

Veeam for NetApp HCI and SolidFire

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

Veeam availability solutions, combined with fully scalable, ensured, 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.

NetApp Element® software enables NetApp HCI Storage and SolidFire web-scale all-flash arrays. These platforms power 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, Element software offers 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 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 in an Element based 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.

Element gives you the flexibility to scale your data when you need it most, without compromising protection. Designed for tomorrow's applications and data demands, native data protection delivers iron-clad data assurance through a resilient, self-healing architecture that reduces operational overhead and risk. Local NetApp Snapshot™ technology enable space-efficient, point-in-time copies of your data for rapid restore. With the built-in synchronous and asynchronous replication of Element, data can be copied quickly between multiple sites, regardless of where the NetApp HCI or SolidFire clusters are physically located. Additionally, by using NetApp SnapMirror® data replication feature, your data can be mirrored to ONTAP® based systems (ONTAP 9, ONTAP Select, Cloud Volumes ONTAP) to make the data available across platforms and to achieve full integration in the Data Fabric.

How Element 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 giving you 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 can be rapidly deployed into NetApp HCI and SolidFire environments. It also 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. Due to native storage integration, Snapshot copies are taken directly in

Element and are fastening up the backup and recovery processes. NetApp technology makes it faster to recover complete VMs or files on a granular level.

Veeam helps ensure business agility by enabling administrators to easily scale new and existing backup and replication workloads without affecting production applications.

NetApp Element and Veeam address Key Challenges in the Data Center

Table 1 describes the key business benefits of Element plus Veeam.

PROBLEM	SOLUTION
Data loss avoidance	Element OS enabled environments (NetApp HCI, SolidFire), combined with Veeam's enterprise-class availability features, lower RPOs and RTOs and seamlessly streamline backup and disaster recovery capabilities.
Visibility and management	Veeam tools help you monitor health, troubleshoot performance issues, plan your backup infrastructure growth, and manage data regulatory compliance requirements in Element and VMware vSphere and Microsoft Hyper-V environments.
Performance and recovery time objectives	Veeam, combined with NetApp HCI or SolidFire, enables organizations to rapidly recover all workloads. With a few mouse clicks, you can recover VMware VMs and their associated data in seconds or minutes, directly from backup copies, to meet critical application recovery SLAs.
Enterprise readiness	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 using 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.

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

To simplify IT and prevent data loss, 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 ONTAP.

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, Veeam helps organizations maintain excellent RPOs for all applications and data across the enterprise.

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.

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Figure 1 shows the Integrated NetApp HCI + Veeam availability solution.

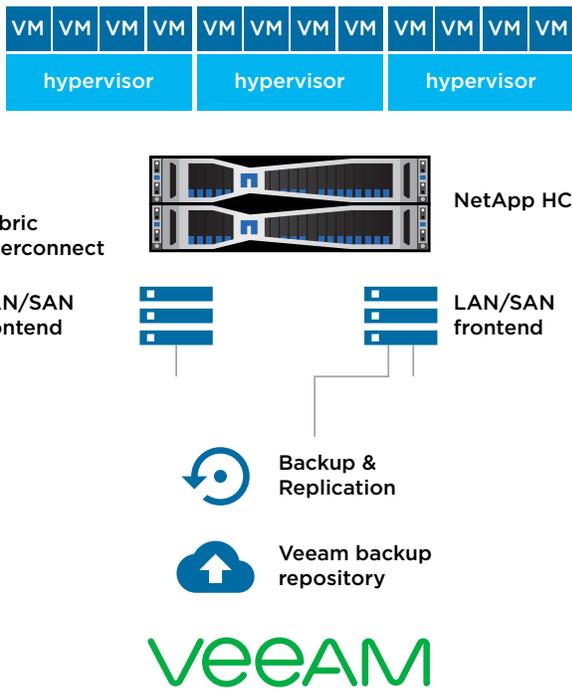


Figure 1) Veeam Backup & Replication with NetApp HCI.

Figure 2 shows the native Snapshot integration of VEEAM Backup & Replication in Element.

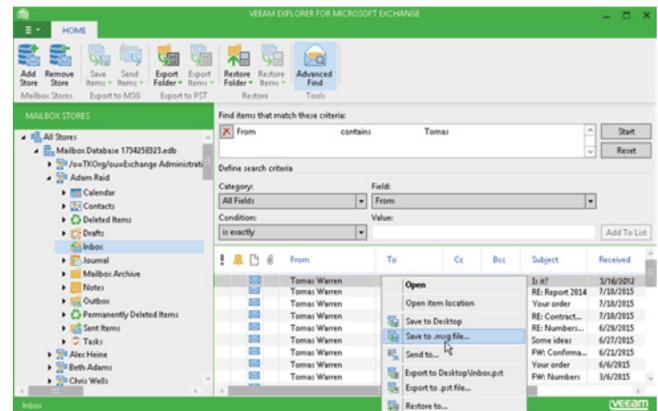
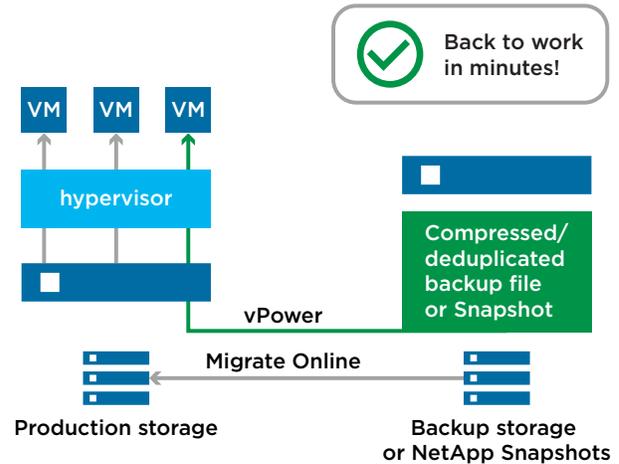


Figure 2) Veeam Backup & Replication with native Element integration.

Element 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.

About Veeam

Veeam® recognizes the new challenges companies across the globe face in enabling the Always-On Enterprise™, a business that must operate 24.7.365. To address this, Veeam has pioneered a new market of Availability for the Always-On Enterprise™ by helping organizations meet recovery time and point objectives (RTPO™) of less than 15 minutes for all applications and data, through a fundamentally new kind of solution that delivers high-speed recovery, data loss avoidance, verified recoverability, leveraged data and complete visibility. Veeam Availability Suite™, which includes Veeam Backup & Replication™, leverages virtualization, storage, and cloud technologies that enable the modern data center to help organizations save time, mitigate risks, and dramatically reduce capital and operational costs, while always supporting the current and future business goals of Veeam customers. To learn more, visit <https://www.veeam.com>.

About NetApp

NetApp is the data authority for hybrid cloud. We provide a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premise environments to accelerate digital transformation. Together with our partners, we empower global organizations to unleash the full potential of their data to expand customer touchpoints, foster greater innovation, and optimize their operations. For more information, visit www.netapp.com. #DataDriven