Case Study

New Private Line Network Implementation

Customer statistics:
- Financial Markets
- Fortune 500 Company
- 25 domestic sites
- The 25 sites are spread throughout the northeast
- 2 primary locations feed data to 23 remote sites
- Traffic is very latency sensitive
- Redundancy into each remote site is critical – each remote site needs 1.5Mb of traffic from each host site.

Frame Relay Advantages
- The long haul portions of the network would be protected in the frame environment, maximizing uptime for the customer.

Frame Relay Disadvantages
- Frame relay was not built for latency sensitive applications; but for intermittent bursty traffic.
- Frame implementation at the speeds required is expensive.

MPLS Advantages
- The ability to redirect traffic delivery from one primary location to the other primary location in the event of a failure.
- The ability to easily add new remote sites.

MPLS Disadvantages
- The overhead necessary to make the routing work in an MPLS network will slow the traffic down a little bit. This creates latency concerns for the customer.

Internet VPN
- Latency and security concerns rule out Internet-based solutions as an option.

Private Line Advantages
- Excellent environment for latency sensitive data – strong SLAs to meet the customer needs.
- The ability to control multiple local access vendors and IXC routes provides customer with the diversity in paths that they require.
- Private line pricing has come down dramatically in the past few years and the network pricing is very competitive.

Private Line Disadvantages
- Requirement of CSU/DSU and router on each endpoint. While this is often a disadvantage, for this customer it gives them the tools to monitor, manage and test the network in the way they would like.

Ethernet Private Line Advantages
- Excellent environment for latency sensitive data – strong SLAs to meet the customer needs.
- The ability to control multiple local access vendors and IXC routes provides customer with the diversity in paths that they require.
- Private line pricing (the backbone for our Ethernet Private Line option) has come down dramatically in the past few years and the network pricing is very cost competitive.
- Reduced equipment expenditure at remote sites because the Ethernet can connect directly to the Local Area Network (LAN) at each remote.

Ethernet Private Line Disadvantages
- Customer requires extra monitoring and testing capabilities at each remote site to watch for any latency issues or errors in the circuits. They would need to put routers into each remote, regardless of the handoff at the customer, so the addition of a conversion box at the remote sites is simply an extra piece of equipment to manage.

In this case, the traditional private line network works most efficiently for the customer. The ability to select multiple IXC routes, the availability of multiple local vendors, and the existence of SLA guarantees afforded a private line SONET backbone to best meet the customer's needs.