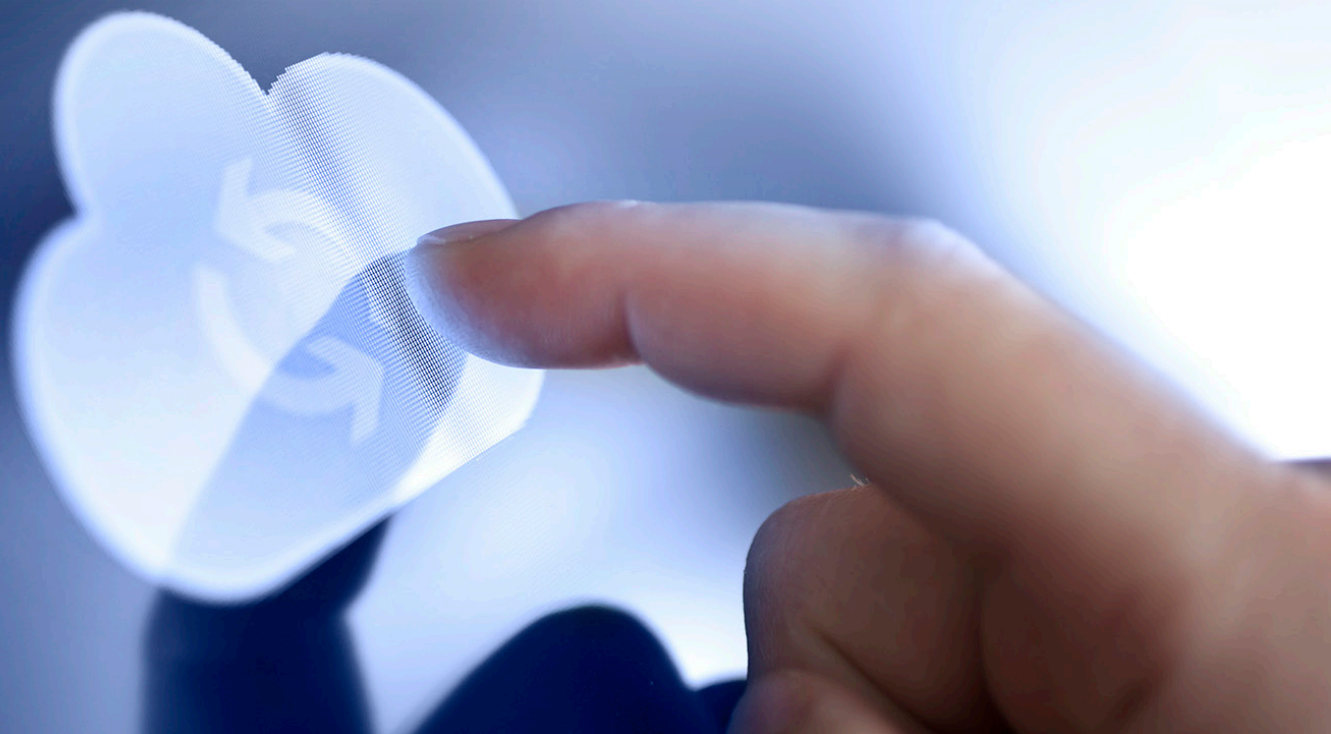


Backup Doesn't Cut It in a Hybrid Cloud World: Think Veeam Availability with IBM Cloud

Studies show legacy backup and recovery tools can't keep up in virtualized hybrid cloud environments, but there is a solution that can improve Availability and reduce downtime to meet increasing business demands.

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BUSINESSES REALIZE they need to transform IT to meet the challenges and opportunities in the digital age—whether it's new ways to reach customers, empower partners and suppliers, communicate, or simply do business. While they are certainly turning to the cloud to help satisfy demand, few are moving 100% of their IT infrastructure there, meaning they are left with a hybrid cloud environment.

But as they virtualize IT resources and shift to the cloud, companies are coming face to face with a hard reality: Their traditional backup and recovery solutions don't work effectively in highly virtualized and cloud environments, nor do they take advantage of the flexibility and agility of these environments to improve IT service levels. Thus, businesses are unable to meet application, IT service, and data Availability requirements.

The problem is widespread, according to a recent [annual survey](#) of 1,060 IT decision-makers from 24 countries by the Enterprise Strategy Group (ESG). ESG finds that 82% of respondents are not meeting their own service-level agreements (SLAs) for recovery capabilities, leading to downtime costs that average \$21.8 million per company.

To reverse the trend, companies need to look beyond traditional backup and recovery products to solutions specifically designed to address the virtual and cloud-based workloads that power today's agile, always-on enterprises. Those that do are seeing some stellar results, according to an [IDC survey](#) of nearly 1,000 customers. IDC finds that customers average a 20% improvement in meeting SLAs and see a dramatic drop in backup failure rate after implementing Veeam Availability Suite, with 30% reporting zero failures. That's up from 12% prior—a 250% improvement.

Hybrid cloud drivers

Such solutions should be welcome news to companies as they seek to take advantage of all the benefits the cloud has to offer, including elasticity, scalability, ease of deploying applications, and always-current core infrastructure. Plus cloud offerings offload many operational tasks from internal IT teams, leaving them free to focus on more strategic projects. Cloud also generally means lower capital expenses on equipment and software in exchange for a predictable monthly operational expense.

But it's clear that cloud is no panacea; many companies will likely find some workloads will always remain on premises in a private cloud or legacy environment for a variety of reasons. Perhaps they need greater control over applications and data due to regulatory requirements, or have older, legacy applications that can't run in a virtual environment. Performance requirements can also force an app to remain on premises, such as for applications that demand high performance and low latency.

Meeting these varied requirements means most companies will have a hybrid cloud environment. But such environments likewise deliver at least three key benefits:

- **The instant scalability inherent in public cloud offerings**
- **The predictable performance of dedicated, private cloud offerings**
- **The complete control inherent in premises-based IT infrastructure**

In short, a hybrid approach allows an organization to meet its varied IT and business needs, with each application running in the environment for which it's best suited.

82%

of enterprises are facing a gap between user demand and what IT can deliver, or an 'Availability Gap'

\$21.8M

is the average financial cost due to Availability and Protection gaps for enterprises

66%

of enterprises admit that digital transformation initiatives are being held back by unplanned downtime

Fig. 1: Hindrances to organizational digital transformation initiatives

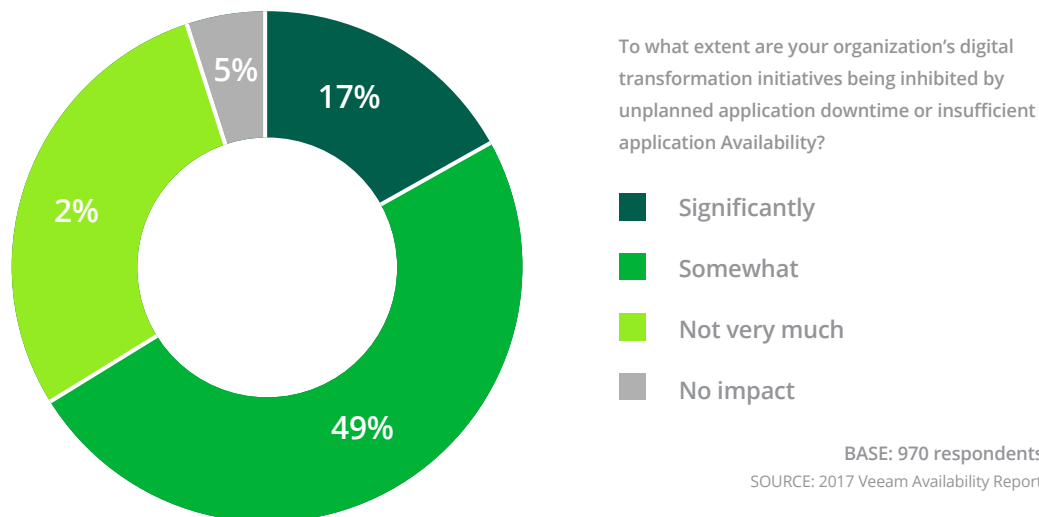
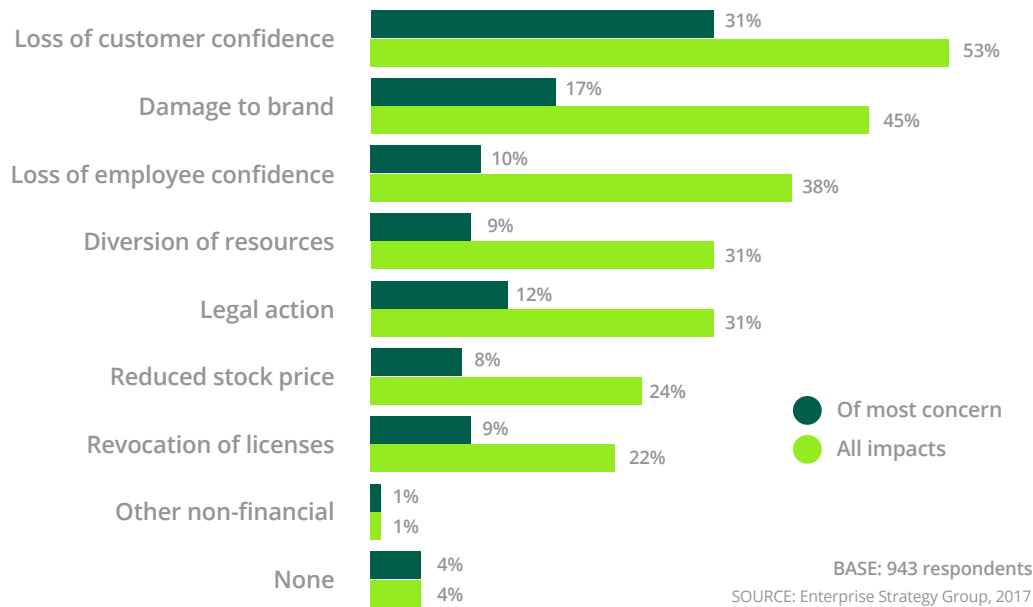


Fig. 2: Top impacts to business as a result of downtime or lost data



Hybrid Cloud Availability challenges

But such benefits do not come without some Availability challenges, requiring today's IT teams to provide more than just backup and recovery for hybrid cloud environments.

Availability means delivering on five capabilities: high-speed recovery, verified recoverability, complete visibility, data loss avoidance, and leveraging backups to improve IT operations.

The ESG study makes clear that companies are not meeting their own expectations when it comes to Availability, data protection, and backup and recovery.

Indeed, 85% of respondents in the ESG survey identify an Availability gap, rating themselves "less than very confident" with their organization's data backup and recovery capabilities. Three-quarters of respondents acknowledge they have a protection gap, meaning they're unable to protect data frequently enough to meet their business units' expectations around data loss.

In a nutshell, the problem is that traditional backup/recovery solutions were not intended for the virtual environments typical of hybrid cloud. Virtualization brings challenges because data and applications are no longer tied to a single physical server, and the same data tends to be copied to multiple servers and storage systems, creating lots of duplication. Backing it all up with traditional systems takes far too much time for many organizations.

Specifically, ESG finds that the average acceptable

data loss among respondents for high-priority applications is 72 minutes, but they protect those applications only every 127 minutes—leaving a 55-minute gap. Similarly, the average acceptable data loss for "normal" applications is 240 minutes. Actual protection? Every 352 minutes, a difference of 112 minutes, or nearly two hours. That is a significant gap indeed.

Only 15% of survey respondents are confident in their ability to back up and recover virtual machine (VM) files, which ESG calls "an appallingly low percentage."

Furthermore, downtime and data loss also have negative implications beyond hard dollars. This may include loss of customer and employee confidence, damage to brand integrity, and the diversion of resources from long-term or business-critical projects (see Figure 2).

Availability requirements in a hybrid world

It's clear that hybrid cloud environments require a fresh look at IT strategies to provide Availability, not just rudimentary backup and recovery. The next step, then, is to determine what attributes an effective solution should have.

It starts with high-speed recovery, with the ability to restore entire VMs as well as individual files quickly. Businesses define specific recovery time objectives (RTOs) in their SLAs. *RTO is a targeted amount time within which a business process must be restored after a disaster or disruption.* An effective Availability solution should enable organizations to

To increase confidence in VM backup and recovery capabilities, companies must know, from the moment an incident occurs, that they have the ability to recover.

meet RTOs of less than 15 minutes, to avoid those high downtime costs.

Similarly, the solution should be able to prevent data loss and streamline disaster recovery (DR), with the ability to create backups from storage arrays and appliances. A combined backup and replication capability is also a plus, enabling you to maintain image-based VM replicas either on-site for Availability, or off-site for DR. It should leverage the cloud for backup and support WAN acceleration to speed the off-site backup operation.

Taken together, such features should enable you to meet recovery point objectives (RPOs) of less than 15 minutes. *RPO is the maximum acceptable time period in which data might be lost from an IT service due to a disruption.*

To increase confidence in VM backup and recovery capabilities, companies must know, from the moment an incident occurs, that they have the ability to recover. That means the solution must have an automated mechanism for testing the recoverability and restore points of your backups and VM replicas, to ensure they can be recovered as expected if need be.

An effective Availability solution will also enable you to put your backup data to use by creating replicas of your production environment that you can use to test or troubleshoot applications without affecting production workloads. Essentially, you're using backup data you already have to create a sandbox environment. This reduces risk by leveraging backup data for testing, development, and planning processes rather than production data, to identify and eliminate problems before rolling out changes, new apps, or patches.

Finally, an effective hybrid cloud data Availability solution should provide complete visibility into the environment, including your ability to recover, with 24/7 monitoring and alerts to notify you of any issues before they affect your business. It should also support capacity planning, providing forecasting of resource usage and utilization trend reports for backup and virtual infrastructure.

IBM and Veeam have the solution

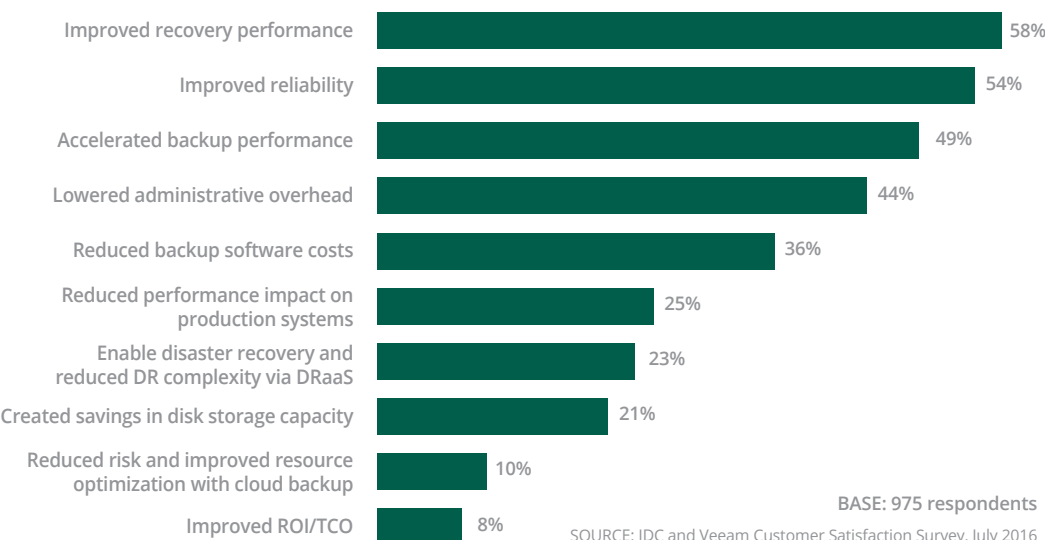
Together, IBM and Veeam offer a solution that addresses each of these capabilities, enabling companies to implement a hybrid cloud without sacrificing Availability. Theirs is a true best-of-breed offering, combining Veeam Availability Suite and the IBM Storwize family for on-premises data center and IBM Cloud solutions, including IBM Bluemix Infrastructure.

Veeam Availability Suite helps businesses meet SLAs for recovery of IT services and their associated applications and data with highly efficient backup, recovery, and replication for both premises-based and cloud infrastructure, making it ideally suited for hybrid cloud environments.

Veeam provides enterprise continuity, with RTOs and RPOs of less than 15 minutes for all applications and data, whether on-premises, in the cloud, or in a hybrid cloud environment. It also supports built-in, automated DR orchestration that enables one-click site failover.

For companies of all sizes, Veeam provides efficient and effective IT management including: complete visibility into both virtual and backup infrastructure with proactive monitoring/alerting,

Fig. 3: Top benefits of using Veeam



reporting, configuration tracking, capacity planning/forecasting, chargeback, and billing.

The IBM Storwize storage family includes all-flash and hybrid storage solutions with a range of capacities and performance capabilities suitable for organizations ranging from midsize to enterprise. With the ability to scale capacity quickly and easily into the petabyte range, and to support near-continuous Availability of applications through dynamic migration, they are well-suited to meet the scalability and agility requirements of private, hybrid-cloud environments. And they are an excellent target for Veeam backup repositories, both on-premises and as cloud infrastructure.

IBM is also incorporating Veeam into cloud solutions on two fronts: as protection of VMs running on IBM Bluemix Infrastructure and as part of IBM offerings such as VMware Cloud Foundation on IBM Cloud.

To protect the workloads customers move to IBM Cloud, Veeam can now be seamlessly deployed directly from the Bluemix Infrastructure portal. When provisioned as a virtual server, the resulting server includes fully installed Veeam services. Veeam is also compatible with IBM Cloud baremetal servers, making Veeam a solid choice for organizations requiring full control of their cloud server resources.

In addition, Veeam provides Availability for IBM Cloud offerings themselves. The VMware Cloud Foundation on IBM Cloud supports public cloud, dedicated cloud, and on-premises options, and is intended to help make it easy for companies to seamlessly migrate workloads into the cloud or from the cloud to on-premises using the same tools to manage the environments.

With Veeam protecting and enabling rapid recovery of both services and the workloads they power in the IBM Cloud, customers have the confidence and capabilities to meet the demanding uptime, recovery, and Availability expectations of today's businesses.

Sound protection for hybrid cloud

The continued rise in adoption of virtualization and cloud services requires that companies take a measured approach to Availability of their IT systems. Enterprises must ensure protection and recovery capabilities are able to meet SLAs. They also must recognize that a lack of agile, reliable recovery and Availability solutions will impact their virtualized environment and hinder IT initiatives.

The combination of IBM and Veeam addresses each of these requirements, as IDC's study shows, with users reporting improvements in RPO/RTO, reliability, backup speed, and more (see Figure 3). In addition, the study shows customers had a 70.7% SLA attainment rate before implementing Veeam and a 90.9% rate after implementing—a jump of more than 20 points. What's more, 95% of customers report low rates of failure after implementing Veeam.

To top it off, they get these results while spending less on storage hardware and software, [IDC reports](#).

"Veeam customers reported setting higher SLAs and achieving them more consistently while spending less money and staff time to do so compared with their prior solution," IDC concludes. "These benefits resulted in better business outcomes and higher staff productivity for customers that have made an investment in Veeam."

**Together,
IBM and
Veeam enable
companies to
implement
hybrid cloud
strategies with
Always-On
Availability.**

To learn more about how the combination of IBM and Veeam Availability Suite can help you achieve similar results in a hybrid cloud environment, visit: www.veeam.com

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1 + 1 = 3
IBM + Veeam
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