Veeam for NetApp HCI and SolidFire

Predictable Quality of Service and Always-On Availability
for Element OS Cloud Infrastructures

Veeam availability solutions combined with fully scalable, predictable, and automated NetApp® HCI and NetApp SolidFire® infrastructures enable organizations to ensure predictable application performance and availability while simplifying IT operational management, enhancing agility, lowering costs, and advancing their digital transformation initiatives.

SolidFire Element® OS software enables a number of platforms, including NetApp HCI, SolidFire web-scale all-flash arrays, and FlexPod® SF converged infrastructures. Each of these platforms powers cloud environments by allowing administrators to consolidate workloads onto a single infrastructure without sacrificing performance. As the operating system for the next-generation data center, it provides enterprise-grade reliability, all-flash performance, and secure multitenancy in an innovative architecture that delivers unmatched agility through scalability, predictability, and automation.

Through its fine-grained performance control, Element OS delivers predictable storage quality of service (QoS) for every workload to ensure consistent application performance, regardless of the number of applications or the size of the cluster. Each storage volume within a SolidFire system can be allocated a precise amount of capacity and performance, both of which can be changed spontaneously without migrating data or interrupting I/O.

While Element OS provides flexibility to scale your data when you need it most, it does so without compromising protection. Designed for tomorrow's applications and data demands, native data protection delivers ironclad data assurance through a resilient, self-healing architecture that reduces operational overhead and risk. Local Snapshot™ copies enable space-efficient, point-in-time copies of your data for rapid restore. With the built-in synchronous and asynchronous replication of Element OS, data can be copied quickly between multiple sites, regardless of where the NetApp HCI or SolidFire clusters physically sit.

How Element OS and Veeam Work Together

The Veeam Availability Suite combines the industry-leading backup, restore, and replication capabilities of Veeam Backup & Replication with the advanced monitoring, reporting, and capacity planning functionality of Veeam ONE. Veeam complements NetApp HCI, SolidFire all-flash arrays, and converged infrastructures by providing a simple, agile, and scalable way to provide availability, protection, and complete visibility for critical business workloads across private cloud environments.

As an agentless solution that directly integrates with vSphere and Hyper-V, Veeam rapidly deploys into NetApp HCI and SolidFire environments, simplifies IT operational management, and ensures SLAs by providing recovery time objectives (RTOs) and recovery point objectives (RPOs) of under 15 minutes for all applications and data. Veeam helps ensure business agility by enabling administrators to easily scale new and existing backup and replication workloads without affecting production applications.

Always-On Availability and Enhanced ROI for Next-Generation Data Centers

To simplify IT and prevent data loss on your platforms, Veeam offers built-in features such as backup copy jobs (with optional WAN acceleration), which automate the movement of data to backup storage repositories such as NetApp E-Series and AltaVault™.

In addition, Veeam enables very low RTOs through instant VM and granular data recoveries directly from NetApp backup storage systems to ensure compliance with application SLAs. And through direct integration with VMware vSphere storage snapshots (VSS), Veeam helps organizations maintain excellent RPOs for all applications and data across the enterprise.

Table 1 shows Key business benefits of Element OS + Veeam

PROBLEM	SOLUTION
Data loss avoidance	Element OS enabled platforms (NetApp HCI, SolidFire) combined with Veeam's enterprise-class availability features successfully lower RPOs and RTOs and seamlessly streamline backup and disaster recovery capabilities.
Visibility and management	Veeam provides tools to help you monitor health, troubleshoot performance issues, plan your backup infrastructure growth, and manage data regulatory compliance requirements in Element OS and VMware vSphere and Microsoft Hyper-V environments.
Performance and recovery time objectives (RTOs)	Veeam, combined with NetApp HCI or SolidFire, enables organizations to ensure the rapid recovery of all workloads. With a few mouse clicks, recover VMware VMs and their associated data in seconds and minutes directly from backup copies to make sure of critical application recovery SLAs.
Enterprise-readiness	Allows you to add capacity and upgrade systems seamlessly and easily. Grow as you go with Veeam enterprise-class scalability capabilities to maximize your organization's efficiency without compromise.
Recoverability verification	Veeam makes recoverability testing of all your virtual machines a reality. Veeam Backup & Replication guarantees recovery of every file, application, or virtual server every time by running automated recovery verification jobs with SureBackup and SureReplica.
Higher return on investment	Get a higher return on your investments in availability and data protection by leveraging Veeam to quickly provision virtual labs from NetApp backup storage repositories, which are totally isolated from production to spin up dev/test, data analytics, and DR testing environments.

Table 1) Element OS and Veeam Address Key Challenges in the Data Center

Additionally, Veeam's on-demand sandbox capabilities help organizations lower costs and improve the return on their investments in NetApp storage by enabling the use of backup infrastructure for additional business use cases such as application dev/test, simplified DR testing, data analytics, and proactive IT testing and troubleshooting.

Conclusion

Element OS and Veeam are helping organizations accelerate digital transformation through next-generation data center solutions, such as NetApp HCI and SolidFire, that provide the predictable performance and availability, IT simplicity, and business agility required to meet the demands for today's always-on enterprise environments.

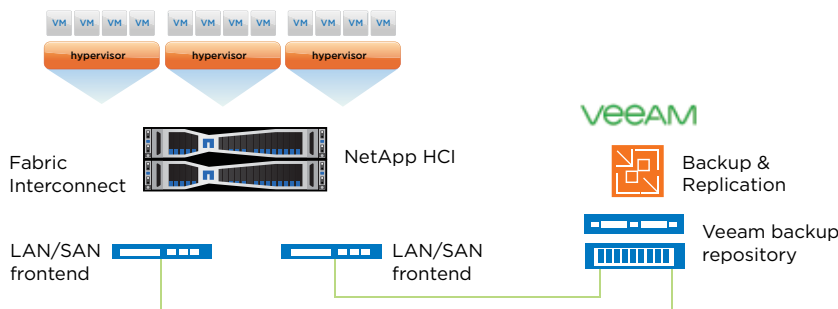Figure 1 shows Integrated NetApp HCI + Veeam Availability Solution

FIGURE 1) VEEAM BACKUP & REPLICATION WITH NETAPP HCI