

Carrier Ethernet, a corporate opportunity for service providers

Nokia Siemens
Networks



The emergence of technologies based on Carrier Ethernet at the transport level opens up major new avenues for service providers to offer centralized services combined with higher bandwidth, security and quality to enterprises eager to improve the efficiency and effectiveness of their network.

From high-speed LAN to high-speed WAN

It is now possible for service providers to design metropolitan or wide area networks based on Carrier Ethernet that offer the same functionality and speed as a stand-alone LAN-based infrastructure. Carrier Ethernet enables exacting SLA and QoS requirements to be committed to, while offering lower operating costs and a wider range of services.

This need for high-speed high-QoS networking is also evident in the corporate sector, where mission-critical applications such as enterprise resource planning or financial reporting require

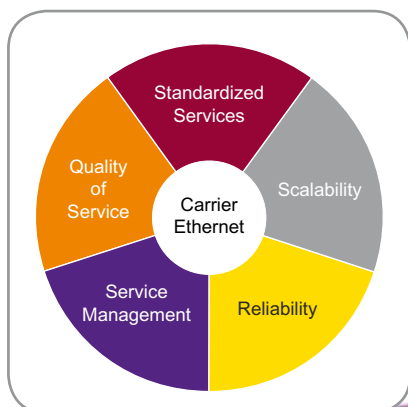
ever-increasing levels of security and efficiency. In addition, financial pressures resulting from tough market conditions demand that IT costs be lowered, therefore outsourcing becomes more and more attractive.

This is a golden opportunity for savvy providers who are capable of extending or interconnecting LANs across metropolitan and wide areas in a seamless, cost-effective fashion while maintaining native LAN speeds. The service provider must be capable, however, of offering high QoS levels that offer less delay and jitter, and a guaranteed bandwidth at the exact amount needed by the enterprise customer.

Carrier Ethernet Transport – ready for business now

There are numerous areas in which Carrier Ethernet Transport can provide an immediate business return, one example being Ethernet-based storage area networking (SAN) as applied to

the data center. Multiple data centers are often interconnected, or, where it is a critical asset, replicated for reasons of security or disaster recovery. In both cases, real-time data synchronization between centers must guarantee data integrity and consistency. Only SAN-based applications can provide the required speed and efficiency. This Nokia Siemens Networks solution gives service providers full end-to-end manageability, visibility and control of the statistical multiplexing and protocol-transparent infrastructure. Carrier Ethernet Transport brings high-speed end-to-end multiservices to the enterprise. Moreover, since the adoption of Carrier Ethernet Transport gives a single and vastly simplified network infrastructure, multiservice comes into its own in terms of improved service revenues, since the single infrastructure also carries the whole range of Internet access, VPLS, IP VPN and VoIP VPLS services.



Designed for the future



Given the rising demand for Carrier Ethernet-based services, the Carrier Ethernet Transport implementation

must maintain flexibility and quality for the long term through the use of standardized interfaces, while also allowing intelligent use of all bandwidth allocation within the network and full visibility and control using end-to-end monitoring mechanisms as defined by the Metro Ethernet Forum (MEF) standards body.

Address all business applications with one technology

Nokia Siemens Networks Carrier Ethernet Transport lets service providers meet corporate customer needs and is MEF-certified, with compliance guaranteeing Carrier Ethernet, interoperability and performance standards. The new Carrier Ethernet Switch portfolio provides an effective bridge between an existing TDM network and the next generation Ethernet Transport network. It combines the best of SDH carrier-class security and robust data transport capabilities, bringing numerous benefits:

- **Cost-effectiveness**, one platform carries both voice and data traffic:
 - Simplified technology brings lower cost and products that consume less power
 - Certified services dramatically reduces installation cost and complexity
- **True carrier-class**, with resilience & survivability mechanisms:
 - Engineered for rapid recovery without user impact, when problems do occur
 - Seamless dynamic control of the network with familiar management tools

- **Scalability & performance** solution for many thousand of network elements:
 - Low latency inherent with Ethernet layer 2 networks

The infrastructure is managed by the Nokia Siemens Networks comprehensive carrier-class OSS management software suite, which provides fully automated end-to-end service provisioning and monitoring of nodes and services. End customer satisfaction can thus be achieved, with full visibility of all services including packet loss, delay and jitter reports.

Ahead with state-of-the-art technology

Packet transport needs optimized transport technologies, these being supplied by adherence to the optimized ITU and IEEE standard. The connection-oriented MPLS-TP solution directly addresses both small- and medium-sized businesses and enterprise customers.

This consolidated network services delivery architecture offers:

- Ethernet Layer 2 Virtual Private Network (VPN) and IP VPN services, featuring the industry's first flexible multipoint Virtual Private LAN Service with Traffic Engineering (VPLS-TE) capability
- Mission-critical E-Line and E-LAN Ethernet services

Talk to the leaders

Nokia Siemens Networks Carrier Ethernet Transport provides the maximum scalability and greatest flexibility for services of interest to corporate customers. It is the only technology available that is truly end-to-end, covering all aspects of high-speed wide area networking. Coupled with the renowned Nokia Siemens Networks service capabilities and market leadership, this is the solution of choice for the forward-looking service provider.

