



AT THE



WORLDWIDE INTEROPERABILITY DEMONSTRATION
SUPERCOMM 2005



AT&T Overview

AT&T Corp. is the industry leader in data, voice, and video communications, serving more than 4 million businesses and 50 million consumer customers worldwide.

- Backed by the research and development capabilities of AT&T Labs, the company runs one of the world's largest, most sophisticated communications networks in existence.
- AT&T is a prominent supplier of outsourcing, consulting, networking integration, data and Internet services to businesses of all sizes.
- AT&T serves the communications needs of multinational companies and carriers worldwide.

Since 1998, AT&T invested more than \$35 billion to support customer needs in data, Internet protocol (IP), local and global services.

- The AT&T Global IP Network carries over 1.3 Petabytes of traffic each month; no US-based global carrier carries more traffic than we do
- AT&T currently has 289 regional SONET rings and more than 8,200 metro SONET rings deployed in the domestic network.
- Dedicated access in 800+ cities globally and remote access in 1500+ cities (including US)
- World-class Local access in 92 US cities, over 6400 buildings on-net
- 99.99% overall reliability measured by rigorous DPM standards



AT&T participation at World Interoperability Demo

Multi-carrier/multi-vendor/multi-site demonstration of:

1. Interoperability of dynamic Ethernet services based on optical control plane (UNI 2.0 and E-NNI)
2. Ethernet/SONET adaptation using GFP/VCAT/LCAS
3. Ethernet Services
 - Ethernet Private Line
 - Ethernet Virtual Private Line Adaptation and Aggregation (802.1Q)

AT&T is one of the “anchor” participants in this demonstration

- AT&T Certification and Testing Laboratory – Middletown, NJ (MT)
- Equipment vendors at AT&T Labs: Avici, Ciena, Cisco

Signaling Channel Connectivity to 3 other sites

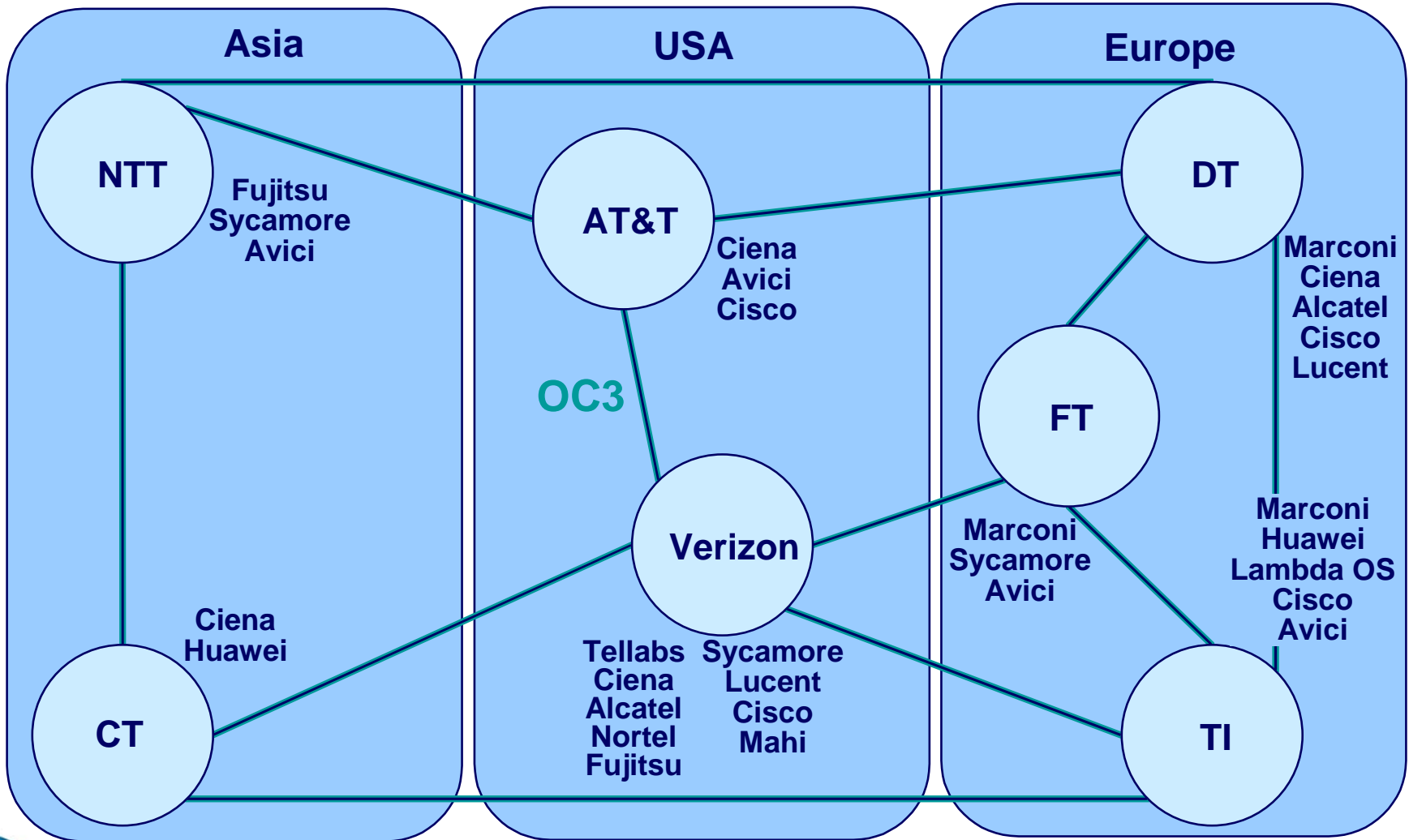
- (DT, NTT, VZ) and Supercomm booth

Data Channel Connectivity to 2 other sites

- OC3 facility from MT to Cambridge, MA (connectivity to Verizon)
- DS3 facility to OIF’s Supercomm Booth for the video application

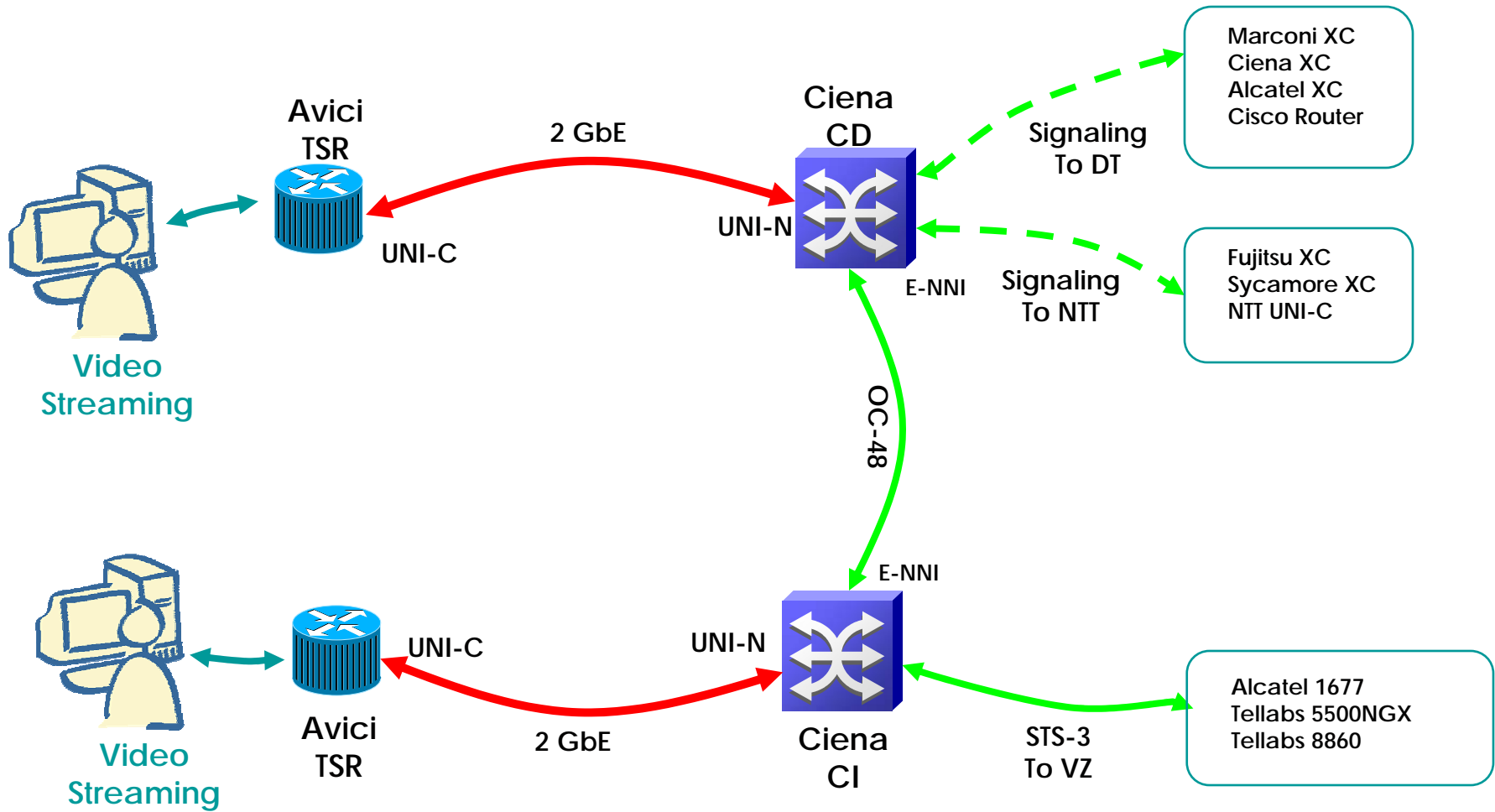


Inter-lab Connectivity



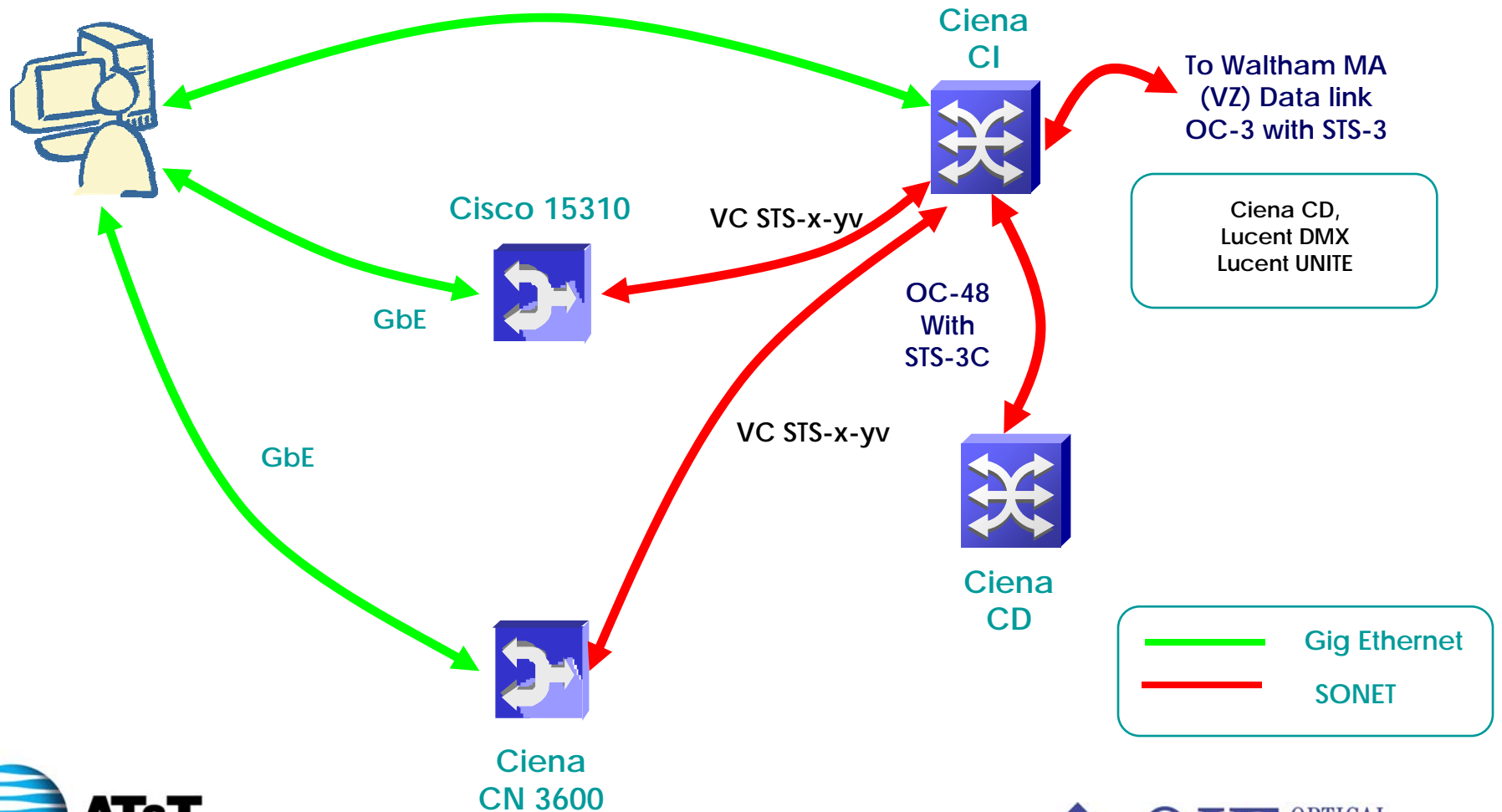
Network Topology diagram (UNI/E-NNI)

AT&T Test Bed Configuration

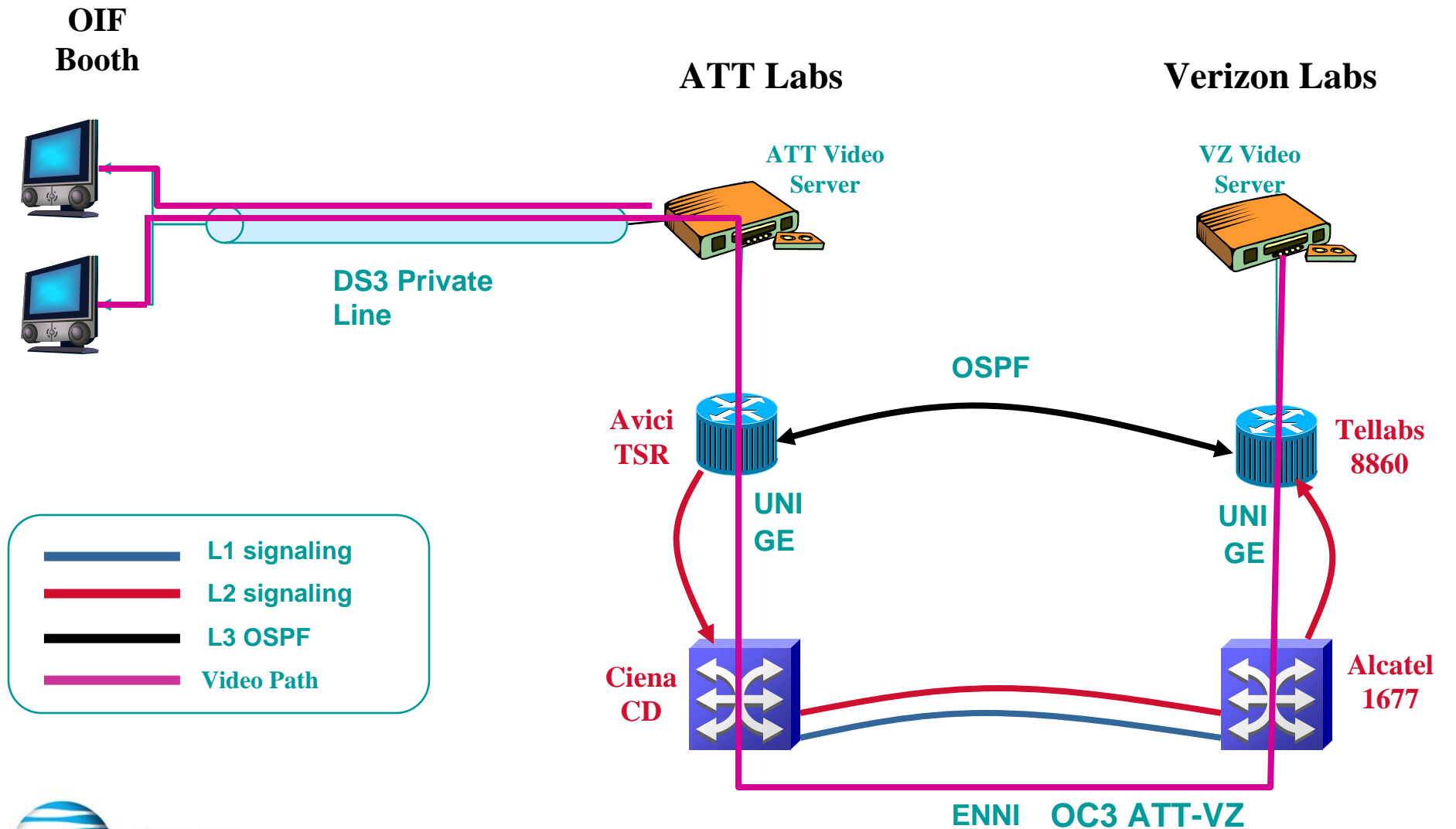


Network interface topology diagram (GFP/VCAT/LCAS and Ethernet Services)

AT&T Test Bed Configuration



Video Application – Overall Configuration



ENNI OC3 ATT-VZ



Application role for AT&T

◆ Developing Optical Networking (ON) Service

Service Description

- ◆ Layer 1 Transport Networking
- ◆ Resilient Customer Networks
- ◆ Application Agnostic
- ◆ Adaptive Bandwidth (real time dynamic & reconfigurable bandwidth)
- ◆ Zero-touch provisioning; near real-time setup of connections

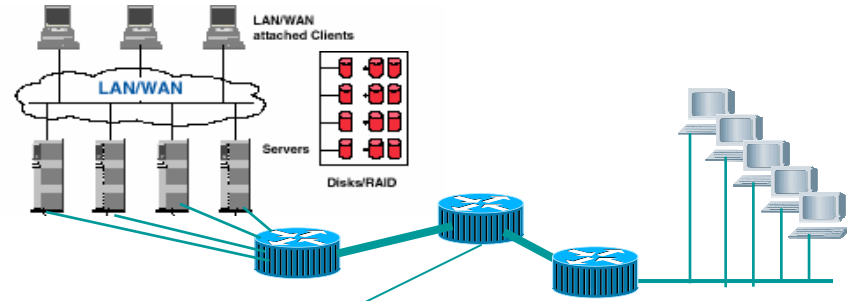
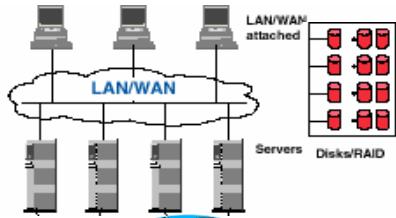
Customer Benefits

- ◆ Flexibility: bandwidth where it's needed, reconfigured as needs change
- ◆ Control: configure the network to fit the business needs
- ◆ Speed: *"zero touch"* provisioning implemented in seconds



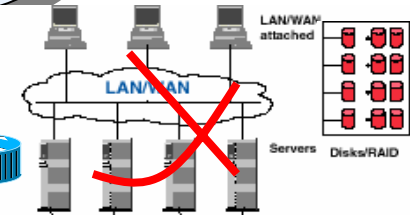
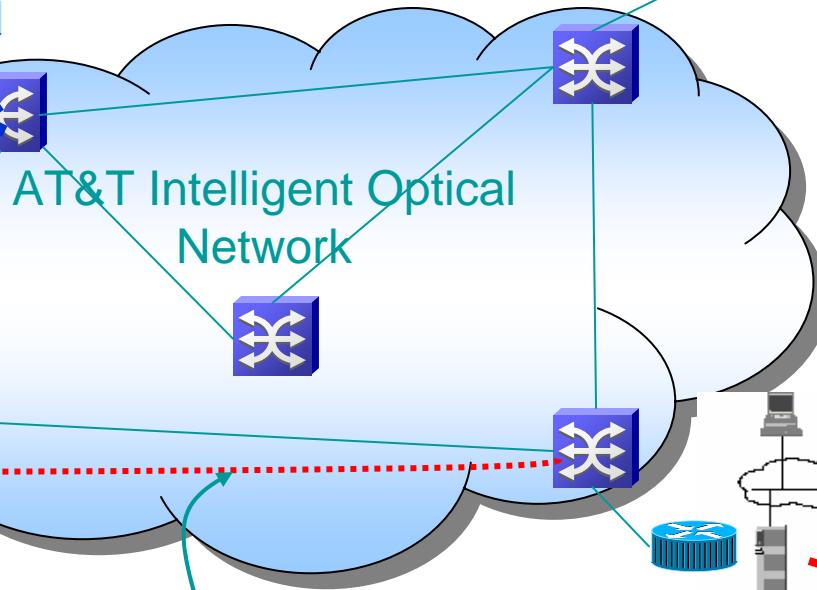
ON Application – Disaster Recovery

Backup Back-up Data Center



Circuit to Back up
Data Center

Special
functions center



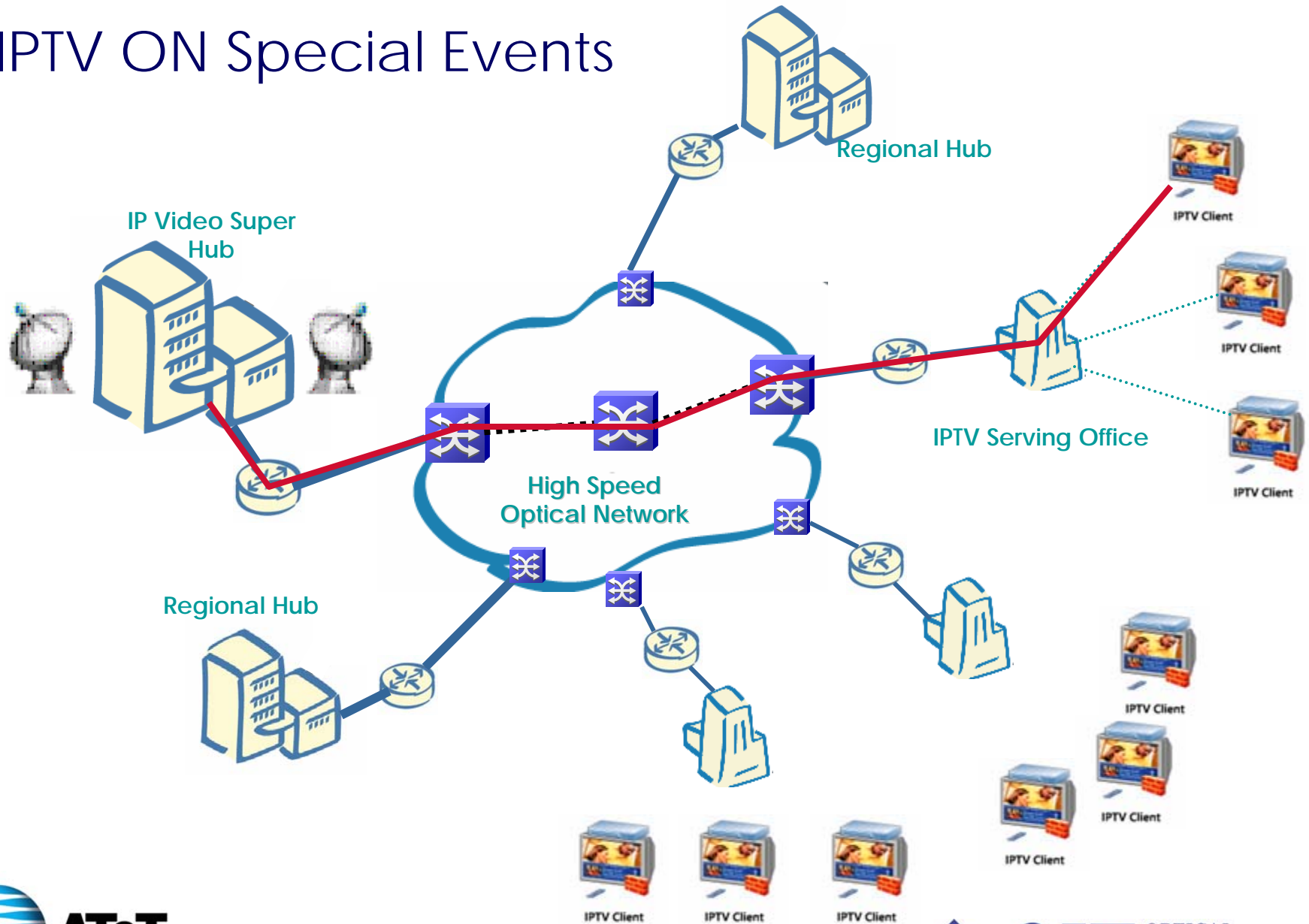
Business Center

Dedicated circuits from
Business Center to Data
Center

Primary Data Center

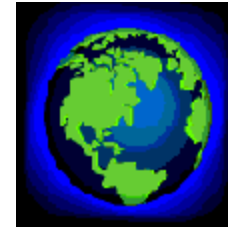


IPTV ON Special Events



Optical Networking – Future Service Extensions

International Optical Networking Service



Ethernet Customer Interfaces
for Optical Networking
Service



Multiple Service Models
from VPNs to public network
model





AT&T

