



LAMBDATM
OpticalSystems

AT THE



OIF OPTICAL
INTERNETWORKING
FORUM

WORLDWIDE INTEROPERABILITY DEMONSTRATION

SUPERCOMM 2005

Lambda OpticalSystems Overview

- ◆ *Mission:* Lambda OpticalSystems is committed to the development of next-generation all-optical solutions to transform transport networks. The company's family of all-optical switches with integrated DWDM, GMPLS control plane and OIF UNI interfaces lets network service providers, government agencies, and research and education networks deliver high-bandwidth services while maximizing network management efficiency and affordability.
- ◆ *Background:*
 - ◆ Founded 2003
 - ◆ Headquarters: Reston, VA, USA
 - ◆ Offices: Tokyo; London; and Holmdel, NJ.
 - ◆ Financial: Privately held
- ◆ *Products featured:*
 - ◆ LambdaNode™ 2000 Intelligent Integrated All-Optical Switch
 - ◆ LambdaCreate Software Suite with Optical Control Plane

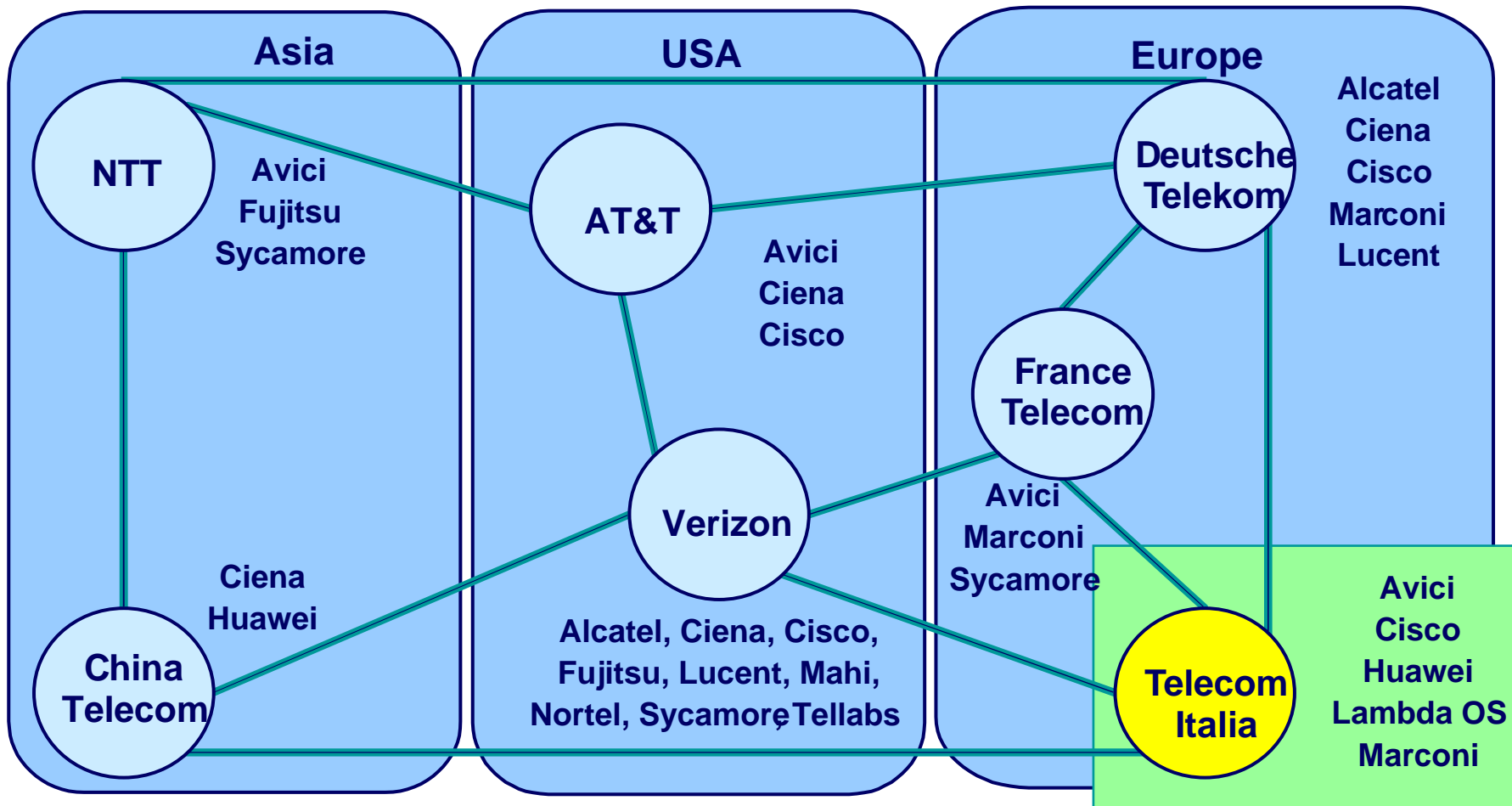
OIF Worldwide Interoperability Demo at Supercomm 2005

- ◆ **LambdaNode 2000 is an all-optical switch with integrated DWDM that provides transport of any optical signals**
 - **OIF is conducting a worldwide interoperability demonstration at Supercomm 2005**
 - **Ethernet services over UNI 2.0**
 - **Equipment located in carriers' facilities in Asia, U.S. and Europe**

Lambda OpticalSystems Participation

- ◆ Demonstrate the transport of Gigabit Ethernet over an all optical network using OIF UNI 2.0
- ◆ Participation at Telecom Italia with Avici Systems and Cisco Systems equipment clients
- ◆ UNI-N providing UNI 2.0 Ethernet Services to Gigabit Ethernet clients
- ◆ All-optical transport between LambdaNode 2000s within an optical-core network
- ◆ Support set up and deletion of switched connections

Lambda Optical Systems at Telecom Italia



Lambda OpticalSystems Technology Role

- ◆ UNI-N providing UNI 2.0 Ethernet Services to Gigabit Ethernet clients such as routers and switches
- ◆ All-Optical Switching and DWDM Transport between LambdaNode 2000s provides a fast dynamic networks
- ◆ Support Set up and Deletion of Switched connections provides a fast provisioning

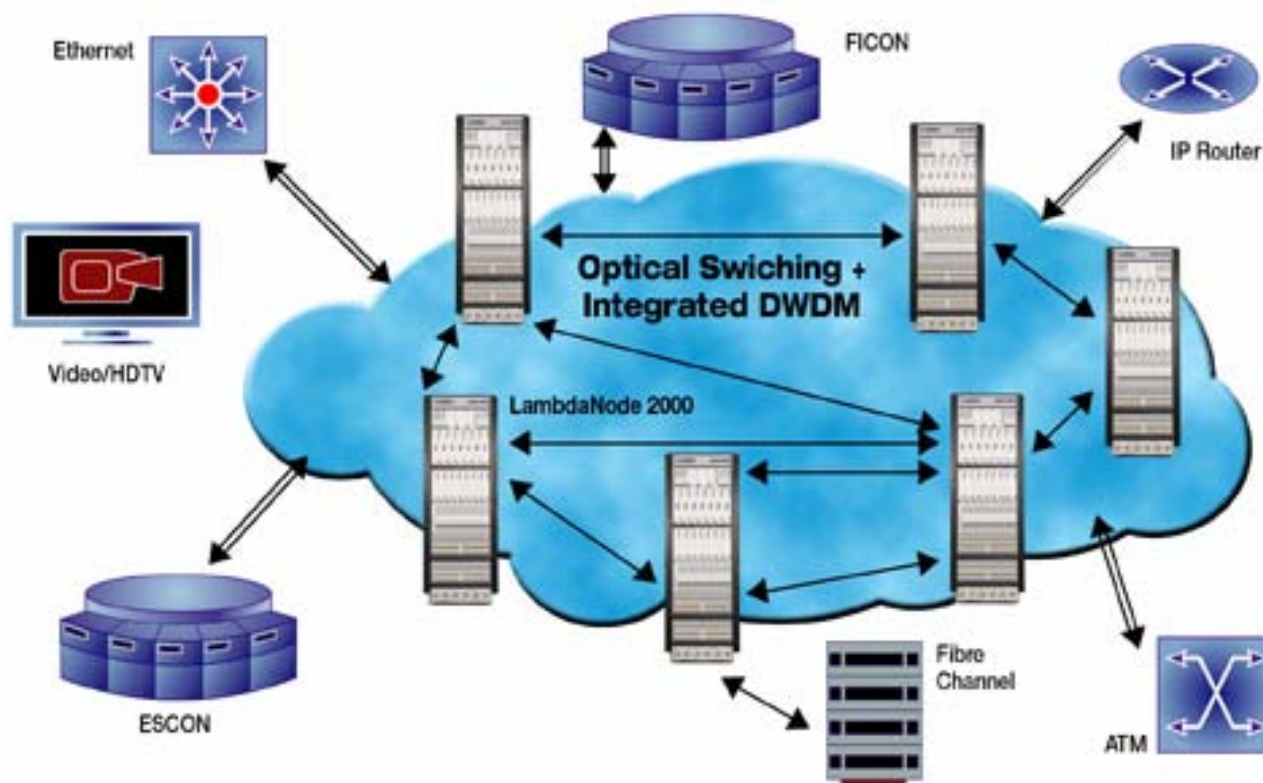
Potential Application Role for Carrier networks

- ◆ Transport router signals providing interconnection of Gigabit Ethernet clients into metro or regional optical networks
- ◆ Automated all-optical network with OIF UNI interfaces speeds provisioning process, increases efficiency and provides higher survivability.
- ◆ Creation of Optical Virtual Private Networks (O-VPNs)

Additional Benefits to Carriers – Operational Savings

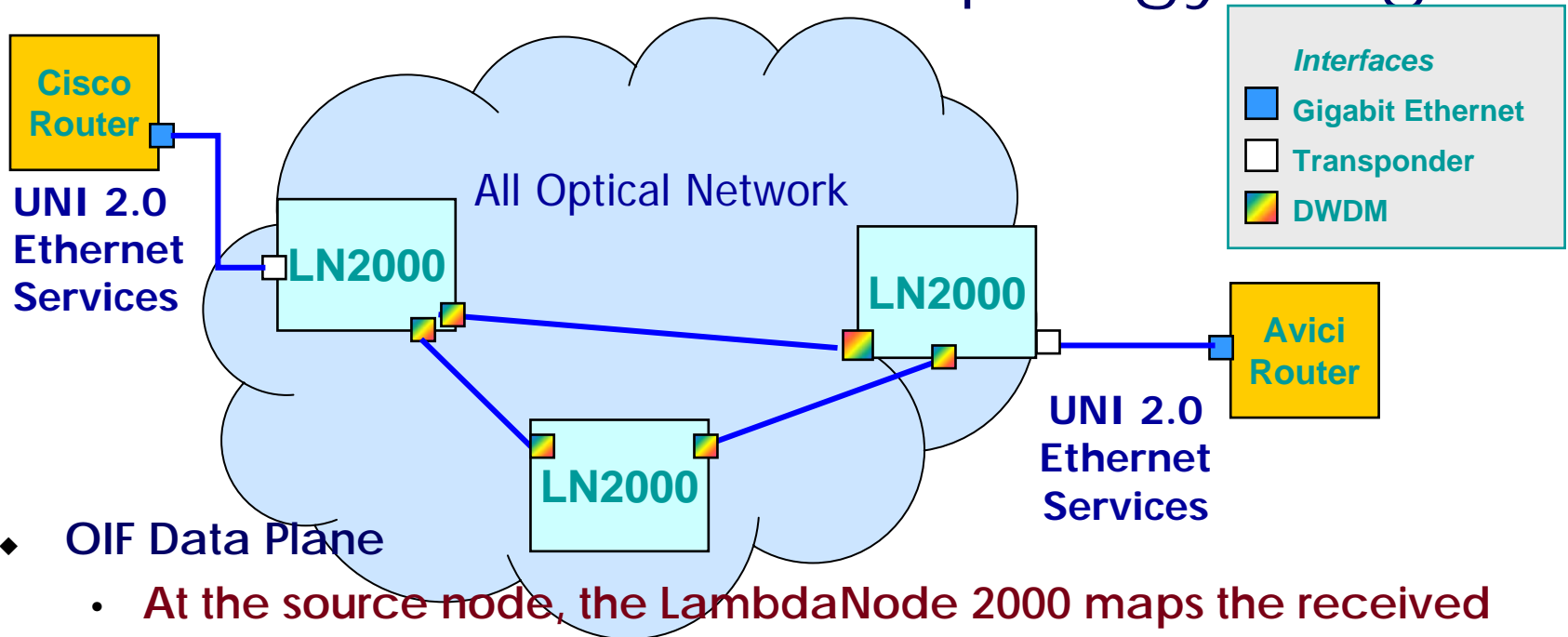
- ◆ Integration of DWDM transport and all-optical switching reduces network elements required and reduces operator errors.
- ◆ All-optical switching reduces unnecessary OEO conversions for express-route traffic.
- ◆ All-optical requires less power and space.
- ◆ All-optical fabric can increase port speeds without changing common equipment.

New Services Definitions



- ◆ Transparent all-optical networks easily transports any protocol for multiple services such as Ethernet, ESCON, FICON, Fibre Channel, ATM, IP, and High Definition Video (HDTV).

Lambda OpticalSystems Interface Topology Diagram



◆ OIF Data Plane

- At the source node, the LambdaNode 2000 maps the received 1GbE signal directly into one wavelength of DWDM.
- The wavelength is switched and transported through the optical network.
- At the destination, the 1GbE signal is recovered and forwarded to the destination router.

Thank You!

Please Visit Lambda OpticalSystems at
Supercomm Booth # 88030

www.lambdaopticalsystems.com