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All You Need to Know About the New Veeam 9.5 Update 3 Integration with HPE Storage Solutions

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OVERVIEW

Veeam integration with HPE Storage Solution product lines—including StoreOnce, Nimble, and 3PAR StoreServ—enables IT teams to back up and restore virtual machines (VMs) faster and with less impact to production operations than using traditional backup and restore methods.

The Veeam 9.5 Update 3 (U3) release includes several new features that further improve the backup speed and capacity of HPE storage solutions.

CONTEXT

Tilman Walker and Jason Leiva discussed the benefits of the Veeam and HPE storage solutions integration. Federico Venier introduced the new features in the Veeam 9.5 U3 integration.

KEY TAKEAWAYS

The HPE and Veeam partnership provides customers with quality storage solutions.

HPE and Veeam have had an increasingly tight partnership since 2012, extending to research and development, as well as sales and marketing. The collaboration allows the two businesses to bring high-quality integrated storage solutions to their customers.

> We've got a long-standing joint development relationship and we're both driven by the vision to bring our customers a tighter integration around data protection solutions and ultimately better solutions in that space.
>
> *Tilman Walker, Hewlett Packard Enterprise*

Figure 1: HPE & Veeam Integration Summary
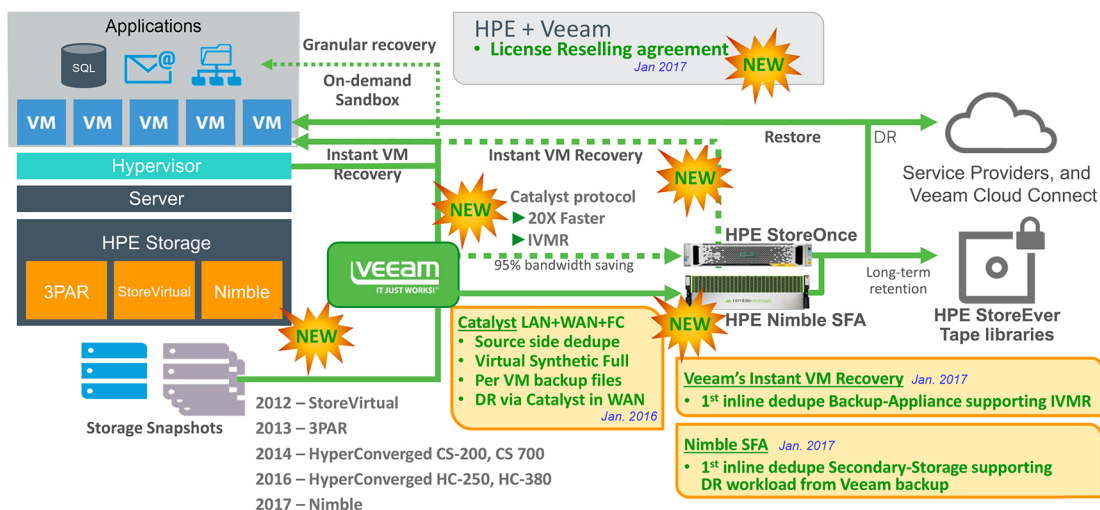
Veeam Backup from Storage Snapshot minimizes the impact on production services.

Backups are taken from the HPE Storage Snapshots to minimize the snapshot windows, allowing Veeam to provide smaller, near-instantaneous VM snapshots, compared to traditional VM backup methods. This minimizes the impact on production services, including applications and the VM itself, which can become unresponsive during a lengthy traditional backup process.

Figure 2: Traditional VM Backup vs. Backup from HPE Storage Snapshots

Traditional VM Backup

- Heavy load on source storage during snapshot
- Can take a while to delete the snapshot

Backup from HPE Storage Snapshots

- Much smaller VM snapshot
- Near instant VM snapshot commit
- Use of storage snapshot for backing up VM data
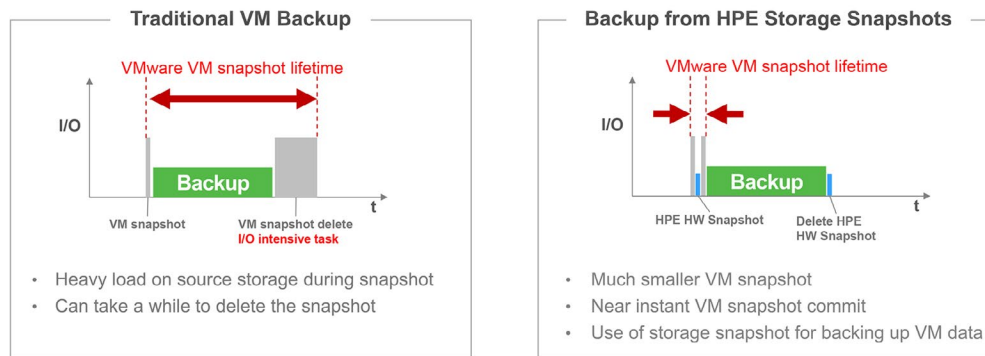
Veeam typically shortens the backup process to under a minute, compared to the hours that a traditional backup process can take. This functionality is available for HPE StoreOnce, Nimble, and 3PAR StoreServ storage product lines.

HPE 3PAR StoreServ and Nimble customers can also take advantage of additional features available with Veeam 9.5-U3.

> You've enabled yourself to be able to do backups without having to worry about hurting applications and uptime of those applications.
>
> *Jason Leiva, Veeam*

Table 1: Additional Features for 3PAR StoreServ and Nimble Solutions

	3PAR StoreServ	Nimble
Backup	Create on the 3PAR peer or the primary server; production services are not impacted by the backup workload.	A backup can be done from Nimble Snapshots on the secondary array; production services are not impacted by the backup workload.
Orchestration	Veeam can create volume snapshots; production is protected with lightweight hourly restore points.	Secondary flash array (SFA) compression and deduplication reduces capacity utilization, providing snapshot protection along with cost-effective disaster recovery.

Incremental snapshots allow for incremental backups between nightly ones.

Most organizations run a nightly backup, leaving a large window of time where there is no way to recover data if the system fails. Veeam provides incremental snapshots in addition to scheduled ones, creating individual restore points so that changes made between the nightly backups can be recovered. For example, if snapshots are scheduled hourly, no more than one hour's worth of data will be lost, regardless of when the application fails during the day. Veeam also enables granular recovery of individual VMs, files, or application items.

Figure 3: Incremental Snapshots

Backup integrity is important to the Veeam and StoreOnce integration.

Protection based only on a snapshot carries risk, because an issue in the data center can lead to loss of the primary storage. Veeam integration with StoreOnce ensures the integrity of the backup solution, copying that backup to another platform.

Figure 4: Veeam and StoreOnce Integration Ensures Backup Integrity

Veeam 9.5-U3 improves backup speed and capacity with HPE StoreOnce.

A number of new features are available in the Veeam 9.5-U3 release that improve backup speed and capacity in the integration with HPE StoreOnce.

- Source side deduplication and compression reduces bandwidth. Using Catalyst, a 1GB link transfers more data than a 10GB on a network-attached storage (NAS).

- Multi-streamed write per VM backup file increases backup speed with an up to 10 times faster throughput than the single write process for all VMs in a job.

- Deduplication across VMs and jobs increases capacity utilization by as much as 8 times traditional solutions, ultimately reducing the cost of the solution.

- Catalyst is not visible to Windows, which prevents viruses like ransomware from accessing and corrupting the backup.

- Virtual synthetic full enables 10 to 20 times faster concurrent full backups and less load on primary storage.

- Instant VM Recovery (IVMR) and SureBackup are available with StoreOnce 3.15.1 and higher via Cataylst. IVMR ensures the VM is up and running in a matter of minutes and SureBackup verifies the VMs can restart in the case of a restore.

> StoreOnce is probably is more expensive than a simple disk. But not eight times more expensive.
>
> *Federico Venier, Hewlett Packard Enterprise*