

Full OS image automation: Continuous Integration for CERN's distros

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Back in 2019, CERN Linux Support had to run tedious manual procedures to maintain CERN's distro releases: SLC6, CERN CentOS 7, Red Hat 6 and 7. Since then, we have added CentOS 8, CentOS Stream 8, Red Hat 8, and we may be adding other Red Hat rebuilds soon. Given the growing number of supported distros, our team has been increasingly adopting automation and continuous integration in order to deal with all the extra load while reducing the need for human intervention.

Automation can now be found in every part of our process: cloud and Docker image building, base-line testing, CERN specific testing and full-stack functional testing. For this we use a combination of GitLab CI capabilities, Koji, OpenStack Nova, OpenStack Ironic central services and a healthy dose of Python and Bash. Test suites now cover unmanaged, managed, virtual or physical machines so we can certify that our next image release continues to meet the needs of the organization.

Desired slot length

15-20min

Speaker release

Yes

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Session Classification: Birds of a Feather (BoF) session: Linux Discussion

Track Classification: End-User IT Services & Operating Systems