

DCIG Solution Profile

Azure Cloud Backup Solution Profile

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SOLUTION HYCU for Azure

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DISTINGUISHING FEATURES OF HYCU FOR AZURE

- Automatically optimizes backup data placement
- Incurs no performance overhead on VMs when performing backups
- Facilitates immediate implementation of backup jobs

DISTINGUISHING FEATURES OF TOP 5 AZURE CLOUD BACKUP SOLUTIONS

- Back up and recover non-Azure databases
- Perform instant recoveries
- Protect data on-premises
- Protect VMware applications running in Azure

SOLUTION FEATURES EVALUATED:

- Backup administration
- Backup capabilities
- Configuration, licensing, and pricing
- Recovery and restores
- Snapshot administration
- Support

Microsoft Azure Going Neck and Neck with AWS

For years Amazon Web Services (AWS) seemed to possess an almost insurmountable lead in the public cloud infrastructure-as-a-service (IaaS) provider market. Then, Microsoft Azure made some changes to its public cloud offerings. Led by its SaaS-based Office 365 and IaaS-based Azure offerings, Microsoft closed the gap to now go neck and neck with AWS. Consider:

- Microsoft Office 365 is the cloud software-as-a-service (SaaS) most used by enterprises¹
- 69 percent of enterprises currently use Azure compared to 76 percent of them using AWS²
- 63 percent of all size organizations use Azure compared to 76 percent of them using AWS³
- Microsoft Azure generated about \$8 billion in revenue in 2019, second only to AWS⁴

Since 93 percent of enterprises already have a multi-cloud strategy, this bodes well for Microsoft Azure's continued adoption and growth.⁵ Microsoft Azure offers all size organizations a viable public cloud choice with some of the best options available to host Microsoft applications.

Microsoft Azure provides the core IaaS services that many enterprises initially seek to create a viable multi-cloud strategy. These core services include analytics, compute, database, identity management, networking, storage, virtual desktops, and web. Azure also offers advanced services such as artificial intelligence, containers, DevOps, Kubernetes, machine learning, and serverless, among others.

As of September 2020, Microsoft Azure has nearly 50 regions throughout the world with seven more in development. 10 of these regions include availability zones. Taken together, these benefits make a compelling argument for enterprises to adopt, embrace, and expand their use of Azure.

The State of Azure Cloud Backup Solutions

Despite Microsoft Azure's prominence as an IaaS provider, organizations have small number of backup solutions from which to choose. Ten of these solutions got their start doing physical or virtual machine backup. This start gave them the core functionality that organizations still need as they move existing applications to the cloud.

Organizations deploy these backup solutions in the Azure cloud the same way they do on-premises, with minor differences. They obtain an appropriately sized Virtual Machine instance from Azure to host the backup software. They license, install, and maintain the backup solution themselves. They configure it to back up their applications hosted in the Azure cloud. In many respects, they manage this backup software in the cloud the same way they do now.

Azure cloud backup solutions delivered this way do, however, face a challenge going forward. Fewer organizations want to manage backup software the same way they did in the past. Instead, they want to subscribe and pay for backup software like they do other services in the Azure cloud.

They also want backup software architected and available as a cloud-native service. Delivered this way, the backup software automatically scales up or down based on demand. The provider also handles all the backup software's ongoing maintenance, such as fixes, patches, and upgrades. This frees organizations to focus on using the backup software while removing the task of maintaining it.

Of the twelve Azure cloud solutions DCIG evaluated, two got started in Microsoft Azure as a cloud-native Azure software-as-a-service (SaaS). They deliver this cloud-native backup SaaS offering that organizations seek. The main challenge cloud-native offerings often face is they lack robust backup features for applications that organizations lift-and-shift to Azure.

1. <http://technalysisresearch.com/downloads/TECHanalysis%20Research%20Hybrid%20and%20Multi-Cloud%20Study%20Highlights.pdf>. Pg 6. Referenced 9/6/2020. Hybrid and Multi-cloud Study: The New Enterprise Computing Reality. Technalysis Research.
2. <https://resources.flexera.com/web/pdf/report-state-of-the-cloud-2020.pdf>. Pg. 52. Flexera 2020 State of the Cloud Report.
3. Ibid. pg. 51.
4. <https://www.gartner.com/en/newsroom/press-releases/2020-08-10-gartner-says-worldwide-iaas-public-cloud-services-market-grew-37-point-3-percent-in-2019>. Referenced 9/6/2020.
5. Ibid. pg. 10.

As these cloud-native SaaS offerings deliver on this requirement, they will become more attractive to organizations. Conversely, expect more current providers to make their software available as SaaS-based, cloud offerings in the coming years. Already five cloud backup offerings make their software available as a SaaS-based offering that runs outside of the Azure cloud.

Common Features Across All Azure Cloud Backup Solutions

DCIG identified twelve solutions in the marketplace that offer backup capabilities for the Microsoft Azure cloud. These solutions target organizations of various sizes based on the capabilities described in their User Guides or published data sheets. Due to the recent introduction of many Azure cloud backup offerings, features they all share remain minimal. Attributes that all these solutions had in common include support for the following:

1. Back up all Windows Server versions from 2008 forward.

Organizations may choose from multiple Microsoft Windows operating systems (OSes) to host their VMs in the Azure cloud. Any of these backup solutions will protect applications hosted on any Microsoft Windows OS released since 2008.

2. Back up Red Hat Enterprise and SUSE Linux. Organizations may also select from among seven Linux releases available in the Azure cloud. These twelve backup solutions only universally support Red Hat Enterprise and SUSE Linux releases.

3. Perform incremental and full backups. Every backup solution gives organizations the option to perform full and incremental backups. They create a first full backup and then do incremental backups thereafter.

4. Protect Windows file servers. Many organizations continue to use the Windows file sharing feature to share files between users. All twelve solutions equip organizations to back up and recover files stored on Windows file servers.

HYCU for Azure Cloud Backup Solution Profile

Upon DCIG's completion of reviewing multiple, available Azure cloud backup solutions, DCIG ranked the HYCU for Azure as a TOP 5 solution. HYCU for Azure seamlessly handles in the background all the little, hidden tasks that frequently get overlooked when performing backups. In so doing, it frees organizations to focus on why they initially chose Azure: to increase productivity and drive down costs.

HYCU for Azure offers the following features that help distinguish it from other TOP 5 offerings:

- **Automatically optimizes backup data placement.** HYCU abstracts away the need for organizations to manage Azure Blob storage or decide between its storage tiers. It automatically places data on the most appropriate Azure Blob storage tier. Using each backup job's policies, HYCU places and retains data on different storage tiers to optimize storage costs.
- **Incurs no performance overhead on VMs when performing backups.** Like many other Azure cloud backup solutions, HYCU makes a copy of a VM by taking a snapshot of it. Once taken, HYCU differs by then reading from that snapshot copy of the VM. Taking this approach frees HYCU to use its own computing resources to back up the VM and index its data. This helps HYCU negate any possible performance impact to active applications.
- **Facilitates immediate implementation of backup jobs.** Organizations starting out with backing up their VMs in the Azure cloud may want to do it quickly and without hassle. HYCU for Azure meets these needs by offering four different default backup policies. Once subscribed to HYCU for Azure, organizations may immediately start doing backups without allocating Blob storage or creating backup policies. Organizations may also configure HYCU to automatically assign backup policies to VMs based on resource tagging. ■

About DCIG

DCIG, the Data Center Intelligence Group, empowers the information technology industry with actionable analysis. DCIG provides informed third-party analysis of various cloud, data protection, and data storage technologies. Learn more at www.d cig.com.