

Repoman: A Simple RESTful X.509 Virtual Machine Image Repository

With broader use of IaaS science clouds the management of multiple Virtual Machine (VM) images is becoming increasingly daunting for the user. In a typical workflow, users work on a prototype VM, clone it and upload it in preparation for building virtual cluster of identical instances. We describe and benchmark a novel VM image repository (Repoman), which can be used to clone, update, manage, store and distribute VM images to multiple clouds quickly. Users use their X.509 grid proxy certificates to authenticate against Repoman's simple REST API. The lightweight Repoman CLI client tool has minimal python dependencies and can be installed in seconds using standard Python tools. We show that Repoman removes the burden of image management from users while simplifying the deployment of user specific virtual clusters.

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