A Guide to Improving **Availability and Data Protection in the Hybrid Cloud**

As organizations embrace cloud architectures, IT leaders are under enormous pressure to ensure and improve Availability and data protection. In today's Always-On™ world, any loss of business continuity can be crippling. If you are a VMware customer using or considering hybrid or private cloud models, you have a unique opportunity to drive major gains in Availability by leveraging industry-leading solutions from Veeam®. Here's what you need to know.

For IT decision-makers, cloud computing is no longer just an option—it is a mandate. The need to embrace the cloud can come from any number of sources: corporate management dictating a cloud-first strategy, line-of-business managers launching their own Shadow IT initiatives or IT leaders leveraging the cloud to reduce costs and improve agility.

Regardless of the factors driving this change, the reality is this: If you are not moving to the cloud in one way or another, you are putting yourself and your organization at risk. As you shift to the cloud, however, you must ensure that you are doing so safely, securely and strategically.

This means focusing on Availability, business continuity and data protection. Why? Here are three key reasons:

1. **Addressing the rising cost of downtime:** Downtime can cripple today's Always-On Enterprise™. IDG estimates that every hour of downtime costs an average of $100,000—not counting the impact on customer relationships, employee morale, regulatory compliance and brand reputation.[1]

2. **Meeting SLA requirements:** Almost every company struggles to meet the service-level agreement (SLA) requirements of their business units when it comes to recovering and protecting data. More than 80% of companies have an Availability Gap and more than 70% have a protection gap, costing nearly $22 million a year for the average enterprise.[2]

3. **Leveraging highly virtualized environments:** Cloud architectures are different than legacy architectures, using virtualization to enable resource sharing, elastic scalability and self-service provisioning. Unless your Availability solutions are designed for highly virtualized environments, you may be missing out on critical benefits that can strengthen business continuity.

Hybrid cloud gives IT teams greater control over Availability and data protection than public cloud, which is why many IT leaders are embracing hybrid as a model. The hybrid cloud market is expected to grow at a compound annual rate of 22.5% through 2021, reaching from $33 billion to nearly $92 billion.[3] Just in the past year, hybrid cloud adoption tripled, increasing from 19% to 57% of organizations surveyed.[4]

Many companies using the hybrid cloud model are leveraging VMware as their platform: 42% of companies use VMware vSphere for the private cloud portion of their architecture, and 28% of enterprises use VMware vCloud Suite, making VMware the leader in both categories.[5]

1   "Using Veeam in the New Race to Zero: Customer Survey Results," IDC, February 2017
2   "2017 Veeam Availability Report: Why Organizations Struggle to Digitally Transform & Innovate," Veeam and Enterprise Strategy Group, April 2017
3   "Hybrid Cloud Market Worth 91.74 Billion USD by 2021," MarketsandMarkets, April 2016
4   "2017 State of Cloud Adoption and Security," Forbes, April 23, 2017
5   "RightScale 2017: State of the Cloud Report" RightScale, January 2017

VMware customers can minimize or eliminate their Availability and data protection gaps by leveraging industry-leading solutions from Veeam. With Veeam, organizations can improve enterprise continuity, ensure workload mobility, and improve compliance and visibility—in the cloud and on premises.

Moving to the hybrid cloud

Just as they should do for on-premises data centers, IT and business decision-makers must set clear targets for Availability and data protection in hybrid cloud environments. Hybrid cloud provides additional opportunities to close the Availability and data protection gaps through capabilities such as public cloud backup and disaster recovery as a service (DRaaS).

By leveraging these capabilities, IT teams have more options to adhere to best practices in data protection, which is typically defined by the 3-2-1 Rule[6]:

- 3: Maintain at least three copies of your data
- 2: Store data on at least two different types of storage media
- 1: Keep one copy of the backups in an off-site location

By using cloud as the off-site location for backup copies, IT teams can save money and increase Availability. However, IT must leverage solutions that address the challenges and opportunities of highly virtualized hybrid cloud environments in order to maximize Availability and recoverability. These challenges/opportunities are:

- **Enterprise continuity:** In the Always-On Enterprise, downtime is not an option. With the right Availability solution in hybrid cloud environments, organizations can achieve recovery service-level objectives (SLOs) of less than 15 minutes for all applications and data. They can also leverage automated disaster recovery (DR) orchestration to ease the burden on precious IT resources.

- **Workload mobility:** To maximize flexibility you need an Availability solution that works across any cloud or location, offering the same capabilities for virtual, physical and cloud-based workloads. In the cloud era, it is important to avoid vendor lock-in so you can maintain your own data and easily move it to another cloud service provider based on the needs of your business.

- **Compliance and visibility:** While cloud service providers offer a wide range of compliance protections, your company's data is your data. If there is a problem with regulatory compliance you own it. With the right Availability software, you can have unprecedented visibility into your data through proactive monitoring, reporting, testing and documentation to ensure that business and regulatory compliance requirements are being met.

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6 "Data Backup Options," Paul Ruggiero and Matthew A. Heckathorn, United States Computer Emergency Readiness Team, 2012

Bridging Availability and data protection gaps

Users of VMware can leverage Veeam's industry-leading Availability solutions to maximize enterprise continuity, workload mobility, and compliance and visibility in hybrid and private cloud environments.

Veeam solutions are tightly integrated with VMware products, including vSAN, vRealize Log Insight, vCloud Director and Cloud Foundation, to provide customers with maximum flexibility in closing their Availability and data protection gaps—in the cloud or on premises. With Veeam solutions, VMware customers can achieve:

- **High-speed recovery:** VMware customers can meet recovery time and recovery point objectives (RTPO™) of less than 15 minutes for ALL applications and data.
- **Improved DR:** Automated backup and testing in Veeam solutions guarantees the recovery of every file, application or virtual server to provide business continuity assurance.
- **Data loss avoidance:** VMware customers can ensure complete and consistent backups in the cloud or on premises with application-aware, image-based backup. Intelligent load balancing enables high-performance backup and built-in replication.
- **Complete visibility:** Customers can enhance security and compliance capabilities by leveraging proactive monitoring, reporting, testing and documentation of the Veeam backup infrastructure to spot issues before they can significantly impact operations.
- **Cloud flexibility/simplified migrations:** VMware customers can avoid vendor lock-in because Veeam solutions are storage agnostic, integrate seamlessly with VMware and are designed to support workloads across any cloud environment.

For many VMware customers in the cloud, Veeam has already become the go-to solution for data protection and Availability through the tight integration of Veeam with VMware vCloud Director. Because of that relationship, customers can easily deploy Veeam through their cloud service providers.

Conclusion

The growth of hybrid cloud enables organizations to reduce costs and increase agility. But, in moving to hybrid cloud models, IT teams must focus on Availability, business continuity and data protection. With the right solutions, IT can achieve improvements in these critical areas, thus closing their Availability and data protection gaps.

The combination of VMware and Veeam enables organizations to move safely, securely and strategically into hybrid and private cloud architectures. IT teams can ensure enterprise continuity, workload mobility, and compliance and visibility to achieve

industry-leading RTPO, with guaranteed recoverability of every file, application or virtual server.

Is hybrid cloud on your company's agenda? If so, make sure you are asking the right questions about Availability, business continuity and data protection. For more information on how to ensure Availability, business continuity and data protection in VMware environments, please visit Veeam at https://www.veeam.com/vmware-vsphere-solutions.html.