

## RED HAT STORAGE AND RED HAT ENTERPRISE VIRTUALIZATION

TECHNOLOGY BRIEF

### WHAT IS AN OPEN HYBRID CLOUD?

An open hybrid cloud uses standardized technology to unify public and private clouds, provide workload portability, eliminate vendor lock-in, and enable new business capabilities.

### STORAGE AND VIRTUALIZATION SPENDING PREDICTION:

Nearly 44,000 petabytes of storage and \$16 billion will be spent on virtualized environments by 2016\*

Source: IDC: *Worldwide Storage and Virtualized x86 Environments 2012 - 2016 Forecast*

### NEXT STEPS:

Review challenges you've experienced with your virtualization initiatives and storage management. Contact your Red Hat representative for more information and discover how Red Hat can prepare you for tomorrow.

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### THE CHALLENGE

Organizations of all sizes are quickly realizing the benefits of virtualization. By virtualizing, businesses can lower costs through consolidating resources, and by becoming more efficient and agile. More and more, companies are using their highly virtualized data centers as the foundation for building a private cloud, and to prepare for an open hybrid cloud.

These aggressive virtualization deployments are causing a virtual machine (VM) image sprawl that consumes significant and expensive storage space on storage area networks (SAN). In addition to costs incurred for building SAN infrastructures, organizations are also paying a premium for specialized expertise to manage the complex SAN infrastructures. More often than not, IT organizations find themselves overspending on their virtualization initiatives. Plus, because they manage shared storage for virtual environments, IT managers are forced to slow down server virtualization rollouts and rethink their storage infrastructures.

The challenges associated with storage in virtual environments are forcing IT organizations to compromise on costs, operational simplicity, and flexibility of infrastructures. Customers can exploit the advantages of virtualization without compromising on efficiency.

Advantages include:

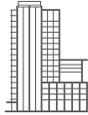
- Streamlined IT
- Future-proofing investments using standardized hardware
- Elimination of vendor silos
- Connecting to a constant stream of innovation
- Quick and efficient scaling across on-premise datacenters, public clouds, and hybrid clouds

### THE SOLUTION

Red Hat saw a clear need for more efficient, cost-effective storage, and created a virtual infrastructure storage solution that integrates Red Hat® Storage and server virtualization. It is an industry first, and is an open source, software only, fabric-based approach to converging virtualization and storage.

The integrated solution allows organizations to future proof their IT investments and streamline IT operations by minimizing complex SAN infrastructure costs and dependencies in virtual environments across heterogeneous hardware platforms. It also creates a flexible, modern infrastructure that is the hallmark of an open hybrid cloud.

Based on open source technologies and delivered as a software-only solution, this powerful combination prevents vendor lock-in while supporting business-critical applications without compromising on service-levels or cost.



## ABOUT RED HAT

Red Hat is the world's leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services. Red Hat is an S&P company with more than 70 offices spanning the globe, empowering its customers' businesses.

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## FEATURES AND CAPABILITIES

### CONTROL COSTS AND INCREASE EFFICIENCIES

- Deploy on hardware of choice by using standardized x86 hardware
- Store VM images on less expensive, scale-out NAS Red Hat Storage, reduce dependency on complex and expensive SAN infrastructure, and lower training costs
- Centralize visibility and control through Red Hat Enterprise Virtualization Manager console
- Simplify storage management with Red Hat Storage global namespace technology
- Control cost with Red Hat subscription model

### MAXIMIZE AGILITY AND INNOVATION

- Deploy anywhere with infrastructure independence across data centers or cloud environments
- Freedom to choose hardware vendor of choice with no lock-in
- Deploy Red Hat Storage on bare metal or on a virtual machine
- Manage growth with elastic scalability of Red Hat Storage
- Customize virtual machine operations and storage functionality through open technologies and extensible architecture of Red Hat Storage

### ENSURE ENTERPRISE GROWTH AND HIGH AVAILABILITY

- Massive scalability (to petabyte scale) across heterogeneous hardware platforms
- Seamlessly grow storage with Red Hat's elastic, scale-out architecture
- Support for advanced features such as high availability, live migration, workload balancing, etc.
- High levels of data protection and resiliency through Red Hat Storage self-healing, and synchronous and asynchronous replication capabilities

### THE RED HAT ADVANTAGE

**Open, software-defined storage and converged infrastructure without vendor lock-in.** Red Hat Storage is a software-only, converged infrastructure solution that can be deployed on a wide range of standardized x86 hardware, leaving you open to use any hardware vendor. Red Hat gives you access to the industry's best hardware platforms, providing a wide variety of solutions with no vendor lock-in. This approach stands in contrast to vendors who provide pre-integrated solutions, locking you in to a solution that leaves you with less agility and flexibility.

**Lower total cost of ownership (TCO) and improved business value.** Using the economics of standardized x86 hardware combined with a subscription model for a software only solution, Red Hat Storage combined with Red Hat Enterprise Virtualization allows customers to better predict their costs and achieve significant cost savings.

Integrating Red Hat Enterprise Virtualization and Red Hat Storage also minimizes dependencies on expensive and complex SAN infrastructures for storing virtual images. Customers can also reduce operational complexities, save staff time, and significantly reduce maintenance overhead.

**Massive elastic scalability.** The elastic scale-out architecture of Red Hat Storage enables IT to seamlessly grow storage to meet the dynamic needs of virtual environments.

**Connect to a constant stream of innovation.** Red Hat connects you to an innovative community of developers, partners, and more.