Position Your Organization for Scalable, Cost-Effective Backup and Recovery With S3 Object-Level Locking and Immutability

Build on Hitachi Virtual Storage Platform and Hitachi Content Platform With the Capabilities of Veeam Backup & Recovery

Regardless of the caliber of your enterprise storage and object storage solutions, actively ensuring proactive and automatic backup that frees up staff time to work on other projects is a must. You need backups that are completed on time and restore efforts that do not fail. Defenses and good offenses need to be in place to counter increasingly sophisticated ransomware threats, cloud capacity and mobility challenges, remote work concerns, and overall world economic factors.

In a nutshell: Data protection needs to be a priority. It is not a matter of if but when your company will be the target of threats and attacks. A multilayer cybersecurity approach — from role-based identifiers (RBAC) for validation to server hardening and immutability — is essential. Robust backup and recovery protection is your last line of defense and that is precisely what Hitachi Vantara and Veeam deliver.

Virtualized Environments Need More Than Traditional Backup

Hybrid cloud, highly virtualized environments are not well served by traditional backup tools. With data arriving from all directions from myriad workloads on new applications, server sprawl is inevitable. Resulting challenges include unreliable backups, sluggish recovery, inability to scale and meet compliance requirements, loss of productivity and stymied business growth.

To meet these challenges, Hitachi Vantara and Veeam have built a joint solution on high-performance Hitachi's block storage and object storage capacity tiers with reliable data protection designed for virtualized environments. This approach simplifies IT, reduces costs, mitigates risk, and delivers increased return on investment by providing the following capabilities:

- **Reliable ransomware protection:** Keep data safe with native, immutable, and malware-safe storage for your backups.

- **Any cloud, your way:** Cover more services, more tiers, more security, all under one platform.

- **Continuous data protection:** Eliminate downtime and minimize data loss for your Tier 1 VMware workloads.

- **Instant recovery:** Instantly recover workloads, including Microsoft SQL, Oracle, virtual machines (VMs), and NAS.

- **Veeam-powered backup or disaster recovery as a service:** Team up with Hitachi Vantara and our partners for these as-a-service options.

Hitachi Vantara Sets Up Your Enterprise — Veeam Protects It

Three technologies together to deliver the security you need for your enterprise operations.

Hitachi Virtual Storage Platform

From high-end Hitachi Virtual Storage Platform (VSP) 5000 series to midrange Hitachi Virtual Storage Platform E series, VSP F series and VSP G series, Hitachi storage provides world-class, easy-to-manage data platform to futureproof business and supercharge performance, with time-tested availability and scalability.

Hitachi Content Platform

An object storage software solution, Hitachi Content Platform connects data producers, users, applications, and devices into a central cloud storage platform to store securely and cost-effectively, share, protect, preserve, and analyze data. It delivers long-term data retention that frees up expensive high-performance storage resources, simplifies backup management, and enables the benefits of immutability for your object storage.

Veeam Backup & Replication

Working with Hitachi Virtual Storage Platform and/or Hitachi Content Platform , Veeam Backup & Replication adds to the modernization of data protection, in a simple, flexible, reliable, and powerful solution for protecting cloud, virtual and physical workloads. It is backup with archival and recovery that supports the most critical enterprise workloads with bulletproof ransomware protection, assured service level agreement performance, and reduced cost and complexity. In a single platform for all workloads, Veeam adds hardened immutable storage, dependable cloud native backup, and continuous data protection capabilities to your storage environment.

The data protection that you need to answer the challenges of unstructured data growth and application proliferation. is based on these offerings and delivered in three solution categories that have been tested and qualified as "Veeam-Ready." (See Figure 1.)
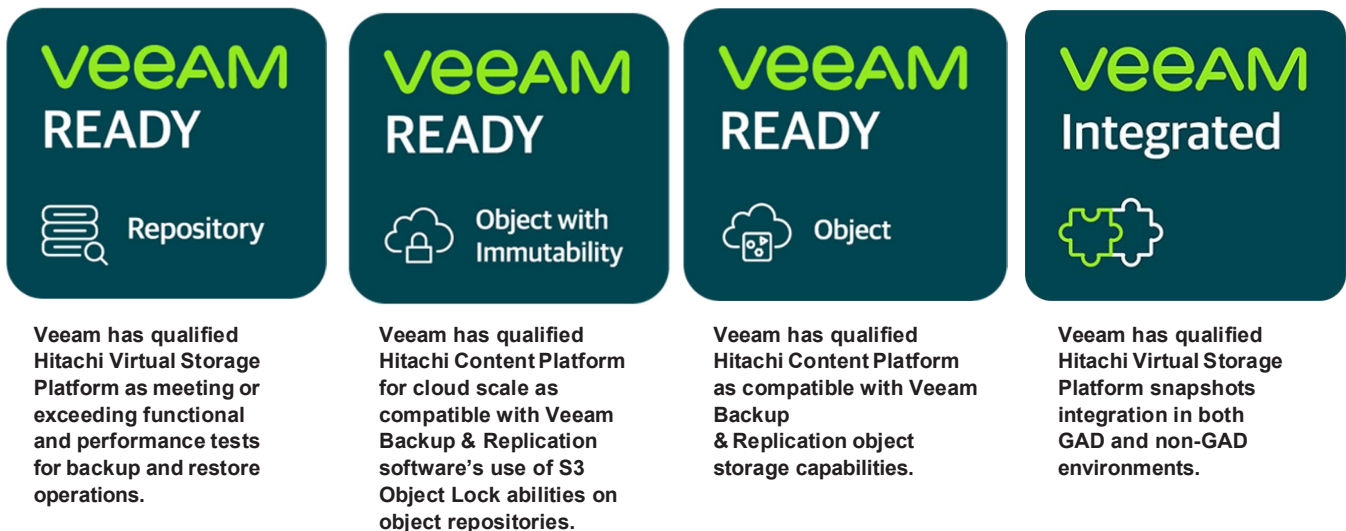

veeAM READY Repository	**veeAM READY** Object with Immutability	**veeAM READY** Object	**veeAM Integrated**
Veeam has qualified Hitachi Virtual Storage Platform as meeting or exceeding functional and performance tests for backup and restore operations.	**Veeam has qualified Hitachi Content Platform for cloud scale as compatible with Veeam Backup & Replication software's use of S3 Object Lock abilities on object repositories.**	**Veeam has qualified Hitachi Content Platform as compatible with Veeam Backup & Replication object storage capabilities.**	**Veeam has qualified Hitachi Virtual Storage Platform snapshots integration in both GAD and non-GAD environments.**

Figure 1. Hitachi Technology Qualifications as Veeam-Ready Solutions

Fast, Simple Deployment With Virtual Storage Platform and VMware Infrastructure

The Veeam-Ready — Repository solution uses Hitachi Storage Plug-in for Veeam Backup & Replication to accelerate backup and recovery while directly integrating.

the Veeam Backup & Replication software with Virtual Storage Platform for flexibility and efficient snapshot and recovery services (see Figure 2). This solution performs backup, restore, and replication operations for VMware vSphere and other virtual environments, with support for multi-data-center environments that use snapshots in either Global-Active Device (GAD) based configurations, or non Global-Active Device based configurations.

If there is concern about latency on applications or hosts when Veeam is using internal software snapshots, there is a second approach to accelerating backup and recovery. Using the write once, read many (WORM) feature on Virtual Storage Platform enables packet-level rather than object-level snapshots. These hardware-based snapshots do not impact the host (see Figure 3).
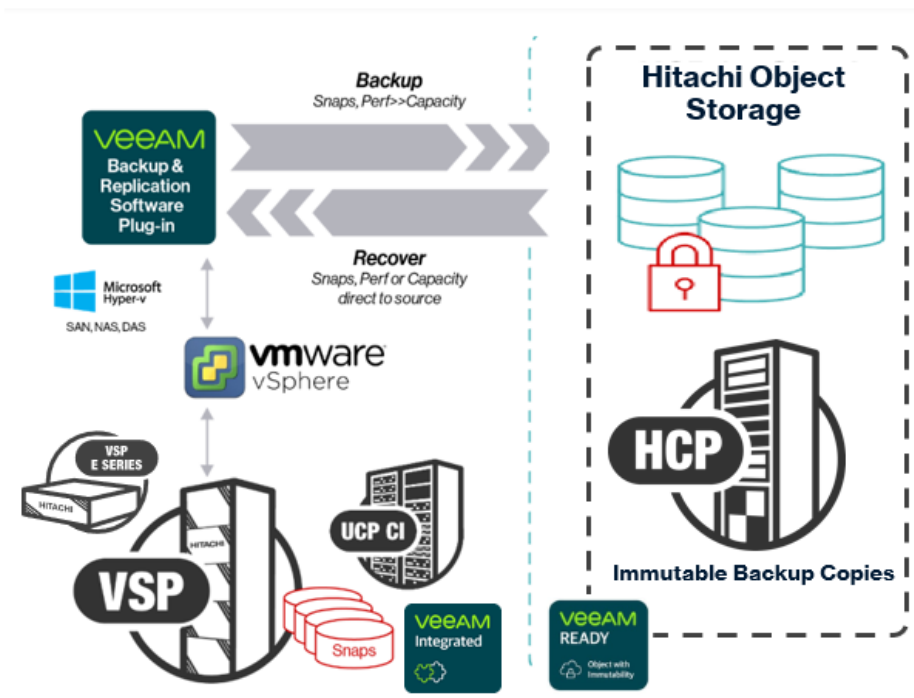
VSP = Hitachi Virtual Storage Platform, HCP = Hitachi Content Platform

Figure 2. This Hitachi storage and Veeam Backup & Replication repository solution provides scalable, cost-effective, and immutable backup and recovery, reducing risk from ransomware attacks.

SOLUTION PROFILE

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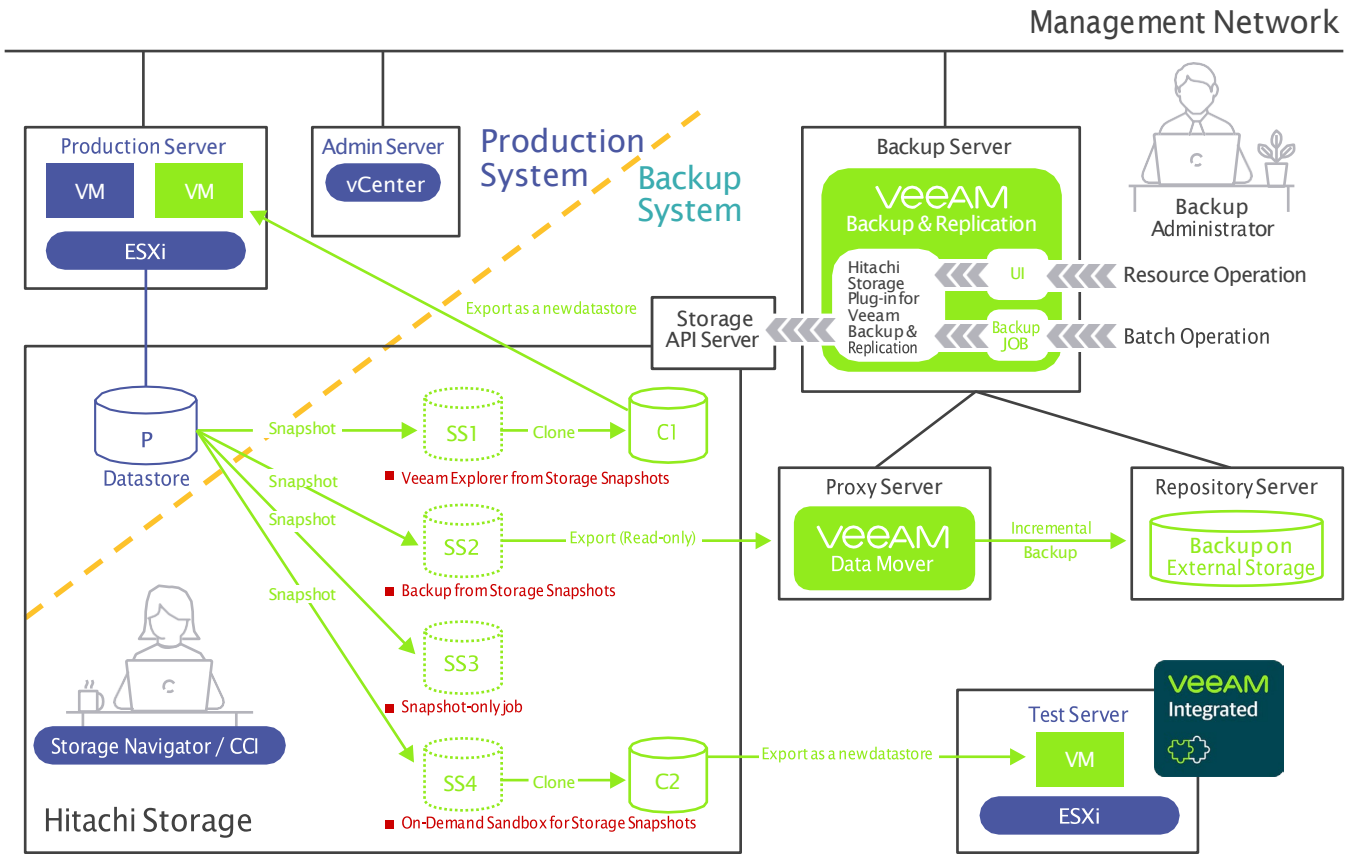
Figure 3. Choose a hardware-based solution approach to avoid latency concerns.

Add Immutability, Scalability With Hitachi Content Platform for Cloud Scale

Whether HIPAA, GDPR, SEC 17a, or other mandates, compliance presents some of the most difficult challenges in today's virtual, cloud-based environments. By bringing Veeam capabilities to Hitachi Content Platform for scale, however, issues around file retention and file version level locking are mitigated. This Veeam-Ready — Object With Immutability solution unites Hitachi Content Platform for scale and Veeam Backup & Replication to provide immutable backup. The solution enables cloud-scale object lock via S3-compatible APIs (see Figure 4).

Figure 4. Immutable backup: The Hitachi and Veeam solution prevents a backup object from being deleted.

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Traditional storage, flash arrays, and hyperconverged infrastructures are all driving exponential on-premises capacity growth. Bringing Hitachi Content Platform for cloud scale to the solution provides a high-throughput, low latency repository via S3 protocol. Working with Hitachi and Veeam, you can size Hitachi Content Platform for cloud scale nodes based on your source data, IOPS, and background operations to meet your specific service level objectives (Figure 5).
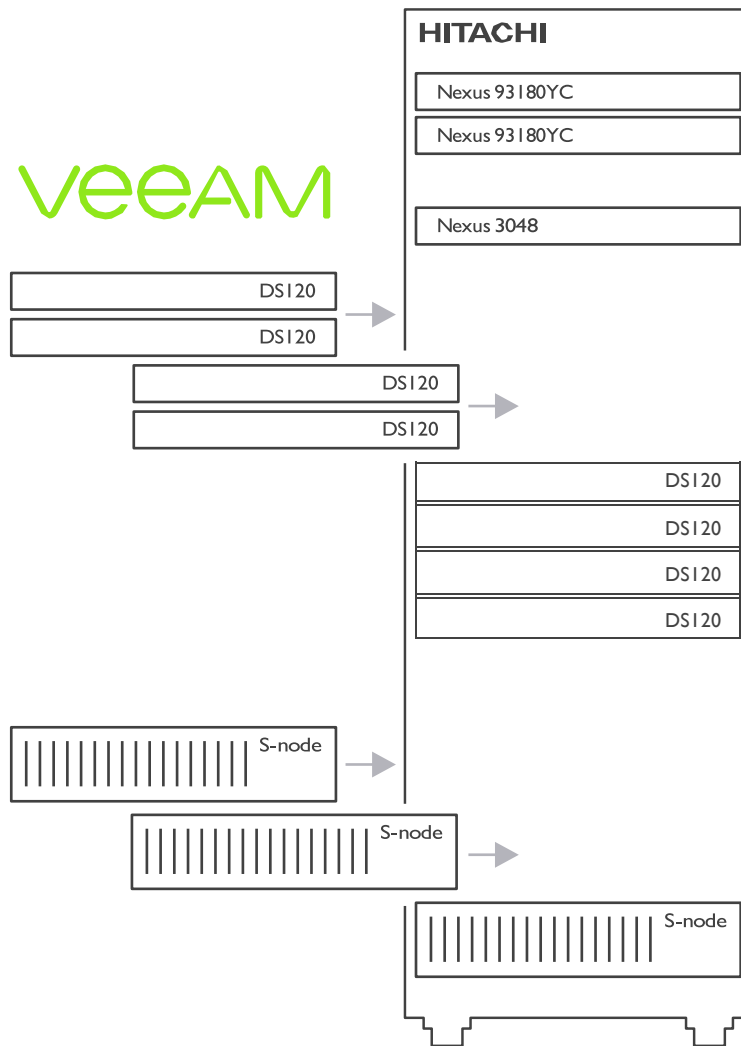

Figure 5. Scale up to meet performance requirements, such as latency and recovery point and time objectives, by uniting Veeam Backup & Replication technology with Hitachi Content Platform for cloud scale.

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Reduce Risk of Ransomware Attacks

Use of ransomware, the malicious software or malware that can encrypt your company's information, rendering it unusable for a period of time or forever, is on a growth tangent among the criminally minded. In fact, ransom demands jumped 144% in 2021[1]. Whether email phishing or exploiting remote desktop protocol or general software vulnerabilities, the intent of the cybercriminal is the same: Immobilize and hold your business hostage until ransom is paid. To thwart these cyberattacks, the National Institute of Standards and Technology (NIST) advocates such protections as antimalware and immutability — "hardening" across the enterprise to reduce areas or vectors of vulnerability (see Figure 6). In keeping with NIST recommendations, Hitachi and Veeam provide solutions that guard against ransomware attacks via policy-driven backup and deliver multilayered authentication and locked objects protection.

Identify		Protect		Detect		Respond		Recover

Figure 6. The Veeam and Hitachi Vantara solution supports the NIST cybersecurity framework.

Data protection and defense against ransomware using Hitachi storage and Veeam technologies takes this proven approach (see Figure 7):

1. Moves virtual machine Virtual Storage Platform snapshots to the Virtual Storage Platform performance tier and the Veeam-ready repository. The backed-up data can be validated before restoring via an antivirus integration engine (Microsoft Defender Antivirus, for example).

2. Transports the data to Hitachi Content Platform for cloud scale, which, with Veeam's S3 object lock, makes the data immutability-ready, protected from accidental delete and ransomware use cases.

3. Examines data with Veeam's Sure Backup validation feature. If malware is detected, the virtual machine is disabled from the environment and its snapshot is transferred to Veeam's DataLabs via its Secure Restore feature (see Figure 7). DataLabs is an isolated network set up within your environment. You can use backup files or replicas, providing a copy of the instance in this isolated network to perform tasks outside of the production environment, such as evaluating security vulnerabilities in the case of malware. Other use cases include testing patches and updates before rollout and using data copies in the design process.

4. Enables instant recovery by Veeam Backup & Replication to leverage faster time to restore in case of an attack.
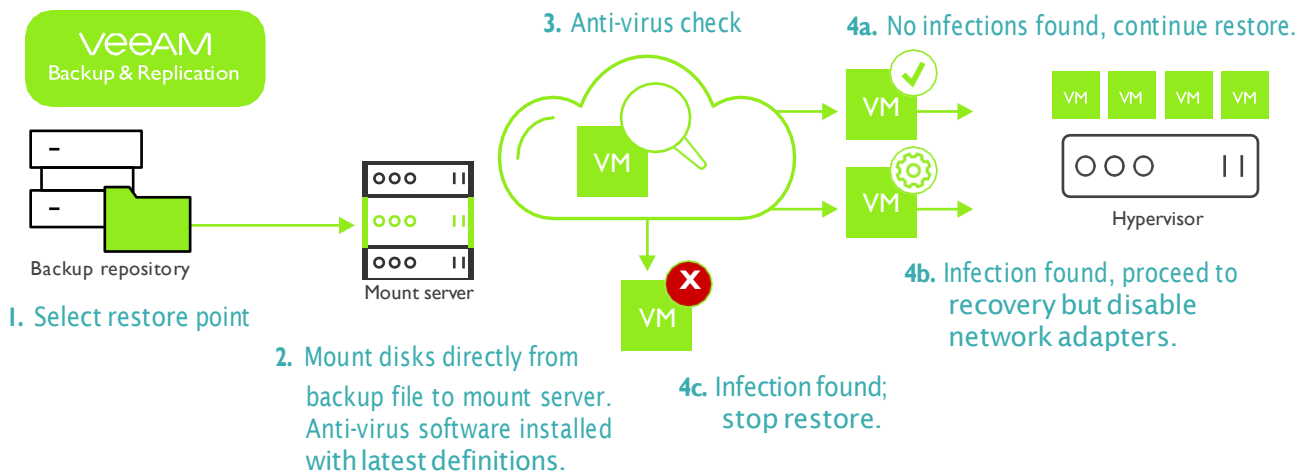

Figure 7. Veeam DataLabs Secure Restore

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Data Protection That's Fast and Effective With Reduced Risk and Cost

The joint solution of Veeam Backup & Restore in your Hitachi Virtual Storage Platform and Hitachi Content Platform environment brings you:

- **Faster backups and restores:** Leverage Veeam technology to streamline disaster recovery and lower recovery point and time objectives.
- **Optimized, immutable storage:** Use Hitachi Content Platform for cloud scale to massively scale capacity, simplify management, and enable immutable, ransomware-safe protection.
- **Cost savings:** Optimized deduplication reduces network traffic and storage costs. There are no egress or recall costs that are typical with public cloud.

Rely on Hitachi storage and Veeam Backup and Recovery to answer the challenges of unstructured data growth and application proliferation, and bring you modernized data protection for your virtualized, multicloud environment.

About Hitachi Vantara

Hitachi Vantara, a wholly owned subsidiary of Hitachi, Ltd., guides our customers from what's now to what's next by solving their digital challenges. Working alongside each customer, we apply our unmatched industrial and digital capabilities to their data and applications to benefit both business and society. More than 80% of the Fortune 100 trust Hitachi Vantara to help them develop new revenue streams, unlock competitive advantages, lower costs, enhance customer experiences, and deliver social and environmental value. Visit us at hitachivantara.com.

About Veeam

Veeam is the leader in backup, recovery and data management solutions that deliver Modern Data Protection. We provide a single platform for Cloud, Virtual, Physical, SaaS and Kubernetes environments. Our customers are confident their apps and data are protected from ransomware, disaster and harmful actors and are always available with the most simple, flexible, reliable, and powerful platform in the industry. Visit Veeam at veeam.com.

Hitachi and Veeam Product Integration

Through Hitachi Storage Plug-in for Veeam Backup & Replication, Veeam capabilities can be leveraged on:

- Hitachi Content Platform
- Hitachi Content Platform for Cloud Scale
- Hitachi Virtual Storage Platform (VSP)
  - VSP 5000 series
  - VSP E series
  - VSP F series
  - VSP G series

By Hitachi Vantara
August 2023

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Strategic focus on Data Protection and Cyber Security

Learn More →

Learn more about how Hitachi Storage and Veeam Backup & Replication can help you leverage Veeam technology for immutable backup and recovery. Contact your Hitachi Vantara or Veeam representative or visit hitachivantara.com.

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