

# AnyMedia<sup>®</sup> Line Access Gateway



Transform business  
with the AnyMedia<sup>®</sup>  
Line Access Gateway

Discover a comprehensive access solution that helps cut POTS costs, build new revenues and migrate seamlessly to packet networks.

## Benefits

- **Minimize capital expenditures** using a single platform to deliver narrowband, broadband and packet offerings.
- **Increase earning power** by quickly launching new high-value services.
- **Support IP/Ethernet** on the same platform used to deliver POTS and ATM-based data services.
- **Lower operating costs** using one management system for voice, video and data traffic.
- **Streamline the network** – industry-leading port densities enable fewer network elements.
- **Evolve existing AnyMedia<sup>®</sup> investments** – Help create network operating efficiencies by using new IP conversion application packs to packetize ATM xDSL or TDM POTS traffic to IP backhauls.

**Lucent Technologies**  
Bell Labs Innovations



## A New Formula for Success

Now a single integrated platform delivers the key capabilities needed in today's challenging telecommunications environment. The AnyMedia® Line Access Gateway (LAG) combines exceptional multi-service flexibility with high port densities – and an IP/Ethernet option. As a result, a wide range of circuit and packet traffic can co-exist on the same integrated platform, which leverages infrastructure, minimizes operating costs and simplifies evolution to packet networks. Using “plug-and-play” application packs, the AnyMedia® LAG also makes it easier to generate additional income, because service providers can quickly launch new services, respond immediately to changing customer demands and take advantage of emerging markets.

These powerful capabilities make the AnyMedia® LAG ideal for launching IP services today – while continuing to support POTS – then migrating to packet networks with minimal capital investment. With a choice of capacities, this high-density platform also enables cost-effective switch consolidation and growth applications. And it can take the network seamlessly into the future.



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**The AnyMedia® LAG supports POTS, ISDN, IP/Ethernet and DSL all on an integrated platform.**

## Minimize Equipment Costs

The AnyMedia® LAG saves money because its multi-service architecture eliminates the need for overlay networks and forklift upgrades. Instead, service providers simply add application packs to the AnyMedia® LAG shelf whenever needed to incorporate new technologies and support the latest services – including IP/Ethernet. With this approach, providers can build DSL and packet capabilities incrementally while maintaining cost-effective POTS support – and evolve at a pace that's right for the network. The design efficiencies of the AnyMedia® LAG allow providers to use fewer network components and switch interfaces, reducing expenditures even further.

## Evolve to VoIP on your terms

The AnyMedia® LAG supports both centralized and distributed VoIP architectures. This allows you to determine if it is best to convert traffic from TDM interfaces to VoIP on a per shelf basis or on a per card basis. This flexibility to support any network topology allows AnyMedia® LAG solutions to fit to your evolution plans, simplifying integration and saving money.

## Economize on POTS and New IP Services

The AnyMedia® LAG offers a choice of capacities with industry-leading port densities. The AnyMedia® LAG 4300 can support up to 2,752 POTS lines on a single shelf – or up to 5,504 lines per cabinet. With more than twice the capacity of any other AnyMedia® Access System, this platform has been optimized to help deliver traditional voice services more cost effectively. When providers want to reduce the number of switches in the network – or support more subscribers in a single location – the AnyMedia® LAG 4300 provides the streamlined power required.

The AnyMedia® LAG 2300 offers a cost-effective way to launch new IP applications, including VoIP and IP video services. It supports up to 512 POTS lines per shelf, or any combination of DSL, POTS, ISDN, IP/Ethernet and special services. Easily deployed in a wide variety of locations, this mid-sized platform can help respond to changing market requirements with outstanding efficiency.

The AnyMedia® LAG 1900 offers the same VoIP and IP video capabilities as the AnyMedia® LAG 2300 while fitting into standard 19-inch data racks. It supports up to 896 POTS lines per shelf.

The AnyMedia® LAG 200 offers IP and distributed VoIP capabilities in a small remote platform perfect for deploying deep into the network to help reach customers in remote areas and increase revenue streams.

## Make the Most of Revenue Opportunities

The multi-service flexibility of the AnyMedia® LAG enables service providers to quickly capitalize on opportunities to bring in additional income. This integrated platform supports any mix of POTS, ISDN, IP/Ethernet and DSL technologies, so service offerings can be adjusted easily to keep pace with demand. “Any service, any slot” application packs deliver a simple, cost-effective way to add the latest high-value voice, video, data and multimedia offerings; while a broadband backplane enables delivery of premium service at higher rates. With this streamlined, fast-paced approach, service providers can generate new revenue instantly, keeping customers satisfied and staying ahead of competition.

The AnyMedia® LAG supports POTS, ISDN and DSL all on an integrated platform.

## Increase Operating Efficiency

The AnyMedia® LAG simplifies operations in a number of ways. First, its integrated architecture reduces network infrastructure, which cuts back maintenance requirements and decreases management time and effort. Next, this design delivers the power and convenience of a single management system for both voice and data services, with flexible control over all network devices. To provide seamless interoperability, the AnyMedia® LAG uses standard open interfaces, including V5.1, V5.2, GR-303, SIP, H.248, MGCP, ATM, E1 IMA, DS1 IMA, E3, DS3, ITU STM-1, Japan STM-1, OC-3c, 100baseT and Gigabit Ethernet. It also helps reduce inventory and training by using the same narrowband and broadband application packs as other AnyMedia® Access Systems.

Along with the efficiencies provided by the AnyMedia® LAG, Lucent Worldwide Services help reduce operating expenses and keep the network performing at its best. A full portfolio of operations and maintenance services is available, backed by more than 10,000 expert technical professionals and powered by Bell Labs innovations.

## Evolve Seamlessly

With its IP/Ethernet option, proven multi-service capabilities and open interfaces, the AnyMedia® LAG enables the integration new technologies incrementally – or the conversion of the embedded POTS and ATM xDSL base to IP backhauls – whenever and wherever they offer benefits to the network. That means service providers can protect investments in existing infrastructure while taking advantage of the latest technological developments. This forward-looking approach lets providers migrate seamlessly to packet networks at a pace that’s right for the business without having to commit to a forklift upgrade.

## Count on Field-Proven Reliability

The AnyMedia® LAG is the latest addition to the AnyMedia® Access System portfolio – which has more than 50,000 systems currently in use worldwide, supporting more than 6 million voice lines, 1 million ADSL ports and 30,000 E1 ports. This high-density platform can help companies offer the services customers demand, while minimizing capital expenditures and positioning the network for the future.



## Summary of features and benefits

### Full narrowband support

- POTS
- Analog leased lines or payphone
- ISDN BRA (2B1Q, 4B3T, TCM)
- ISDN PRA
- Nx64 Kbps digital leased lines
- 2.048 Mbps structured and unstructured leased lines
- Digital leased lines via a U-interface

### Expanding range of broadband capabilities

- ADSL full rate and G.lite (Annex A and Annex B)
- SDSL 2B1Q
- SHDSL
- ADSL2+ (Annex A and B)
- ADSL2+

### IP/Ethernet capabilities

- 2 Gigabit Ethernet trunks per LAG shelf
- 2 100baseT Ethernet trunks per LAG shelf
- L2-L4 packet classification and marking
- 802.1q VLAN
- 802.1p priority queuing
- 802.3ad link aggregation
- 802.1d spanning tree
- 802.1w rapid spanning tree
- IGMP version 2
- IGMP -PIM
- IGMP fast leave
- MAC learning
- Broadcast storm control
- Access control list (AC) filtering
- DHCP relay
- Static routing
- RIP1, RIP2
- OSPF

### Leading port density: AnyMedia® LAG 4300

- Up to 2,752 POTS lines per shelf
- Up to 2,688 VoIP lines per shelf
- Up to 1,312 ADSL2+ lines per shelf
- Up to 1,376 ISDN BRA lines per shelf
- Up to 336 subscriber Ethernet lines per shelf

### Mid-sized capacity (U.S.): AnyMedia® LAG 2300

- Up to 512 POTS lines per shelf
- Up to 960 VoIP lines per shelf
- Up to 480 ADSL2+ lines per shelf
- Up to 256 ISDN BRA lines per shelf

### Mid-sized capacity: AnyMedia® LAG 1900

- Up to 896 POTS lines per shelf
- Up to 832 VoIP lines per shelf
- Up to 416 ADSL2+ lines per shelf
- Up to 448 ISDN BRA lines per shelf
- Up to 208 Long Reach VDSL lines per shelf
- Up to 104 subscriber Ethernet lines per shelf

To learn more about our comprehensive portfolio, please contact your Lucent Technologies Sales Representative or Lucent Business Partner, or visit our web site at [www.lucent.com](http://www.lucent.com). This document is provided for planning purposes only, and does not create, modify or supplement any warranties which may be made by Lucent Technologies relating to the products and/or services described herein. The publication of information contained in this document does not imply freedom from patent or other protective rights of Lucent Technologies or third parties.

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### Remote deployments

#### AnyMedia® LAG 200

- Up to 128 VoIP lines
- Up to 96 ADSL2+ lines per shelf
- Up to 24 subscriber Ethernet lines per shelf

### Easy-to-use application packs

- Interchangeable across the AnyMedia® Access System portfolio

### Broadband backplane for premium service

- Supports the latest high-speed data, voice and multimedia services

### Open switch interfaces for interoperability

- Standard open interfaces: V5.1, V5.2, GR-303, SIP, H.248, MGCP, ATM, E1 IMA, DS1 IMA, E3, DS3, ITU STM-1, Japan STM-1, OC-3c, 100baseT, Gigabit Ethernet

### Easy deployment

- Compact chassis: AnyMedia® LAG 4300: 96.5 cm x 63.5 cm x 28.0 cm; AnyMedia® LAG 2300: 55.4 cm x 45.7 cm x 33.0 cm; AnyMedia® LAG 1900: 60.0 cm x 48.3 cm x 28.0 cm; AnyMedia® LAG 200: 57.2 cm x 20.3 cm x 15 cm

- Both indoor and outdoor configurations

Note: the AnyMedia® LAG 4300 is for indoor application only. It can be deployed outdoors in a controlled environment (i.e. air conditioned). The AnyMedia® LAG 2300, 1900 and 200 can be deployed both indoors and outdoors.

- Network access from fiber and twisted copper pair
  - Network side fiber is Gigabit Ethernet 10km and 40kms; OC-3/STM-1
  - Network side copper is 100baseT; 100baseT; DS3; E3; E1; DS1
  - Subscriber side fiber is 100baseSX
  - Subscriber side copper is ADSL2+; ADSL; SHDSL; ISDN; POTS

### Single integrated management system

- Navis® AnyMedia® Access Element Manager

### Future-oriented design

- Integrated IP/Ethernet, POTS, ATM-based data and video on one platform
- Easy, incremental addition of new technologies – when and where needed

### High availability

- Proven AnyMedia® Access System reliability, worldwide
- Dedicated bandwidth for premium customers

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