# MASSACHUSETTS INSTITUTE OF TECHNOLOGY HAYSTACK OBSERVATORY

## WESTFORD, MASSACHUSETTS 01886

Telephone: 978-692-4764 Fax: 781-981-0590

6 November 2001

TO: Distribution

FROM: Alan R. Whitney

SUBJECT: Notes on 4 November 2001 e-VLBI telecon

Attendees:

Lee Foster, Bill Wildes – GSFC

Tom Lehman – ISI

Kevin Dudevoir, Hans Hinteregger, Arthur Niell, Alan Whitney – Haystack.

This telecon is one of an ongoing series of telecons to prepare for 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.

# Lincoln Lab Update

Steve Bernstein and Lorraine Prior sent their regrets as last-minute conflicts arose, but Lorraine provided an update for the meeting, as follows:

As you know Lincoln network personnel reviewed the 2 areas of importance at the Westford/Haystack site, namely the Westford antenna control room and the VLBI room at Haystack.

We will install an Extreme switch in the Westford antenna control room. This is a small building thus no additional wiring or faceplates are required.

Likewise, we will put an Extreme switch in the MIT/Lincoln network closet in Haystack. From this closet we will run 2 pair of multi-mode fibers and 2 CAT5 cables to be terminated in a faceplate beside your correlator in the VLBI room (H28). We have coordinated the exact location of this faceplate with Hans. I hope to have the switches and faceplate in place in the next 2 weeks.

Also, Tom Lehman has allocated ISI ip address space to be used for the VLBI equipment. Lastly, Tom and Group 65/Bossnet have begun working on the Juniper OC-48 interfaces.

## ISI-E Update

Tom, in a necessarily brief appearance at the beginning of the meeting, verified that Jupiter M160 router on the Max network is limited in frame size (MTU) to 4500 bytes, smaller than the 9192 byte frame supported by Bossnet.

## **UMCP Contact**

Contact at UMCP is Jerry Sobieski (301-405-1886) – per Lee's question

# **GigE Performance Tests**

Haystack has acquired a Dell 500C server with 64-bit/66-MHz PCI along with a SysKonnect GigE NIC which they plan to use for performance testing. A similar machine acquired by Bill Wildes at GSFC will be sent to Haystack for initial testing. Local testing at Haystack should commence within the next two weeks.

## **GSFC** Update

1600' of fiber from GGAO LAN (Bldg 200?) to antenna control trailer has been ordered, but schedule for delivery is unknown due to bureaucratic complexities created by SEWP (Software & Engineering Workstation Procurement contract), pronounced 'soup', but not of the edible kind! Laying the cable will be done by Group 290 at GSFC.

Fiber from GSFC Bldg 28 to GGAO area has been 'purchased' and is awaiting setup. Cost was ~\$14K, but not clear whether this is one pair or many pair of fibers.

## **Scheduling Issues**

Discussion delayed until next meeting.

## **Action Items**

*Pat*: Check into jumbo frame support through UMCP (however, may not be too relevant given information on M160 MTU limit).

Steve: Investigate possibility of setting up LL non-privileged accounts for testing from GSFC.

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Steve: Does OC-48 Bossnet upgrade include OC-48 LL/MIT campus connection as well?

*Tom*: Connectivity to USNO?

**Bill**: Send test workstation to Haystack

*All*: Start conducting performance tests where possible.

*All*: Think about scheduling issues. Be prepared to discuss at next telecon.

#### Next telecon

Next telecon will be Monday, 26 Nov at 2 pm.

xc: Steve Bernstein, LL
Jim Calvin, LL
Lorraine Prior, LL
Leslie Weiner, LL
Herbert Durbeck, GSFC
Lee Foster, GSFC
Pat Gary, GSFC
Paul Lang, GSFC
Aruna Muppalla, GSFC
Bill Wildes, GSFC

Dan Magorian, UMCP Tom Lehman, ISI Jerry Sobieski, Mid-Atlantic Crossroads (MAX) Richard Crowley, Haystack Kevin Dudevoir, Haystack Hans Hinteregger, Haystack Arthur Niell, Haystack Joe Salah, Haystack