

Ubuntu Advantage Storage

Enterprise-ready Software-defined Storage — with metered pricing

Overview

Practically every organization today is faced with dramatic growth in storage, and this has driven the expense of deploying, managing and growing storage infrastructure to critical levels in the IT budget. Traditionally, enterprise storage has been the domain of appliance-based solutions with SAN (Storage Area Network) and NAS (Network Attached Storage) technologies being the standard way of deploying petabyte-scale managed storage. However, they are expensive and based almost completely on proprietary technology, which often leads to reduced flexibility and costly expansion and upgrades.

The modern way of addressing large-scale storage requirements in the most cost-effective manner is with software-defined storage (SDS), which can be deployed entirely on commodity hardware. Ubuntu Advantage Storage is a new line of solutions from Canonical which embed SDS technologies in comprehensive, fully supported storage software services. Designed from the ground up for petabyte-scale deployments backing cloud, web-scale and back-office applications, Ubuntu Advantage Storage offers a choice of technologies at the best cost per GB on the market.

Technologies

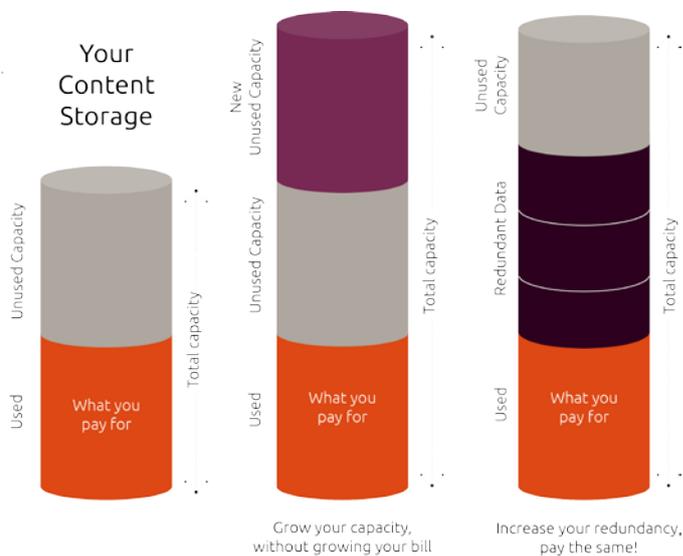
The Ubuntu Advantage Storage portfolio we introduce two leading open source SDS technologies:

- **Swift®**, the high performance S3-compatible object store developed and shipped with OpenStack -- but which can be used standalone, too
- **Ceph®**, a converged storage framework that offers block, file and object storage capabilities

Metered Pricing

Enterprise storage solutions are typically priced either per-node or according to the total disk capacity deployed. This leads to an obvious cost penalty for good practices such as replication and advance build-out of capacity.

Ubuntu Advantage Storage is different. Our pricing is based on the amount of data you have recorded in your storage pool, regardless of how much disk space is utilized to durably record it. You don't pay for replicas, and you don't pay for empty space -- just like you would expect from a modern public cloud storage service.



Overview

Canonical offers the following technologies as 24x7-supported solutions, with reference architectures deployed on Ubuntu LTS via Canonical's suite of cloud tools, which includes Juju®, MAAS®, Landscape® and Autopilot®:

Swift

- Popular object storage system known to scale to over a hundred petabytes at sites like Rackspace, Internap and the San Diego Supercomputing Center (SDSC)
- Eventual-consistency replication model suitable for multi-site, multi-zone replication
- Complete, native OpenStack integration with Keystone V3 authentication
- Swift Storage Features
 - Native HTTP API, including bulk requests
 - Bindings for Python, Java, Ruby, PHP and more
 - Account & container-based quotas and ACLs
 - Selectable policies for full replication or erasure coding resiliency
 - Multi-region replication

Ceph

- Converged storage platform offering fully supported object and block filesystem interfaces
- Known to scale to dozens of petabytes at sites like CERN, Yahoo and Deutsche Telekom
- Strong-consistency model can directly replace SAN and NAS appliance functionality
- Ceph Storage Features
 - Native HTTP object API & RBD or iSCSI block interfaces backed by RADOS technology
 - Swift and S3-compatible object interfaces via RADOS gateway component
 - Configurable replicated or erasure-coded storage pools with quotas
 - Graphical dashboard included

Key Benefits

Production-grade Software-defined Storage

- Plan, build and grow your storage infrastructure using production-hardened open source solutions like Ceph and Swift
- Optimize cost using industry standard hardware from our OEM partners HP, Dell and Quanta, or from our OCP SI partner StackVelocity
- Deploy unified infrastructure to address multiple customer storage requirements, from object to block to file

Metered, Cloud-style Pricing

- Pay only for the data you store, regardless of how it's stored — free space is free
- No cost penalty for increased replication or high-durability erasure coding
- No cost penalty for early build out of total capacity
- Unique pricing to match the disruptive potential of software-defined storage
- Pricing includes Ubuntu operating system support at no extra charge

Multiple Technologies, One Great Service

- World-class, upstream-focused support for Ceph and Swift, two of the fastest-growing software-defined storage technologies
- Support organization staffed with and led by real-world experts in large-scale, multi-site-replicated deployments at some of the world's most demanding organizations
- Solutions encoded in Knowledge Base articles drawing from concrete experience in the field

Deployment & Management Tooling Included

- Review and deploy our reference architectures onto a storage cluster in hours, not weeks, using our product bundles and Juju® orchestration. Juju also provides the ability to evolve architecture and grow capacity as your needs change
- Bare metal provisioning through MAAS® removes the hassle of deploying and configuring hardware components individually
- Use Landscape Autopilot® to design, deploy and manage their storage clusters in a fully automated manner

Built with Ubuntu LTS

- 5-year support lifetime for every component in the stack
- Linux kernel version refreshes offer the ability to access new features and broader hardware compatibility within the same operating system release