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## Deployment of compute nodes for the WLCG with Cobbler, Ansible and Salt.

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In Belgium, the 'Université catholique de Louvain' (UCLouvain) hosts a Tier-2 WLCG site. The computing infrastructure has recently been merged with the General Purpose cluster of the university. During that merge, the deployment process for the compute nodes has been re-thought, using a combination of three open-source software tools: Cobbler, Ansible and Salt. Those three tools work together to deploy the operating system, install software, configure services, register the new nodes into the inventory, the monitoring system, the resource manager/job scheduler, etc. The setup follows the 'Infrastructure as Code' principles, and can adapt to the evolving infrastructure, with nodes being added from times to times depending on funding, and others being decommissioned when they reach a venerable age.

Eventhough Ansible and Salt are often seen as exclusive alternatives in the Devops community, we believe they complement each other very well because they have very different strengths and weaknesses.

In this talk, we will present our setup, how Cobbler, Ansible and Salt interact to go from compute node unboxing to accepting Grid jobs in three smooth operations. We will explain how we decide which tool takes care of which task. We will also present how Salt and Ansible together ease-up the installation of re-compiled software, alongside the usual pre-compiled, CVMFS-distributed, software.

### Desired length

20 minutes

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