DCIG

DCIG Solution Profile

Enterprise AWS Cloud Backup Solution Profile

by Jerome Wendt, DCIG President & Founder

SOLUTION

IBM Spectrum Protect Plus

COMPANY

IBM
One New Orchard Road
Armonk, NY 10504
(914) 499-1900
www.ibm.com/spectrum/protect-plus

DISTINGUISHING AWS CLOUD BACKUP FEATURES OF IBM SPECTRUM PROTECT PLUS

- A hybrid deployment option
- Protects logical application groupings of containers hosted in Kubernetes
- Supports multiple object stores for cost-effective data retention and archiving

DISTINGUISHING FEATURES OF TOP 5 ENTERPRISE AWS CLOUD BACKUP SOLUTIONS

- Enterprise level support
- Hybrid backup and recovery
- Protect cloud-based SaaS applications
- Protect non-AWS databases

SOLUTION FEATURES EVALUATED:

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

AWS a Major Beneficiary of Enterprise Public Cloud Adoption

The percentage of companies running their application workloads on public cloud platforms continues to grow. Consider:

- 30 percent of corporate application workloads currently run on public cloud platforms[1]
- Public cloud platforms will host more than 50% of enterprise workloads and data by 2021[2]
- Most companies expect to accelerate public cloud usage due to the COVID-19 pandemic[3]

These statistics reflect what other surveys also say: enterprise adoption of public cloud platforms continues to grow unabated. Among these platforms, Amazon Web Services (AWS) represents one of this trend's primary beneficiaries. AWS already owns nearly 50% of the public cloud platform market and outdistances its nearest competitor by more than 3:1.[4]

Enterprises select AWS over its competitors for many reasons. It offers over 100 platform services from basic compute and storage services to artificial intelligence, containers, and Kubernetes. It has data centers throughout the world. Over 10 percent of enterprises already host some or all their application workloads on AWS. Taken together, these benefits make a compelling argument for enterprises to adopt and embrace AWS.

The State of Enterprise AWS Cloud Backup Solutions

Most of the solutions that meet enterprise backup and recovery requirements for the AWS cloud got started doing on-premises backup. This start gave them the core functionality that enterprises still need as they move existing applications to the cloud.

Enterprises deploy these backup solutions in the AWS cloud the same way they do on-premises, with minor differences. They obtain an appropriately sized Elastic Cloud Compute (EC2) instance from AWS 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 AWS cloud. In many respects, they manage this backup software in the cloud the same way they do now.

These enterprise AWS cloud backup solutions do, however, face a challenge going forward. Fewer enterprises 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 AWS 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 enterprise to focus on using the backup software while removing the task of maintaining it.

Of the thirteen enterprise solutions DCIG evaluated, two already deliver their software as cloud-native AWS offerings. As they introduce features to better protect applications lifted-and-shifted to the cloud, they will become more attractive to enterprises. In the meantime, expect current providers to make their software available as a cloud-native offering in the coming years.

Distinguishing Features of Enterprise AWS Cloud Backup Solutions

DCIG identified over 30 solutions in the marketplace that offer backup capabilities for the AWS cloud. Of these, DCIG identified and classified thirteen of them as meeting DCIG's definition of

1. https://virtualizationreview.com/articles/2020/01/17/cloud-workloads.aspx. Referenced 8/12/2020.
2. https://resources.flexera.com/web/pdf/report-state-of-the-cloud-2020.pdf. Referenced 8/12/2020. Pg. 10.
3. Ibid. Pg. 10
4. https://www.forbes.com/sites/jeanbaptiste/2019/08/02/amazon-owns-nearly-half-of-the-public-cloud-infrastructure-market-worth-over-32-billion-report/#377293c229e0. Referenced 8/12/2020.

an enterprise AWS cloud backup solution. These thirteen solutions target large enterprise environments in their user and administration documents. Attributes that help distinguish these solutions from those targeted at small and midsize enterprises (SMEs) include support for the following:

1. ***Enterprise level support.*** The levels of support enterprise backup solutions offer perhaps most distinguishes them from solutions targeted as SMEs. They each give enterprises multiple ways to contact them (chat, email, phone, web) with near immediate response times. In contrast, SME offerings may only offer a subset of these contact mechanisms and slower response times when contacted.
2. ***Hybrid backup and recovery.*** Enterprises often support a hybrid environment with some applications running on-premises and others in the AWS cloud. They can use most of the enterprise AWS cloud backup solutions to protect data across these two environments.
3. ***Protect cloud-based SaaS applications.*** Some applications enterprises once used on-premise they now subscribe to as cloud-based SaaS offerings. Over 70 percent of the solutions could protect SaaS applications such as Google G Suite, Microsoft Office 365, or Salesforce.
4. ***Protect non-AWS databases.*** The non-AWS databases that each one protects varies by solution. Most will minimally protect Microsoft SQL Server, MySQL, Oracle Database and SAP HANA.

Enterprise AWS Backup Solution Profile

IBM Spectrum Protect Plus

Upon DCIG's completion of reviewing multiple, available enterprise AWS cloud backup solutions, DCIG ranked IBM Spectrum Protect Plus as a TOP 5 solution. Available in the AWS marketplace, enterprises may deploy IBM Spectrum Protect Plus on Amazon Machine Images (AMIs). IBM makes an AWS CloudFormation template available to accelerate and simplify its provisioning and configuration in the AWS cloud.

Spectrum Protect Plus offers the following features that help distinguish it from other TOP 5 offerings:

- ***A hybrid deployment option.*** Enterprises adopting AWS may need to continue protecting applications on-premises in addition to those running in the AWS cloud. Enterprises may deploy IBM Spectrum Protect Plus on-premises and in the AWS Cloud to protect VMs, databases, and applications, including SaaS offerings such as Microsoft Office 365, running in a hybrid cloud environment. AWS workload support includes EC2 instances, VMware virtual machines, databases, Windows file systems, and Microsoft Exchange.
- ***Protects logical application groupings of containers hosted in Kubernetes.*** In 2019, the Cloud Native Computing Foundation surveyed individuals in the software, technology, and professional services industries. It found 78 percent of them already use Kubernetes in production.[5] When deployed on-premises, IBM Spectrum Protect Plus protects persistent volumes in a Kubernetes environment. It can create SLA policies that govern snapshots, backups, replication, and data retention. As enterprises build new applications using containers, developers can use these labels to protect logical application groupings instead of individual volumes. They may also back up and recover logical persistent volumes associated with Kubernetes namespaces.
- ***Supports multiple object stores for cost-effective data retention and archiving.*** Enterprises cannot always keep all their backup data in the AWS S3 storage cloud. Some need to bring this data back on-premises or store it in other cloud to satisfy application, archival, or compliance requirements. Using Spectrum Protect Plus, they may copy data to other object stores, to include on-premises object stores. They can also use Spectrum Protect Plus, to further lower storage costs in Amazon S3 by placing data on S3 Glacier. ■

5. https://insights.stackoverflow.com/survey/2020. Referenced 8/14/2020.