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Title: Automated OpenCHAMI Integration Testing and Cluster Deployment

Abstract:

OpenCHAMI is a new open-source high performance system management software that brings cloud-like concepts to traditional HPC management software systems. This project implements a CI/CD pipeline using GitHub Actions to accelerate further OpenCHAMI development. The pipeline runs on an ephemeral self-hosted virtual machine (VM) which is destroyed and recreated to ensure security and reproducibility. The pipeline deploys OpenCHAMI and tests OpenCHAMI's various microservices using the Hurl framework. After the OpenCHAMI services are deployed, the pipeline boots a fully deployed HPC cluster which can be used for further integration tests.