

RED HAT STORAGE ONE BY SUPERMICRO

A Red Hat and Supermicro solution for software-defined storage deployment

TECHNOLOGY BRIEF



Easily and rapidly deploy hundreds of terabytes to petabytes of software-defined Red Hat Gluster Storage.

Experience one-stop procurement with round-the-clock support from a single vendor.

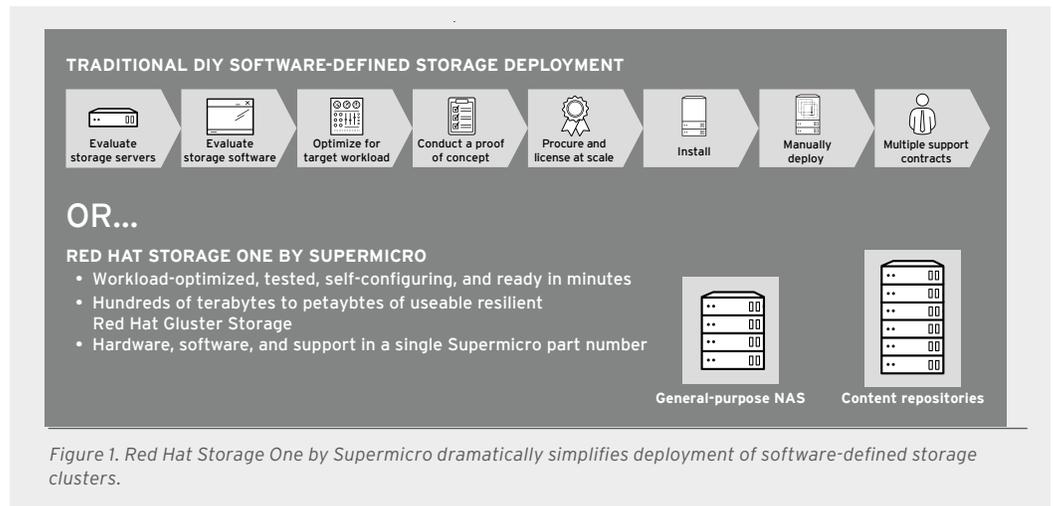
Enjoy enterprise-class reliability, resiliency, and a full storage feature set.

WORKLOAD-OPTIMIZED SOFTWARE-DEFINED STORAGE CLUSTERS

- Red Hat Storage One for General-Purpose NAS
- Red Hat Storage One for Content Repositories

INTRODUCTION

Software-defined storage has already revolutionized storage deployment in the public cloud, yielding cost-effective storage scalability and the flexibility required by dynamic cloud applications. The model is compelling, with the ability to provide workload-optimized storage performance on industry-standard servers, without the constraints of monolithic proprietary network-attached storage (NAS). At the same time, many lack the time or resources required to design, test, and build custom software-defined storage solutions. Red Hat Storage One by Supermicro offers a simpler approach that is easier to evaluate, procure, deploy, and support (Figure 1).



RED HAT STORAGE ONE BY SUPERMICRO

Red Hat Storage One by Supermicro provides an integrated, pre-loaded, pre-configured, and fully supported hardware, software, and support solution that is optimized for specific workload categories. With a resilient architecture that is able to tolerate node-level failures, the solution benefits organizations that need flexible scalability to handle rapid data growth with high data availability. The software-based approach also avoids the costs of proprietary hardware.

All Red Hat Storage One solutions include the following in a single Supermicro part number:

- Standard storage servers optimized for a particular workload category.
- Storage software that is pre-loaded, licensed, pre-configured, and workload-optimized.
- Rapid deployment with a quick-deploy utility that makes mountable file systems ready in minutes.
- Full single-vendor support for both hardware and software.



ABOUT RED HAT

Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.

NORTH AMERICA
1 888 REDHAT1

**EUROPE, MIDDLE EAST,
AND AFRICA**
00800 7334 2835
europe@redhat.com

ASIA PACIFIC
+65 6490 4200
apac@redhat.com

LATIN AMERICA
+54 11 4329 7300
info-latam@redhat.com



facebook.com/redhatinc
@redhatnews
linkedin.com/company/red-hat

Copyright © 2018 Red Hat, Inc. Red Hat, Red Hat Enterprise Linux, the Shadowman logo, and JBoss are trademarks of Red Hat, Inc., registered in the U.S. and other countries. Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

redhat.com
#F11348_0218_KVM

Red Hat Storage One by Supermicro is powered by Red Hat® Gluster Storage. Designed for petabyte scale and beyond, Red Hat Gluster Storage is backed by vibrant open source community innovation, and can be deployed on bare metal, virtual, container, and cloud environments. All required software is included with Red Hat's subscription-based licensing, with no add-on pricing for advanced features such as replication or snapshots, avoiding proprietary software licensing lock-in.

Red Hat Storage One by Supermicro is provided in two workload-optimized configurations (Table 1):

- **Red Hat Storage One for General Purpose NAS** provides a ready-to-use distributed file system ideal for small-to-medium files and mixed uses.
- **Red Hat Storage One for Content Repositories** provides storage clusters optimized for large files and high-throughput performance, making it ideal for media storage.

TABLE 1. RED HAT STORAGE ONE BY SUPERMICRO CONFIGURATIONS

	GENERAL PURPOSE NAS	CONTENT REPOSITORY
Typical file sizes	Small-to-medium (64KB to 50MB)	Large (100MB to multiple gigabytes)
Use cases	User directories, general file serving, mixed uses	Photos, rich media, and videos at large scale
Workload characteristics	Random access profile (75/25 read/write)	Predominantly sequential (both read and write intensive)
Minimum cluster	4 nodes, 288TB/120TB raw/usable	6 nodes, 576TB/384TB raw/usable
Maximum cluster*	24 nodes, 1.728PB/720TB raw/usable	24 nodes, 2.304PB/1.536PB raw/usable
Data protection	Replication plus RAID 6	4+2 erasure coding
Disaster recovery	Multisite geo-replication and snapshots (not configured by default)	
Data encryption	In-flight and at-rest encryption (not configured by default)	
Server platform	Supermicro 2 rack-unit storage server	
Client support	NFS client, Server Message Block (SMB), Red Hat Enterprise Linux® Gluster-native client using Filesystem in Userspace (FUSE)	

* Clusters can be extended beyond these maximums using standard Gluster administration tools and techniques.

CONCLUSION

Red Hat Storage One by Supermicro offers a convenient, rapid, and cost-effective way for organizations to procure and deploy open software-defined storage clusters. Pre-validated, pre-configured, and self-initializing, clusters based on Red Hat Gluster Storage and Supermicro storage servers can be up and running quickly—delivering resilient storage at scale. Single-source procurement and support offers both convenience and peace of mind for a wide range of demanding storage applications.

For more information, visit redhat.com/storage.