

Access500

VoIP IADs

SIP controlled services for small-to-medium businesses



Access500, family of Voice over IP integrated access devices (VoIP IAD), is a compact and cost-effective product line with solutions for any small-to-medium enterprise (SME). The Access500 product line enables service providers to offer their business customers a seamless migration path from TDM-based services to enhanced VoIP services using a softswitch telephony infrastructure. This family of single-box solutions breaks down the barriers of voice or data-only, TDM or IP-only networks and opens up new revenue streams.

The product line offers solutions to meet various service needs and its remote service activation allows service and revenues to grow without the need for truck rolls. Consistent services, configuration, and management simplify training, installation, and troubleshooting.

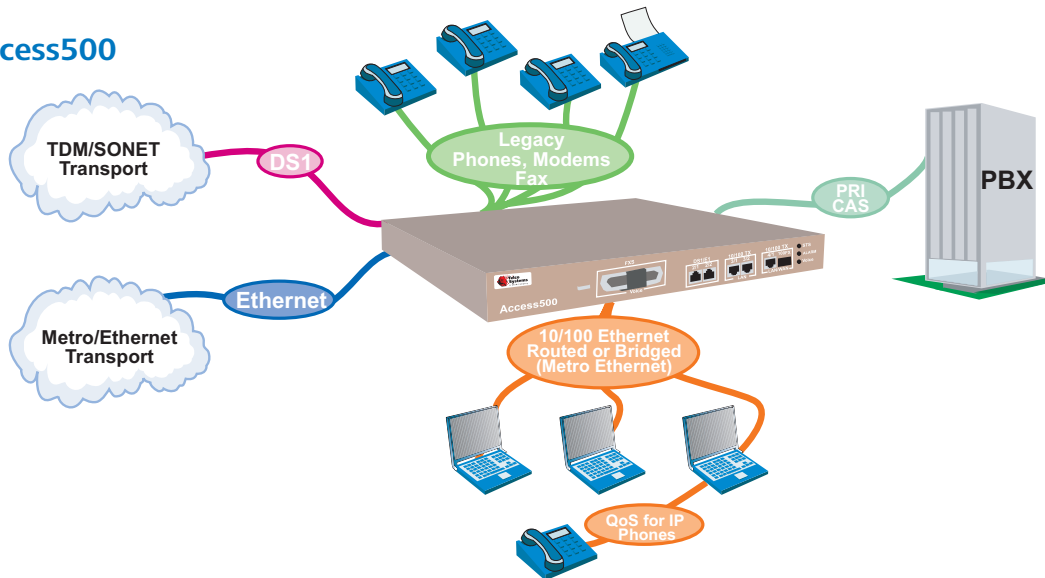
Access500's VoIP and IP class of service functionality are SIP based. Its flexible uplink options include 1 or 2 T1s and 10/100BaseT Ethernet. A Small-form Factor Pluggable (SFP) allows its 100BaseFX transceiver port to be used for optical Ethernet fiber-to-the-business (FTTB) connectivity. Customer interfaces are 10/100BaseT to the LAN and FXS analog interfaces and PRI/CAS PBX.

Access500 delivers superior access gateway functionality, providing a seamless integration of legacy voice customer equipment (PBX, key system, fax, modem, analog phone, etc.) into carriers' converged services core. It's interoperable with a broad range of softswitches including feature servers, application servers, trunk gateways, and session border controllers. ■

Product Highlights

- ❖ Carrier-class, VoIP IAD
- ❖ Provides migration path from legacy customer equipment to IP-based services
- ❖ Combines packetized voice and data traffic onto NxT1 or Ethernet to reduce service delivery costs
- ❖ Leverages low-cost leased access to enter new markets
- ❖ Superior SIP-based VoIP quality, with IP class of service
- ❖ Advanced routing and firewall capabilities
- ❖ Up to 24 FXS ports
- ❖ PRI and RBS DS1 drop to provide VoIP connectivity to existing digital PBX
- ❖ Remotely manageable and configurable
- ❖ Compact 1 RU saves space
- ❖ AC and DC power options

Access500



Specifications

Routing and Provisioning

RFC 1305 NTP
 RFC 1631 NAT/NAPT
 RFC 1769 SNMP
 RFC 2131 DHCP server/client/relay
 RFC 2453 RIPV1, RIPV2
 Static and dynamic IP addressing
 IPCP and LCP over PPP
 CIDR addressing, and static routing of CIDR blocks
 Access Control Lists (ACL)

QoS

802.1p voice priority over data, for all voice sources
 FXS, PRI/T1 or the Ethernet ports
 TOS/DSCP marking
 UDP and TCP MLPPP packet fragmentation
 Advanced jitter buffer management algorithms

WAN Encapsulations

PPP & MLPPP
 Cisco HDLC
 802.3 Ethernet, 802.1q VLANs

VoIP

RFC 3261 SIP
 CODECs supported:
 • G.711 (A-law, μ -law)
 • G.729 A/B
 Advanced jitter buffer management
 T.38 fax relay
 Automatic fax/modem detection
 Voice Activity Detection (VAD)
 Comfort Noise Generation (CNG)
 G.165/G.168 Echo cancellation
 DTMF detection
 2100Hz modem tone detection

T1 PRI/CAS/WAN Interface

Line rate 1.544 Mbps
 Line code AMI or B8ZS
 Framing D4 or ESF
 Connector RJ-48C
 Line equalization: 0 to 133 ft., 134 to 266 ft., 267 to 533 ft., 534 to 655 ft.

Line Build Out 0 dB, -7.5 dB, -15 dB
 CSU receiver gain 26 dB
 In-band and out-of-band CSU loop codes

Digital PBX DS1 drop

PRI signaling:
 • 4ESS
 • 5ESS
 • NI2
 • DMS100/250
 CAS / Robbed Bit Signaling for non-PRI PBXs
 • E&M Wink - start
 • E&M immediate
 • E&M delay

FXS

4/12/24 FXS Ports
 T/R reversal
 Hard tip ground
 Configurable Impedance 600/900 ohm
 Configurable TX/RX levels. (-13.0 to +7.0dBm in 0.1 or 0.2dB steps)
 μ -Law / A-law selectable
 In-building loops up to 1,500 feet
 Message waiting tone (stutter dial tone)
 Caller ID

Ethernet Interfaces

3 10/100BaseTX
 1 SFP 100BaseFX optical

Chassis

Dimensions 1.75" (H) x 19" (W) x 9" (D)
 Power -48VDC, or universal AC
 Operating temp. -4 °F to 149 °F (-20 °C to +65 °C)
 Maximum altitude 10,000 ft (3,048 m)
 Relative humidity 0 to 95% non-condensing
 Wall or rack mountable

Safety and Electro Magnetic

EMI FCC, EN55022 Class B
 Immunity EN50082-1
 Safety UL1950, CSA 22.2 No. 950, EN 60950

Ordering Information

AXX394G1	Access505 PRI & 4 FXS	AC power
AXX395G1	Access505 PRI & 4 FXS	DC power
AXX396G1	Access524 24 FXS	AC power
AXX397G1	Access524 24 FXS	DC power
AXX398G1	Access512 12 FXS	AC power
AXX399G1	Access512 12 FXS	DC power

All Access500 models Include:
 2 DS1 WAN (RJ-48)
 3 RJ-45 10/100BaseTX Ethernet
 (1 can be used as WAN)
 1 SFP carrier for optical Ethernet WAN
 RJ-21 50-pin connector for FXS interfaces