Get greater bandwidth capacity and higher transport speeds without higher costs



Ask your carrier about

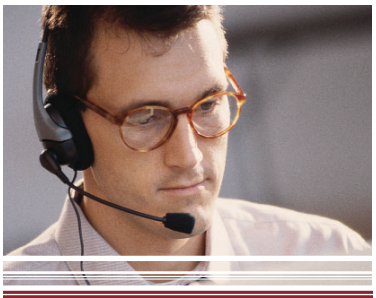
Enhanced Frame Relay and ATM Services that give you the Lucent Advantage™

With Enhanced Frame Relay and ATM Services, IT managers can:

- Lower the cost of moving data
- Achieve higher throughput
- Optimize Frame Relay network performance
- Scale ATM bandwidth on demand

Lucent Technologies
Bell Labs Innovations

Enhanced Frame Relay and ATM Services



Frame Relay and ATM services enable enterprises to transmit many different kinds of data over wide geographic areas at high speeds, while providing maximum performance.

These connection-oriented technologies are ideal transport solutions for enterprises with bursty data traffic. Enhanced Frame Relay and ATM multiplexing technology enables carriers to consolidate multiple, lower-cost DS1 or T1/E1 lines to create a single, higher-speed, virtual fractional DS3 or T3/E3 line for transport. As a result, converged data, voice, and video services can be delivered on the bandwidth you require for a fraction of the cost of a DS3.

IT managers face a variety of challenges as they struggle to provide reliable, cost-effective Wide Area Network (WAN) support. Volumes continue to grow as new, data-intensive services come on line. Capital and operating budgets are under pressure. Point-to-point private lines are restrictive and expensive. Bursty traffic can cause network congestion on DS1 or T1/E1 lines, while underutilized DS3 or T3/E3 lines are a luxury few can afford.

The solution is Enhanced Frame Relay and ATM Services that enable enterprises to consolidate multiple networks and services onto a single network connection. Priorities can be assigned for different types of traffic to ensure that critical applications run successfully.

Inverse multiplexing for ATM allows enterprises to converge services and leverage statistical multiplexing and load balancing to improve transport and wide area access over ATM with the assurances that Quality of Service (QoS) guarantees.

Bandwidth can be allocated flexibly to support mission-critical processes with multiple levels of Quality of Service (QoS) and Class of Service (CoS) as needed. In addition, this cost-efficient approach provides added reliability, as transport can continue even in the event of an outage in one or more lines.

Lower the cost of moving data

Enhanced Frame Relay and ATM Services can combine your data needs onto a single service interface for cost and performance benefits. For example, instead of requiring one line for voice, another for video and another for data, enterprises can consolidate networking needs on a single interface, with the cost of a single service line carrying voice, video and data. Bandwidth assignments can be adjusted easily and quickly, without the expense and disruption of tearing down and reconfiguring existing networks. Enterprises can save money by leveraging interface equipment and accommodating Local Area Network (LAN) infrastructure that needs to be interconnected with IP, requiring a smaller capital outlay.

Achieve higher throughput

Enhanced Frame Relay and ATM Services give enterprises new flexibility for smooth growth in bandwidth capacity required for access and transport services. There is no longer a need to jump all the way from DS1/T1/E1 to DS3/T3/E3 when more bandwidth is needed. Carriers can provide incremental bandwidth over multiple lower-cost lines. For example, enterprises can now choose the optimum interface speed — and therefore better control their costs. In daily operation, this single, combined interface can speed up data transmission by adjusting traffic QoS priorities, making unused bandwidth available to handle data bursts while maintaining guarantees to critical real-time data.

Optimize Frame Relay network performance

Enhanced Frame Relay services with the Lucent Advantage™ allow enterprises to link numerous sites with secure and flexible transport. Priority Frame™ service extends ATM-like QoS to Frame Relay service, enabling the network to identify traffic types and route them accordingly. Multilink Frame service provides custom-fit bandwidth by bundling multiple connections at DS0-to-DS3 and T1/E1-to-T3/E3 speeds for specific application requirements. Frame Switched Virtual Circuits (SVCs) enable carriers to dynamically allocate

bandwidth to temporary connections, allowing usage-based billing and improved disaster recovery applications. Resilient Network to Network Interfaces (NNIs) move traffic to a backup connection if necessary, without interrupting service.

Scale ATM bandwidth on demand

ATM Services with the Lucent Advantage™ offer enterprises services that are sized and priced appropriately for their bandwidth needs. Plus the benefit of ATM's QoS, traffic management and multiplexing capabilities to efficiently manage diverse traffic types across multiple circuits to guarantee throughput and data delivery. As a result, ATM Services with the Lucent Advantage™ offer the best of both worlds, proven QoS with private line quality support of latency-sensitive services.



Enhanced Frame Relay and ATM Services provide affordable, incrementally scalable bandwidth for high-speed, high-volume transport with world-class reliability.

Today, innovations from Lucent Technologies enable carriers to meet the stronger, cleaner service requirements of the Frame Relay service level definitions. Enterprises can leverage new Frame Relay services — all backed by enforceable Service Level Agreements (SLAs) — that can do the following:

- Distinguish between traffic types
- Give preference to high-priority traffic
- Deliver flexible access speeds between DS0 and DS3, and between T1/E1 and T3/E3
- Provide dynamic, any-to-any connectivity
- Enable usage-based billing.

Get the Lucent Advantage™

The world's leading carriers are delivering the Lucent Advantage™ to enterprises using CBX 500® and GX 550® Multiservice WAN Switches and PacketStar® PSAX Multiservice Media Gateways to deliver "five nines" (99.999%) network reliability. This type of reliability is normally only associated with phone company voice networks. Lucent is a leading supplier of multiservice WAN switches to carriers and has the largest embedded base of Frame Relay and ATM switches in service today. These platforms have been in the networks of the largest service providers worldwide for several years and are field-proven to deliver carrier-class quality.

Through features such as industry-leading Permanent Virtual Circuits that ensure SLAs and critical transport requirements, they provide a solid and reliable framework for data networks. End-to-end network management simplifies operations for the carrier, providing flexible performance reporting and superior diagnosis and recovery time when network-disrupting events occur. Because these switches support a wide variety of premises equipment, they help minimize enterprise capital expense. Finally, the availability of modular upgrades enables the carrier to deploy services rapidly with minimal disruption.

Enhanced Frame Relay and ATM Services that deliver the Lucent Advantage™ can provide the flexibility and feature set that enterprises need, while lowering IT costs and providing voice-quality network reliability. Lucent Technologies CBX 500® and GX 550® Multiservice WAN Switches and PacketStar® PSAX Multiservice Media Gateways provide a flexible and reliable, proven platform for diverse enterprise needs. Talk to your carrier today about Frame Relay and ATM Services that offer enterprises the LucentAdvantage™: the most reliable and flexible multi-service transport technology available today.

To learn more about Enhanced Frame Relay and ATM Services, please contact your carrier. Be sure to ask for services that leverage the Lucent Advantage™.

To learn more about Lucent Technologies, visit our web site at http://www.lucent.com.

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