

# MicroStack

K8s-native, self-deployable, Canonical-supported OpenStack for small-scale cloud environments



MicroStack is a pure upstream OpenStack designed for small-scale production environments. While available with full commercial support from Canonical, it can be easily self-deployed, effectively eliminating the need for a paid consulting engagement. MicroStack currently includes core OpenStack services only, but will evolve quickly to ensure full feature parity with Canonical's [Charmed OpenStack](#).

## OpenStack on rails

While OpenStack has tens of components and thousands of configuration options, not everyone needs this complexity. In fact, core services and the most popular compute, network and storage options are suitable in most cases and for nearly all organisations.

This is exactly what MicroStack provides. Thanks to its opinionated architecture and sensible defaults, MicroStack delivers an 'on-rails' experience, enabling you to break the ice with OpenStack immediately. MicroStack includes the following components:

- ✔ Keystone
- ✔ Nova
- ✔ Octavia
- ✔ Barbican
- ✔ KVN
- ✔ Horizon
- ✔ Neutron
- ✔ Magnum
- ✔ Designate
- ✔ OVN
- ✔ Glance
- ✔ Cinder
- ✔ Ceilometer
- ✔ Heat
- ✔ Ceph

For a more composable OpenStack check [Charmed OpenStack](#).



## MicroStack fact sheet

Distilled upstream excellence with a native K8s experience

<p><b>Pure upstream OpenStack</b></p> <p>No deviations from the upstream code; 100% API compatibility.</p>	<p><b>K8s-native architecture</b></p> <p>Based on OCI images, Kubernetes operators and other K8s-native principals.</p>	<p><b>Lucid interface</b></p> <p>Deploy and operate through an intuitive interface.</p>
<p><b>Straightforward installation</b></p> <p>Installs with just a few commands in 10-20 minutes</p>	<p><b>Single-node OpenStack</b></p> <p>The most straightforward option to get started with OpenStack.</p>	<p><b>Full HA supported</b></p> <p>Suitable for production with built-in resilience for failures.</p>
<p><b>Minimal footprint</b></p> <p>Designed for devices with limited hardware resources.</p>	<p><b>Sensible defaults</b></p> <p>Opinionated architecture providing an "on-rails" experience.</p>	<p><b>Commercial support</b></p> <p>Fully supported by Canonical. Build it yourself and receive 24/7 support.</p>

# MicroStack use cases

From small-scale private cloud infrastructure to the edge, MicroStack suits various OpenStack use cases:



## Small-scale private cloud infrastructure

A cost-effective alternative to VMware vSphere, Citrix Hypervisor, Hyper-V and Proxmox Virtual Environment.



## Edge infrastructure

Ideal to meet requirements in telecom, industrial, automotive and other market sectors that need edge infrastructure.



## Extension of OpenStack public cloud

An out-of-the-box cloud solution with native OpenStack APIs that can be easily installed or shipped pre-installed to end users.



## Development and CI/CD

Designed for devices with minimal hardware resources, MicroStack is perfectly suitable for developer workstations and CI/CD environments.

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## Move away from proprietary solutions

While more organisations are struggling with challenges posed by proprietary solutions, the adoption of open source in the enterprise space continues to grow.

OpenStack is an established and mature component of open infrastructure, providing better economics, higher level of security and faster pace of innovation.



## Install MicroStack

Single-node installation or a multi-node cluster? This is the only dilemma that you need to consider when installing MicroStack. The rest is handled automatically. Start small and grow as you need:

```
$ sudo snap install openstack
$ sunbeam prepare-node-script | bash -x && newgrp snap_daemon
$ sunbeam cluster bootstrap --accept-defaults
$ sunbeam configure --accept-defaults --openrc demo-openrc
$ sunbeam launch ubuntu -n test
```

[Check multi-node installation instructions >](#)



## Get commercial support

Managing production environments with confidence usually involves receiving commercial support from the vendor. [Ubuntu Pro](#) is the most comprehensive open source subscription, including expanded security maintenance and phone/ticket support with guaranteed service-level agreements (SLAs). Get Ubuntu Pro (Infra-only) + Support subscription from our shop, attach it to all nodes in your cluster and rest assured that your cloud will receive all the required support to operate 24/7.

[Purchase your subscription >](#)

## Contact us

For more information about MicroStack visit [microstack.run](https://microstack.run)

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