# Utility Computing for Cloud Backups

Lower protection costs for Azure and Azure Stack using NetBackup Cloud Autoscaling.

**VERITAS™**

## OVERVIEW

Utility computing allows enterprises flexibility in deciding how much resources they need to lease from a provider at a given time. Like traditional water and electric utility usage, organizations can grow or shrink computing resource usage as needed, with the total reflecting your usage across the billing period. Although companies may negotiate better billing rates for utilities for longer-term solutions, there is some serious sticker shock when it comes to the cloud. Gartner forecasts public cloud spending to grow 18 percent in 2021. To avoid having all their eggs in one basket, many enterprises employ multicloud or hybrid-cloud deployment strategies. Even though they initially benefited from the competition between major cloud providers, companies are now challenged with cost optimization for software and services from their distributed cloud infrastructure. As they migrate more apps to the cloud, the primary responsibility to protect this mission-critical data still rests with the enterprise. Cloud vendors typically guarantee their service, not the safety of your data.

Right-sizing a data protection solution that can scale across the distributed cloud warrants careful selection and planning. If the backup infrastructure for protecting cloud resources is static and sized as a large instance, a lot of inherent compute resources will be wasted during idle hours. If sized too small, the extended time spent during backups may begin hampering business operations. When it comes to cloud data protection, enterprises need a comprehensive yet cost-conscious solution that embraces utility computing concepts.

Other than compute costs, cloud administrators should also be cognizant of storage costs. Virtual machine (VM) snapshots tend to be expensive compared to lower tier object storage costs. A backup solution that can leverage a wide variety of storage tiers and perform storage optimization can help drive down the cost of cloud data protection.

## REDUCE COSTS WITH NETBACKUP CLOUD AUTOSCALING

Veritas NetBackup™ currently supports the backup and recovery of workloads in cloud environments by leveraging cloud-native snapshot technology. NetBackup 9.1 release offers utility computing for data protection for Azure Stack and Azure cloud assets with NetBackup Cloud Autoscaling. NetBackup dynamically provisions additional NetBackup compute resources to support data protection workflows. These workflows include snapshot, backup or restore operations (see Figure 1).
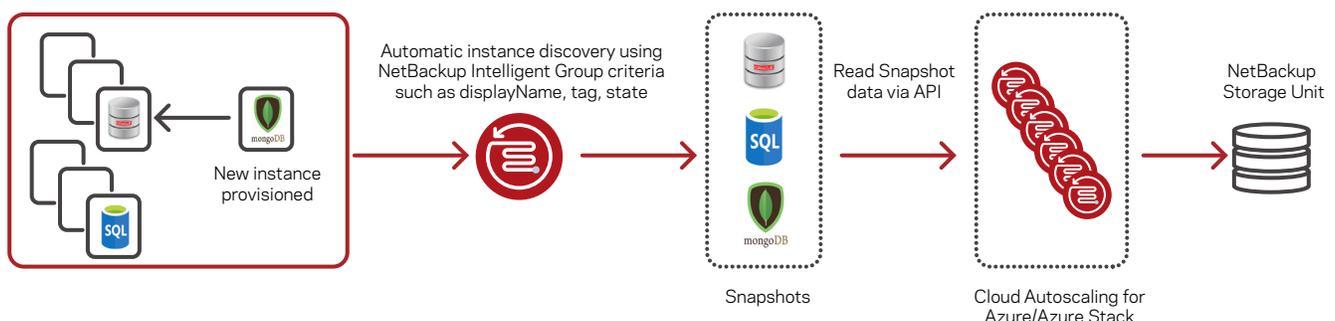


*Figure 1. An overview of NetBackup Cloud Autoscaling.*

NetBackup Cloud Autoscaling uses an additional node—called the NetBackup CloudPoint extension—to schedule workflow jobs on demand. This extension is implemented using the Kubernetes cluster in Azure or using a VM node for protecting Azure Stack Hub. Organizations can enable the use of this extension for each configured NetBackup cloud provider. Once NetBackup identifies the cloud resources that match the intelligent group or are defined within the protection plan, it starts scheduling data protection operations on the extension node.

When using Kubernetes, the cloud administrator can define the maximum number of nodes in the node pool to better manage cost. If one node is insufficient to perform the jobs queued up, Kubernetes will launch additional nodes to handle the workload until it reaches the maximum node count threshold. If there are more jobs still to run, they stay queued until other jobs complete. When using a VM extension, typically the on-premises use-case, this VM stays running and processes all scheduled protection workflows. In either case, the maximum concurrent jobs depend on the node size for the node pool or VM OS resources.

NetBackup 9.1 significantly reduces storage costs by reading the Azure or Azure Stack snapshot image and then sending the snapshot data to a configured storage unit. Once the backup is performed, the snapshot can be removed, eliminating the higher cost associated with snapshots. The backup data can also be stored optimized using the NetBackup Deduplication Engine or moved onto object storage using our cloud tiering capability, dramatically reducing the storage cost associated with maintaining a copy on storage media. These backup options give the cloud administrator flexibility in retaining the snapshot, the backup or both copies simultaneously. When the snapshot copy is about to expire, NetBackup can also be configured to back up the snapshot data to storage media for longer retentions. Figure 2 shows the available snapshot and backup options in NetBackup 9.1.

Using role-based access control (RBAC), the cloud administrator or IT architect can be enabled for self-service in NetBackup. This designation helps with both visibility and control of data protection for cloud assets. Administrators can also use NetBackup intelligent groups to ensure all their cloud resources can be protected with queries built easily using our visual editor.
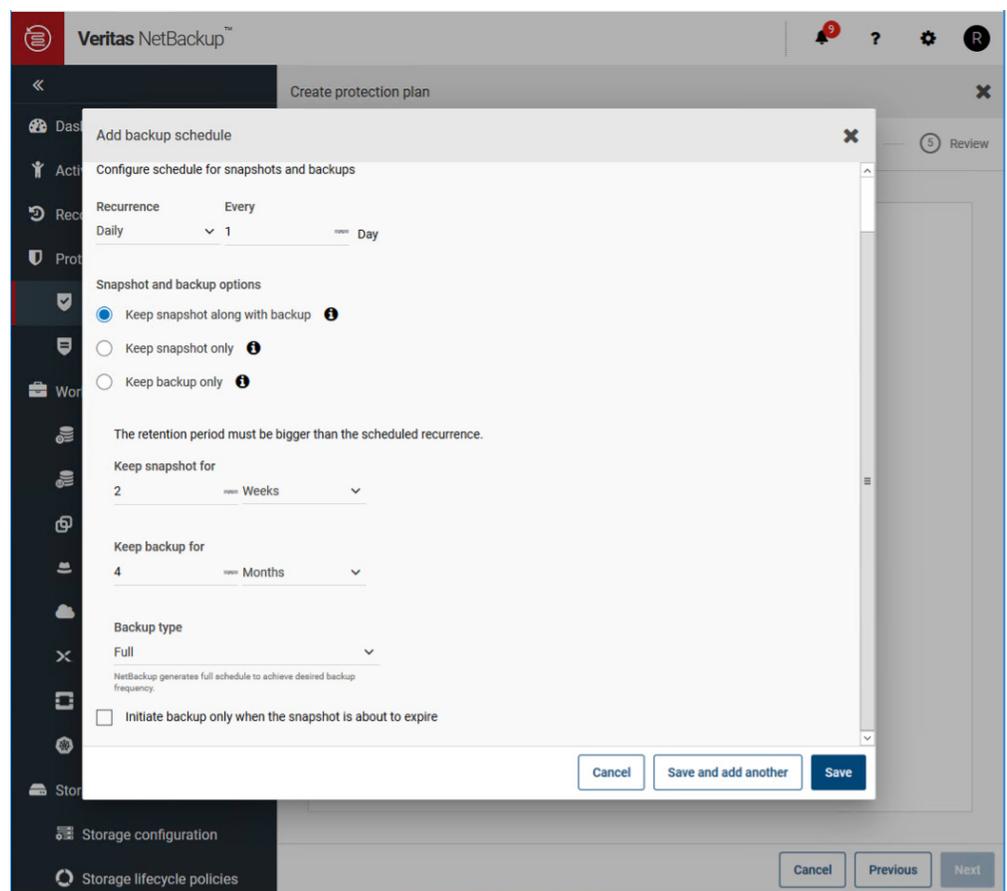


Figure 2. Cloud workload snapshot and backup options in NetBackup 9.1.

## CONCLUSION

Now organizations can stop pre-provisioning resources and running up cloud costs. NetBackup Cloud Autoscaling offers significant cloud storage savings by allowing them to back up cloud volume snapshots to secondary storage and reduces compute costs to just when data protection workflows are executing.

To test-drive NetBackup Cloud Autoscaling for protecting Azure and Azure Stack cloud resources, download a copy of Veritas NetBackup™ 9.1 from our trialware page. Existing customers can download a copy from the Veritas Download Center.

Veritas NetBackup enables organizations of all sizes with robust, cloud-native technologies that protect the business on every step along the cloud transformation journey. Learn more at veritas.com/netbackup.

## ABOUT VERITAS

Veritas Technologies is a global leader in data protection and availability. Over 50,000 enterprises—including 87 percent of the Fortune Global 500—rely on us to abstract IT complexity and simplify data management. The Veritas Enterprise Data Services Platform automates the protection and orchestrates the recovery of data everywhere it lives, ensures 24/7 availability of business-critical applications, and provides enterprises with the insights they need to comply with evolving data regulations. With a reputation for reliability at scale and a deployment model to fit any need, Veritas Enterprise Data Services Platform supports more than 800 different data sources, over 100 different operating systems, more than 1,400 storage targets, and more than 60 different cloud platforms. Learn more at www.veritas.com. Follow us on Twitter at @veritastechllc.

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