# CBX 500



## 4-Port 10/100 Mbps Ethernet/IP Processor Card

The Ethernet 10/100 Base-T I/O Processor Card for the CBX 500 Multiservice WAN Switch provides high speed Ethernet access to the Ascend switching fabric. Operating as a standard IP routing interface, when used with IP Navigator™, the 10/100 Processor provides users with a high speed interface to Ascend's IP Switch (GRF) and MAX TNT family and/or high speed links to local Internet/Intranet hosting servers.

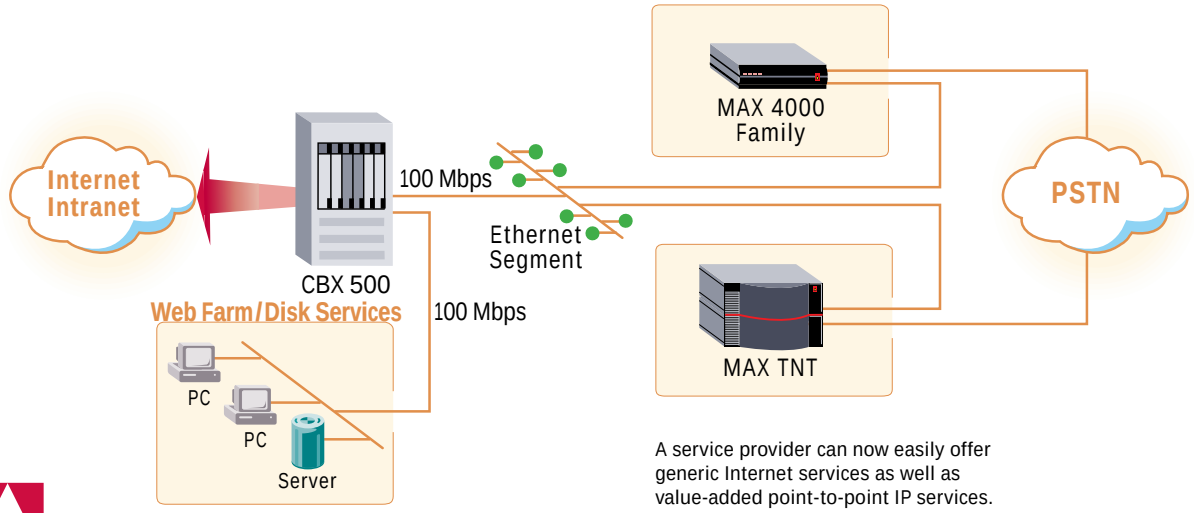
### Dial server aggregation and Internet/intranet services

The 10/100 Ethernet Processor Card enables a service provider to easily offer both Internet hosting services and value-added IP routing services that are inherent in IP Navigator. IP traffic received from the Ethernet module is forwarded over a Multipoint-to-Point Tunnel (MPT) built by IP Navigator, or over a regular Permanent Virtual Circuit (PVC). Similarly, traffic received from the network is forwarded from the MPT or circuit to the appropriate Ethernet segment and address.

### IP routing functionality

When using IP Navigator, the 10/100 Ethernet Processor Card provides high performance IP forwarding for the entire switch. CBX 500 IP routing is made possible by distributing a local IP Forwarding Engine (FE) on each Ethernet Processor Card. The FE performs IP routing decisions for IP traffic arriving from either common Ethernet ports on the same module, from any ATM port(s) on the same switch, or from any ATM MPT in the network.

## Dial Server Aggregation and Internet/Intranet Services




A service provider can now easily offer generic Internet services as well as value-added point-to-point IP services.

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## Operational Features

### Protocols supported

- TCP
- UDP
- ICMP
- ARP
- INARP
- Telnet, TFTP, FTP
- SNMP
- OSPF
- RIP
- RIP 2
- BGP4
- Static Routing
- Traffic and route filters
- IP QoS
- DVMRP
- MOSPF
- PIM
- IGMP

### Management

- RFC 1398 Ethernet MIB
- RFC 1213 TCP/IP-based Internets MIB

### Throughput

- 540K pps/ module (128 byte packets)

## Specifications

### Physical dimensions

- Size: 1 in x 16 in x 11 in (2.5 cm x 40.6 cm x 27.9 cm)
- Weight: 2 lb (.91 kg)

### Power requirements

- 90-91 watts

### Agency approvals

- EN55022 Class A (CISPR)
- EN50082
- FCC Part 15 Class A

### Temperature range

- 0-50°C (32-122°F)

### NEBS

- GR-63-CORE
- GR-1089-CORE

### Physical interfaces

- Four RJ45-8 connectors (two-pair, category 5 UTP), or
- Four Media Independent Interface (MII) connectors

### Interface standards

- 802.3-compliant 100Base-TX
  - – 10 Mbps operation
  - – 100 Mbps operation
- Full- or half-duplex
- Auto-negotiation for 10 or 100 Mbps rate and full- or half-duplex
- Internal and External Loopback

### LED indicators per module

- Three LEDs are provided to indicate module status.

| Status | LED State |
|---|---|
| Normal Operation | Good LED Lit |
| Module Failure | Failed LED Lit |
| Module On-line - redundant module installed and off-line | Redundant LED lit |
| Module On-line - no redundant module installed | Redundant LED off |
| Module Off-line - redundant module installed and on-line | Redundant LED flashing |

### LED indicators per port

- Five LEDs are provided per port to indicate port status and traffic.

| Status | LED State |
|---|---|
| TX activity | On/Off |
| RX activity | On/Off |
| Link Est. | On/Off |
| Full Duplex | On/Off |
| Collision | On/Off |

### Ordering information

| Description | Product code |
|---|---|
| 4-Port Ethernet I/O Processor Card | 11107 |
| 4-Port Ethernet I/O Connector Panel - UTP/MII | 11108 |


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Ascend Communications, Inc. develops, manufactures and sells wide area networking solutions for telecommunications carriers, Internet service providers, and corporate customers worldwide. For more information about Ascend and its products, please visit the Ascend web site at http://www.ascend.com, or e-mail info@ascend.com.


Ascend markets the B-STDX, CBX, IP, MAX, Multiband, MultiDSL, Navis, Pipeline, SA, SecureConnect and STDX families of products. Ascend products are available in more than 30 countries worldwide.

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