

ZWURM, 25-01-2021 14:00 (ZWURM through Zoom because of #COVID19 house quarantine/wk46)

Present eBob, Aard, Paul, Ilse, Mark, Des, Harro

Paul: In an attempt to fix ssl certificate issues for [www.] (jive.nl/jive.eu) the solution (add redirects) broke more than it fixed; need to revert and suggest a proper fix. HyperThreading amnesia of microblade servers seems to be caused by empty BIOS batteries – after removing power for ~1/2 hour changed BIOS settings forgotten. New issue: after shutdown/mains disconnect sfxc super slow (90s data = > 1 hr correlation time), under investigation w/ AardK. Hardware deliveries: storage expansion for KVM cluster expected this week, Jupyterhub server next week. The evn-vo server has its certificate and works over https too now. Starting Grafana migration to better maintained location + setup. Questions from AukelienvdP re. "Operations" section on JIVE webpage; mark5-info: remove, lightpath status: remove (don't have lightpaths for several years), fringe plots: ok need migration, Tsys plots: not working so probably remove (should become TUM monitoring system).

Ilse: Comparison: confirmed that AIPS and CASA MeasurementSets have same time/frequency grid. EHT approach uses Pandas data frames, charmed by method, only after enquiring for e.g. libraries got no useful response; could be useful to reuse. Put archival data set through pipeline: 1st one not ok (used double phaseref source, not supported yet), 2nd candidate ran fine; images not yet checked – was still running on Friday. Working on URSI abstract. EAS programme shaping up very nicely; almost all invited speakers confirmed, can host three more contributed talks. Queried BjornE about CASA6 module loading in Python: only works on Linux at the moment. Q: Is our CASA6 image ready enough? A[Aard]: yes, will open registration on Jupyterhub temporarily so an account can be created to experiment with.

Des: CASA pkgs for MichaelJ w/ all features included: 1st attempt not so succesfull – mem usage down but not enough, 2nd attempt found another factor two in mem usage, now pipeline running happily. Delivered proto version of RoboZsolt PaperCheck database – webbased publication mgmt system, now can be used by ZsoltP, waiting feedback.

Mark: evn-vo reachable through https (following instructions where to put certificate does help); fixed few more bugs in data set grovelling script (some IDIs have garbage lines – tConvert issue that was fixed but need to fix/skip still affected files); found WSRT data in the archive – what to do with local interferometer data like this (there's also VLA, LBA, Compact Array)? Initial approach: skip from including into V0. If phased array used in data, set diameter to 0 to exclude from computing FoV – otherwise way too small; the script is usually munging on the 700+ phase center data – it is huge. [eBob]: there should be Bonn-correlated EVN data in the archive as well. CASA/VLBI mtng: only small issues w/ tickets; importfitsidi fix from VLBA w/ pulsar bin/single spectral window

excluded for this release - pending on casacore ticket to be merged first; been thinking about polconvert in CASA: cannot do proper with just calibration tables, better have separate tool for the rotation and do amp/phase corrections using standard CASA tasks+tables. ESCAPE WP3 meeting on D3.7, someone locked document, could not unlock so EnriqueG had to copy, edit in MSWord, and reupload D3.7 document (cloud solution gone bad). This week mini DiFX meeting, clashes with ngEHT meeting on software and data format compatibility meeting; will attend ngEHT meeting and invite ngCASA rep to explain future models.

Aard: Spent two afternoons on ESCAPE WP5 AAI meeting, not as useful as hoped: Jupyterhub AuthN/AuthZ would have been useful but only received very little attention; most attention to Rucio - middleware to get data into/out of the ESCAPE WP2 DataLake (JIVE not involved) - token based AuthN/AuthZ mentioned a lot but actual use is still X509 certificates (inherited from very old Grid infrastructure). Mc sent a beam map, added polarizations; ok for L-band but higher freq better to have both pols separate. Jupyter notebook log buttons: were in JavaScript fine, Jupyter remove JavaScript support - try IPy widgets: locked during interpreter execution (can't inspect log whilst kernel computing!) and contents lost after save+reopen of notebook; turns out can be done using CSS, have input button with two styles: content hidden/visible; bit more work to implement for each button but at least works. Operators report sudden superslow correlation (90s job takes > 1h), seems related to m-nodes; n+o nodes operate ~real-time; mix of m and (n or o) = slow; m nodes were off mains earlier (BIOS battery - see Paul) and have Ubuntu 18.04, n+o nodes have 16.04 - investigating what real cause is (during e-VLBI idle nodes observed - i.e. fast enough).

eBob: A pySCHED issue reported on latest MacOS (Big Sur), Benito managed to fix; during fix found x,y-plot problem which was fixed and a divide-by-zero was also fixed; still working on automated testing of plotting gui. NorthStar: data rate vs wavelength dependency was almost working, fixed a bug; DrBob found loophole: short wavelength -> high data rate -> select low wavelength -> data rate dependency not honoured, dependency only works in one direction, probably too difficult to fix and loophole too contrived. Bug in runjob save data routing reported and fixed. Ilse found dead links in Drupal archive code, fixed.