

MPLScon 2006

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Interconnected MPLS

The Modern Service Delivery Environment

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Who am I? What am I talking about?

Biography:

Leo McCloskey has over 20 years of experience in carrier and enterprise communications services. He has worked in the USA and Europe for both Network and IT Service Providers. Leo is the senior director for networking strategy, opportunity management and partner development for Networking Services.

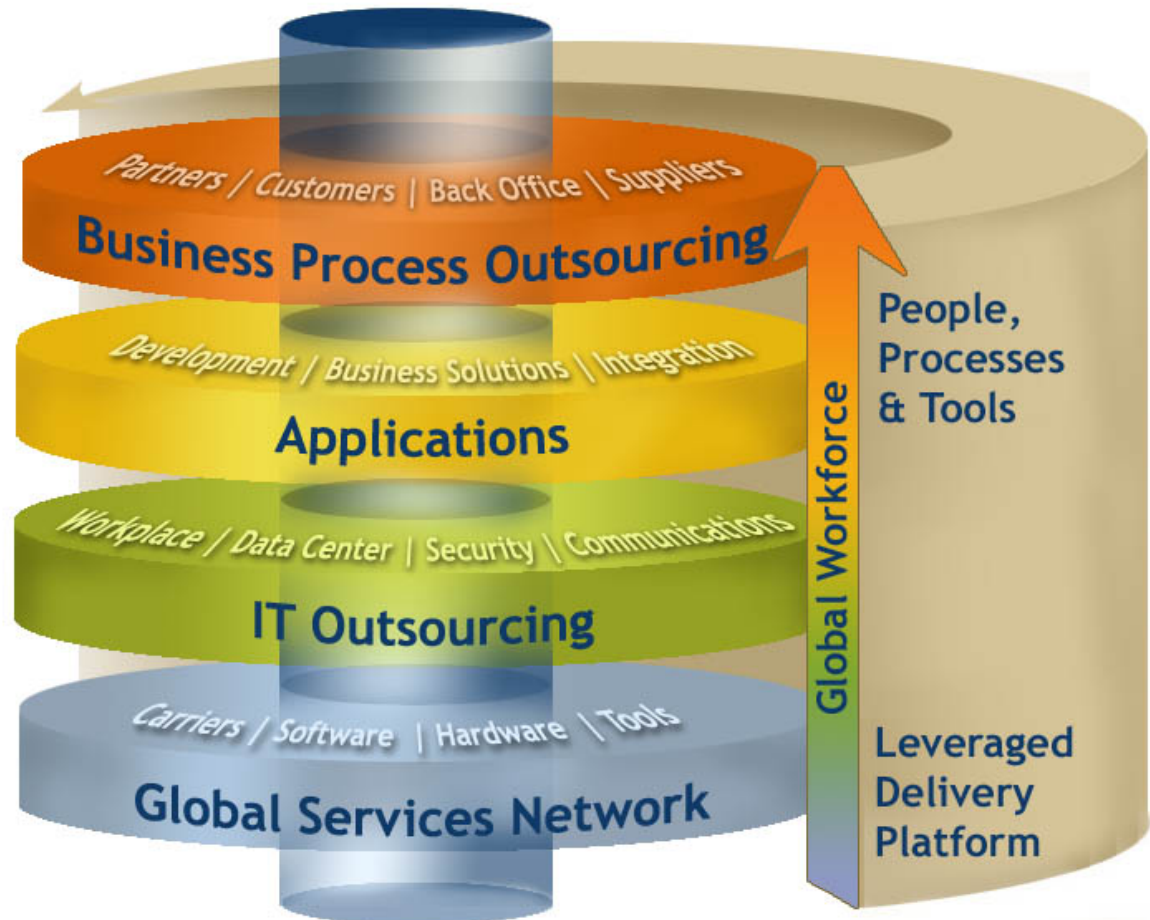
Description:

MPLS is the default network for Enterprises concerned about quality networking, and will be required for Enterprises that adopt Microsoft's new operating system, Vista. Enterprises are multi-sourcing their networks, creating interconnectivity need. Compounding this is the trend to multi-source across the Enterprise – IT Outsourcing, Business Process Outsourcing. All of these vendors solutions must be interconnected with the Enterprise in a secure and well-managed way.

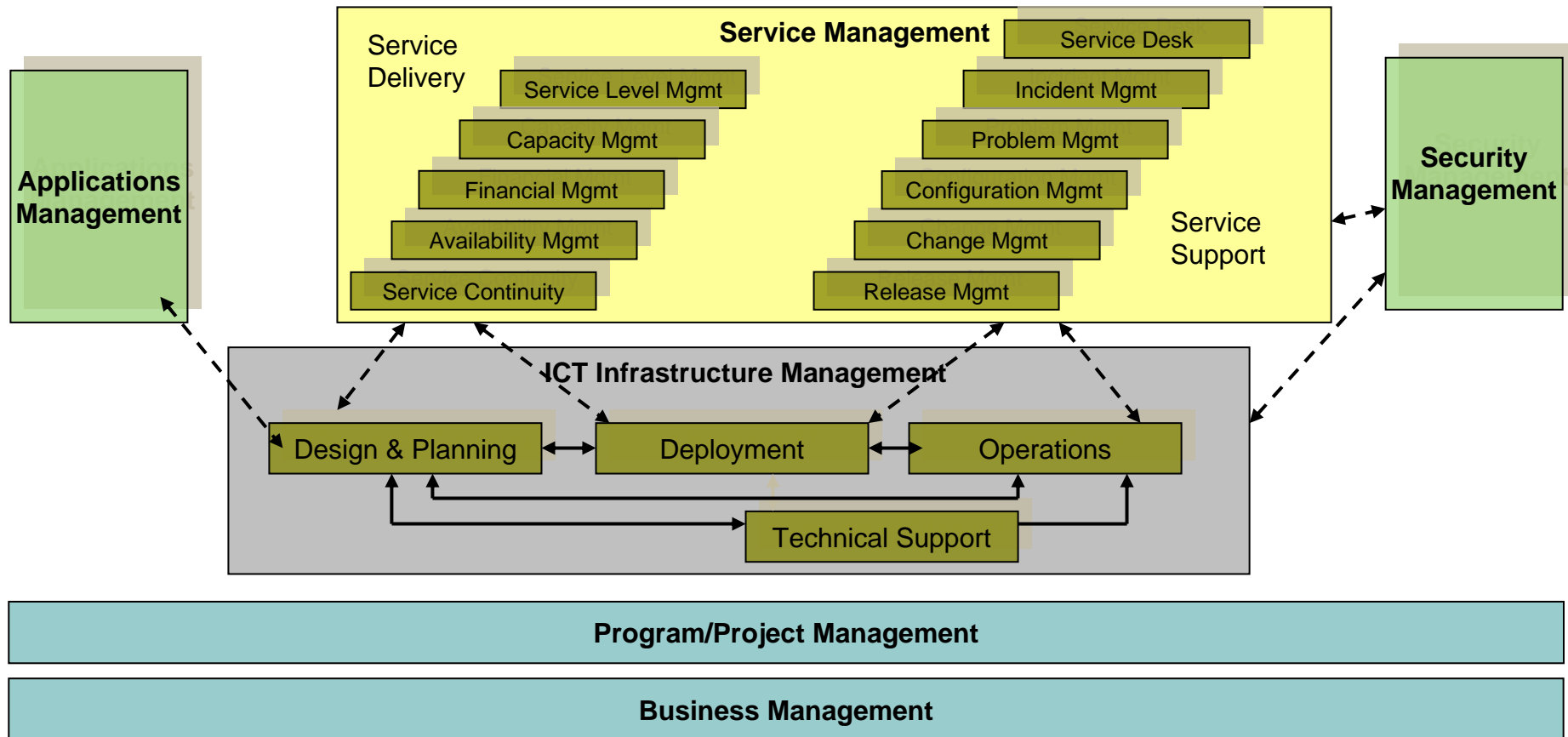
Interconnectivity is the key for successful implementation of an MPLS network in a multi-sourced environment. This presentation will walk you through the implementation of interconnected MPLS networks, the business and operational processes that need to be considered, and lessons learned from implementation at EDS, as well as discuss the technology used. We will also cover key items for success, including the use of best-of-breed vendors.

Network is the Foundation but Process is the Key

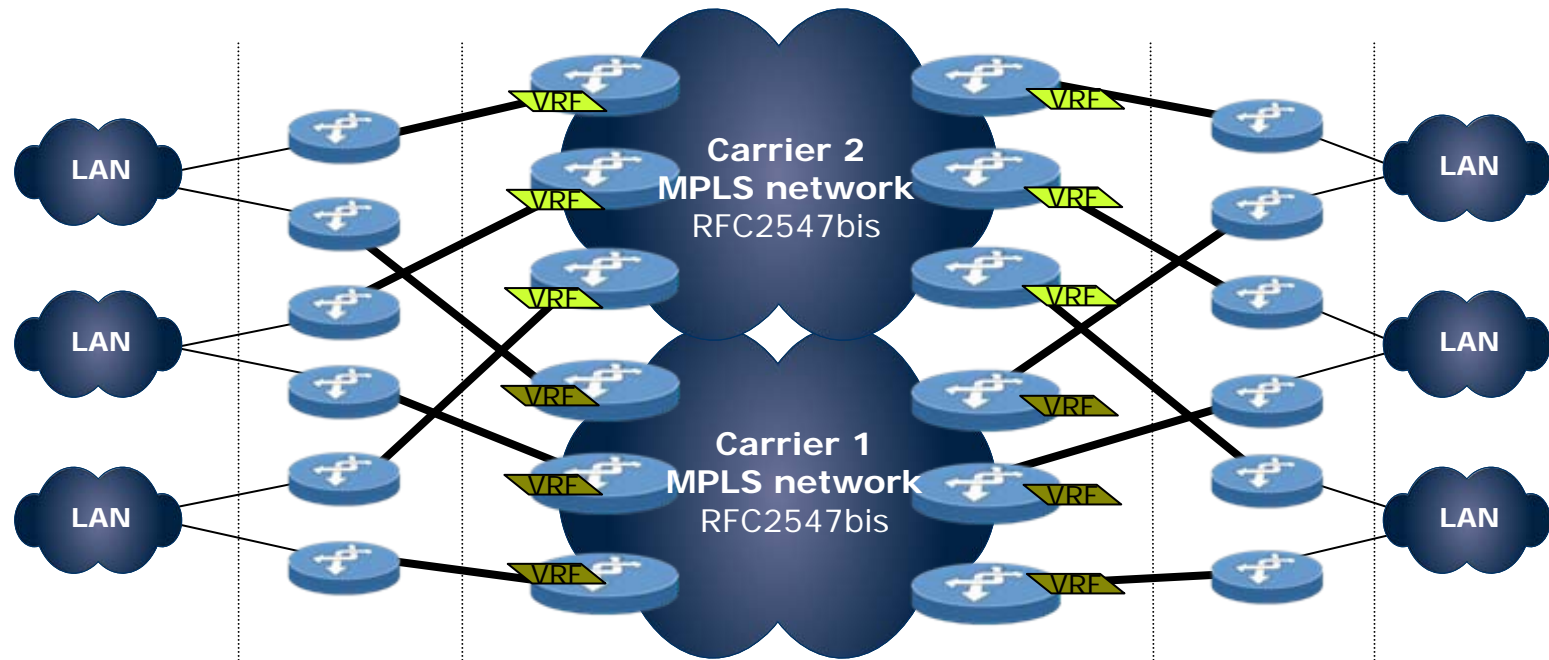
- Goal of the SI is to manage from Service down – *must have end-end visibility*
- Growth opportunities are in Application and BPO
- ITO trending toward more suppliers and growing complexity
- ITO Management based on ITIL
- ICTIM creates client service delivery and lifecycle management framework
- eTOM and ITIL alignment essential



Service Delivery based on Industry Standards



Evolution of Network Service Management Complexity...



is the LAN the next land grab?

bundled/
unbundled?

integrated at network layer, or
customer premise? is this a
single service or multiple
services?

bundled/
unbundled?

convergence,
security,
identity

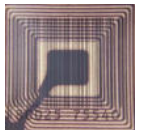
**Service
Management**

Integrated Client Service Management

Vendor Management SLA Monitoring Service Reporting

...Intensified by Convergence and Explosion at the Edge...

- Service Providers and Systems Integrators each being challenged to manage more
 - In 5 years time, what is the distinction?
- Clients are requiring single networks for all services
 - Streamline management cost onto single network
 - But integrated across all business support environments
- Number of devices is exploding
 - Desktops will become much more demanding with Microsoft Vista
 - Mobility is everywhere
 - Inventory is aware (RFID)
 - Access must be ubiquitous

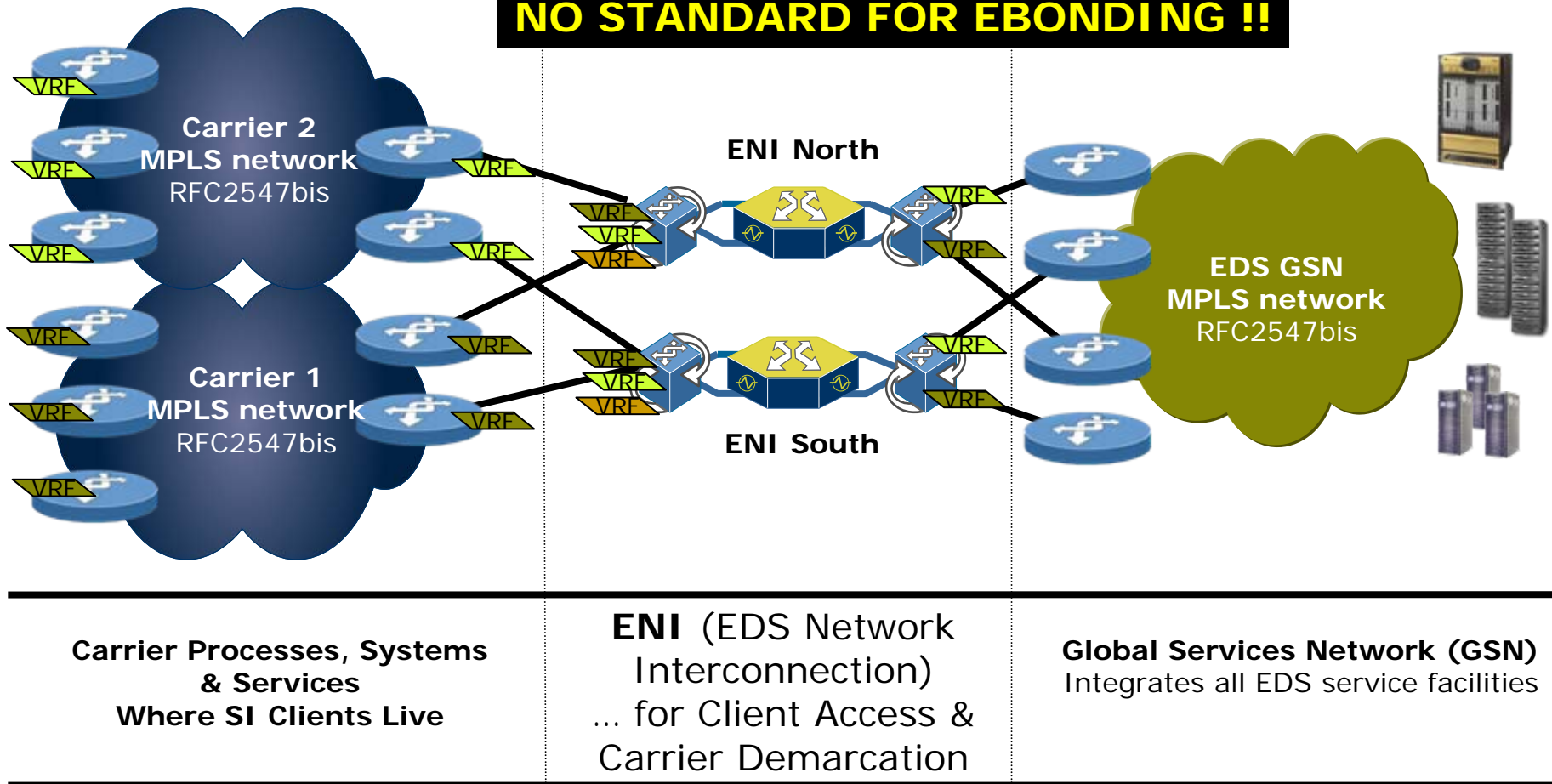


...Amplified by The Virtual Data Center Goal

- Movement toward “dim lights” or “lights out” data center
 - Facility is no longer the primary driver
 - Confluence of many factors: available capacity, throughput metrics, security, device requesting
- Data center becomes the network
 - All resources available from anywhere
 - Create private 2547 infrastructure globally
 - Integrate data center network with carrier platforms
- Any resource, anywhere, anytime
 - End-end management
 - Assured, tracked, logged

EDS Services Integrated to Carrier Transport

NO STANDARD FOR EBONDING !!

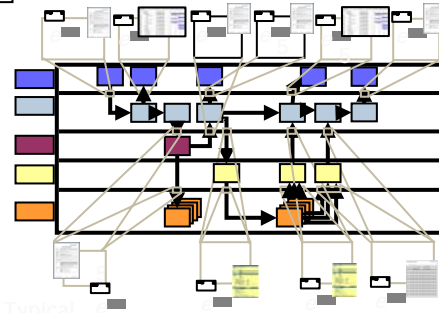
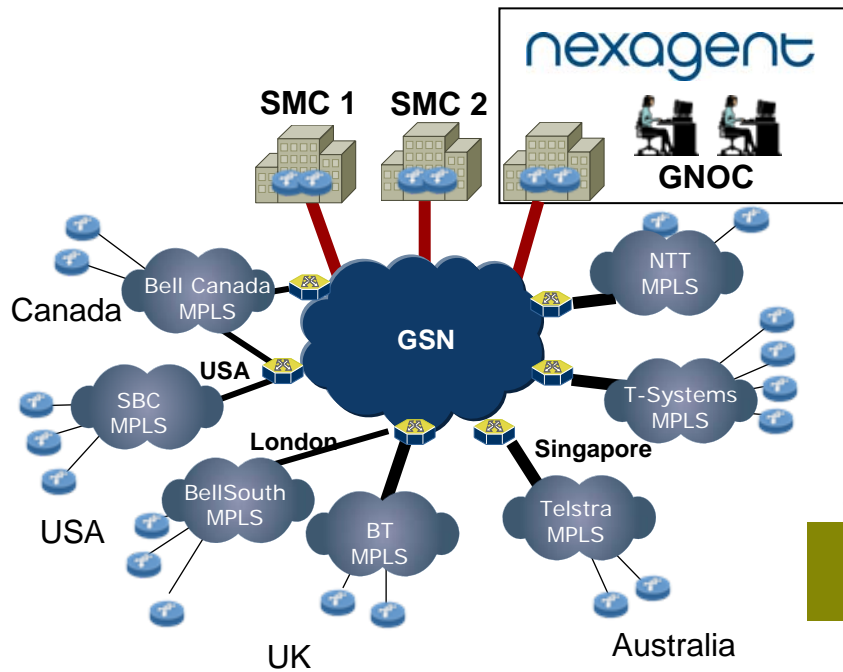


**Service
Manager**

Integrated Client Service Management

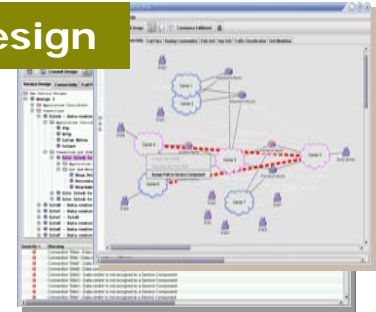
Vendor Management SLA Monitoring Service Reporting

What is an ENI?



**End-end automated
process model**

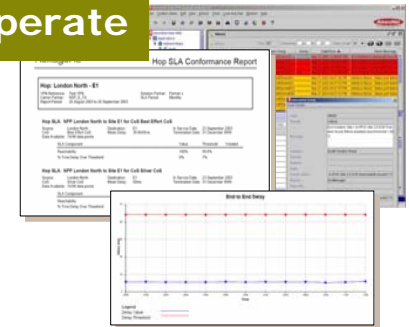
Design



Provision



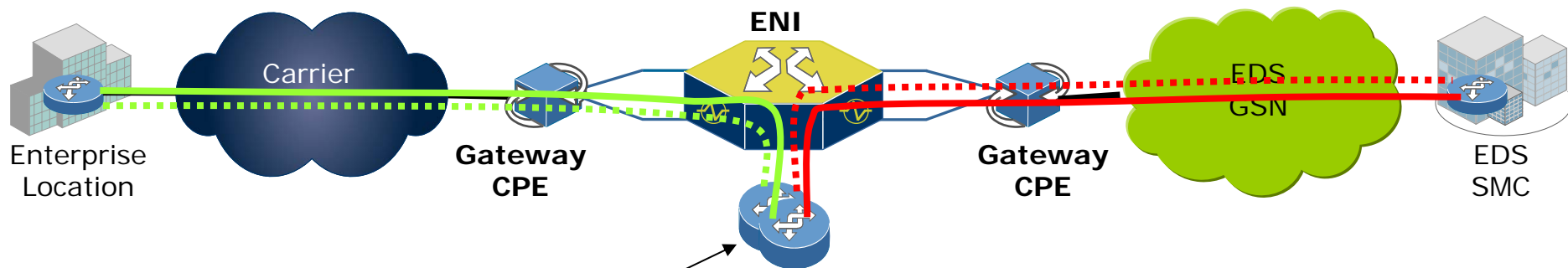
Operate



- ENI integrates EDS services on GSN into Client networking environments
- ENI is a process driven model that enables global process and more efficient sales and customer service

Service Delivery - Independent Service Assurance

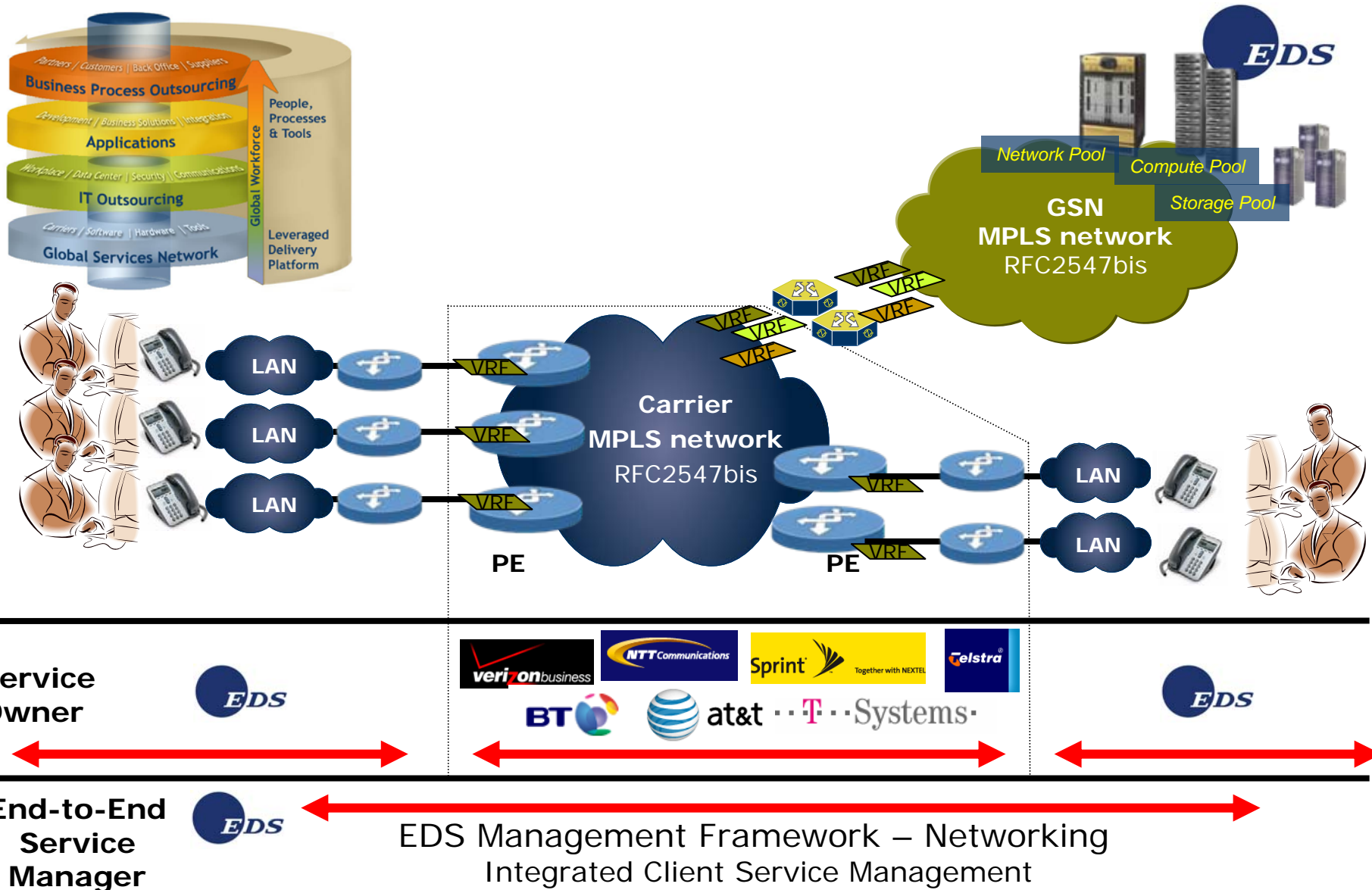
- Embedded instrumentation within each ENI measures key 'hop' performance indicators to demonstrate carrier performance using active probes generated intra-VPN
- Individual 'per-hop' performance indicators are aggregated to provide end-to-end performance indicators



Embedded Instrumentation –
Two sets of measurements are
made from every ENI.

The measurements are
useful for : Fault Isolation,
SLA Conformance and
Design Feedback

Service Delivery Internetworking



Summary

- Adoption of Standards an Imperative
 - Manage-ability and eBonding are more important than packet flows
 - Multi-Network MPLS Interconnection
- Process Frameworks are Essential
 - eTOM widespread in Telco
 - ITIL widespread in SI
 - ICTIM aligns leveraged infrastructure to client need
- Complexity and Multi-Sourcing will only Grow
 - Market driven select outsourcing
- The key - a relentless focus on comprehensive client service management
 - Exceptional performance
 - Trend to End User Experience Management



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Thank You