Minutes from CHPS Meeting Thursday December 17, 2009

Attendees:

ABRFC – Billy Olsen, Eric Jones(?)
CNRFC – Rob Hartman, Pete Fickenscher, Scott Staggs
NERFC – Rob Shedd, Tom Econopouly
NWRFC – Harold Opitz, Joe Intermill
NOHRSC – (absent)
Deltares – Edwin Welles
OCWWS – (absent)
OHD – Jon Roe, Chris Dietz

Pre-reading:

- none

1. General status of CAT activities

NERFC: upgraded yesterday, but need a few days to assess whether or not the synchronization issue has been resolved. They did have some hiccoughs during the installation. Also seemed their Configuration Manager was out of date – possibly wasn't updated correctly last time. It has now been resolved. They were surprised that the system wasn't working due to configuration changes; perhaps we didn't do a good enough advertising job.

ABRFC: did not upgrade yet. Jeff is on leave. Will upgrade after the 1st of January. No new issues.

NWRFC: upgraded, system is running. One issue is still pending: the MC rolling barrel is taking hours to complete. NW is running the migration scripts and encountering a few issues. There was also a problem with "non-standard" directory structures at NW because they're being beta tested there. Harold was under the impression we had agreed to make other RFCs consistent for the December release. Chris confirmed this was the original plan, but Edwin said Peter and Randy are still working on some changes so the new directories couldn't be finalized.

CNRFC: installed yesterday. Only one issue concerning the rolling barrel (as with NW). Did not start the re-migration yet – some templates seemed to be missing, but that issue is being worked. Question for Deltares: were new migration scripts delivered as part of the release? Edwin will find out and report back.

Status of Mod Note (i.e., installation instructions for chps servers): Randy is still preparing. The RCs (one for the CAT, the other for the CAT-II) have been submitted, but there were no instructions attached. NW is waiting to install the hardware and would like an early copy as soon as it's ready; Chris will relay the information to Randy.

What are the plans to address performance? Deltares is focused on stability and addressing issues with the update states and synchronization. Deltares needs to improve operational run times, both on the server and via the IFD. Andre believes there is some overhead in the IFD runs that could be eliminated. Although it's possible the hardware might be underpowered there are other software design changes that can still be made first. Edwin said the entire group needs to target specific performance goals; so for example the metrics provided by ABRFC is a specific performance issue

which can be tackled, along with the update states problem and others. Deltares will focus on performance and stability for the March release; new functionality must be kept to a minimum.

When will the ssarreg fixes be available? Fixes to the MODS ingest and processing were all tested with Lee recently and found to work fine. The requested interface enhancements (designed w/Joe Intermill during SAT) might be included in a patch targeted for the end of January, but the primary focus for now will be performance and stability, prioritized above new functionality. During SAT the forecasters noticed a lot of unnecessary processing and information generation in the way the IFD executes workflows. There are many nested runs, with (e.g.) SHEF exports at the end of every basin run; there's also a time series merge for the entire forecast group done at the beginning of every basin. These are possible areas for streamlining.

Action: Edwin to find out if new migration scripts were delivered as part of the December release.
Action: Chris to ask Randy to forward an early copy of the Mod (installation) Note for chps4/5/6 to NWRFC.

2. Closer synchronization between CAT RFCs and Deltares

Deltares would like a better understanding of the CAT's configurations to fix and test bugs more effectively. Request that all CAT RFCs submit configurations at least once a week on a regular basis. They can be tar'd and placed on the FTP site. Will it be acceptable if RFCs send their local data store from the OC? Although Deltares could run them in SA mode and dump out the configurations, it would be preferable to get the configurations directly. Edwin will send a list of directories that RFCs should ship.

Additionally, Deltares would like fully live configurations for at least one of the RFCs; i.e., copy of an updated configuration every time it changes. NERFC volunteered to assist. NE has ensembles configured (short term out to 5 days; still working on getting 30-day ensembles up and running) as well as HEC-RAS so it provides a good example. In the event another CAT RFC gets into "dire straights" Deltares will solicit similar data from them at that time.

Action: Edwin to provide a list of (configuration) directories for each CAT RFC to tar up and send to Deltares on a weekly basis.
Action: NERFC to additionally begin submitting configuration updates to Deltares whenever they are changed.

3. FYI: RCs, ATAN

Jon recently submitted an RC to authorize installation of chps 4/5/6 at the CAT RFCs. He also submitted a separate RC to authorize installation of chps 1/2/3 at the CAT-II RFCs. Chris submitted an ATAN to authorize a CHPS version of ofsde at the CAT-II sites; this has been approved.

Action: none.

4. Other

NERFC asked: what is the expected schedule for CAT RFCs to activate the 2nd MC within each office? They already have their hardware installed (Randy used NE as a beta site for the Mod Note). Edwin estimates January, but he will work with Randy to get a firm date.

CNRFC would like to know what is the design for mounting /awips/hydroapps/lx on chps3? They are running XEFS there. Chris will relay the question to Mark Fresch and Randy Rieman. This was a little surprising, as the CAT RFCs have been asked not to run HEFS/XEFS on their chps hardware. CHPS performance can't be optimized (or performance problems analyzed) on any servers where non-BOC components are running.

RobH raised a question about providing CHPS training to our partners. The HRC (a non-profit research organization) is running the INFORM project and wants to get spun up on CHPS. They asked CNRFC if they could attend the Migration & Configuration training in February. HRC learns very quickly. OHD can't accommodate this request: first, space is limited; second this is not the right training because it focuses on Migration. There are other examples of external organizations who will want training in CHPS as interest grows. NWRFC cited BPA and the Corps as others. Some of them run NWSRFS today. They were trained primarily by local RFCs. Could such CHPS training requests also be handled through the local offices not through national HQ? This won't be feasible in the CHPS era. Since RFCs are obligated to meet AHPS requirements for regulated forecasts by 2012/2013, perhaps AHPS should provide the necessary support. Perhaps this example could be seen as a trial/learning experience? We have necessarily taken the approach that 3rd parties must pay for their own training through Deltares. We have so much at stake. Problem is it's the tip of an iceberg. Jon and Chris agreed to raise this topic with Pedro and Gary. This goes beyond the system implementation of CHPS at RFCs (current project scope). The introduction of the new 'community' paradigm will have ramifications not yet fully recognized. RobH agreed to forward to Pedro more details of his discussion with HRC. Meanwhile the most practical approach is for HRC to contact Deltares directly for their own training. Jon and Chris will be meeting with Pedro and Edwin on Friday to discuss a similar (but slightly different) scenario with CUAHSI. Something will come of these discussions over the coming months. We must think about it seriously now. Unfortunately there's a ton of things going on at the moment with the CAT RFCs, not to mention their buddies (the CAT-II); it will be a lot to spin up these other agencies as well.

Action: Edwin will confirm a date for activation of the 2nd MC at CAT RFCs.
Action: Chris to relay the question "what is the design for mounting /awips/hydroapps/lx on chps3?" to Mark Fresch and Randy Rieman.
Action: RobH to forward more information to Pedro regarding his exchange with HRC on training; Jon & Chris to follow up with Pedro and Gary.

Next meeting: This is the final meeting of 2009. We meet next at the CAT Workshop in Silver Spring 5-7 January 2010.