



WHITE PAPER

COMMVault 

5 Steps to Application-Aware Data Protection

With hybrid IT and the increase of applications being “lifted and shifted” to the cloud, protecting your data has become much more challenging. How confident are you that you can recover?

When disaster strikes, you need to know you can recover data quickly at the application level. And many products out there are simply not up to the job, at the application level and many solutions are simply not up to the job. It's time to re-examine your strategy and look to a modern, application-aware data protection approach - and here's how you can get there.

STEP 1

CLEARLY UNDERSTAND THE NEW PROTECTION REQUIREMENTS

Back when data was largely unstructured and stored on fewer servers, backup really was a pretty straightforward proposition. In today's IT world where things are constantly changing, can your solution keep up? What about the cloud? Containers? SaaS? Big data and NoSQL applications?

Each of these applications and databases, such as Oracle, SAP, IBM DB2, and the various cloud-native applications have specialized data formats and behaviors which data protection solutions must natively understand. It's not good enough to simply back up and restore the data in bulk. Crash consistency does not equal application consistency. Solutions must understand and support the unique requirements of each application, control backup storage costs, and provide proper security for data, both in flight and at rest. You don't want to be the next headline for data loss.

Today's data protection solutions must integrate at the API level to protect and restore the data you need, where you need it with as much automation as possible. Cost, complexity, data storage challenges, virtualization, and cloud are all driving new business requirements at a rapidly changing pace. Your solution needs to be agile enough to keep up.

STEP 2

CONSOLIDATE OLD POINT BACKUP TOOLS

As the types and locations of the data you need to protect have grown, so too have the number of associated backup tools to try and address these new business needs. This reactive approach to IT has led to point products and homegrown scripts being cobbled together over time making them cumbersome to maintain. This strategy also lacks the agility to accommodate new demands from the business or even simple changes to the existing configuration.

Solutions like Commvault HyperScale X™ Technology provide the features of multiple backup point tools all under a single scale-out platform. This makes it much simpler to license, manage, and operate. Add to that one of the broadest ranges of support for platforms and applications in the industry and you're ready to tackle the challenge head on - whatever the application, wherever it lives.

Be ready to protect your applications

Source-side deduplication can eliminate more than 90%¹ of the data copied over the network, and cut backup time in as much as half. This can also accelerate cloud migration, disaster recovery, and DEVOPS tasks

Make application-aware recovery faster and less complex with Commvault snapshot management technology enabling point-in-time recovery of applications like Microsoft M365, SQL, Oracle, SAP/HANA, DB2 and cloud-based workloads like CosmosDB, Azure DataLake, Amazon Redshift, and Kubernetes

Achieve API-integrated protection for over 10 hypervisors and virtualization platforms like VMware, Hyper-V, Amazon, Nutanix Acropolis, and Azure - eliminating the data management roadblocks to scaling out and virtualizing applications.

STEP 3

DON'T GET BACKED UP ON BACKUPS

Surprisingly, many IT organizations today still struggle to complete all their backups within the desired SLAs, if at all. If this sounds familiar, then you're already aware of what's going on - the amount of data to be protected is growing exponentially as more applications are being deployed, while the resources you have allocated to backup all that data are not keeping up. Besides the amount of data, the locations and types of data have become more complex with the addition of containers, more virtualized servers, and the expanded adoption of hybrid and multi cloud configurations.

Innovative data protection solutions, including proven scale-out options like Commvault HyperScale X™, provide API integration with key enterprise applications in use today. This enables you to drive rapid and app-consistent protection wherever the data lives – physical, virtual, or cloud based. Which is why integration with cloud and storage array snapshot technology is critical as you can create nearly instantaneous application-aware copies, greatly improving your recovery point (RPO) and recovery times objectives (RTO). The end result? You can drastically shrink backup windows and improve recovery time.

STEP 4

CRASH-CONSISTENT IS NOT ENOUGH

Your applications are increasingly being deployed within containers and virtualized environments, both on-premises and in the cloud. While some data protection solutions may protect the virtual machines themselves, they don't always provide any deeper integration to properly protect and recover your applications housed within those VMs. This broken state can greatly hamper your recovery efforts and could even lead to data loss.

You require a solution to go beyond simply protecting the virtual machine, it must be aware of the data and applications within and protect them consistently. Commvault's application awareness gives you granular, point in time recoveries, a standard requirement for applications that you shouldn't have to give up just because you virtualized them.



How can you be ready for disaster with Commvault Auto Recovery? [Watch Now >](#)

¹ Based on customer results like:

<https://www.commvault.com/resources/case-study-university-of-leicester> (98%), <https://www.commvault.com/resources/case-study-university-of-melbourne> (90%)

STEP 5

RETRIEVE, RECOVER, AND MANAGE - SIMPLY

When you have multiple point solutions in use, your team needs to learn all the nuances of these different tools which makes your recovery plans that much more complex. This also adds to the overall risk as there is no clear, consistent picture of the data as it's spread across several separate toolsets. Don't forget the manual overhead of having to find that data among the various silos.

Commvault provides a single consistent user interface that streamlines accessing, managing, and retrieving backed-up data. Whether you're rolling back a database table or granularly recovering a VM or cloud instance, recovery is easily handled. This consolidated management enables you to automate more tasks, thus saving time and effort related to day-to-day operations. Automation will allow you to accommodate the growing data and application set with greater ease. And, integrated reporting provides clear insights into your environment and proactively alerts you of any anomalies.

47% of organizations follow a cloud-first strategy by deploying new applications in production using public cloud services.²

SUMMARY

In migrating to an application-aware data protection solution you not only improve your overall recovery readiness but can enhance and accelerate other business initiatives such as DEVOPS and multi cloud operations. Data is your most valuable asset, and being able to protect that data properly – be it in an application, virtualized, containerized, or in the cloud – is critical in today's ever-changing IT landscape.

² Enterprise Strategy Group eBook, Multicloud Application Deployment; Delivery Decision Making, February 2023

Recover your data rapidly and easily, whenever you need to, and leverage reports to continually improve your backup and recovery processes. [Learn >](#)