# MASSACHUSETTS INSTITUTE OF TECHNOLOGY

# HAYSTACK OBSERVATORY

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17 March 2005

TO: Distribution

FROM: Alan Whitney

SUBJECT: 17 Feb 2005 e-VLBI telecon summary

Attendees: Lee Foster , Bill Wildes – GSFC Charles Yun – Internet2 Tom Lehman – ISI-E Kevin Dudevoir, Hans Hinteregger, Jason SooHoo, 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.

## Ray Express Control Plane

Tom reported that he believes Russ Roberge has things set up, but some questions about how the connection to Haystack will be made. Need to have a host at Haystack that external parties can log into to exercise the control plane. Kevin will check with Russ Roberge to determine where control plane comes into Haystack. Tom will specify addresses for Ray Expresses. Jason will get Haystack host set up and coordinate with Russ and Tom.

## e-VLBI experiments

On 16 February, Haystack conducted e-VLBI experiments with Onsala and Westford. A maximum rate of 256 Mbps/station was achieved. Higher rates were precluded by a VLBI equipment configuration problem, but may have been restricted anyway due to network limitation from Onsala (no jumbo frame support). This experiment was conducted in cooperation with JIVE. For reasons that are not yet fully understood, there were difficulties in transmitting data to JIVE from both Westford and Onsala.

Charles offered to aid in connecting with European networking folks to help with configuration of the European segments of the links to the U.S. Alan will send Charles names of network folks we know in Europe.

#### DRAGON

Tom reported DRAGON project is eager to discuss how to implement DRAGON control into the VLBI application. A team from DRAGON will visit Haystack sometime within the next month or so to try to nail down these interfaces.

Tom reported software is being upgraded on Ray Express switches. Also expect to get some more RE switches to add to network over the next several months. Jerry has everything in place to make fiber connection to Level3 (NLR) at McLean; may also have connectivity through GWU about end of March.

#### NASA/GSFC

Lee reported that Force10 E600 10Gig switch has been delivered, as well as releated XFP modules. This equipment is now in the process of being installed and configured.

#### Germany/Hawaii connections to Haystack

Germany connection is ready. Despite major re-configurations by PMRF people, Hawaii performance is still sub-par; Kevin is investigating. Plan is to start transferring data soon.

Next telecon is scheduled for Monday, 7 March 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