Enhanced Frame Relay Solutions



Leverage the Lucent Advantage™ to provide the flexibility, features and ability to lower IT costs that enterprises need, with voice-quality network reliability

The benefits of Enhanced Frame Relay for your business:

- Leverages existing networks to create new revenue opportunities
- Provides unique, dynamic, value-added services
- Effectively supports bursty traffic such as data and video
- Enables migration to VPNs, managed security, and VoIP

The benefits of Enhanced Frame Relay for your enterprise customers:

- Provides affordable, incrementally scalable bandwidth for high-speed, high-volume transport
- Distinguishes between traffic types and gives preference to high-priority traffic
- Optimizes data network performance
- Supports multiple levels of QoS and CoS

Lucent Technologies
Bell Labs Innovations

Enhanced Frame Relay Solutions



Enhanced Frame Relay Solutions provide connection-oriented transport for enterprises with bursty data and video traffic.

Enhanced Frame Relay can distinguish between traffic types; give preference to high-priority traffic; provide dynamic, any-to-any connectivity; and enable usage-based billing which result in carriers offering innovative services at competitive prices, backed by enforceable service level agreements (SLAs).

Secure and reliable transport of business-critical data is a high priority for many enterprises. Whether they are moving high volumes of data traffic between multiple locations or trying to interconnect older technologies to IP networks, they want the assurance of always-available information and reliable throughput. But with many enterprises under pressure to control expenses, they are facing the difficult task of balancing performance and cost.

IP-based solutions such as IP Virtual Private Networks (IP VPNs) can help enterprises reduce expenses. But since the networks that deliver these services typically carry Internet traffic, enterprise communications can be exposed to Web-based threats that can disrupt their communications infrastructure. That's why many enterprises are looking to a proven, reliable technology — Frame Relay — for their data transport needs.

Frame Relay is a packet-switching protocol for connecting multiple, geographically dispersed customer sites via a Metro Area Network (MAN) or Wide Area Network (WAN). Frame Relay supports data transfer rates at DS0 (56/64 kbps), T1 and fractional T1 (between 56/64 kbps and 1.544 Mbps), supra-DS1 (between 1.5 Mbps and 45 Mbps) and speeds as high as DS3 (45 Mbps).

Lucent Technologies has Enhanced Frame Relay Solutions that help you deliver the Lucent Advantage™ to your enterprise customers: the security and reliability they need, with predictable throughput performance and flexible bandwidth options to meet their growing requirements. Enhanced Frame Relay Solutions are particularly useful for applications that require client/server computing, peer-to-peer connections and Internet access. They are ideal for establishing LAN-to-LAN connectivity and distributed client/server networks such as Internet, e-mail, Web access, file transfer, transaction processing, content management, multimedia and video applications.

What enterprises want …

Enterprises are seeking reliable and cost-effective services that support mission-critical applications with multiple levels of Quality of Service (QoS) and Class of Service (CoS). Enhanced Frame Relay Solutions are secure and relatively inexpensive, and provide predictable performance.

Enterprises want incrementally scalable bandwidth for high-speed, high-volume transport. With Enhanced Frame Relay, they can benefit from world-class reliability, while getting the stronger, clearer service requirements of Frame Relay service level definitions.

What enterprises need …

Enterprises need proven, high-speed, multiservice capability with high availability — at the best possible price. Enhanced Frame Relay combines data needs into a single service interface for cost and performance benefits. Even for companies with a high volume of LAN data traffic — including bursty traffic for which speed is critical — bandwidth assignments can be adjusted easily and quickly.

Enhanced Frame Relay gives 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 T1/E1 to DS3/E3 when more bandwidth is needed. You can deliver incremental bandwidth over multiple lower-cost lines using Multilink Frame Relay (MFR) to emulate a higher-speed link and deliver a range of services. You can also offer fractional DS3 port speeds.



We have the products, software and services that enable you to offer Enhanced Frame Relay Solutions quickly and profitably. Enhanced Frame Relay Solutions that deliver the Lucent Advantage™ include:

How Enhanced Frame Relay Solutions pay off for you …

Enterprises are placing an increasing premium on reliability and security. Enhanced Frame Relay Solutions that deliver the Lucent Advantage™ allow your customers to link numerous sites with more secure and flexible transport.

Enhanced Frame Relay Solutions that extend the Lucent Advantage™ to your customers provide the flexibility and features that enterprises need, while lowering IT costs and providing voice-quality network reliability. Our Enhanced Frame Relay Solutions help you increase your revenue potential by offering enhanced SLAs, perfect-fit bandwidth, usage-based billing options, and disaster recovery services.

- Priority Frame™ service extends ATM-like QoS to Frame Relay service, enabling the network to identify traffic types and route them accordingly.
- Multilink Frame Relay and Subrate support allows you to offer perfect-fit bandwidth solutions between 1.5 Mbps and 45 Mbps.
- Frame Switched Virtual Circuits (SVCs) enable you 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.
- Frame Relay to ATM service and network interworking on the GX 550® and CBX 500® switches allow you to ensure seamless communication between ATM and Frame Relay users on a common backbone.

CBX 500® Multiservice WAN Switch

Provides the infrastructure for the next-generation networks that customers want. Deployed at the network edge, this carrier-class 5 Gbps switch equips you to deliver ATM, circuit emulation, Frame Relay, and IP services.

GX 550® Multiservice WAN Switch

A proven, carrier-class, core switch that scales ATM networks and provides the availability, service-aware routing, and high-speed switching required at the heart of multiservice networks. With optical interfaces and DWDM support, the GX 550® switch enables you to connect directly to your optical network and create more cost-efficient transport.

PacketStar® PSAX Multiservice Media Gateway

Supports mobile and wireline networks, legacy through leading-edge transport systems. You can use PSAX to deliver carrier-grade access circuit emulation, Frame Relay, IP and ATM services.

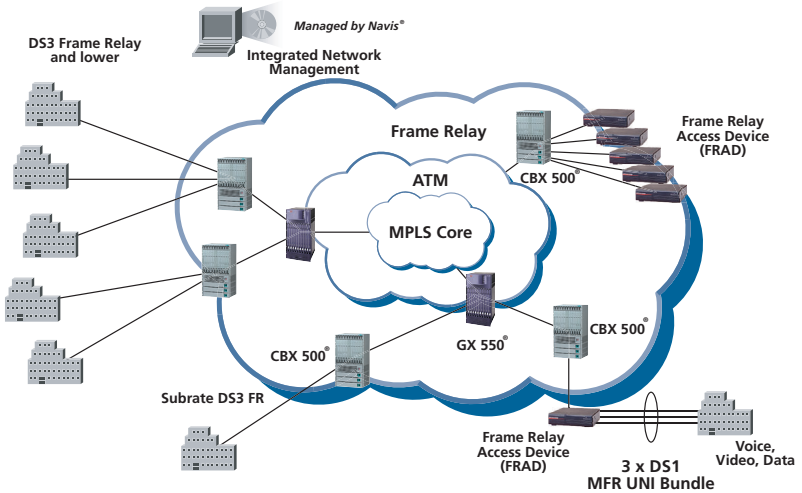
Network Management with *Navis*® EMS-CBGX

Navis® EMS-CBGX is a centralized service and network management software application that delivers sophisticated, standards-based management and control of Lucent multiservice products — Frame Relay, Switched Multimegabit Data Service (SMDS), ATM, and IP switch networks — on a single platform.

Service Provisioning with *NavisXtend*™ Management Systems

The *NavisXtend*™ management systems provide complete standards-based management of Lucent IP, Frame Relay, ATM, and SMDS backbone networks with unprecedented control. It extends the capabilities of Navis® EMS-CBGX environments to accommodate complex service networks distributed over regional, national, or global areas.

Frame Relay Services



Lucent multiservice networks enable you to offer flexible, highly reliable, profitable Frame Relay services customized to match enterprise needs.

Deliver the Lucent Advantage™ to your enterprise customers

Enhanced Frame Relay Solutions that deliver the Lucent Advantage™ enable you to provide affordable, incrementally scalable bandwidth for high-speed, high-volume transport with the reliability enterprises want. Talk to your Lucent representative about Enhanced Frame Relay Solutions that can help you differentiate your services to customers, including Priority Frame™ services, which can distinguish between traffic types; give preference to high-priority traffic; provide dynamic, any-to-any connectivity; and enable usage-based billing.

Enhanced Frame Relay Enterprise Applications

- Small, mid-size or large enterprises with multiple locations that need to connect their sites in a many-to-many arrangement, especially if they are currently connected via individual private line or dial-up access links
- Enterprises with established and fairly permanent office locations
- Enterprises with a high volume of LAN data traffic, including bursty traffic such as LAN interconnection, for which speed is critical
- Enterprise networks with older technology that need to be interconnected with newer technology such as IP
- Enterprises for which information security is a critical consideration

To learn more about Enhanced Frame Relay Solutions with the Lucent Advantage™, please contact your sales representative, or call 1-888-426-2252. You can also visit our web site at http://www.lucent.com/frame.

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Lucent Enabled Services/ENHANCEDFR v1 10/03

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