

Internet2 – NLR
Cisco TelePresence Cooperation:
What's it mean (to me)?

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Main Points

- What is Cisco TelePresence anyway?
- What's the purpose of the agreement?
- Who does it apply to?
- What's the status now? What's planned?
- How can I find out more?

What is Cisco TelePresence?

- “Immersive”, HD videoconferencing
- Main values: quality, reliability, simplicity
- (Generally) aimed at conference room / board room meetings and not classroom spaces
- Requires Cisco Call Manager integration for signaling
- Supports point-to-point and multipoint calls
- Capable of MS Exchange integration for directory, scheduling, and ‘one-button-to-push’ dialing

Purpose of NLR – Internet2 TelePresence agreement

- Present a unified service offering for the R&E community
- Work closely with Cisco and one another on a Cisco TelePresence strategy
- Leverage the strengths and accomplishments of each organization to make Cisco TelePresence more widely available to the R&E Community
- Jointly engage commercial TelePresence providers, including AT&T and Cisco
- Initially focused on Cisco TelePresence, but intended to be interoperable with other forms of videoconferencing
- Many details remain to be worked out, but far enough along to permit demonstration / proof of concept connections.

Who does it apply to? Who can use it?

- Internet2 and NLR will each set their own terms and fees for accessing the service
 - Baseline for NLR members and its peers
 - Internet2 doing analysis to ensure long term viability for members
- Service will be available to at least Internet2/NLR members.
- Open questions about Internet2 peers' access (e.g. US Fed networks, International peers, etc)

Current Status?

- TelePresence deployments on many campuses
- Some universities connect only locally
- Some universities connect to Cisco/AT&T
- Some universities doing ad-hoc interconnections among themselves w/o upstream mediation
- Some universities connect to NLR exchange
- Some universities connect to Internet2/MOREnet pilot exchange

Connecting the islands

- Many groups of Telepresence users are still isolated from each other. To remedy this, we're pursuing inter-exchange relationships, such as:
 - Connection between NLR exchange and MOREnet/Internet2 pilot exchange
 - Gateway connection in evaluation to ATT commercial exchange, talking with others

NLR - Internet2 Exchange

- NLR operates a Cisco TelePresence Exchange for R&E and has been interconnecting all interested R&E parties. R&E users may reach each other through this Exchange.
- Consists of a Session Border Controller (SBC) and multipoint switch and other supporting equipment
- Early directory service by NC State University
- Sites establish SIP adjacencies to the SBC
- Signal and media flow to/from the SBC (deterministic path)

Mutual Contributions

- NLR is providing operational infrastructure as described and community engagement
- Internet2 is providing community engagement infrastructure and experience with multi-vendor video collaboration
- Common engagement with vendors

Proof of concept demonstration

- A Harvard and University of Peking conference has already occurred under this arrangement
 - University of Peking previously connected by NLR to the R&E TelePresence Exchange
 - Harvard is connected to Internet2 only
 - Limited peering for TelePresence established between Internet2 and NLR

R&E Cisco TelePresence Deployment Operational

- California K-12s via Fresno (7)
- California State University (3)
- Cornell University *
- Duke University (4)
- Georgia Tech (2)
- Harvard University (5)
- Indiana University (13)
- KUSTAR, UAE
- North Carolina State University *
- NLR Layer I NOC, CENIC
- Pennsylvania State University (2)
- Pittsburgh Supercomputing Center
- Purdue University *
- RENCi at UNC-Chapel Hill
- Rice (2)
- Stanford University *
- University of California, San Diego*
- University of Missouri system (5)
- University of Wisconsin-Whitewater
- University of Michigan (2)
- University of Peking, China (3)
- University of Vienna, Austria

* via ATT

R&E Cisco TelePresence Deployment Coming Soon

- Florida International University
 - Internet2
 - MIT (Multiple) *
 - National University of Singapore
 - New York University *
 - NLR, Salt Lake City
 - Thailand (national project)
 - Towson University (3) *
 - University of California-Berkley (2) *
 - University College, London, England (2) *
 - University of South Carolina (2) *
 - University of Wisconsin-Madison
- * Already installed, getting connected to exchange*

What's Next?

- More details to be announced by Internet2 and NLR to their members
- More connection among members
- More commercial TelePresence exchange connections
- More services e.g. H.323 interop, directory, and scheduling
- Rationalizing central vs regional, state or campus exchange deployments
- User and implementer education

How to stay informed/find out more

- We'd like to hear your opinions about this (especially if you're aware of campus deployments or are interested in participating). Send mail to cisco-telepresence-request@internet2.edu or cisco-telepresence-request@nlr.net
- Mailing list for discussion, news, more details: cisco-telepresence-info@internet2.edu or cisco-telepresence-info@nlr.net

What questions or
comments do
you have now?