

Minutes from CHPS Meeting Thursday November 6, 2008

Attendees:

ABRFC – Billy Olsen, Mike Pierce
CNRFC – Pete Fickenscher, Scott Staggs
NERFC – Ron Horwood, Tom Econopouly
NWRFC – Harold Opitz, Joe Intermill
NOHRSC – John Halquist
Deltares – Karel Heynert
OCWWS – Mary Mullusky, Randy Rieman
OHD – Jon Roe, Chris Dietz

Pre-reading:

- Memo Q4579.MW 2008.04 “Items to discuss during Nov 3-7 Meeting” distributed with agenda for this meeting

1. Migration Training

OHD announced a one-month slip to the schedule. Training will now occur the week of February 9 2009 (formerly January 5). Karel provided some more detail on the reason for the slip: Deltares feels it important to conduct additional testing of the migration tools and improve the documentation. Although the training could still be held in Jan, we wouldn't want to risk anything going wrong when we're on the verge of such an important step. No other scheduled events are impacted. ABRFC has already submitted estimates for travel; these will not change.

Action: none

2. RC_11591 and IP addresses for new hardware

Randy reported that in general the hardware installation at NERFC this week went well. One minor issue concerned getting one of the servers into the REP rack, because the curved rails limit the access. Randy has taken photos, to be included in the Mod Note. The installation is estimated to take a maximum of 4 hours for the other RFCs.

RFCs should note that they will need 2 extra circuits, each one with a trip light. CNRFC will need an extra 4. Randy offered to supply trip lights to those who needed them.

The RC has only just been approved; no word on the request to reserve IP addresses .41 - .46. Randy was unable to install the software due to lack of IP addresses. Installation will be completed in Dec and isn't expected to take very much time. Jon will find out the status from Tim Hopkins.

Two servers came with RedHat 5, the other with RedHat 4. The group requested that RedHat 5 be installed on the 3rd server for consistency. RH5 is 64-bit, and is installed to take advantage of that. We don't know which version of Postgres will be installed; probably the most recent version – Karel will check what Deltares recommends. Harold said the most recent stable version is 8.3.

The Mod Note should be ready for e-mailing on Friday (11/7).

Action: Jon to find out from Tim Hopkins what is the status of the IP request?

Action: Randy to make sure RedHat 5 is installed on all servers.

Action: Karel to find out which Postgres version is recommended by Deltares.

3. Deltares visit to Silver Spring this week

The purpose of distributing the referenced memo was to let the group see the kinds of things being discussed between OHD and Deltares. The meetings are very technical in nature and are geared towards clarifications and preparations for the upcoming software acceptance testing. Chris confirmed that travel will be Sunday 12/14 and Friday 12/19. The plans are for Micha (and Mattijs?) to leave on Weds 12/17, but Andre will stay until Friday to (possibly) provide a demo of the latest forecaster interface. Note that the top priority for this trip is the software (not user) acceptance testing. If testing does not get finished by the end of Weds, we will need to dedicate time to testing rather than to anything else such as the aforementioned demo. There will be other opportunities to review the interface; specifically Deltares plans to conduct regular internet-based demos as soon as some new features are ready. Regarding HEC-RAS and Ed Capone's participation, Deltares suggested it might be best to conduct these tests at NERFC; we will discuss later.

Micha, Hank, and Chris had a discussion with Julie Demargne on verification in CHPS. Micha and Chris both stressed that our efforts MUST focus on getting BOC in place, not on other requirements no matter how important they may seem to be. To do so would increase the effort and impact the schedule. Therefore the December software acceptance testing will not include scenarios for hindcasting. Karel proposed that we begin to look at some more specifics for ensembles and verification in CHPS after the New Year, possibly begin a collaborative 'experimental' track in parallel with the CHPS BOC work – we will talk more outside this forum. Chris agreed to summarize the issue for Jon to present to Geoff and Gary.

Action: Chris to brief Jon on issues surrounding verification in CHPS, for Jon to present to OHD management.

4. Hydro XML

Chris summarized recent conversations/emails with Laurie Hogan regarding ER's effort to promote their XML work. A team has been formed that includes Rob Shedd, Joe Ostrowski, and Mark Fenbers. With NERFC now a CAT site, this ER group has now become aware of the CAT decision to focus on WaterML for its hydro XML schema (ref.

<http://his.cuahsi.org/wofws.html>). Laurie is trying to put together a webinar in mid-late November to discuss how the ER effort could move forward in the context of CHPS; she wondered if the CAT would participate.

The group reiterated the need to avoid going alone; instead we must collaborate with existing bodies such as CUAHSI. There are potential ramifications well beyond the NWS - possibly beyond the US. No one was aware of any WMO standard for hydro-based XML. Other US federal agencies including NASA, NRCS, USDA, EPA, NCDC (possibly also USACE?) are already working with WaterML.

Note that there will be 2 kinds of XML used in CHPS: the FEWS PI schema; and a format for sharing hydro data with external customers, partners, etc. The FEWS PI schema is for internal use, and is not up for discussion. We need to determine a standard hydro data exchange format within and outside the NWS.

We know WaterML does not provide everything we'll need for CHPS. We also know WaterML is good for observational data, but is not yet a good format for forecast data.

We originally asked Deltares to conduct a gap analysis between CHPS needs and WaterML provisions. Deltares stressed while they can't speak for their customers, they can certainly provide an educated opinion; Peter Gijbbers has a keen interest in this area and will conduct an analysis of WaterML to see whether (and to what extent) it might meet the needs of NOAA's water forecasting agencies (estimated 2 week effort).

The group suggested OHD lead the way; however HSEB tried that before (with HydroXC) and experienced a lack of willingness on the part of other non-NWS members to do any work. OHD gave up trying to push something that no one else appeared interested in.

The CAT has discussed standard output formats several times. We know SHEF won't provide what we need for the future (e.g. can't handle ensembles), but we can't wipe out a service we currently provide to some of our customers; therefore we must support SHEF. The idea is to output data from the FEWS database in XML, then provide tools to translate between XML and SHEF. Ultimately SHEF will become irrelevant, but it will not disappear overnight.

Since the XML schema issue will eventually need to be addressed by IWRSS, John Halquist agreed to support the ER discussions on behalf of CHPS.

The CAT reaffirmed its decision to use WaterML as the basis for CHPS. The NWS will request (possibly via prototypes) improvements to WaterML to meet future NOAA water needs. It was suggested that the ER team should conduct its own 'gap analysis' from a NWS perspective.

Action: Deltares/Peter to conduct an analysis of WaterML for the CAT.

Action: Chris to provide a response for Laurie Hogan on the CAT approach to hydro XML and John's participation in the upcoming webinar.

5. Other

What is the role of the ARC now that CHPS is underway? The Theme Teams (latterly the Core Goal Teams) have effectively superseded the ARC. This year HSEB intends to present the estimates for CHPS BOC, which must come off the top of the budget, and should not be considered a proposal in the usual Theme Team sense. Experience with the FY09 Theme Teams indicates some people still don't recognize the change in direction. The hydro program certainly needs new science, but the priority must be to get CHPS into operations so new science will have a place to go. Donna Page has scheduled a meeting for Friday; Chris and Mary will bring this topic to her attention.

Hardware for CHPS: OHD doesn't have the funding or resources to maintain and refresh operational hardware in the field. That's why AWIPS must take responsibility. AWIPS specifies its own hardware suite. OHD has no control. The AWIPS program and its contractor (Raytheon) seemingly ignore input from NWS systems engineers. Perhaps Donna's upcoming presentation to Don Berchhoff (Dir OS&T) can be expanded to include this topic in the hope that it might prompt a longer term solution. Jon and Chris will speak to Donna. AHPS budget might cover some but not all of the CHPS hardware needs. OHD has recently added the CHPS gridded forcings work (MPE/GFE) to the FY09 budget, so there's even less to go around. On the subject of GFE, a recent email announced GSD/Tom Lefebvre's lack of funds to provide RFC's with GFE support. The group noted that GFE will become very important for CHPS in the next 2 years. How can AWIPS provide support for WFOs but not for RFCs?

Action: Chris and MaryM to speak to Donna about the approach of the Theme Teams.

Action: Jon and Chris to include hardware engineering topic in slides for Berchhoff briefing

Note: Action items from this and all previous meetings are contained in the "ActionItems" document maintained and distributed by Chris Dietz, OHD.

Next meeting: Thursday 11/13/08.