

5 Data Management Tips to Build a Successful Multi-Cloud Strategy.

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According to IDC, “85% of enterprise IT organizations will commit to multi-cloud architectures by 2018.”¹ Many companies use multiple public clouds in addition to on-premises private and non-cloud infrastructures. But some question whether “multi-cloud” in this sense is more of a description of the current environment, as opposed to an overarching strategy.

As enterprises continue their journey to digital transformation, we believe data and workload management are critical components of a successful multi-cloud strategy. Without proper data management, a multi-cloud environment can quickly become just another multi-silo one, compounding costs and risks to the business. Below we explore five data management tips to help maximize the benefits of a multi-cloud environment.

1. ESTABLISH DATA VISIBILITY

The cloud provides an easy mechanism for enterprise IT organizations to access and leverage both existing and new sources of data. In an increasingly sensitive legal and regulatory landscape, enterprises must adhere to strict compliance requirements regarding the storage and management of data.

Establishing global data visibility is an important first step in making data accessible on the cloud platform of choice, yet in a compliant manner that doesn't put the business at risk.

Gartner defines dark data as: “...The information assets organizations collect, process and store during regular business activities, but generally fail to use for other purposes (for example, analytics, business relationships and direct monetizing).”

Most organizations see their on-premises secondary data stores as the perfect candidates for data migration to the cloud. But for the average enterprise, more than half of this data is considered “dark.”²

With a constant flow of new cloud services available from the likes of AWS, Microsoft, and Google around data analytics, machine learning and artificial intelligence, the temptation to accelerate the migration of these and other data sources to the cloud can be overwhelming. But blindly putting dark data, that may consist of sensitive information, into the cloud can quickly become a compliance nightmare. Putting redundant, obsolete or trivial data that has virtually no use for the business in the public cloud can result in paying for far more storage than is necessary—a terrible waste of budget.

With Veritas, organizations can shed light on dark data, so it can be used more effectively and moved to various clouds that support business requirements. This includes AWS, Microsoft, Google, IBM and many other public, private or open source providers.



¹ IDC FutureScape: Worldwide Cloud 2017 Predictions
² Veritas Global Databerg Report, 2016

2. ENABLE WORKLOAD MIGRATION/PORTABILITY

The motivation for a multi-cloud strategy is typically a combination of three business desires: taking advantage of best-of-breed cloud services, avoiding cloud lock in and having an insurance policy against cloud failure. When Nirvanix, an early cloud storage pioneer, closed its doors in 2013, customers were “apparently given two weeks to move all their data out of its facilities.”⁴ While an extreme example, this situation is an unfortunate reminder and in many ways, “validates the fears over the risks of completely handing over data to a third party.”⁵

Cloud outages occur. And when they do, they make headlines. Early in 2017, a “4-hour outage at Amazon’s AWS cloud computing division caused headaches for hundreds of thousands of websites across the United States.”⁶

A multi-cloud strategy is not only prudent, but must include the ability to not only migrate data and workloads TO the cloud of choice, but also WITHIN zones and regions associated with that cloud. It must also provide the ability to migrate FROM the cloud to another platform—even if that platform happens to be a privately managed cloud in the data center.

Veritas enables the migration and portability of data and workloads across different clouds: to, from, and between traditional on-premises environments and another customer-managed data center, hosted or managed private cloud like HPE’s Helion cloud, or out to a public cloud like AWS or Microsoft’s Azure cloud.

With Veritas, organizations are both platform and cloud independent. This allows maximum reliability of services while maintaining control of workload operations and storage costs.

According to IDC, “In 2017, seamless workload portability and automated migration, facilitated by open APIs and container technologies, will allow enterprises to quickly shift new or modernized workloads across multiple cloud options with limited downtime or service-level impacts.”³

3. LEVERAGE SOFTWARE-DEFINED STORAGE

According to 2014 IDC’s Digital Universe study, the number of connected devices should’ve already grown past 200 billion.⁷ Not all of those “things” are communicating on the web, but IDC estimated in 2014 that, “roughly 20 billion are and by 2020, that number will grow by 50% to 30 billion connected devices.” Data from the Internet of Things (IoT) is a major contributor to the expected 44 zettabytes of total data that will exist in the world by 2020.

There are obviously data storage/management cost implications from this new IoT data. There is also an opportunity to mine and analyze said data to influence and drive new business models.

The main challenge comes from addressing data storage needs, in a cost-effective manner, for both transactional and analytic workloads with very different performance and capacity requirements to sufficiently capitalize on the opportunities. This task, which is made more difficult when those applications run in on-premises and multi-cloud environments, each with its own unique set of requirements and connection protocols. Scale-Out NAS software-defined storage (SDS) is the answer.

Using SDS capabilities to extend storage tiering out to various clouds—including open source environments like OpenStack, Veritas can optimize for performance and storage costs. Veritas also enables cloud-to-cloud portability of data based on cost, performance and scalability requirements. Veritas SDS can operate on cloud infrastructure to optimize the provisioning of in-cloud storage resources and provide customers a sure way to cost-manage their cloud deployments.

4. PRIORITIZE DATA REGULATORY AND COMPLIANCE ISSUES

Public and private organizations face growing obligations to comply with numerous regulations including the U.S Freedom of Information Act (FOIA), the European Union General Data Protection Regulation (GDPR) and regional laws and industry-specific data retention mandates. These regulatory requirements are compounded by data sovereignty and nationalization efforts that many companies across the globe are tasked to follow. These increasingly stringent regulatory demands inevitably will turn a routine request for information—such as an audit, a human resources action or a legal activity—into a time sensitive and high stakes search and retrieval effort. Without documented policies for data retention, this process is further complicated by fragmented data environments across multiple cloud infrastructures.

³ IDC FutureScape: Worldwide Cloud 2017 Predictions

⁴ <http://www.computerweekly.com/opinion/Nirvanix-failure-a-blow-to-the-cloud-storage-model>

⁵ <http://www.computerweekly.com/opinion/Nirvanix-failure-a-blow-to-the-cloud-storage-model>

⁶ <https://www.usatoday.com/story/tech/news/2017/02/28/amazons-cloud-service-goes-down-sites-scrumble/98530914/>

⁷ The Digital Universe of Opportunities: Rich Data and the Increasing Value of the Internet of Things April 2014

Veritas' information governance capabilities provide an essential layer of functionality to consistently meet the data retention and compliance obligations of regulated organizations. By enabling proactive, defensible and ongoing policy enforcement against common retention requirements, these capabilities can drastically increase the speed, accuracy and efficiency of eDiscovery and information requests. Leverage index, search, filtering and advanced analytics capabilities to collect targeted information, even when that information happens to be email data from Software-as-a-Service (SaaS) applications like Office 365 or Googles G Suite Enterprise Gmail.

5. ELIMINATE DATA PROTECTION SILOS

67 percent of organizations expect to use two or more unique backup products in 2017. This is actually fairly common at a certain level, some even use separate solutions to protect on-premises physical and virtual environments. As organizations shift workloads to the cloud, consider how that data will be protected, and whether it makes sense to continue to use separate solutions, or to unify data protection under a platform and cloud independent solution. With all the redundancy built into cloud infrastructure, many think that backup and recovery for cloud-based workloads is not necessary. This is faulty thinking.

"It's a fallacy to think that data protection is unnecessary in the cloud," says Jason Buffington, ESG. "While the cloud offers data durability beyond what any enterprise could realistically offer in their own data center, data durability is not the same as data protection."⁸

Cloud infrastructure providers offer built-in snapshot technology that can replicate data across cloud zones and geographic regions, which certainly helps. Snapshots and replication is a data protection component, not its replacement. It can quickly become a complicated mess in the multi-cloud when using multiple cloud provider-specific tools for data protection, plus those existing for on-premises workloads.

There are considerable efficiencies to be gained with a unified data protection platform that protects workloads in the data center, remote branch offices and across multi-cloud environments. Siloed and disparate point products simply cannot provide a much lower cost of ownership and dramatically simplified operation.

Without complicating data protection, Veritas enables organizations to confidently use the cloud platforms of their choice, while ensuring the reliability, performance and availability demanded by a comprehensive enterprise data protection strategy.



CONCLUSION

In order to meet the needs of their businesses, many global enterprises are choosing cloud infrastructure from multiple providers like AWS, Azure, Google, or IBM. At Veritas, we provide data and workload management for hybrid cloud and multi-cloud environments, by ensuring that our customers have the tools and technology they need regardless of the cloud they choose. By following these data management tips, you're sure to build a successful multi-cloud strategy that's right for your business, while lowering costs and risks.

Learn more about [Veritas 360 Data Management for the cloud](#) today.

ABOUT VERITAS TECHNOLOGIES LLC

Veritas Technologies LLC enables organizations to harness the power of their information, with solutions designed to serve the world's largest and most complex heterogeneous environments. Veritas works with 86 percent of Fortune 500 companies today, improving data availability and revealing insights to drive competitive advantage.

⁸ ESG Research Report, 2017 Data Protection Modernization Survey, January 2017

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