



▶ Your Top 6 Cloud Data Protection Challenges. Solved.

The cloud is changing everything. It's transforming IT organisations with agility and efficiency like never before, enabling them to realise new IT-as-a-Service delivery models. For large enterprises, many of which have already consolidated IT infrastructure to private clouds, there is new value in using public clouds for dev/test applications and archiving. Smaller enterprises are seeing the increasing advantages for using the cloud for data backup and disaster recovery.

Yet, with change also comes new challenges. As the market migrates into what many consider to be "phase two" of cloud adoption, organisations are faced with rationalising their move to the cloud, balancing its advantages and barriers as they chart the course of their cloud journey.



▶ 6 SOLUTIONS TO YOUR TOP CLOUD DATA PROTECTION CHALLENGES

As you develop your roadmap to cloud adoption, consider how the following five challenges might impact your strategy. Then read on to see how you can solve them so that you can realise the full potential of your next cloud project.

1 Challenge: You're Concerned about Cloud Security. Indeed, security of the cloud is a conflicting topic for most enterprises. In fact, IDG Enterprise reports that 74% of customers are very/somewhat confident in the "security of information assets in the cloud."¹ However, the same study reports that 59% of customers who pulled data and workloads back out of the cloud did so because of their concerns about security. With new headlines about security breaches and cyberattacks out every day, all organisations are on the edge. Add to that increasingly stringent compliance and regulatory requirements and security quickly becomes a top priority for any new infrastructure deployment – private and public clouds included.

Solution: Security best practices can easily be applied to cloud environments. By looking holistically at your cloud data management strategies you can reduce the risk of privacy breaches and exposure events by using solutions that support encryption for data in flight or at rest across any storage media, including the cloud. Be sure to select a solution that will encrypt data without slowing backups or the tiering of copies with options that will embed encryption capabilities so that they can be applied selectively based on policies.

And, speaking of policies, when selecting a cloud-enabled solution for your workloads, ensure that granular policy control is comprehensively offered in addition to encryption. This can enable the secure cloud features needed to prohibit costly data breaches. In fact, only locked-down policies at a very granular level will prevent many data breaches, regardless of where the data lives, on premise, in a remote office or in the cloud.

2 Challenge: Your Applications Aren't Cloud-Ready. According to a recent hosting and cloud study,² 39% of applications will run on cloud infrastructure by 2017. Yet, for this to become a reality, applications need to be ready for the cloud. They need to be designed to optimise bandwidth and deliver optimised performance so that workloads can be efficiently offloaded to the cloud when needed.

Solution: If you think you can't benefit from cloud infrastructure because your business applications haven't yet been optimised for cloud operation, think again. One of the fastest ways to take advantage of cloud efficiencies is to leverage the cloud for data protection and disaster recovery. By selecting a data protection solution that offers application-aware backup,

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**Data Management
in the Cloud Era.¹**

Learn more about the benefits of a single data management platform for the cloud

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¹ IDG Enterprise Cloud Computing Research 2014

² 2014 IDG Enterprise Cloud Computing Research



recovery and archive that's optimised to manage on premise, private, public and hybrid cloud, you can quickly realise operational efficiency and greater recovery readiness even if the applications you're protecting haven't been adapted to the cloud yet. By bridging multiple hypervisors with cloud platforms and offering self-service provisioning and management of both VMs and cloud instances, the best cloud-enabled data protection and information management solutions make every application – cloud ready or not – more efficient and elastic.

3 Challenge: You're Worried about the Costs – both the Expected and the Unexpected. It's been reported that enterprises will spend as much as \$90 billion on cloud services in 2015. While that may sound like a hefty number, many companies are investing in cloud services to reduce costs. The cloud promise is that it will eliminate the high capital expense (CAPEX)-centric models of traditional IT and shift it to an operational expense (OPEX), with monthly or annual subscriptions based on usage. This predictable OPEX model ultimately reveals cost savings when properly optimised. Yet, every seasoned IT professional knows that with new infrastructure models comes the unexpected, and the cloud is no different. There will be new costs and unexpected expenses during the journey. In fact, according to IDG Enterprise only 23% of customers claim that cost reduction is a benefit of using the cloud. The secret is in how to transform new expenses to cost savings more quickly while preventing costly misuse of cloud "utility" resources.

Solution: The solution is better cloud optimisation. Using new cloud provisioning tools and cloud-enabled applications for processes such as disaster recovery and data protection, IT organisations can more quickly gain control of their cloud infrastructure. Streamlined solutions – such as a products that offer a single, web-based console – that can provision large numbers of cloud instances give enterprises the ability to manage a complete range of processes for rapid resource optimisation. Delivering that self-service approach to provisioning and management across multiple cloud platforms will help enhance staff productivity and reduce the risk of cloud "lock-in." Actions such as attaching expiration dates to VMs or automatically powering VMs down after expiration can be easily accomplished. This ensures that not only the cloud infrastructure is optimised to deliver the greatest cost efficiency, it also prevents those unexpected costs that can result from users "leaving the water running" on their public cloud, saving thousands of dollars on monthly bills based on cloud usage.

4 Challenge: You're Not Confident in the Cloud's Reliability. No doubt, the cloud market is rapidly maturing. Large investments have been committed by major vendors, including Amazon, Google and Microsoft, to assure that the reliability of the cloud is fail-safe. Yet, news of cloud outages and failures still pop up giving rise to the reliability question. How can you be sure that your data is reliability retained and available in the cloud?

"39% of applications will run on cloud infrastructure by 2017."

451 Research, Uptime Institute, Yankee Group - Hosting and Cloud Study 2014

Solution: The answer lies in the trust you have with the partners you engage. Cloud reliability can be assured when working with those partners that have a solid track record of success and stringent SLAs. When looking for a cloud data protection partner, choose one that has proven results for assuring cloud uptime and reliability. It's also wise to select cloud vendor partners that will offer cloud portability when necessary so that you aren't locked into a cloud environment that can't scale with your requirements or meet your future needs. Trusted, experienced partners will deliver cloud reliability without compromise.

5 Challenge: You're Worried the Cloud with Add More Complexity. Just as any new infrastructure, the cloud isn't simplifying IT, it's making it more complex. With many different cloud delivery models and multiple providers, the cloud is adding new layers of infrastructure to the enterprise that must be managed and optimised. This is driving the concern that separate cloud stacks that don't integrate well create more management complexity and impact staff resource productivity and increase the risk associated with "cloud lock-in."

Solution: You can overcome the complexity challenge by taking a unified approach to data management in the cloud. A single, platform-agnostic solution can not only streamline a move to the cloud, but also enable simplification once workloads have been deployed in the cloud. Select a solution that integrates with 20 or more cloud storage platforms, has deep integration with cloud computing infrastructure from Amazon and Microsoft Azure and takes an agnostic approach to on-premises infrastructure built on VMware or Microsoft Hyper-V. This will minimise the complexity and give you the freedom to choose the best infrastructure, at any time, that meets your security, application, cost and reliability demands.

6 Challenge: You Fret Over Data Sovereignty Compliance. There has been a lot written recently about the growing need to maintain data within the country where the customer resides to avoid litigation around data privacy and jurisdictional control. This means that for multinational organisations, protecting digital information in the cloud while adhering to data sovereignty may add increased management complexity.

Solution: To support data sovereignty requirements when using the cloud, select data protection and management solutions that deliver granular controls and detailed reporting. This will ensure that you can properly enact strict policies around where data is retained and replicated to assure that it is contained within specific regional datacentres, if required. Detailed reporting will then deliver the proper audit proof that may be required should questions, or even audits, around your data sovereignty controls arise.

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2014 IDG Enterprise Cloud Computing Research



As more and more mainstream applications are pushed into the cloud, the cloud's value must be realised. But first you need to overcome the challenges presented by this transformational IT shift. By employing security best practices, enhancing applications with cloud-enabled data protection, and optimising your cloud workloads by using trusted partners that deliver a unified approach, you can overcome cloud barriers and speed your journey to achieving IT agility and efficiency like never before.

RESOURCES

i commvault.com/resource-library/5445a26f990ebbbd71001708/data-management-in-the-cloud-era-3.pdf

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