

SOLUTION BRIEF

NetApp SolidFire

The storage foundation
for your private cloud
infrastructure



Be known for the results, not the infrastructure you manage

These days, it's not enough to simply provide a killer infrastructure to your application and business stakeholders. As your business seeks to move faster in a hypercompetitive global economy that is fueled by data, you have a much more crucial role. Today, you are the enabler of innovation. Your focus is on delivering business-oriented technology services to your diverse internal users that allow them to pivot quickly when the market demands, to constantly innovate, and to drive differentiation and revenue growth. NetApp SolidFire helps you to be successful in this role.

SolidFire brings the simplicity of the public cloud on premises so you can create an automated, self-service private cloud and deliver those business-oriented data services on demand to your entire organization. Think of your storage platform as your secret weapon for service creation, your competitive advantage, and your innovation-led growth engine.

Support changing needs

SolidFire simplifies how you grow your infrastructure, eliminating the pain and headaches of forklift upgrades. With the ability to mix nodes within a cluster, it can incrementally scale for performance or capacity, when your business demands it – no resource planning or downtime required. It also readily supports mixed production workloads and the elastic needs of DevOps with advanced software lifecycle management automation and orchestration tools, delivering guaranteed, predictable performance.

Lower operational burden

Powered by NetApp Element® software, the SolidFire system consistently delivers performance to hundreds of applications, even in boot storms and unplanned events. Each volume is configured with minimum, maximum, and burst IOPS values through the Element quality of service settings, ensuring uptime across all applications running on a consolidated system.

The Element management frameworks provide both an intuitive web-based UI and a robust REST-based API to automate every aspect of storage provisioning, management, and reporting. Its deep integration with industry-leading cloud, virtualization, and automation platforms minimizes development time and overhead so that you can deploy applications and self-service faster.

Key benefits

Automated simplicity

- Offer policy-based application self-service for users with 15 times faster deployment of DevOps services and virtual machines.
- Manage your storage without deep storage expertise and with up to 67% less operating cost, reducing the cost of application development.
- Reduce risk of human error associated with complex administrative tasks.

Predictable performance

- Guarantee performance for every workload.
- Manage performance in real time without impacting other volumes.
- Reduce cost and complexity by enabling hundreds of workloads to coexist on a single cluster.
- Eliminate 93% of performance-related storage problems. Enjoy guaranteed storage efficiency with no performance impact.

Flexible deployment

- Future proof your storage platform with an easier transition to a full software-defined data center.
- Get the same NetApp® SolidFire® capabilities and feature set regardless of the deployment method selected.
- Standardize the hardware across your data center with the software (SDS) option.

Dynamic scale

- Adapt to changing business demands on the fly by scaling capacity up or down, on demand, without disruption or downtime.
- Allocate and manage independent pools of performance and capacity to prevent overprovisioning and stranded assets.
- Spend 92% less administrative time managing the growth of storage.

Enjoy flexible deployment options

As you move from a traditional storage infrastructure to the next-generation data center, you have more options for consuming storage than ever before. Element software delivers the greatest flexibility for how you can purchase and grow your storage infrastructure to materialize your next-generation software-defined data center strategy. You can

harness the Element capabilities either by deploying it through the preintegrated SolidFire appliances or by integrating the standalone SDS with the hardware of your choice from HPE DL360, HPE DL380, and Dell R640. No matter which deployment model you choose, you can expect a purpose-built, all-flash, on-premises private cloud that enables you to easily deliver business-oriented data services on demand.

NetApp SolidFire node specifications

Each SolidFire storage node includes Element software and is available as an encrypted or unencrypted appliance.

	H-610S-1	H-610S-2	H-610S-4
Rackable Height	1U storage node*		
Drive Capacity	(12) 960GB	(12) 1.92TB	(12) 3.84TB
System Memory/Read Cache	256GB	512GB	704GB
Encryption	SED/NSED	SED/NSED/FIPS	SED/NSED
Raw Capacity	11.52TB	23.04TB	46.08TB
Effective Capacity**	19.64TB	39.28TB	78.57TB
Performance per Node	100,000 IOPS		
Networking	Data – (2) 10/25GbE iSCSI SFP28 Management – (2) 1/10GbE RJ45		
Power (Watts)	353.1W to 385.7W, depending on I/O load	393.1W to 425.7W, depending on I/O load	423.1W to 455.7W, depending on /I/O load
Weight	18.37kg (40.5lb)		

NetApp SolidFire eSDS node specifications

NetApp Element software is also available as software-only, SolidFire Enterprise SDS, on prevalidated hardware configurations.***

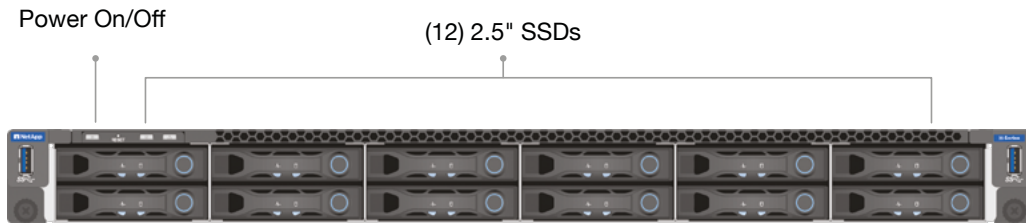
Platform	HPE DL360	Dell R640	HPE DL380
Rackable Height	1U storage node	1U storage node	2U storage node
Processors	Dual Intel Xeon Gold CPU	Dual Intel Xeon Gold CPU	Dual Intel Xeon Gold CPU
System Memory	512GB	512GB	768GB
Drive Capacity	(9) 3.84TB	(9) 3.84TB	(15) 3.84TB
Raw Capacity	34.56TB	34.56TB	57.6TB
Effective Capacity**	58.7TB	58.7TB	97.9TB
Encryption	SED/NSED		
Performance	Dynamic Node Rating – Up to 100K 4K IOPS@ <1ms latency		
Networking	Data – (2) 10/25GbE iSCSI SFP28 Management – (2) 1/10GbE RJ45		

*Available as encrypted or unencrypted system. Unencrypted model numbers are H610S-1-NE-P, H610S-2_NE-P, and H610S-4-NE-P
Two 1.5 meter C13 and C14 power cords included per node. Although NetApp provides one power cord type and length with shipment, customers can procure the power cords of their choice from outside vendors

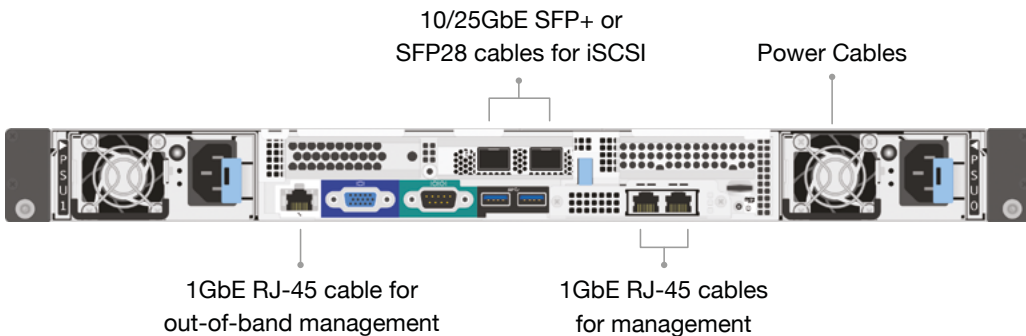
**SolidFire effective capacity calculation accounts for SolidFire Helix® Data protection, system overhead, and global efficiencies including compression, deduplication, and thin provisioning. SolidFire customers typically achieve an effective capacity range of 5X to 10X the usable capacity, depending on application workloads. Effective capacity is based on 4:1 storage efficiency ratios with the maximum number of SSDs installed. The actual ratio may be 10:1 or higher, depending on workloads and use cases

***SolidFire eSDS is currently supported on HPE DL360, HPE DL380 and Dell R640.

Front View



Rear View



About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services, and applications to the right people—anytime, anywhere.

