

# OPENSTACK AND STORAGE

We are experiencing a fundamental shift in the way infrastructure is being designed.

## CLOUD COMPUTING CONTINUES TO GROW

To enable innovation at scale, more and more companies are enhancing their enterprise IT architectures.



IT decision makers in enterprises plan to increase spending on cloud computing in 2015.<sup>1</sup>



Cloud models like IaaS and PaaS will DOUBLE in corporate IT spend percentage by 2018.<sup>2</sup>



Enterprises globally will use IaaS by 2016, driven principally by investments in private cloud computing.<sup>3</sup>

## OPENSTACK ENABLES THE PRIVATE CLOUD

Since 2010, OpenStack is the fastest growing and most popular open source project and the preferred cloud and IaaS technology spanning private and hybrid cloud.<sup>4</sup>

As more applications and data are distributed across virtual machines, more agile and scalable storage is needed to adapt to the flexible, elastic compute layer used by OpenStack.



## INNOVATION OVER TRADITION

Cloud and virtualization technologies are requiring organizations to seek alternatives to traditional, rigid storage mainframes.

Organizations are looking beyond the flagship products of traditional storage vendors.<sup>5</sup>

No traditional storage vendor is expected to witness growth in budgetary dominance among customers through 2017.<sup>6</sup>



## SOFTWARE-DEFINED STORAGE

Storage architectures are shifting to better address the dynamic requirements of cloud platforms.

**COMMODITY HARDWARE**  
for faster time to deploy

**PRICING ELASTICITY**  
to direct spending towards OpEx

**DEEP INTEGRATION**  
with OpenStack®

**SCALE-OUT ARCHITECTURE**  
to handle data growth

**API-BASED MANAGEMENT**  
to facilitate automation

**INCREASED SPEED**  
for booting, recovery, and archiving

**54%** of companies are already moving to a software-defined datacenter.<sup>6</sup>

## THE RIGHT STORAGE IS ESSENTIAL

Next generation workloads require storage that scales out the way OpenStack does, with an extensible architecture that lets them integrate more tightly with OpenStack than traditional, proprietary storage solutions can.

## RED HAT® STORAGE

As the leading Ceph authority with full solution stacks and years of enterprise customer experience, Red Hat combines open source community innovation with the production-level support, product and resource access, lifecycle management, consulting services, and security you need to deploy successfully.

## RED HAT CEPH STORAGE IS THE PERFECT FIT

OpenStack users overwhelmingly favor Ceph storage over storage alternatives.<sup>4</sup>



**UNIFIED STORAGE**  
Supports block, object, and file storage in one system



**SEAMLESS INTEGRATION**  
Tied to OpenStack's modular architecture and key components



**MASSIVE SCALABILITY**  
Manages petabytes of data with the agility business requires



**FLEXIBLE CONFIGURATION**  
Adjusts as applications and deployment demands change in the cloud



**SHARED VISION**  
Ceph's block storage device was the inspiration for OpenStack's Cinder block storage abstraction layer



**OPEN FOUNDATION**  
Built on the shared open development process and non-proprietary ecosystem

Red Hat® Ceph Storage and OpenStack go together like peanut butter and jelly.



62%

OpenStack implementations supported by Ceph storage

OpenStack user study, October 2015.

3X

Preferred three times more than next popular storage option.

Choose Red Hat® Ceph Storage.

[REDHAT.COM/STORAGE](http://REDHAT.COM/STORAGE)

1. Computerworld 2015 Forecast  
2. Goldman Sachs, as reported by Time Magazine, May 13, 2015  
3. Ovum, November, 2014  
4. OpenStack User Survey, November 2014, May 2015, October 2015  
5. 451 Research's TheInfoPro Storage-Wave 19 Study, September 2015 study  
6. 451 Research, Voice of the Enterprise: Storage, Q4 2015

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