay*
- 4-port 10/100 Ethernet*

*Module shared with CBX 500® switch

3. System Architecture

- 70 Gbps switching capacity, 16 slots
- Switch Processor 90 card
- Distributed routing and signaling
- Redundant processors, modules, fans, timing and power
- Priority-based circuit routing
- Multimode LED-based interfaces

4. Network Synchronization

External/Internal Stratum 3 timing, line timing, loop timing, holdover, and free-running

5. Operations, Administration and Maintenance

Internal, external, and line loopback, Alarm and trap monitoring, path trace, F4 & F5 OAM cells (loopback)

6. MXOS™ Multiservice Switch Operating Software

Carrier-class, hardened software provides superior switch reliability and network scalability; IP/MPLS Feature Pack available for IP service delivery

7. Navis® Network Management

- End-to-end layer 2 provisioning via Navis® Provisioning Manager
- Fault correlation via Navis® Fault Manager
- Performance data and reports via VitalSuite® software
- Billing and SLA management through the the Navis® suite of products

8. Physical Dimensions

Size: 31.5" x 19" x 19" (80.01 x 48.26 x 48.26 cm)

Weight: Less than 200 lbs (90.7 kg) fully configured

Rack Mount Options: EIA 19" or 23" midmount, CO style

9. Power Requirements

Redundant chassis power distribution system

AC Power: 120 to 240 volts AC, requires external converter

DC Power: -48 volts DC with dual power feeds; 60 Amps max

Current: 20 amps @ 120 volts AC; 60 amps max @ -48 volts DC

Thermal Dissipation: Maximum: 2880 watts

10. Environmental Conditions

Temperature: 32° F -122°F (0° C-50°C)

11. Regulatory Compliance

Environmental/NEBS™: GR-63-CORE, GR-1089-CORE

Safety: UL® 1950, CAS 9590

EMC: FCC Part 15 Class A, EN55022 Class A

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