CANONICAL

MAAS Deployment and Operations

Training Curriculum

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Introduction & Scope

This course is intended to enable its attendees to assume full command of their on premises MAAS installation and its managed server estate. The target audience is system administrators, DevOps engineers, and infrastructure operators. The focal points of the curriculum are understanding MAAS' components, installing and configuring them, as well on going MAAS operations for physical and virtual machines (KVM), network configuration and image management. Each section contains a theory session (Presentation by Instructor) followed immediately by a practical lab. The practical lab introduces a series of core competencies for the section and the student will sign off on successful completion of each lab. By combining the theoretical background with hands on exercises, the course encourages better assimilation of the material and deeper understanding. Finally, the students will be provided with complete step-by-step documentation, ensuring that the material is readily available for future review.

The duration of the course is two days.

Agenda

1. Introduction to MAAS and bare metal provisioning

- Understand the purpose of MAAS
- MAAS features and functionality
- Understand MAAS components

2. Install MAAS and initial configuration

- Install a MAAS Server
- Understand Controllers
- Understand MAAS Configuration Commands
- Initial MAAS configuration
- MAAS High Availability

Lab I

Install and configure MAAS

- Install MAAS packages
- Perform initial configuration of MAAS
- Configure a MAAS Rack and Region Controller

3. MAAS Machines

- Understand Machines
- Machine power management
- Machine operations: Enlistment, Commissioning, Deployment
- Work with Tags
- Set custom kernel boot flags for Machines

4. MAAS Images

- Understand MAAS Images
- Import Images
- Customizing MAAS deployments with cloud-init user data

5. MAAS Networking

- Understand MAAS Networking
- Subnet management and IP ranges
- MAAS as DNS and NTP server

Lab II

Work with Machines, Images and Networks

- Configure MAAS to manage DHCP
- Import Images
- Enable MAAS to manage Libvirt VMs
- Enlist and Commission Machines
- Define and work with Tags
- Deploy Machines

6. MAAS and KVM

- Understand how KVM can be used for provisioning VMs
- Add a KVM host into MAAS
- Creating and deleting VMs

Lab III

Add a KVM host

- Create and delete VMs

7. Custom images

- Understand custom images
- Understand Cloud-init and Cloudbase-init
- Understand Packer

8. Custom images building

- Building custom Linux images
- Building custom ESX images
- Building custom Windows images

Lab IV

Build custom images

- Building custom Linux images
- Building custom ESX images
- Building custom Windows images

9. Provision custom images with MAAS

- Deploy the created images with MAAS

Lab V

Deploy the newly created images with MAAS

- Register the images in the MAAS cluster
- Deploy nodes with the Images