

# MASSACHUSETTS INSTITUTE OF TECHNOLOGY

## HAYSTACK OBSERVATORY

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16 February 2005

TO: Distribution  
FROM: Alan Whitney  
SUBJECT: 25 Jan 2005 e-VLBI telecon summary

### Attendees:

Lee Foster, Kevin Kranacs, Paul Lang, Mary Shugrue, Bill Wildes – GSFC

Tom Lehman – ISI-E

Chris Tracy - MAX

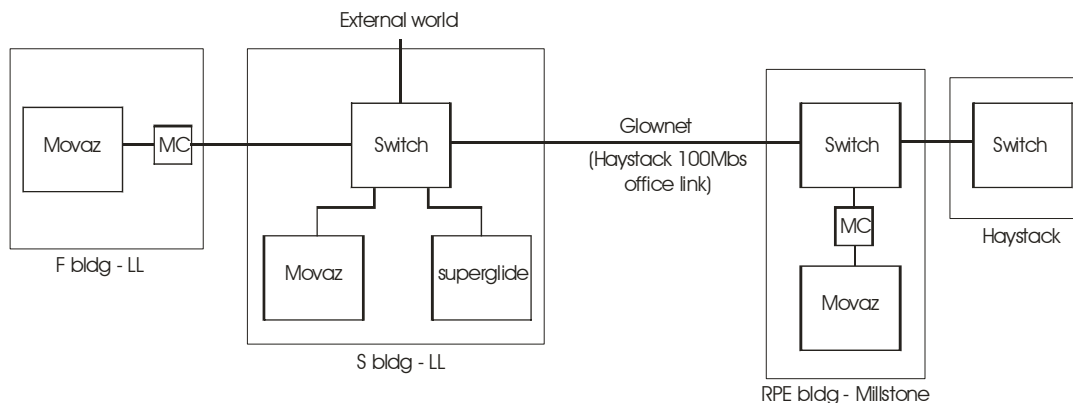
Kevin Dudevior, Hans Hinteregger, Jason SooHoo, Mike Titus, Alan Whitney – Haystack Observatory

This telecon is one of an ongoing series of telecons to prepare for 10 gigabit/sec e-VLBI demonstrations between NASA GSFC and MIT Haystack Observatory using a combination of network facilities including all or part of Glownet, Bossnet, ISI-E, SuperNet, Max and GSFC/HECN.

### ACTION ITEMS ARE HIGHLIGHTED IN RED.

### Lincoln Lab

Russ Roberge reported good progress in establishing the control plane network for the three Ray Express units at Haystack and LL. The last question is where to locate Tom's machine 'superglide'; Tom will talk with Terry Gibbons about this issue. The control plane will be out-of-band from the Movaz wavelength. **Russ indicated work should be done by Friday, 4 Feb.** IP address assignment will be coordinated with Tom. A simplified schematic of the control plane is shown below.



## Glownet/Bossnet

Tom: Bossnet is temporarily down while LL is adding more lambdas. Should be back up soon.  
**Haystack will check with Terry.**

Tom: Back by popular demand is the web calendar for BossNet event tracking:  
<http://lila.east.isi.edu/cgi-bin/webevent.cgi> (dragon/dragon to access).

Haystack's first order of business is to get 2x10GigE links working. Haystack is also investigating possibility of upgrading the link from Haystack to Washington to 10Gig using the 10Gig Raptor switches. A lot of coordination with LL will be needed for any up upgrade, and cost could be a problem (surprise!).

## e-VLBI experiments

Haystack has been busy with ad hoc experiments using Onsala, Sweden as part of a broader cooperative e-VLBI effort with Europe.

## MAX/Dragon

Most effort on DRAGON has been on control-plane issues. Chris has prepared a couple of diagrams relevant to DRAGON and e-VLBI. The first one shows the engineering details of the Eckington-Haystack connection (dragon/dragon to access):

<http://lunarlander.maxgigapop.net/dragon/haystack/Eckington-to-Haystack.gif>

The next simple block diagram showing signaling and applications integration:

[http://lunarlander.maxgigapop.net/dragon/visio/evlbi\\_signalling\\_components.jpg](http://lunarlander.maxgigapop.net/dragon/visio/evlbi_signalling_components.jpg)

## NASA/GSFC

Paul reported they are still waiting for Force10 E600 10Gig switch; now supposed to ship 28 January. E600 with 12 10Gig XFP ports will stay at GSFC; E300, currently at GSFC, will be upgraded with 6 10Gig ports and will go to McLean, although McLean is not yet ready so E300 may temporarily go to ISI-E4. Also still waiting for the 4 pairs of 80-km DWDM Finisar XFP's – also supposed to ship end January.

## EGAE

Chris asked about details of the EGAE architecture. David Lapsley has left an outline of how he envisioned the working of EGAE. Haystack will provide this information to Chris.

**Next telecon is scheduled for Thursday, 17 Feb 2005 at 2pm EST.**

cc: Steve Bernstein, LL  
Jim Calvin, LL  
Rick Larkin, LL  
Lorraine Prior, LL  
Peter Schulz, LL  
Leslie Weiner, LL  
Herbert Durbeck, GSFC  
Bill Fink, GSFC  
Lee Foster, GSFC

Pat Gary, GSFC  
Andy Germain, GSFC  
Chuck Kodak, GSFC  
Kevin Kranacs, GSFC  
Paul Lang, GSFC  
Aruna Muppalla, GSFC  
Mary Shugrue, GSFC/ADNET  
  
Bill Wildes, GSFC

Dan Magorian, UMCP  
Tom Lehman, ISI-E  
Jerry Sobieski, MAX  
Chris Tracy, MAX  
Guy Almes, Internet2  
Charles Yun, Internet2  
Richard Crowley, Haystack  
Kevin Dudevoir, Haystack  
Hans Hinteregger, Haystack  
Arthur Niell, Haystack  
Joe Salah, Haystack