Singularity news

Dave Dykstra WLCG Containers WG Meeting 28 February 2018

Miscellaneous news

- Public exploit for unprivileged namespaces with net namespaces
- singularity-2.4.2 released by OSG & EGI everybody upgrade
- singularity-2.4.3 upstream release imminent
 - contains security fix that doesn't affect EL6 or EL7
 - a few other fixes including better handling of docker downloads
- Progress is happening on merging pull requests again, although I have 8 PRs outstanding. 2.4.4 planned soon.
- singularity build -sandbox docker:// can be done unprivileged
- Jakob found the root cause of the problem of overlay bind mounts on cvmfs: tmpfs doesn't handle extended attributes
 - Greg K plans to try putting image file as upper layer and tmpfs as lower; I told him I don't think that will work

Sylabs, Inc

- Sylabs is company formed around singularity
 - 12 employees, geographically scattered around the world
 - Currently privately funded by another stealth startup company RStor
 - Monetization plan: provide paid support for a stable release analogous to Redhat Enterprise Linux, & do all development in open source analogous to Fedora
 - Security development also done first in open source
 - Compare to Docker, Inc with 200 employees and \$1 Billion valuation during last round of investment
 - Not a whole lot of revenue, most from a few large customers
 - Sylabs fees are lower and hope to include larger number of small customers
 - I think the name singularityware will stay the open source brand

Hackathon

- I participated in their 2-day developer hackathon last week
 - <u>https://singularity-container.slack.com/messages/C8QKNJFAS/</u>
 - More of a workshop than a hackathon; many Sylabs employees had never met each other face to face before
 - Better slides at CernVM workshop https://indico.cern.ch/e/cvm18
- Discussed rewrite of bash & python code into go
 - Current status in development-3.0 git branch, not very functional, but welcome community input
 - Showed a diagram with the pieces of C & go, privileged & unprivileged
 - I was not very reassured due to the volume of new privileged go code
 - Planning a plugin system that could make cvmfs more accepted on HPC systems
- Miscellaneous discussions: git branching standard, new Singularity Image Format (not interesting to us), using CNI to manage network namespace, and Vincent's/my "underlay" proposal