Contribution ID: **193**   Type: **presentation**

CVMFS: Stratum0 in kubernetes

Monday 9 July 2018 11:45 (15 minutes)

IceCube is a cubic kilometer neutrino detector located at the south pole. CVMFS is a key component to IceCube's Distributed High Throughput Computing analytics workflow for sharing 500GB of software across datacenters worldwide. Building the IceCube software suite across multiple platforms and deploying it into CVMFS has until recently been a manual, time consuming task that doesn't fit well within an agile continuous delivery framework.

Within the last 2 years a plethora of tooling around microservices has created an opportunity to upgrade the IceCube software build and deploy pipeline. We present a framework using Kubernetes to deploy Buildbot. The Buildbot pipeline is a set of pods (docker containers) in the Kubernetes cluster that builds the IceCube software across multiple platforms, tests the new software for critical errors, syncs the software to a container-ized CVMFS server, and finally executes a publish. The time from code commit to CVMFS publish has been greatly reduced and has enabled the capability of publishing nightly builds to CVMFS.

Author: SKARLUPKA, Heath (University of Wisconsin)

Co-authors: SCHULTZ, David (University of Wisconsin-Madison); BRIK, Vladimir (University of Wisconsin at Madison); MERINO, Gonzalo (IceCube)

Presenter: SCHULTZ, David (University of Wisconsin-Madison)

Session Classification: T7 - Clouds, virtualization and containers

Track Classification: Track 7 –Clouds, virtualization and containers