WURM, 12-05-2025 13:00 CEST WURMng Marjo's office

Present: Mark, Des, Wybren, Bob, Paul, Aard, Marjolein

Plenary announcement: e-VLBI tomorrow, so need to be available for helping debugging at startup.

Bob: pySCHED merge w/ SCHED12: SCHED12 writes VEX2, but different from ours; INTENTs are written (something we want too!), other big diff is VLBA freqs now done in memory/algorithm not in catalog to support variable LOs - to be discussed at VLOPS. POLARIS: uses large number of frameworks (e.g. JAVA and ReactJS), inspecting JSON API to compare w/ NorthStar.

Des: worked on Flask w/ Wybren (all fixed now); webpage on services updated (but changes not visible?). Got data for SFXC and script to generate control file(s), run on desktop = success. Jupyter notebook with SNR computations: now with all math included, want to share w/ NRAO later this week but also need a read by people not familiar with the topic. Received ADS library w/ papers from ZsoltP to be manually added to the DB for easy formatting downstream; if/when IoannaK avail discuss formatting. Tried PolConvert on new data, but MS from our own correlator makes PolConvert SIGSEGV.

Mark: mainly VO + GPU correlator work. High-Energy Physics integration into VO, attended meeting in Paris. sfxc-gpu: use lower level infrastructure to distribute processes other than MPI; w/ AardK testing dual-polarisation GPU corr and RDMA into GPU corr - almost as fast as fake data w/o streaming (very little CPU usage); achieve 15 Gpbs / GPU; correlating w/o RDMA: I/O is bottleneck b/c network packet handling limited to single-core performance. Also working on performance metric, looks like Watt / Gsample (actually: J/sample) may be the ticket [AOB].

Aard: e-Merlin work: some issues reported and fixed. New version of Intel Performance Primitives (IPP) lib (2022) now supported. Selected data for Des; on i- and j-nodes: -nodes scratch nearly full; fixed control file generation scripts. sfxc-gpu: dual pol single band working; zero-padding moved (+10% faster!), next up is adding overlapped windows; delay module now dynamically compiled. eduGAIN: need to agree on two terms (GÉANT CoC and what to do on intrusion) - action @Marjo.

Wybren: Flask now working, reverse proxy redirects old URLs. db0/ dbtest test query monitoring set up, now also working on dbtest. Ordered replacement SSDs. On marcopolo disabled backups [PaulB: discussed with GiuseppeC about newer+larger disk for marcopolo: idea = OK, not sure if budget avail].

Paul: set up EEE Python venv using miniconda for user jops. RB link between flexbuffs and DAS-6 cluster: up at Layer-1: got good optics in right modules (require higher power optics, SN2100 only allows that in some ports, but were already in use, so after reshuffle now ok); meeting tomorrow on Layer-[234] setup [MarkK: maybe I should be

there?] Yes. db0 monitoring: bimodal timing - query takes either 0s or 8s, no correlation with any other monitored values yet; looks like something has an 8s timeout before trying again. Gitea: no HTTP/500 errors since Apr 1 [WybrenB: possibly after upgrade?] but still have 1000s (>4000) HTTPS sessions open, but does not seem to be an auth issue. Tape-robot plan submitted, and WhiteRabbit in Astronomy paper expected to be submitted this week.

AOB:
[MarkK: re. 4.5 kW reported cluster energy consumption "running flat out": measured CPU TDP is ~2x higher]
[After discussion: need synthetic test b/c in practical conditions cluster is not used 100%; load is shared in round-robin fashion over nodes]