



CellPipe™ IAD 16 Series

The CellPipe IAD 16 Series products are Lucent's second generation (G2) of Integrated Access Devices. The 16 series build on the success of Lucent's market leading family of IADs to deliver next generation converged network services over DSL and T1/E1. The IAD 16 series supports up to 16 POTS telephone lines with multiple LAN side data connections in a sturdy, 19" rack-mountable chassis. Its compact and efficient design make it the ideal IAD for serving small-to-medium sized businesses. The IAD 16 series features a wide array of software options and hardware capabilities making it the most robust IAD solution on the market today.



Next Generation IAD for Next Generation Service

Building and expanding on the market leading technology of the original CellPipe IAD Products, the CellPipe IAD 16 series delivers a new telco ready form factor and is loaded with powerful features. The chassis is 2U high and fits into a standard 19" rack. The RJ-11 telephone connections on the back have been replaced with a single Amphenol telco Connector. The IAD 16 series delivers a higher density of POTS ports—up to 16 voice lines. And with support for voice-over-TCP/IP, Frame Relay or ATM, the 16 series is the most flexible VoP (Voice-over-packet) device on the market. The data features of the IAD are quite extensive, including routing and bridging, firewall support, DHCP and NAT and Frame-relay to ATM conversion (via v.35 interface) for legacy router support.

Strategic Component of the Lucent end-to-end VoP solution

The CellPipe IAD 16 Series is a critical piece to Lucent's complete Voice over Packet solution. When used with Lucent's PacketStar (PSAX) voice-gateway, the CellPipe is the ideal solution for providing VoATM (Voice-over-ATM) service to small and medium sized businesses. Additionally, the CellPipe can be used with Lucent's iMerge products and/or Softswitch products for providing Carrier class VoIP (Voice-over-IP) services.

Automatic configuration with Lucent 's TURN-UP™

These units support TURN-UP, an installation utility that enables timesaving configuration. TURN-UP automatically provides each CellPipe IAD unit with configuration information through any router or bridge that can terminate a Virtual Circuit (VC) or PPP connection on an ISP's network. With TURN-UP, users can get their CellPipe IAD units up and running with minimal time and effort. TURN-UP also eliminates the need for service provider truck rolls and provides a mechanism to centrally manage user configurations.

Specifications

Voice Features

Analog

Voice Ports: 16 POTS ports FXS
Signaling: Loop start, ground start
Dialing: DTMF (tone)
Ring Source: Internal
Impedance: 600 ohms
REN: 4.0 REN per POTS port
Loop Current: 25 mA typ.
Idle State Voltage: >21V
Ring Voltage: >40V rms at 4.0 REN load
Gain/System Loss: Programmable, +3dB to -9dB

Digital

Compression: G.711 (64 kbps PCM), G.726 (32 kbps ADPCM)
Encoding: A-law and mu-law
Echo Cancellation: G.168 compliant (single reflector)
Fax Support: V.17, V.29 support
Modem Support: V.34, V.90 support
Calling Features: Caller ID, Flash hook, Three-way calling, Distinctive ringing, Stutter dialtone, Call forwarding, Call waiting

Data Features

LAN Interface: 10/100 BaseT (RJ45)
Bridging: IEEE 802.1d including spanning tree
Routing: Default, Static, RIP1 (RFC 1058), RIP2 (RFC 2453), ICMP for IP Packet Processing
DHCP: Server, Client (RFC 2131), Relay Agent
PPP: PPPoA, PPPoE, PAP, CHAP, IPCP HDLC support
Management: SNMP, MIB1, MIB2, Enterprise MIB Configuration: Console, Telnet (local, remote)
Universal Serial Interface: EIA-530/RS449, V.35 (DB25)

WAN Features

Interface

WAN: 16T:T1/UNI (RJ45) or 16S:2B1Q SDSL (RJ11)
Standards: ITU-T G.992.2, G.992.1
Transport: ATM and Frame Relay
Voice Gateways Supported: Lucent PSAX (ATMF 145 BLES), others
VoIP Support: MGCP v0.1, NCS 1.0 support

ATM

Adaption Layers: AAL2 (voice), AAL5 (data), AAL5 (for layer 3 voice)
Encapsulation: RFC 1483 multiprotocol encapsulation over ATM; RFC 2364 (PPP over ATM); ITU 366.2 (AAL2)
AAL2 Profiles: ATM: 9,10, 11 and ITU: 1

Voice: Single AAL2 PVC
Data: Up to 8 AAL5 PVCs
Security: Software configurable payload scrambling
Voice QoS: CBR, VBR-rt
Data QoS: CBR, UBR
OAM Cell Handling: F4/F5 segment and end-to-end loop-backs

Frame Relay

Encapsulation: RFC 1490 multiprotocol encapsulation over Frame Relay
Voice: Single PVC
Data: 8 Data Link Identifiers (DLCI)
Data Link Format: Q.922
Data Link Control: FRF.12 support, adjustable jitter buffer
Data Internetworking: FRF.5, FRF.8 support
Framing: HDLC support

Configuration and Management

Lucent TURN-UP Autoprovisioning System
Security: Multi-level password protection

Security Features

Firewall: IP Filtering
NAT: RFC 1631, Port Translation, Exported Services

Environmental

Power Supply: Internal 108–130VAC, 50–60 Hz
Power: 16 watt nominal, 24 watt max operating
Operating Temp: 0°C–50°C
Storage Temp: -10°C–70°C
Operating Humidity: 5%–90% non-condensing
Safety: UL 1950, CSA C22.2 No. 950 Part 68
Emissions: FCC Part 15 Class A, Part 68
LEDs: Power, LAN Link, LAN Activity, WAN Link, Voice Activity, V.35 Link, V.35 Activity
Dimensions: 17.5" x 10.25" x 1.75"
Weight: 4.75 lbs.
Mounting: Stackable and rack mountable

To learn more, contact your local Lucent Technologies Representative, Authorized Reseller, or Sales Agent. Or, visit our Web site: www.lucent.com

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