

Technical Brief

How Replication Can Help Support Your Company's RTOs and RPOs for the Hyper-V Environment

Presented by: Matt Price, Solutions Architect, Veeam Software

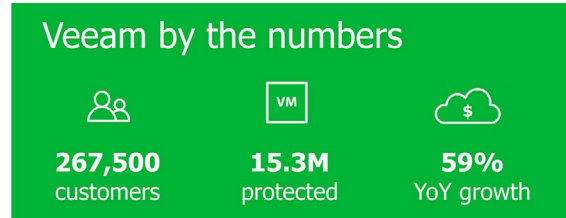
OVERVIEW

When data centers go down—whether for a natural disaster, a power outage, a virus, a machine failure, or some other reason—the downtime from the outage can be costly. To ensure they can be back up and running quickly, businesses are developing disaster recovery (DR) plans, both in physical data centers as well as with cloud-based providers.

Veeam offers DR solutions—including backup, recovery, and monitoring—for virtual machines (VM) like Hyper-V. The Availability Platform supports recovery time objectives (RTOs) and recovery point objects (RPOs) for VM environments.

CONTEXT

Matt Price discussed how Veeam can help Hyper-V users prepare for and meet uptime needs and expectations when downtime occurs.



KEY TAKEAWAYS

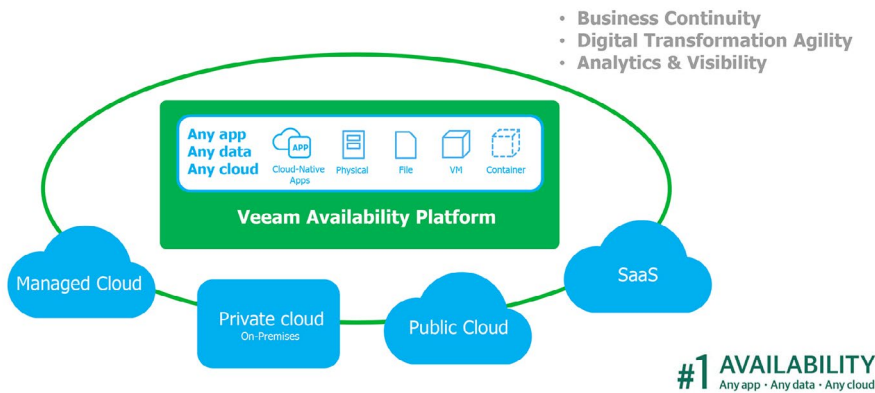
Veeam's Availability Platform helps enterprises fill the availability gap.

The availability gap—the gap between what the CEO views as an acceptable amount of downtime and the actual downtime within the company—is present in 82% of all enterprises. Not only does this downtime cost \$22 million, on average, but 66% of businesses are slowed developmentally by the gap.

Businesses can manage this gap using the Veeam Availability Platform. This solution offers business continuity, digital transformation agility, and analytics for any app, any data, and any cloud solution.

Availability for the Always-On Enterprise

Any App, Any Data, Any Cloud



The Availability Suite has five key capabilities that drive success for DR preparedness.

Veeam's Availability Suite, which provides the backup, replication, and monitoring for the Availability Platform, offers organizations five capabilities that are essential for DR preparedness.

Veeam's five key capabilities



High-Speed
Recovery



Data Loss
Avoidance



Verified
Recoverability



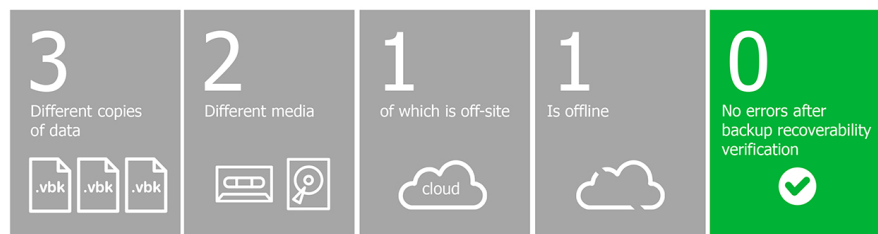
Leveraged
Data



Complete
Visibility

- **High-speed recovery** provides rapid recovery of what the business wants, whether it's recovery of the complete VM or recovery at the file level. Among Veeam's recoveries, 96% fall within the recovery time objective, compared to 78% with other vendor solutions.
- **Data loss avoidance** reduces the risk of data loss when a VM or an entire data center goes down. Veeam offers both backup and replication within the same solution, providing fail-over and fail-back capability in the event of a site outage. For businesses that don't have their own DR centers, Cloud Connect provides backup and replication with Veeam cloud and service provider partners.
- **Verified recoverability** guarantees recovery of every file, application, or virtual server with SureBackup and SureReplica. This also helps IT teams master the 3-2-1-1-0 best practice for backups: three different copies of data on two different media, one of which is off-site, one of which is offline, and with no errors after backup recovery verification.

Master the 3-2-1-1-0 Rule



- **Leveraged data** allows organizations to use backup data to create an exact copy of the production environment. With On-Demand Sandbox, 84% of Veeam Virtual Lab users are saving time by avoiding deployment problems when rolling out new software, updates, and service packs.
- **Complete visibility** comes from the proactive monitoring and alerting of issues before they impact the operation. Microsoft System Center Operations Manager (SCOM) users can use the Veeam Management Pack for System Center, while non-SCOM users can use Veeam ONE to get this full visibility.

You want to make sure what you are doing to prepare for disaster recovery has been tested and has been verified so you can sleep at night and know that if your site goes down, you're ready.

Matt Price, Veeam Software

Veeam fully integrates with Microsoft 2016 data center technologies.

Veeam is fully integrated with Microsoft 2016 data center technologies, including Windows Server 2016 support for installing Veeam components on and in protected VMs.

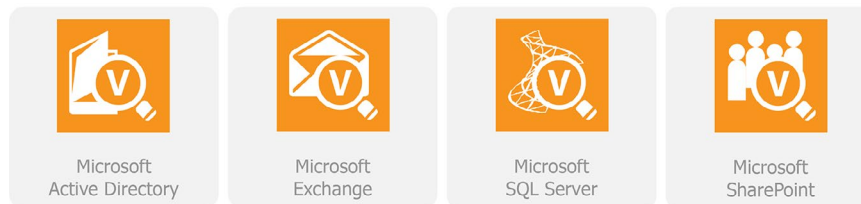
Hyper-V is supported from 2008 R2 to 2016; with Hyper-V 2016, Veeam supports resilient change tracking (RCT), Nano Server hosts, and Storage Spaces Direct. RCT reduces complexity by eliminating the additional filter driver in the parent partition for changed block tracking in backups, replicas, and restores. Hyper-V hosts installed on Nano Server can take advantage of Storage Spaces Direct to deploy Microsoft's recommended Hyper-V 2016 architecture to reduce data center footprints.

Veeam Availability Suite 9.5 also integrates with 2016 Microsoft enterprise applications, offering application-aware processing for Microsoft Active Directory, Microsoft Exchange, Microsoft SQL Server, and Microsoft SharePoint.

NEW Veeam Availability Suite 9.5

Integration with 2016 Microsoft enterprise applications

Application-aware processing for:

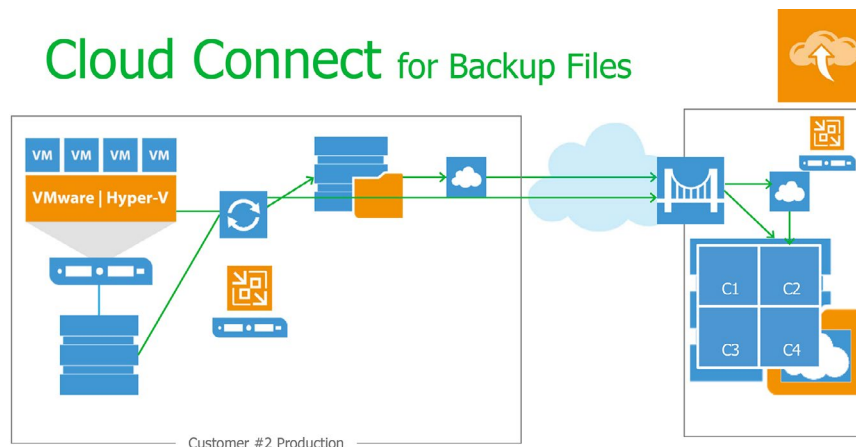


Application item-level recovery through Veeam Explorers™
Ensuring High-Speed Recovery through fast RTO's of <15 minutes

Backups and replicas can be stored off-site with Cloud Connect.

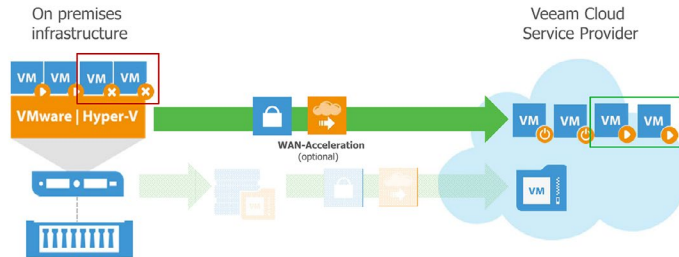
Veeam Cloud Connect allows organizations to store data off-site with cloud and service provider partners.

Backing up with Cloud Connect only sends changes to an existing backup so that there is no need for long backup cycles each time over the Internet. Businesses with an upload stream of 100 megabits or less can take advantage of Veeam's wide area network (WAN) accelerator, which speeds up the data transfer by comparing blocks with the service provider's cache and removing duplicates on the source-side and reinjecting them on the target side.



Veeam's agentless replication talks to Hyper-V with application programming interface (API) calls. Full-site fail-over is supported for DR scenarios. Partial-site fail-over is also available, allowing IT to take down part of the Hyper-V environment for maintenance—such as configuration changes or repairs—and point users to cloud-based versions rather than face downtime.

Cloud Connect Replication



Cloud restore is also available for any Veeam backup to Microsoft Azure. Although this uses the cloud, it does not require Cloud Connect.

