



HOW TO PROTECT NUTANIX RUNNING AHV OR VMWARE

HYCU Product Spotlight

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Anytime an enterprise considers a new platform it has to address one particular requirement; how exactly will IT protect the new platform? If the platform promises enough value, IT may forego that requirement and cobble together a “best efforts” data protection strategy. Customers of hyperconverged vendor Nutanix faced this exact challenge, especially as they rolled out Nutanix VMware tax liberating, Acropolis Hypervisor (AHV).

Protecting Nutanix AHV

The advantage to AHV is cost. It is essentially included with the Nutanix platform, making it a less expensive solution than either VMware or Microsoft’s Hyper-V. The cost savings doesn’t mean skimping on features. Since AHV is based on KVM, it hits the large majority of the virtualization feature checkboxes. The features it is missing compared to VMware, most organizations don’t use or can at least live without. Except one – data protection.

Nutanix AHV provides a data protection component that can perform snapshots of virtual machines and replicate those snapshots to another Nutanix cluster. There are also other data protection solutions designed to protect KVM hypervisor, but the usability of these solutions are not of the same capabilities as VMware data protection solutions.

Comtrade Software’s HYCU is the first purpose-built data protection solution for Nutanix’s AHV solution stack. Comtrade Software claims IT can deploy the solution in three minutes and then become proficient at it just as quickly. HYCU leverages snapshots like the Nutanix solution, but unlike Nutanix’s implementation, it can replicate those snapshots to another NAS, Object Storage System or a public cloud provider like Azure or AWS.

It is important, as our experience tells us, that a backup solution integrated into the HCI environment can access storage within the same cluster. So restarting a virtual machine and pointing it to a volume created by the backup application is seamless. Even if the backup application is sending backup data to another HCI cluster moving VMs between like clusters, from the same vendor, is straightforward.

When coupled with another challenge that stand-alone backup applications have where they often can’t take advantage of the unique capabilities of the HCI solution, customers are left with less than ideal solutions. Most HCI vendors, including Nutanix, are making a significant investment in their storage software and provide many advanced features. Supporting the capabilities of the storage component of the Nutanix solution means the ability to improve backup performance, snapshot retention and even eliminate common negative issues like the stuning of virtual machines prior to a snapshot.



Protecting Nutanix for VMware Introducing HYCU 2.0

Nutanix reports that almost a third of its customer base is now using AHV, but of course, that means that two thirds of its installed base does not. In its latest release, version 2.0, Comtrade Software adds VMware support to HYCU. Now HYCU appeals to 95% of the Nutanix customer base.

Once again, HYCU leverages Nutanix snapshot capabilities to capture the VM, but it captures the VM without “stunning” the VM. A stun essentially pauses the VM for a brief moment while the Nutanix storage software takes the snapshot. While the stunning process does deliver a clean backup of the VM, it limits when and how often it makes a backup copy since a VM stun impacts performance and user response times.

In the latest version, the company has also expanded HYCU’s application coverage to include Microsoft SQL, Active Directory and Exchange. It provides application, agentless backup of each. For Active Directory and Exchange, it provides granular recoveries like mailbox-level recovery.

Acropolis File Services (AFS) is another capability of AHV that is very interesting to customers. It has the potential to eliminate another silo in the data center, the file server/NAS, and converge it into the Nutanix cluster. AFS is a software-defined scale-out NAS that runs within the Nutanix cluster. Once again, though, the challenge is how to protect AFS.

In Q1-2018 HYCU’s next major initiative will be to protect AFS. HYCU will follow its similar pattern of impact-free, agentless backup but now focus on files instead of VMs. Backups of AFS will execute in parallel for rapid backups and, of course, all wrapped around the same easy to use interface.

Another significant update with HYCU 2.0 is the way in which HYCU helps improve data protection for Remote Office Branch Office (ROBO) environments. As we all know, implementing efficient and flexible backup and recovery for ROBO can be a challenge. Nutanix already provides a solid and efficient ROBO DR solution by allowing customers to replicate data to a central location with VM failover. However, now, with HYCU, customers can back up the ROBO data from datacenter replicas, which results in zero resource requirements on the ROBO AND network side. All of this while at the same time enabling one-click recovery within the datacenter or at any remote location.

StorageSwiss Take

Storage Switzerland's previous research shows that without backup software integration into the HCI environment any organization is left with an HCI strategy that started off with a goal consolidating and simplifying IT to a single platform. But when the protection process is applied, ends up with three to four independently-managed hardware and software layers. It's because of that, solutions like HYCU that are integrated directly into the HCI environment, in this case Nutanix, make HYCU so attractive. By being purpose-built or tightly integrated, IT eliminates redundancy while maintaining simplicity and improving the overall goal of the data protection capabilities.

It's also worth calling out that the problem that most emerging companies have is they want to focus on everything. Our constant guidance is to focus on one thing or at least just a few things and do them well. Comtrade Software continues to take the focus concept to an extreme, by starting out with a data protection solution that just protected AHV initially. Starting small and playing it safe is especially important in the data protection market. Comtrade Software's focus on AHV and then, as it proved itself, moving to VMware protection not only benefits Nutanix customers but is also something that other emerging companies can learn from.



The Firm

Storage Switzerland is the leading storage analyst firm focused on the emerging storage categories of memory-based storage (Flash), Big Data, virtualization, and cloud computing. The firm is widely recognized for its blogs, white papers and videos on current approaches such as all-flash arrays, deduplication, SSD's, software-defined storage, backup appliances and storage networking. The name "Storage Switzerland" indicates a pledge to provide neutral analysis of the storage marketplace, rather than focusing on a single vendor approach.

About Our Partner

Hyperconverged is all about keeping IT simple. Monitoring and data protection should be too. Comtrade Software empowers IT to take back the data center without breaking a sweat. Our application-focused solutions give visibility, to see beyond VMs into business-critical applications. We break through barriers so IT can quickly eliminate problems, fully and reliably recover applications and data, and deploy our products before customer's coffee goes cold. There's no waiting, no learning and no hassle. With 25 years of expertise and insights from millions of users, we make it easy to thrive in a hyper-simple hyperconverged world. Follow us @ComtradeSoftw and LinkedIn, and visit comtradesoftware.com.

The Analyst

George Crump is the founder of Storage Switzerland, the leading storage analyst focused on the subjects of big data, solid state storage, virtualization, cloud computing and data protection. He is widely recognized for his articles, white papers, and videos on such current approaches as all-flash arrays, deduplication, SSDs, software-defined storage, backup appliances, and storage networking. He has over 25 years of experience designing storage solutions for data centers across the U.S.