

The top 10 questions about MAAS



1 What is MAAS?

Metal as a Service, or 'MAAS', is a tool that helps you manage your physical infrastructure with the same ease and flexibility as virtual machines in the cloud.

Specifically, MAAS allows you to:

- Discover, commission and deploy physical servers
- Dynamically re-allocate physical resources to match workload requirements
- Retire servers when they are no longer needed, and make them available for new workloads as required

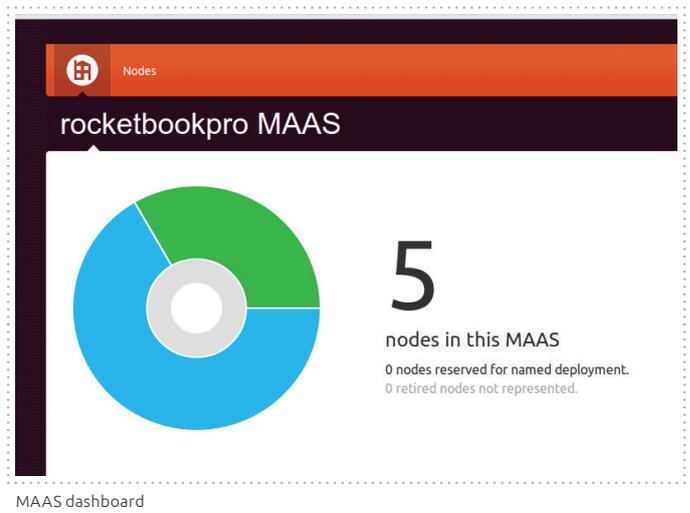
2 What is bare-metal provisioning?

It means getting your hardware 'ready for work' by installing the operating system, making basic hardware configurations, and allowing servers to be recognised by network and systems management software. When a new node boots up, MAAS steps in, supplies it with all the required information, reboots it and provides an Ubuntu image to install.

In addition, MAAS can take care of hardware-specific tasks such as burn-in tests, firmware and RAID upgrades – as well as checking whether your hardware is Ubuntu certified.

3 How does MAAS differ from similar products?

- Built for high-volume, scale-out or hyperscale deployments
- Support for multiple architectures – x64, x86, ARM A8 and A9 (Highbank)
- Can deploy virtual as well as physical machines
- Built-in support for cross-region controller
- The "MAAS provider" concept, where MAAS systems can have services deployed to them directly from Juju



MAAS dashboard

4 What do you mean by 'bringing the power of the cloud to your infrastructure'?

MAAS is a new way of thinking about physical infrastructure. Compute, storage and network are commodities in the virtual world, and for large-scale deployments the same is true of the metal. MAAS lets you treat farms of servers as a malleable resource for allocation to specific problems, and for dynamic reallocation.

In conjunction with the Juju service orchestration software (see ubuntu.com/cloud/orchestration), MAAS helps you get the most out of your physical hardware and dynamically deploy complex services with confidence.

5 Do I need MAAS?

Yes, if:

- You are trying to manage many physical servers
- You would like to build physical servers as easily as virtual
- You want to deploy services with minimum effort
- You need to get the most from your resources
- You want things to work, repeatedly and reliably

6: What are the advantages of MAAS?

- Speed up time to production by getting new hardware up and running in minutes
- Breathe new life into old hardware by recycling it for use elsewhere in your network
- Get enough hardware abstraction to be vendor-neutral; benefit from the best deal and avoid vendor lock-in or forced, costly upgrades
- Tight integration with Juju for quick and easy service orchestration
- ARM or Intel: Canonical partners with hardware vendors to ensure MAAS runs smoothly whether you're deploying traditional Intel servers or thousands of hyperdense Atom and ARM servers
- Automatic enlistment: add a rack of servers to your network and MAAS will automatically inventory the hardware, add it to your compute pool and control it using IPMI
- Web UI: get a quick and easy view of your resource use
- REST API: integrate MAAS with your own tools and workflows
- Command line: script and manage your cluster from the terminal

7: What does a typical MAAS setup look like?

MAAS is designed to work with your physical hardware, whether your setup includes thousands of server boxes or only a few. The key components of the MAAS software are:

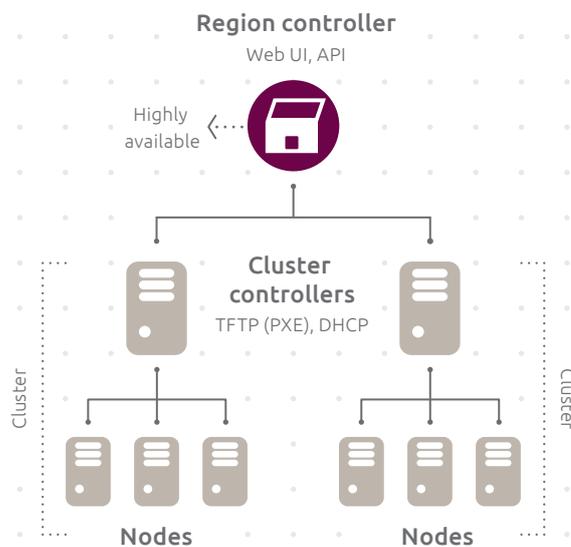
- Region controller
- Cluster controller(s)
- Nodes

For setups with a small number of nodes, MAAS would typically require you to install the Region and Cluster controllers on the same server. For larger setups, it is recommended to have multiple Cluster controllers to manage different sets of nodes, organised into different subnets. You can grow the setup by simply adding more Cluster Controller nodes.

8: What can I expect in future releases of MAAS?

- Auto-discovery of upstream network switch
- Advanced service placement based on location-specific criteria
- Improved FastPath Installer integration for rapid Operating System Installation
- Increased scalability

A typical MAAS setup



9: I need enterprise-grade support, is that available?

Absolutely. Canonical, the company behind Ubuntu, provides professional commercial support for the entire Ubuntu cloud suite. Even better, Landscape, the enterprise systems management tool, is included in all support packages. Check out Ubuntu Advantage, and choose the level of service you need: ubuntu.com/cloud/management

10: Where can I learn more?

The Ubuntu Cloud pages give you an overview of our cloud suite and how MAAS fits in: ubuntu.com/cloud

The MAAS community pages include information on installing, troubleshooting, and contributing to MAAS: maas.ubuntu.com

Ready to speak to us? Get in touch with Canonical now: ubuntu.com/management/contact-us

Ask about our other publications:

- OpenStack Primer
- Top Questions about Juju
- Ubuntu OpenStack Cloud
- Landscape for Cloud