

NORTEL

AT THE



OIF OPTICAL
INTERNETWORKING
FORUM

WORLDWIDE INTEROPERABILITY DEMONSTRATION

SUPERCOMM 2005

Nortel at a Glance...

OUR HISTORY

Over
100
years at the forefront
of major technological
innovation in telecom

OUR OPERATIONS

Serving more than
150
countries

OUR PEOPLE

Approximately
30,000
employees worldwide

> **THIS IS THE WAY**

> **THIS IS NORTEL™**

THIS IS OUR VISION

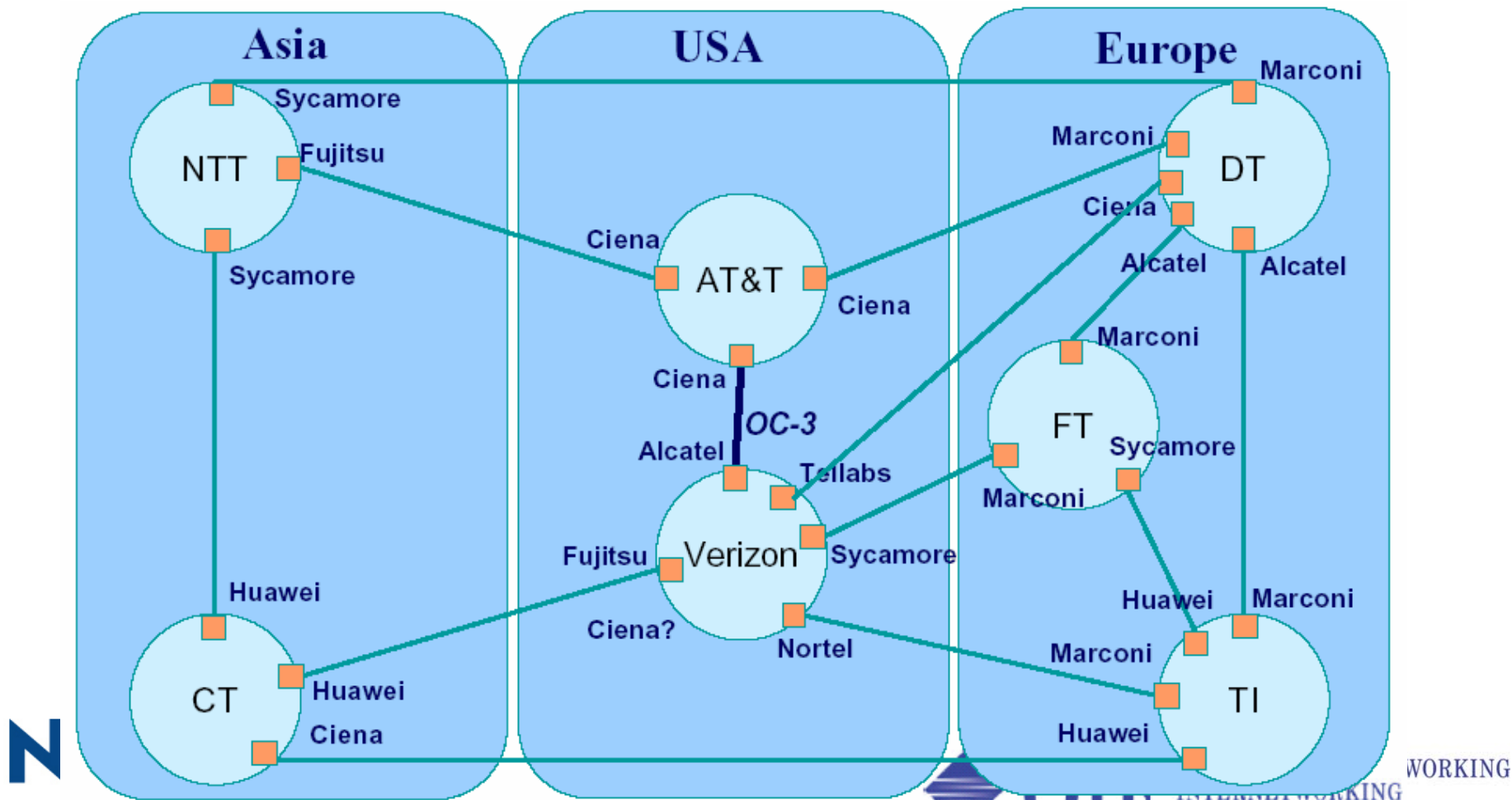
To be the recognized leader in delivering communications capabilities that ignite and power global commerce while helping people solve the world's greatest challenges

Optical Ethernet

- ◆ **Carrier Packet Network with optical infrastructure**
 - Enabled by Optical Ethernet
 - Combines the flexibility, simplicity, and cost-effectiveness of Ethernet with the reliability, scalability, and security of optics.
- ◆ **Ethernet Private Line:**
 - Point-to-point connectivity over an optical infrastructure with dedicated resources.
 - Provides High bandwidth service meeting stringent latency requirements; increased bandwidth flexibility and granularity at a reduced cost per Mbps of service.
- ◆ **OIF UNI 2.0**
 - Control plane enabled Ethernet Private Line service

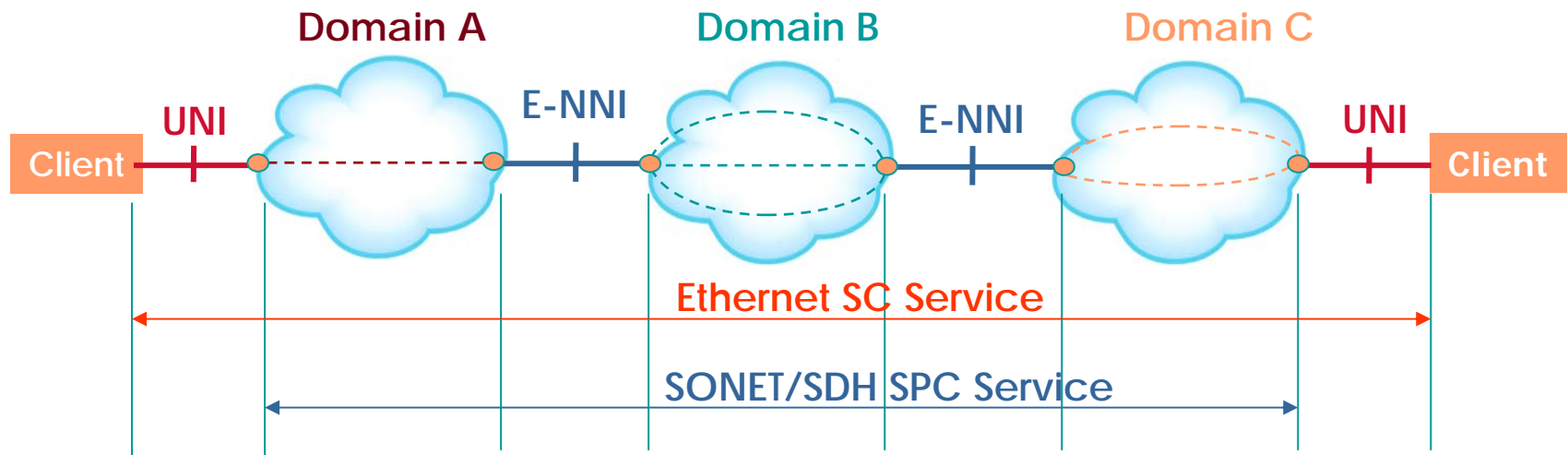
OIF Interop Demo Overview

- ◆ 7 Carrier, 13 Vendors
- ◆ On-demand Ethernet service over switched SONET/SDH
- ◆ Enabled by OIF/ASON control plane

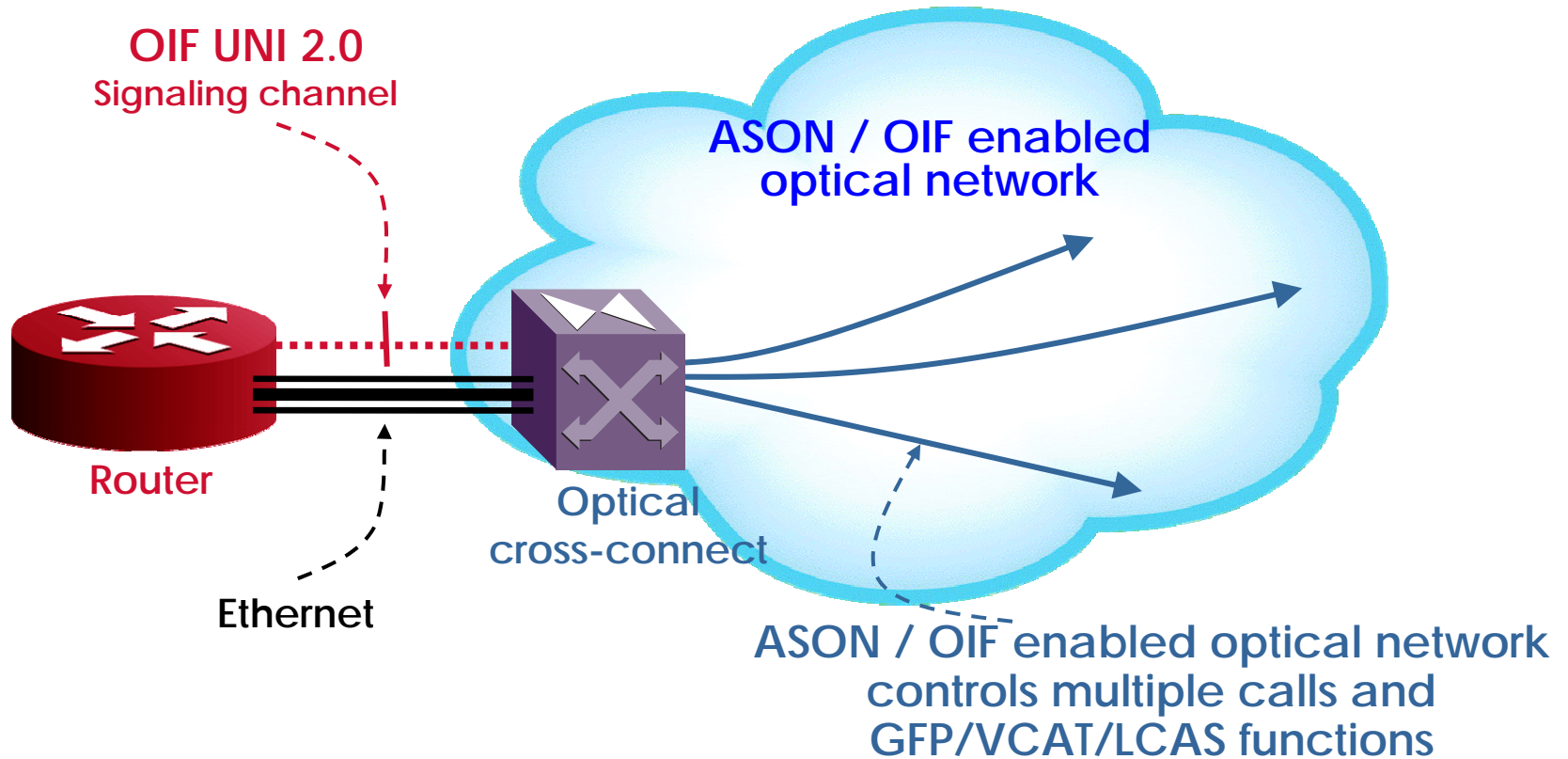


Network interface types (UNI/E-NNI)

- ◆ User-Network Interface – for user requests
- ◆ External Network-Network Interface - between domains
- ◆ OIF UNI and E-NNI Implementation Agreements based on G.7713.2/.3 and G.7715.
- ◆ OIF UNI 2.0 – enables Ethernet Switched Connection over SONET/SDH Soft Permanent Connection



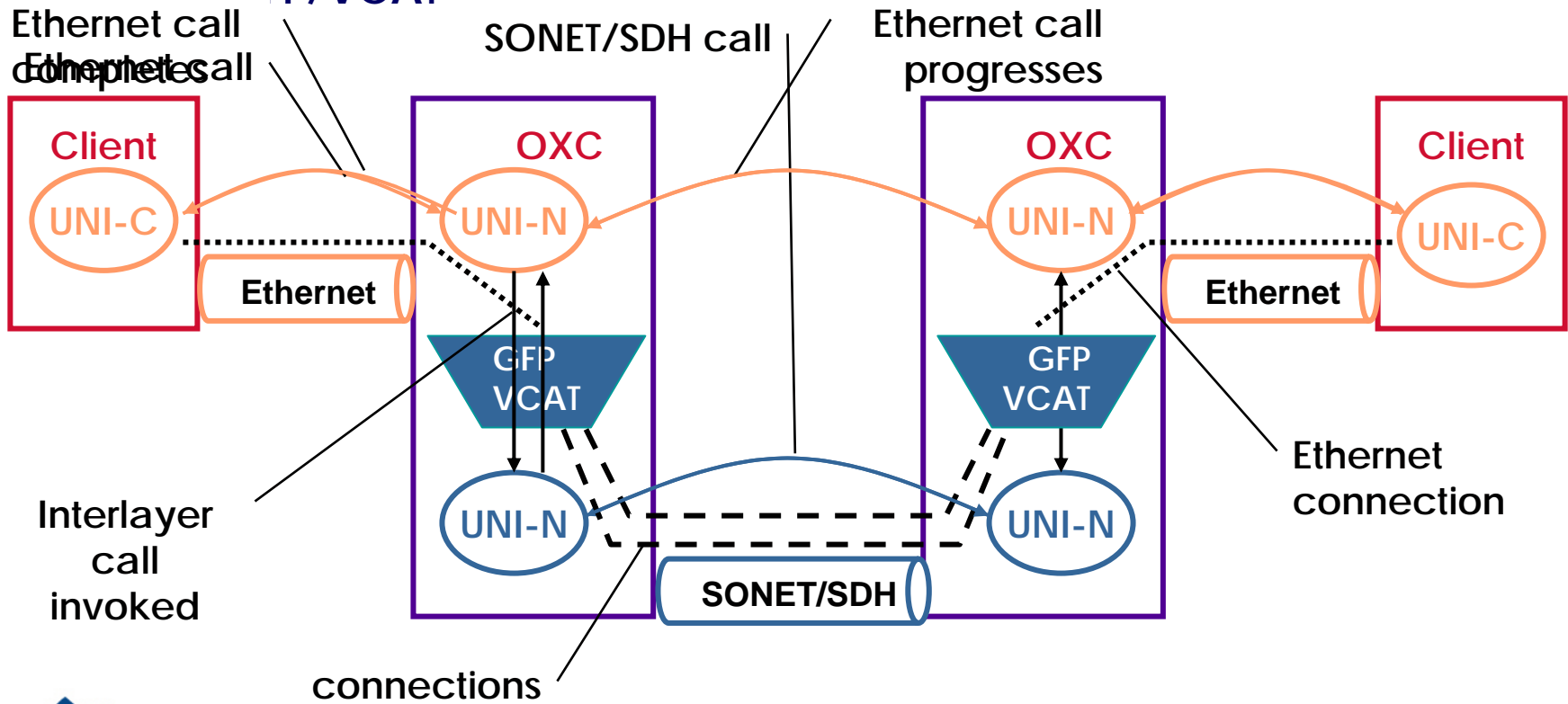
UNI 2.0 Ethernet



ASON / OIF enabled Network provides flexibility in optical networks for packet clients and applications.

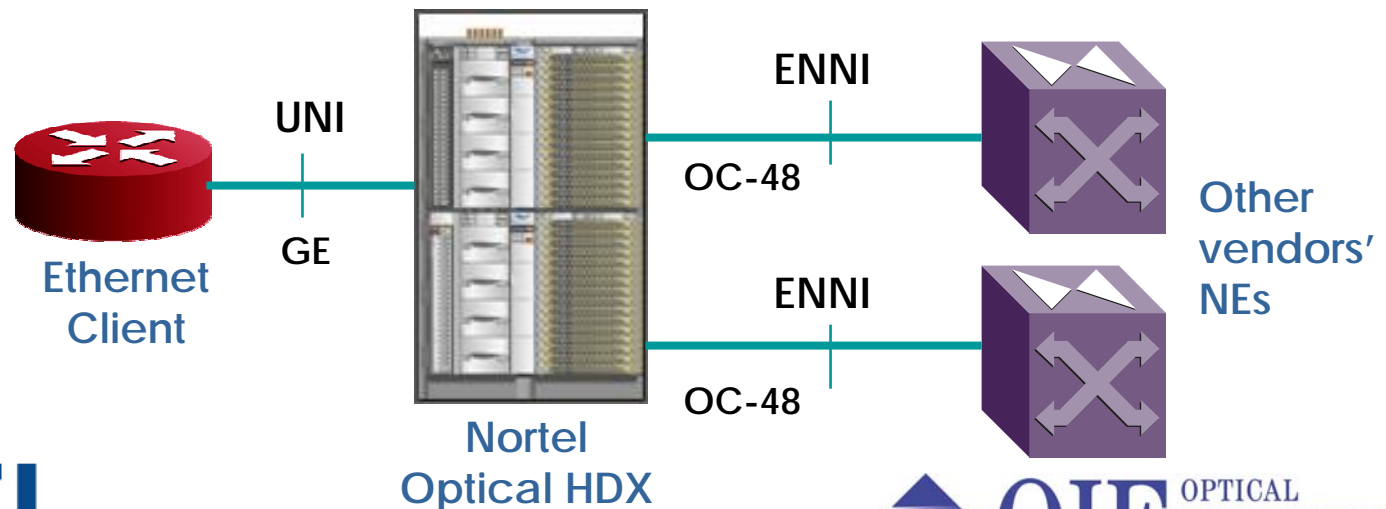
Interlayer Call Technology

- ◆ Client makes an Ethernet call to destination
- ◆ Network triggers SONET/SDH calls to match Ethernet service request
- ◆ Control plane sets up Ethernet and SONET/SDH connections, and controls GFP/VCAT



Nortel role in OIF demo

- ◆ **Core Switching**
 - SONET / SDH services
 - GE service over GFP/VCat
- ◆ **UNI-N**
 - Multi-client interworking via draft OIF UNI 2.0
 - Interlayer Ethernet UNI-N and SONET/SDH UNI-N
- ◆ **E-NNI**
 - Multi-vendor interworking with OIF ENNI signaling and routing



Applications for Carriers

- ◆ **Ethernet service over switched optical core**
 - Extends Ethernet service beyond the LAN and across the metro/MAN/WAN.
 - Carrier packet network is a cost effective solution to accelerate triple play rollout.
- ◆ **High speed interconnect applications**
 - High volume point-to-point packet applications can be serviced with on-demand Ethernet Private Line with dynamic SONET/SDH connection setup.
 - Examples include GRID applications such as SANs and high energy physics.

Visit us at booth #39066

- ◆ www.nortel.com

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