Express Production Real-time e-VLBI Service

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Monthly Report- Sep 2008

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Project Information

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Table of Contents

Section 1- Introduction

This month's update was started quite late and the contents bleed a bit into October.

Section 2.1 – NA1 Management

The primary activity this period for the Project Office were the discussions surrounding the status of partner CNIG-IGN. The Project Office (the coordinator and project manager) participated in a lengthy email exchange as well as in several telephone conversations with the Spanish partner CNIG-IGN regarding their hyphenated status. After our internal discussions, we had a followup conversation with the Commission, including our project officer and members of staff. The quick summary is that CNIG-IGN will be removed from the contract, CNIG will be added as the formal partner and IGN will act as a third party to CNIG. This information will be shared with the Board and we expect no unhappiness with the change.

Section 2.2 – NA2 EVN-NREN

No update for this month.

Section 2.3 – NA3 eVSAG

Planning for the end-of-project meeting are underway. Discussions are still in the early stages but the large number of emails indicates that a decent amount of planning work is already underway. More details to be provided as plans become more definite.

Section 2.4 – Public Outreach

A group of international reporters visited JIVE and interacted with a number of EXPReS personnel. The visit was organized as part of a larger tour in which reporters were exposed to a wide variety of scientific organizations. The goal of the visits was to familiarize them with the different types of activities that were in progress. About 30 reporters visited JIVE and were given a tour of the facility (including correlator), presentations on radio astronomy and e-VLBI, as well as an opportunity to speak with on site astronomers. The on-site visit was relatively short, however, an afternoon excursion to visit one of the LOFAR sites was also provided (hosted by EXPReS partner ASTRON).

Responding to a request heard at the previous project review, EXPReS has made a glossary available online. This glossary identifies the most common concepts and abbreviations for the project. The list is quite large and hopefully comprehensive. As it resides on the wiki, we hope that it will continue to be updated and expanded organically.

ICT2008 will be held in Lyon, France in November of this year. It is expected that at least one member of the project office will attend (likely the project manager). We are currently investigating if one of the

EXPReS partners will host a booth at the event and if EXPReS materials can be delivered via their booth. There are currently no plans for EXPReS to host a booth.

Section 3.1 – Production e-VLBI Correlation

SC2008 (the supercomputing conference) will be held in Texas, USA in November. EXPReS partners Metsahovi and PSNC will participate with booths that show off their participation in the project. There are plans for a demo to show off the software correlation if the code is robust enough for a public demonstration.

An announcement to the EVN also announced that the organization is ready to move to e-VLBI at 1024 Mbps. This is a major step as it brings e-VLBI to the same sensitivity as disk-based recording. The announcement as targeted the November session for the first test. If agreed upon, five telescopes (Effelsberg, Onsala, Westerbork, Torun and Jodrell Bank) will participate at the new data rate.

Section 3.2 – Telescope Network Connections

Network testing and configuration of the TIEN2 link to China was conducted this month. There were several tests that showed that the link was robust up to 530 Mbps. There was noticeable loss at data rates of 3% as bandwidth increased much more above 530 Mbps. Investigations as to the cause of the data loss rates are underway.

Torun announce that they have received their physical connection for the telescope. A test schedule will be drawn up in coming months to determine the state of the link and when it can be entered into the operational process. It is known that there is at least one bottleneck close to the telescope that limits the overall throughput of the line.

Section 4.1 – FABRIC

PSNC delivered interim source code for the Workflow Manager and it has been added to the deliverables table as an interim deliverable.

PSNC also sent a note indicating that they are able to establish two goals for upcoming efforts. The first is to deliver network monitoring tools by the end of December. This will allow the connectivity between the WFM and NM to be established (using fixed data). By the end of January, PSNC hopes to integrate collected data into the NM, providing a more realistic set of interactions between the tools.