

Foundation Cloud Build

OpenStack consulting, design and delivery on Ubuntu, by Canonical

A highly available production cloud, implemented on-site with Canonical's expert delivery team in the shortest possible time

We build the machines. The machines build your cloud.

Automation drives optimal cloud economics. Every cloud Canonical builds is delivered and maintained using a cloud machine that uses a description of the environment and architecture to deploy and fully configure your cloud platform - be it OpenStack, Kubernetes or LXD.

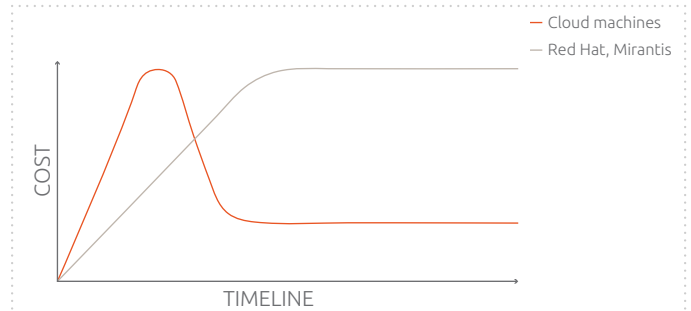
The cloud machine makes redeploying or cloning your cloud architecture easy and affordable. It also handles important changes to your infrastructure, including config modifications, OS and platform version upgrades, and deeper design revisions.

Four steps to a Foundation Cloud Build

1. **Requirements gathering**
We work through your requirements to build your cloud architecture definition
2. **Implement cloud machine**
Our delivery team implements our cloud machine to deploy your production cloud
3. **Acceptance testing**
We run cloud acceptance testing to ensure the build delivers to your requirements
4. **Ongoing operations and support**
Delivered 24/7 by our world-class customer success organisation

What's Included

- A production-grade OpenStack¹, including:
 - Ceph block and object storage
 - KVM and LXD hypervisors
 - OpenVSwitch virtual networking
- The cloud machine
 - MAAS physical automation
 - Juju service modeling
 - Containerised control plane
 - Cloud monitoring with Canonical Landscape, Elasticsearch and nagios
 - Resource usage trending and metrics with Prometheus and Grafana



The upfront cost of building a cloud with a cloud machine is short-lived. Once built, your costs drop dramatically and stay low in the long-term.

- Approved and tested hardware specs for Dell, HP and Supermicro
- An on-site workshop to engineer requirements and a tenant onboarding plan
- Design documentation for cloud architecture, network and infrastructure

Service Option Highlights

- Two cloud architecture variations: Converged and Hyperconverged
- Active directory and LDAP integration
- Multiple virtual networking designs with OpenVSwitch, DVR, VXLAN/GRE tunnelling and partner SDNs
- Hardware automation options for Foundation approved and Ubuntu certified hardware

Service Requirements

- At least 12 nodes meeting documented cloud infrastructure requirements
- Networking configured according to Ubuntu Cloud Network Guidelines, including Internet access from all physical nodes in cloud, including MAAS and Landscape

Contact us

For more information about Foundation Cloud Build or more custom options contact us at sales@canonical.com or call direct (EMEA) +44 207 093 5161 or (US) +1 781 761 9427

¹No additional OpenStack components (i.e. Murano, Trove, Magnum, Sahara, etc.) or third-party OpenStack components can be integrated in this offering

Package	Foundation	Foundation Plus	Add-ons
Cost (USD)	\$75,000	\$150,000	Starting at \$25,000
Minimum node count	12 (Hyperconverged) or 15 (Converged) from Approved BOMs	Architecture-dependent	
Containerised Control Plane	Included		
High availability	Full L2-based OpenStack HA including MAAS, Juju & Landscape infrastructure		
Monitoring & performance trending	Nagios, Prometheus, Grafana		Integration with custom monitoring systems
Security updates	Landscape	Landscape & Offline Updates	
Log Aggregation	Included, powered by Elasticsearch		Custom log integration
Upgrades	Guaranteed with BootStack (optional)		OpenStack & OS upgrade services available
Disaster Recovery	Guaranteed Control Plane Rebuilds with BootStack (optional)		Full DR Plan with automation
Workshop	Included (remote)	Included (on-site)	
Architecture	Foundation Hyperconverged or Foundation Converged	Custom Architecture (standard components only) includes offline deployment	Custom Bundle with add-on components
Hypervisors	KVM & LXD	KVM, LXD & Hyper-V	
Bare metal instances	Yes (using Exclusive LXD instances)		
Live migration	Yes		
Identity	Keystone	Keystone with LDAP or Active Directory backends	Multiple sources & Federated identity Services
Core Block Storage	Ceph RBD with 3x replication and bcache acceleration		
Additional Storage Options	Basic RADOSGW Object Storage*	Swift (replicated and EC)	Other 3rd Party SDS, SAN and NAS integration
Virtual Networking	Neutron/OVS with VxLAN & GRE tunneling	Adds Provider Networks, Neutron BGP, Neutron DVR	3rd Party SDN Integration (CPlane, Juniper Contrail, Cisco ACI, Nokia Nuage)
Network Topology	NIC bonding, up to 4 segregated underlay L2 networks	NIC bonding, unlimited underlay, L2 network segregation	Complex Network Architecture Design (BGP, MPLS, VPN, etc.)
IPv6 Support	Tenant networks only	Tenant networks only	
Tuning Options	As standard	CPU Pinning, Huge Pages	SR-IOV, DPDK-enabled OVS 6wind plugin, Infiniband (Ubuntu 18.04 only)
Encryption	No encryption	Control Plane & Storage (Ceph, at rest)	HSM support (via OpenStack Barbican)
Security Extensions	Apparmor MAC-based	Apparmor MAC-based	
Handover Documentation	Design Overview, Tenant Onboarding Plan, Charm Bundle, Deployment Guide	Design Overview, Tenant Onboarding Plan, Charm Bundle, Low Level Design, Deployment Guide	
OpenStack Services	Nova KVM/LXD, Neutron Gateway/API, CEPH OSD/MON, Nova Cloud controller, Keystone, Rabbit MQ, Cinder, Glance, Designate, Ceilometer, Aodh, Heat, MySQL, MongoDB, Horizon		

*RADOSGW Object Storage is only supported up to 1,000,000 objects; above that customers should purchase and deploy Swift separately