

# StarLight GOLE Update

9th Annual Global LambdaGrid Workshop

27-28 October 2009

Daejeon, South Korea

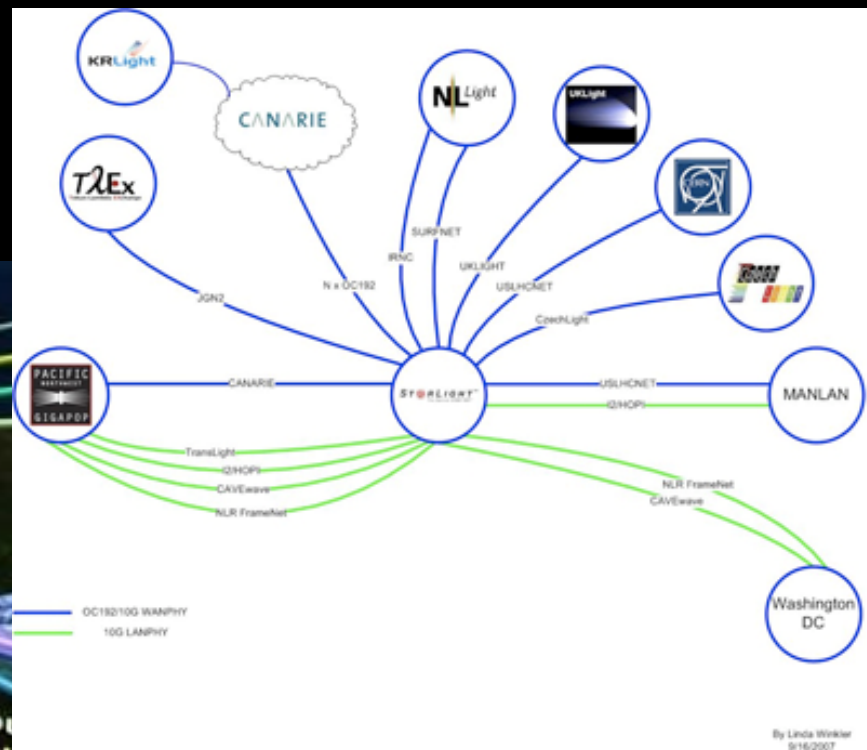
Alan Verlo

Electronic Visualization Lab

University of Illinois at Chicago

# StarLight Infrastructure

Nortel HDXc, Calient PXC (L1)  
Force10 E1200 (L2/L3)  
Many Lambdas & Collaborators



<http://wiki.glif.is/index.php/StarLight>

Measurement Servers:  
bwctl, owamp, ndt/npad,  
perfSONAR (prototype)



# Collaborators

## CineGrid ([www.cinegrid.org](http://www.cinegrid.org))

- CineGrid Exchange: persistent media repository & network testbed
- solar eclipse event: streaming HD (Keio University to EVL & SARA)
- Brazil FILE event:  
streaming 4K (Sao Paulo, Calit2, & Keio University)
- NTT & Keio University:  
streaming 4K (Tokyo to Calit2)
- CESNET demos:  
color grading &  
photonic multicast  
(Prague to Seattle, Calit2)



# Collaborators

## National Center for Data Mining

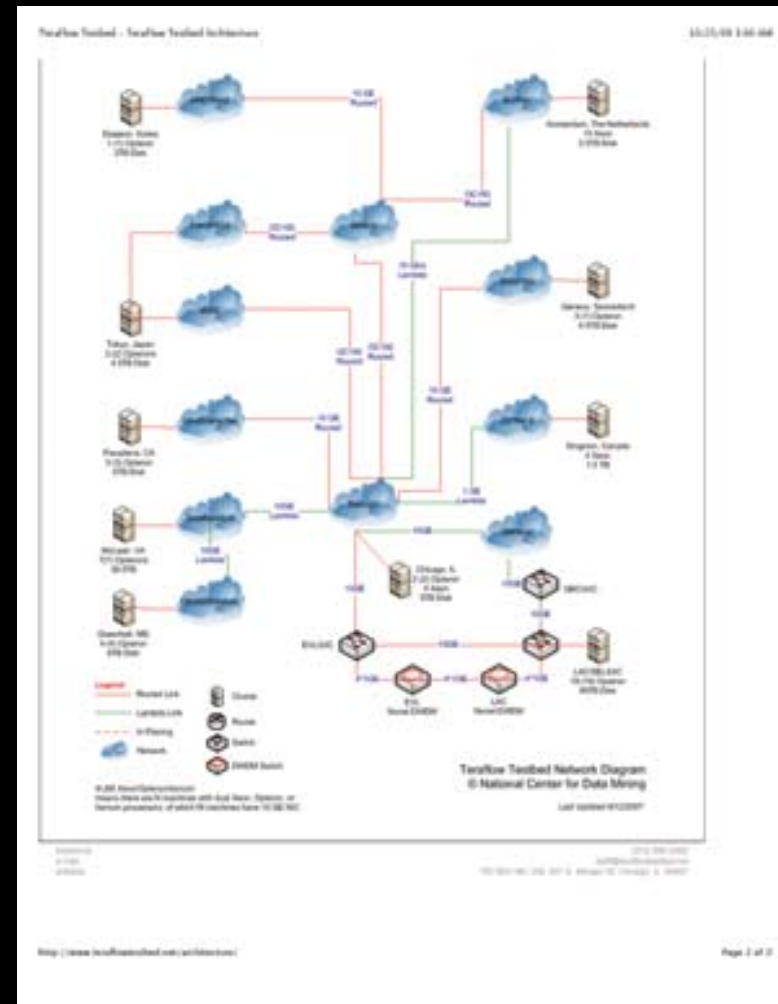
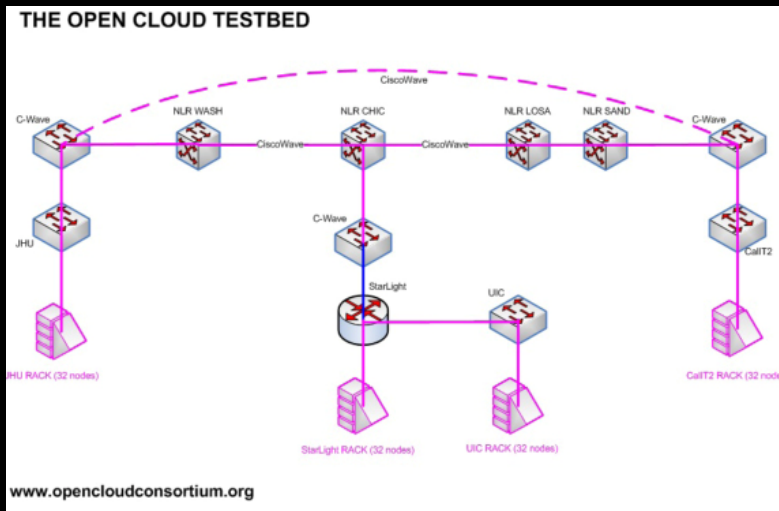
Expanding TeraFlow and OpenCloud Testbeds

- TeraFlow: analyze 1-10 Gbps streaming data

<http://www.teraflowtestbed.net/>

- OpenCloud: develop standards and benchmarks for cloud computing

<http://opencloudconsortium.org/>



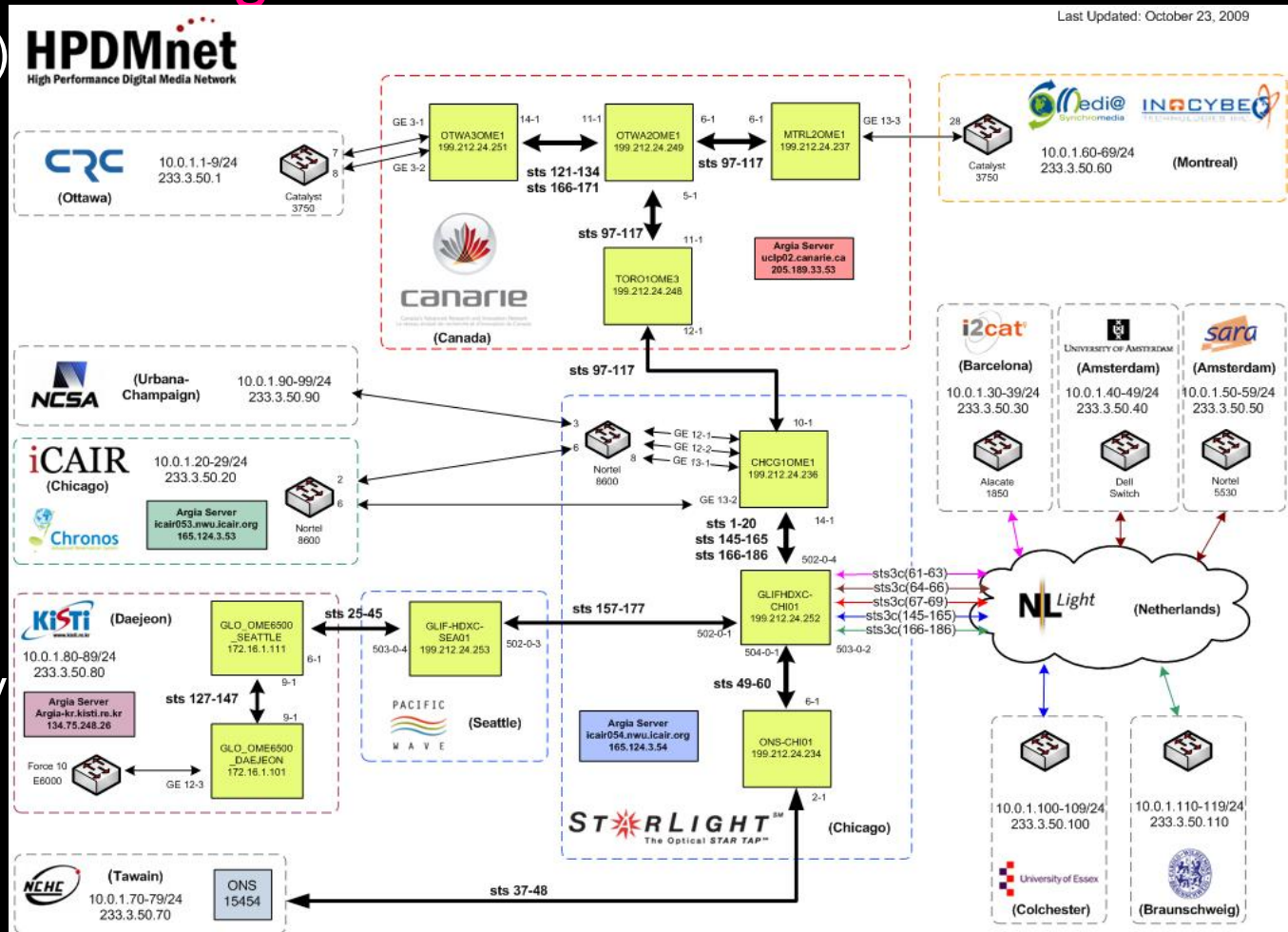
# Collaborators

## High Performance Digital Media Network

(www.hpdmnet.net)

An  
International  
Dynamic  
Optical  
Transport  
Testbed for  
Digital Media &  
Other Data Intensive  
Apps

Demo at GLIF!



# Collaborators

OptIPuter ([www.optiputer.net](http://www.optiputer.net))

Calit2 & EVL:  
Continuing  
Development of  
Visualization  
Systems &  
Collaboration  
Software

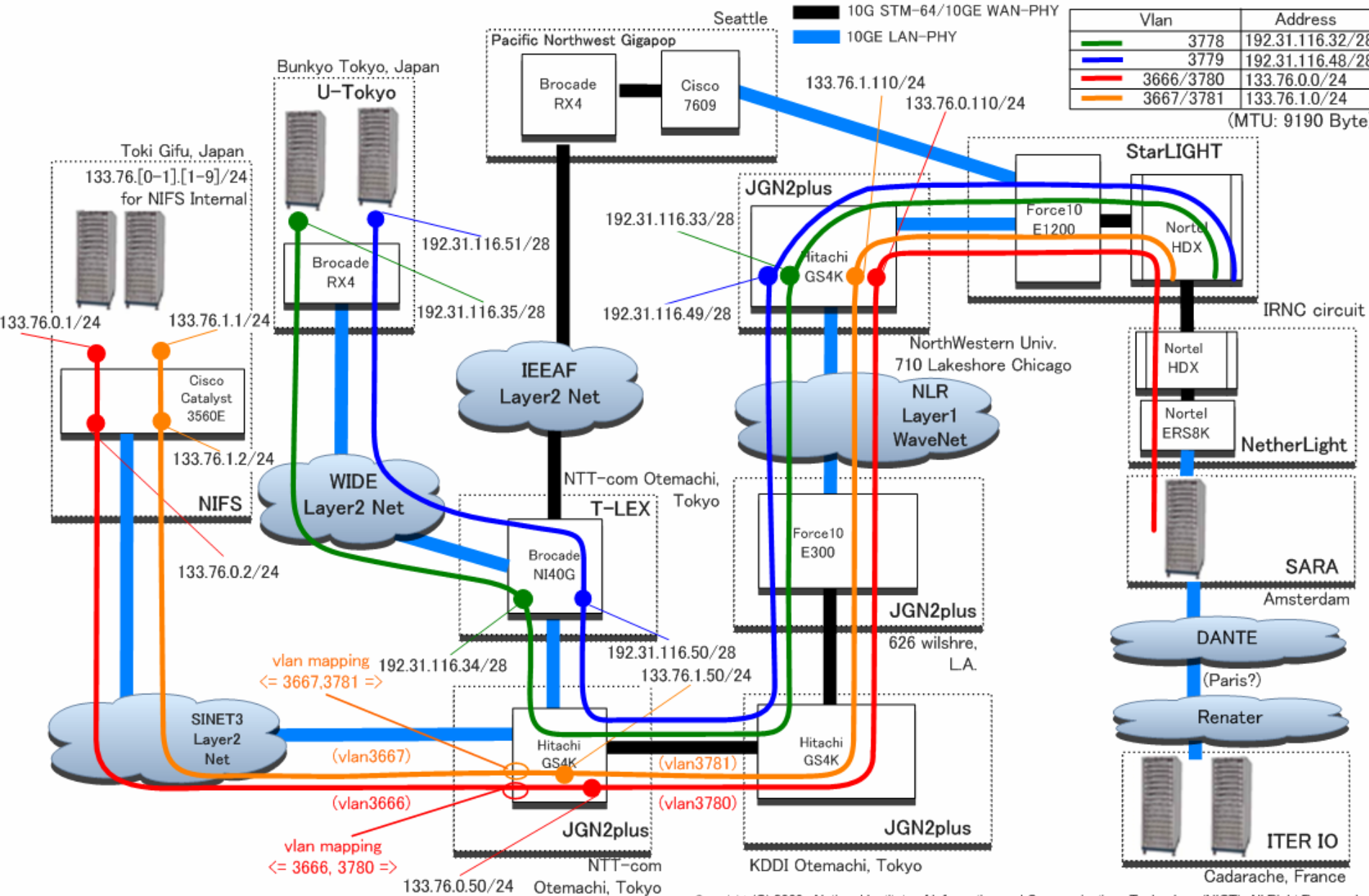


# Multiple Network Research Testbeds

- Multiple Large Scale Network Research Testbeds
  - International
  - National
  - Regional
  - State-Wide
  - Metro
  - Local

# Network Topology for Japan-France High-Speed Data Transfer Experiment

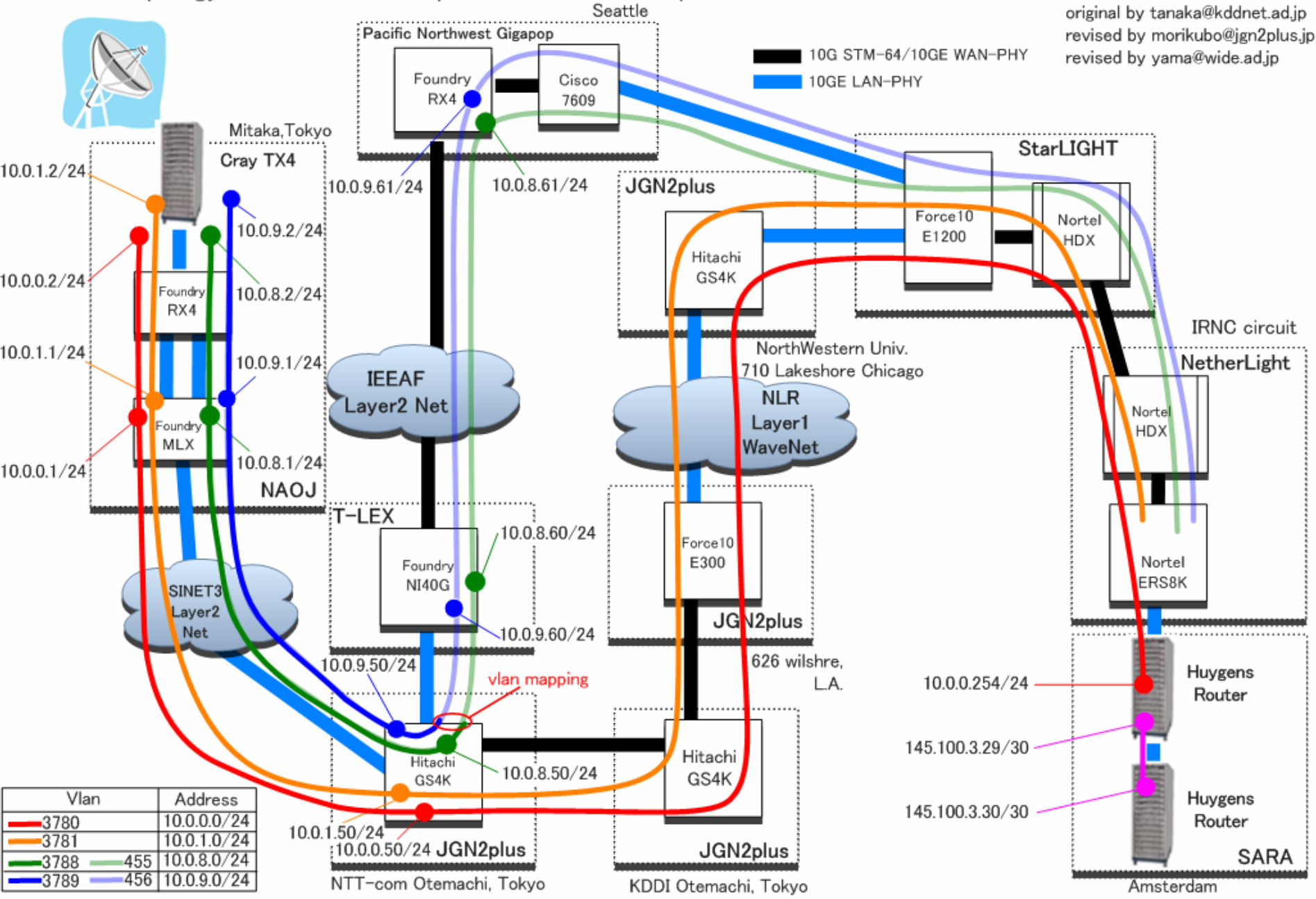
Rev 0.4 Sep. 21 2009  
 original format by tanaka@kddnet.ad.jp  
 revised by yama@wide.ad.jp



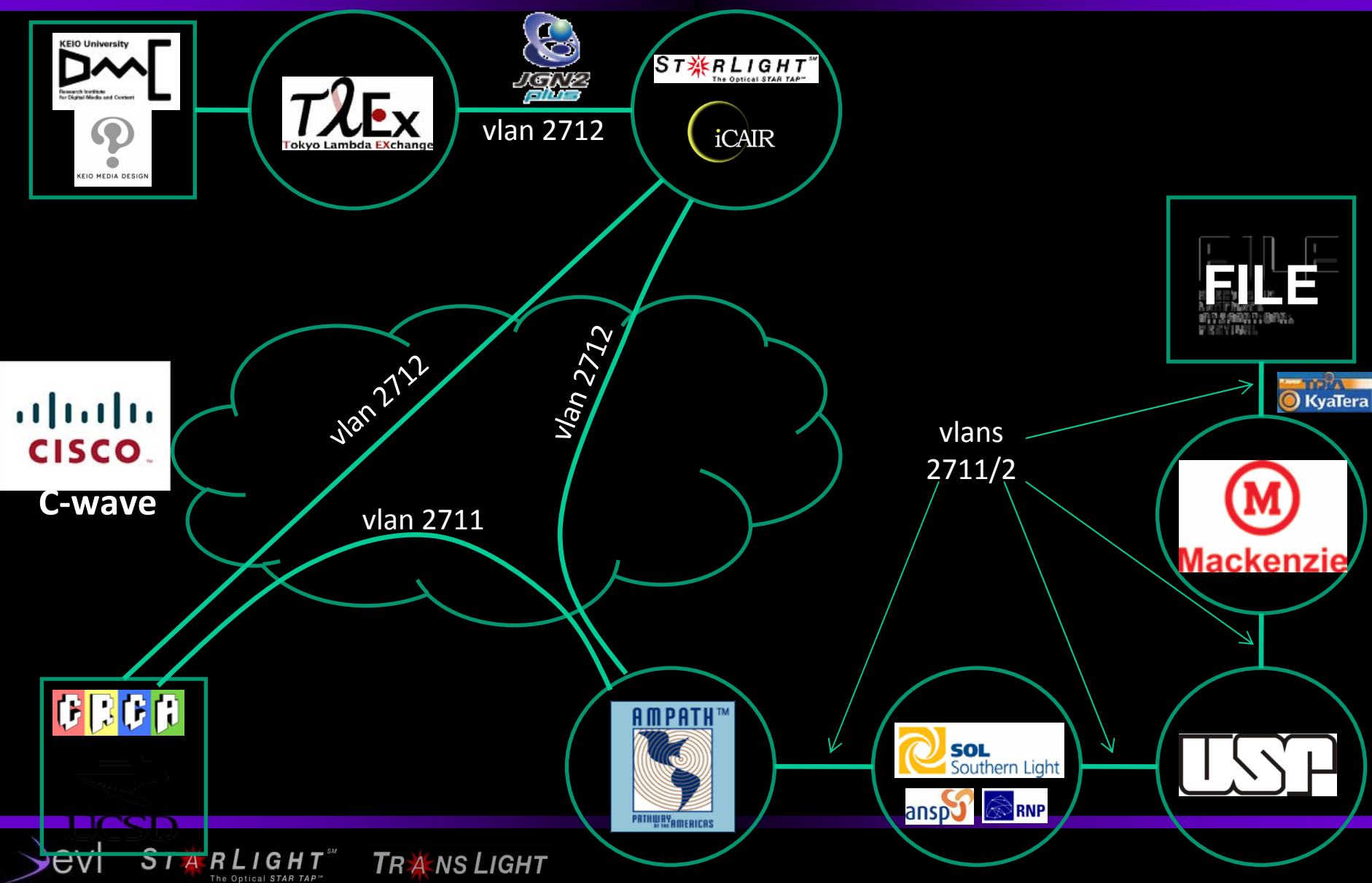


# Network Topology for Cosmo Grid experiment – Round Trip Performance Test –

Rev 0.8 Jan. 21 2008  
 original by tanaka@kddnet.ad.jp  
 revised by morikubo@jgn2plus.jp  
 revised by yama@wide.ad.jp



# FILE



# Activities

## AAAS'09 Conference

American Association for the  
Advancement of Science

Hyatt Hotel, Chicago  
February 2009

1 GE to StarLight  
for high performance  
applications:

NCDM OpenCloud

HPDMnet

EVL TacTile

HD Video Conferencing



# Projects

## TransLight/StarLight IRNC Applications

([www.startap.net/translight](http://www.startap.net/translight))

- eVLBI (JIVE-Arecibo Observatory)
- LHC (CERN-Brazil)
- CosmoGrid  
(Tokyo-Amsterdam)
- ITER  
(Tokyo-Cadarache)
- OptIPuter  
(Calit2/EVL-KAUST)
- HPDMnet  
(iCAIR-SARA)
- CineGrid (Tokyo-StarLight-  
-Prague-StarLight-Calit2)



# New Projects

HP Labs recently connected to StarLight

- via NLR-CENIC-CAVEwave
- protocol testing with iCAIR

GENI project award: iGENI: International Global Environment for Network Innovation

Formal Announcement at GLIF (Wednesday)

# Contact Us

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[www.startup.net/starlight](http://www.startup.net/starlight)