Play with MAAS CLI

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About Me

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- VP of Tech Talent Delivery @btechpt
- Cloud Tech Wizard @imtekid
- OpenStack & OpenInfra Indonesia User Group Organizers
- Know Ubuntu since High school (2010), through ShipIt Ubuntu programme
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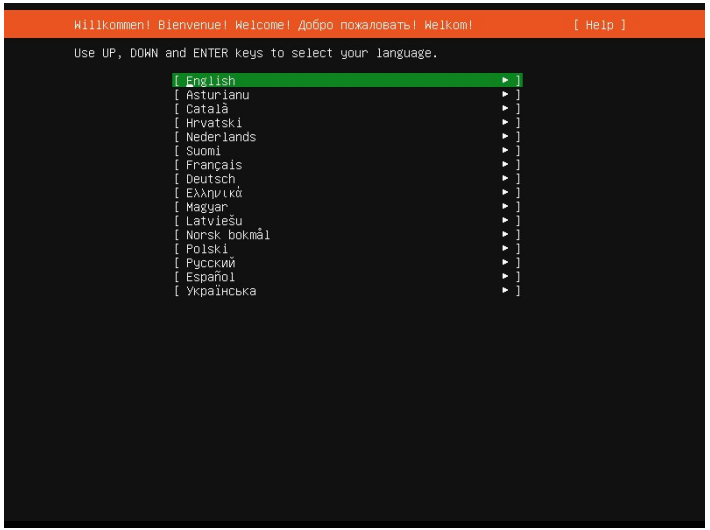
What is MAAS?

MAAS

The Manual/Slow Way



https://ubuntu.com/server/docs/install/step-by-step

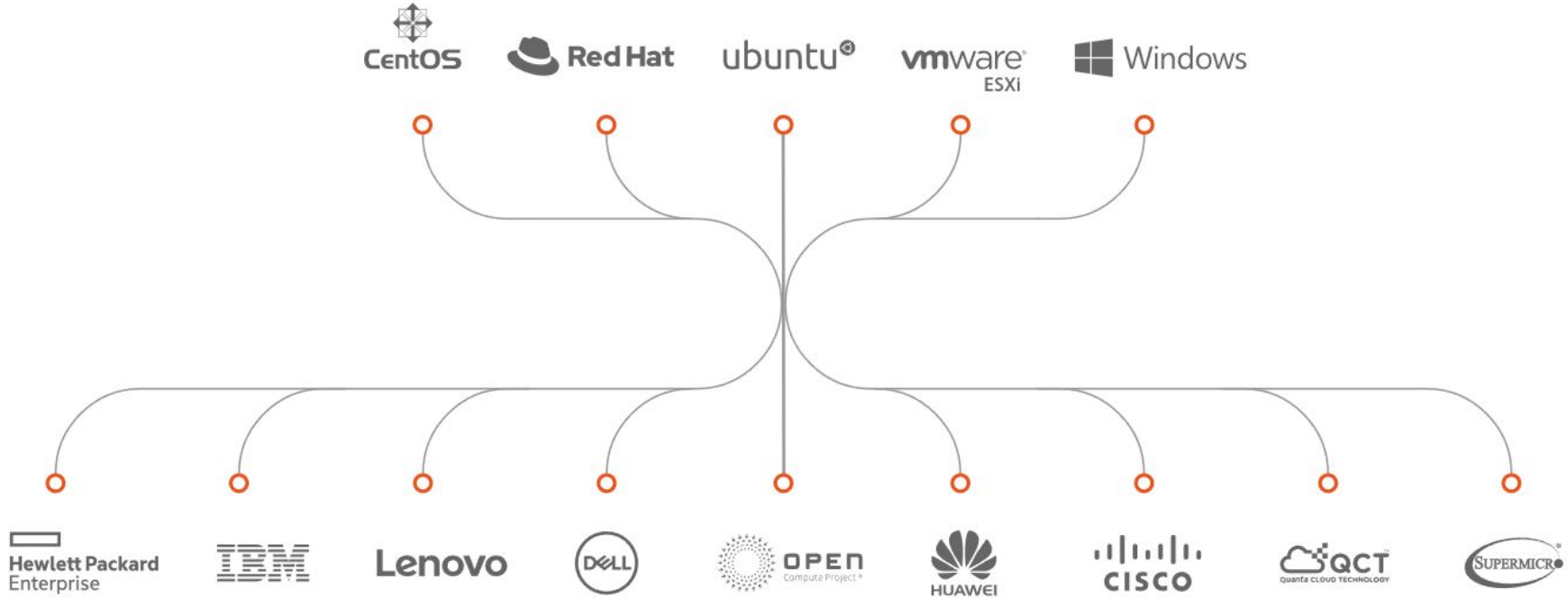
MAAS (Metal as a Service)

- MAAS is an open-source tool that lets you create a data centre from bare-metal servers with Web UI, no need to manage servers individually.
- MAAS turns bare metal into an elastic cloud-like resource, that treats physical servers like virtual machines (instances) in the cloud.
- Enlist and deploy standard or custom operating systems to hardware and virtual machines – remotely.
- Monitor, manage, and secure your metal infrastructure easily and efficiently.

What MAAS offers

- Bare metal cloud with on-demand servers
- Remote edge cluster operations
- Infrastructure monitoring and discovery
- Ansible, Chef, Puppet, SALT, Juju integration
- Super fast install from scratch
- VMWare ESXi, Windows, CentOS, RHEL, Ubuntu
- Custom images with pre-installed apps
- Disk and network configuration
- API-driven DHCP, DNS, PXE, IPAM
- REST API for provisioning
- LDAP user authentication
- Role-based access control (RBAC)
- Hardware testing and commissioning

Deploy any OS Image on any Hardware



How to install MAAS

To install MAAS 3.2 from a snap, simply enter the following:

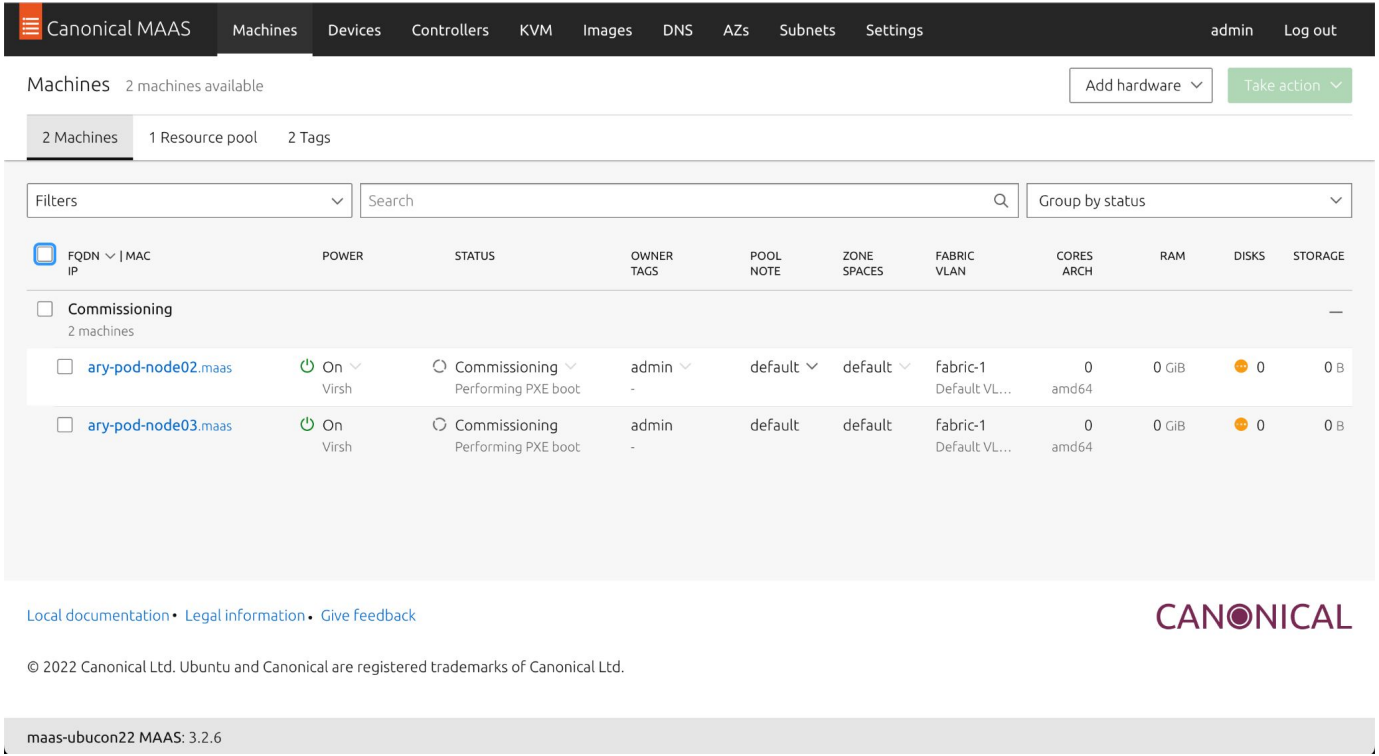
```
sudo snap install --channel=3.2 maas
```

```
sudo snap install maas-test-db
```

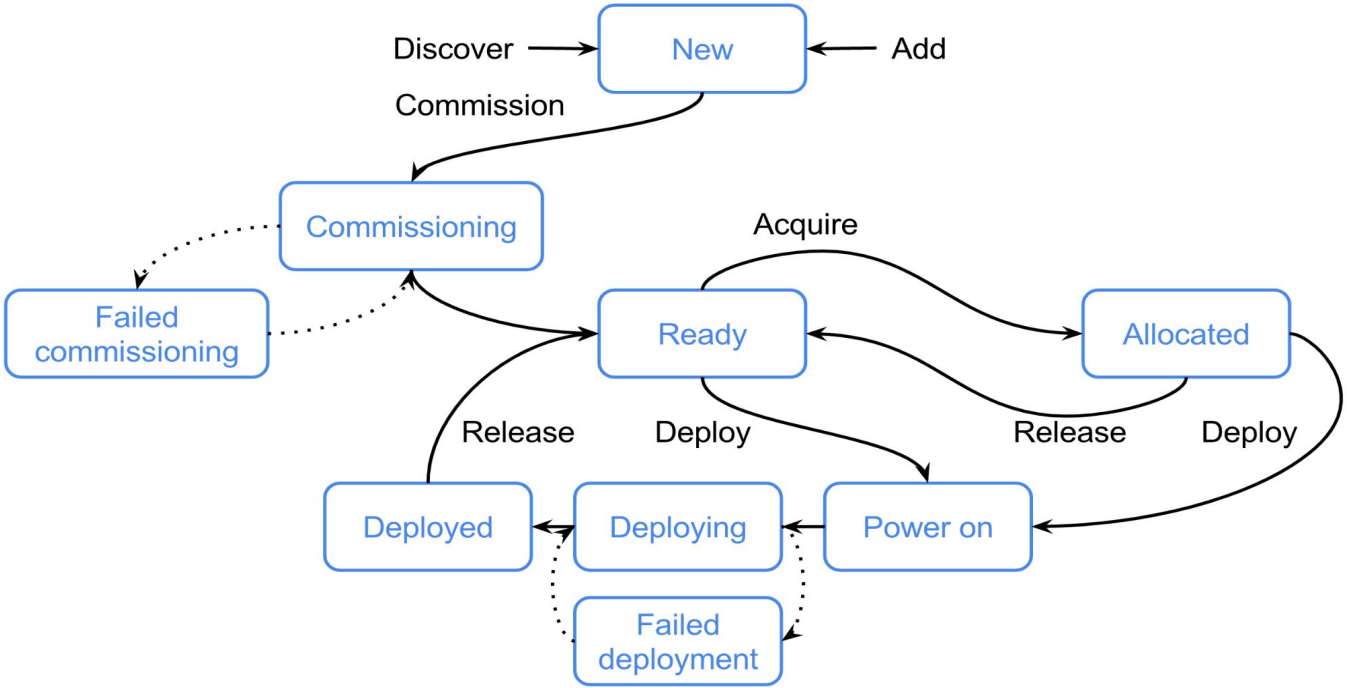
```
sudo maas createadmin
```

MAAS URL default = `http://<your-IP>:5240/MAAS`

MAAS (Metal as a Service)

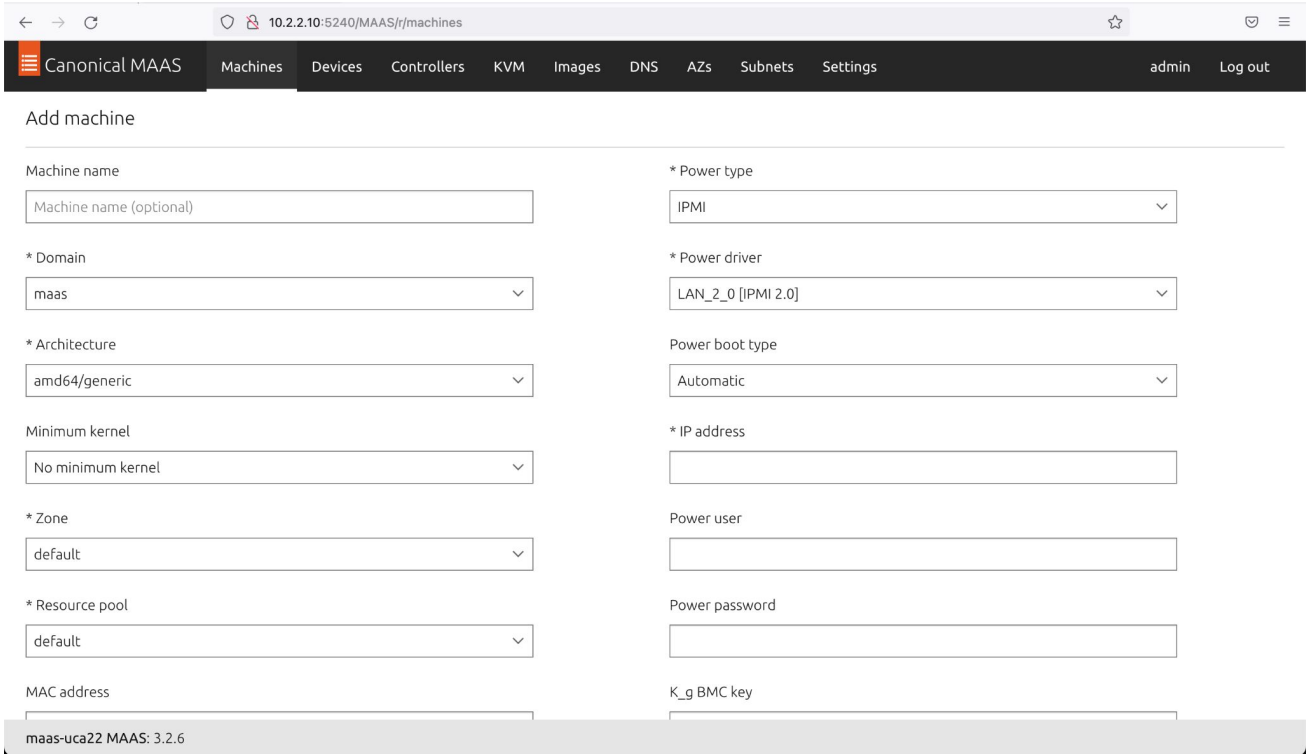


Basic Statuses and Actions

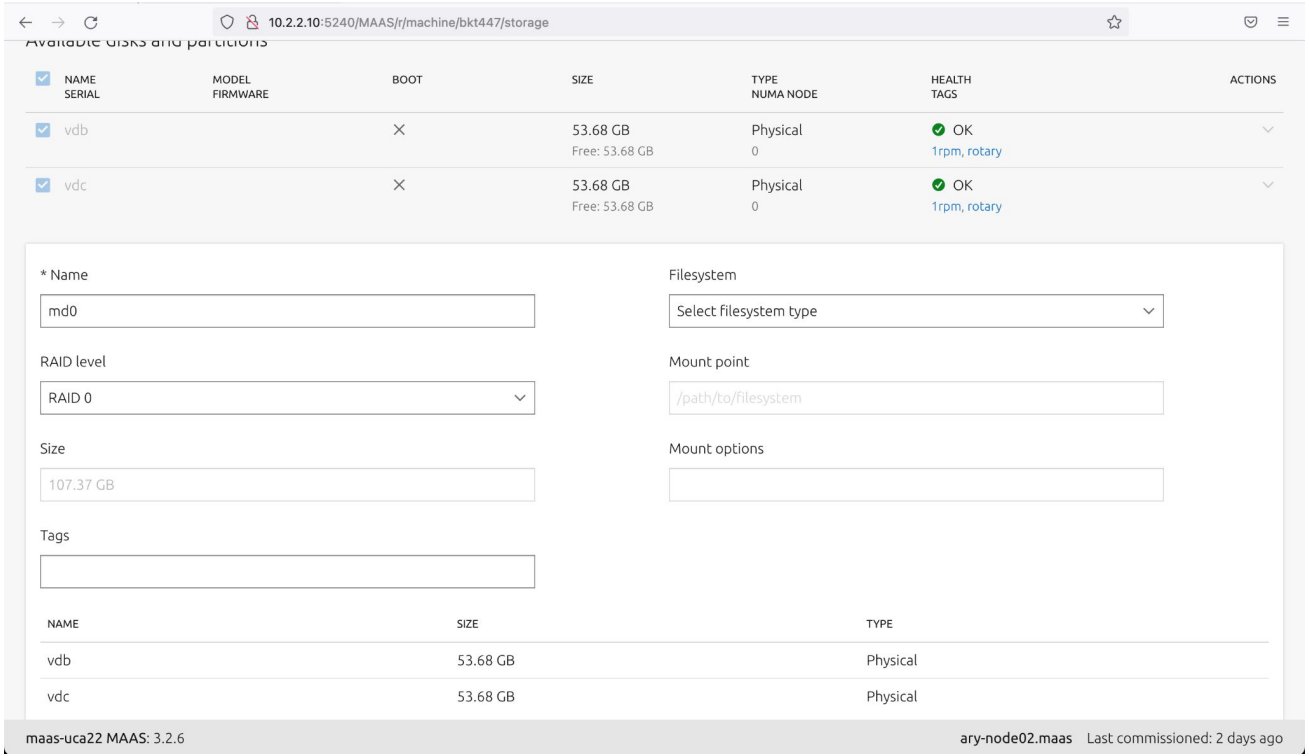


https://linchpiner.github.io/maas-statuses-and-actions.html

Add Machines



Configure Disk



MAAS at Scale with Web UI is an Challenging job

How to do it quickly at Scale?

Don't Repeat Yourself
use
MAAS CLI

The Solutions

MAAS CLI + jq + Bash Script 😎

Log into MAAS

- maas apikey --username=admin > api-key-file
- maas login admin http://10.2.2.10:5240/MAAS/api/2.0/ $(head -1 api-key-file)

```
You are now logged in to the MAAS server at
http://10.2.2.10:5240/MAAS/api/2.0/ with the profile name 'admin'.

For help with the available commands, try:

  maas admin --help

student@ary-pod-node01:~$
```

Using jq with the MAAS CLI

- The JSON output from the MAAS CLI can be very lengthy for even one machine. You can imagine how large a listing 10 or 12 or 1k machines might present.
- Traditional JSON output is both consistent and comprehensive, but it’s sometimes hard for humans to process.

What can we do with MAAS CLI?

..		
00-register-nodes	Archive mgmt workdir	1 year ago
01-network.sh	Archive mgmt workdir	1 year ago
01-network10g.sh	Archive mgmt workdir	1 year ago
01-network1g.sh	Archive mgmt workdir	1 year ago
01-networkvid30.sh	Archive mgmt workdir	1 year ago
02-raid.sh	Archive mgmt workdir	1 year ago
03-tagmachine.sh	Archive mgmt workdir	1 year ago
04-relabelhdd.sh	Archive mgmt workdir	1 year ago
05-relabelnvme.sh	Archive mgmt workdir	1 year ago
06-dns.sh	Archive mgmt workdir	1 year ago
07-zone.sh	Archive mgmt workdir	1 year ago
99-liststorage.sh	Archive mgmt workdir	1 year ago
99-mtu-change.sh	Archive mgmt workdir	1 year ago
99-netplan-br-ex.sh	Archive mgmt workdir	1 year ago

Demo

Next?

- MAAS Ansible
- MAAS Juju Integration
- …

Reference

- https://maas.io/
- https://maas.io/docs/how-to-install-maas
- https://maas.io/docs/using-jq-with-the-maas-cli
- https://maas.io/docs/how-to-use-the-maas-cli

Thank you!