





# ENABLING HYPER-AVAILABILITY IN HYBRID IT







or organizations looking to take advantage of cloud computing without putting all of their IT eggs in one basket, the hybrid model is attractive.

"It's simply a way to mix the assets and the resources and processes of both public and private environments so that you get the most bang for the buck for your organization," explained Jon Toigo, Chairman, Data Management Institute. "It's a way to dip your toe into the public cloud and try out some of the capabilities even if you aren't prepared yet to go all in and leave on-premises computing completely."

He noted that the Harvard Business Review estimated that 63 percent of organizations are at least exploring hybrid IT.



The bottom line for embracing the hybrid cloud paradigm can be summarized with three buzz words, Toigo said, "resiliency and agility and elasticity." But what might be overlooked is that all of those things are contingent upon the availability of your critical business processes when you're in this hybrid environment.

In sports there is a saying that a player's most important ability is availability. The greatest quarterback in football can't win games if he's sitting on the bench. In the 24X7 world of modern business computing, the greatest app is useless if

it isn't available to users whenever they want it.

That is why Toigo said he was glad to see Veeam and HPE coming together to meet the practical challenges of hybrid cloud computing by providing systems that organizations can rely on to meet on-demand business needs.

### WHY GO HYBRID?

One longtime rule for IT is build your base and buy your burst, which Toigo sees as one motivation for moving to the hybrid cloud. It is also good business practice to buy the extra capacity for bursts in compute demand by acquiring needed resources from the public cloud.

"Other companies are using cloud services to augment certain functions that companies think they can outsource effectively," he said. "You can't outsource a problem but you can outsource a routine task."

He noted the example of IT professionals posing the question: "We don't have assets on hand to do disaster recovery, so why don't we outsource some of that to a DR as a service provider in the cloud?"

analytics operations needed for business intelligence and even artificial intelligence.

"There are a number of services that are being offered in the cloud now that might just be natural augments to what you're doing in your IT shop," he said. "And of course, most companies are looking at those hybrid models basically because they want to make sure they're not behind the eight ball when it comes to the next big thing: digital transformation, Internet of Things (IoT), big data analytics, agile development. All those buzz phrases seem to have a cloud hook to them, so.

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Other organizations are looking to use the storage capacity offered by cloud vendors to archive data. That potentially frees IT departments from the human resources intensive task of maintaining and updating an on-premises archive on a daily basis.

The trend towards DevOps, particularly for Web-based applications or applets that are going to go onto smartphones and other mobile devices, benefit from have the resources the public cloud provides.

"There are a ton of tools out there for building those kinds of solutions and a lot of them live in the cloud and you can just hook up and build your app there," Toigo explained. There are also resources available via the cloud for the kinds of businesses are very interested in what the cloud is and what it has to offer and they're experimenting with it today."

### **CLOUD CHALLENGES**

Despite the potential benefits that come with cloud adoption there are also challenges that IT departments need to consider before dipping their toes into the pool of possibilities. The challenges begin with the basics. Are you going to have control over your data in a cloud infrastructure?

"When you have to coordinate compute and storage resources and processes over a very large distributed environment on premises that is challenging enough," Toigo said. "Now try doing that over multiple locations with some of your assets in a cloud service provider's facility somewhere offsite and some locally. And you want to do that without significant degradation in the performance of the application or without wasting capacity that you have to pay for. Or without losing control or access to the data that you've got."

It is challenging for IT departments to meet service level agreements (SLAs) and maintain functionality with on-premises IT, now they have to make sure the SLAs are being met within the remote infrastructure of their cloud provider. Organizations also have to work with new and emerging technologies that are part of what Toigo calls the "cloudifying" of your infrastructure, including:

- Software defined networks (SDNs)
- Virtual Machines (VMs)
- Containers

"So, there are a lot of tools there for cloudifying the infrastructure," Toigo said, "and the dream, of course, is to create Infrastructure-as-a-Service (laaS). For that to happen you're going to need administration and orchestration tools that will be sufficiently robust to allocate those software-defined resources in an effective and reliable way when they're demanded to support the workloads the customers want to field. That is a technically non-trivial challenge. That's actually rather difficult. It's probably the last big hurdle here. A lot of work is going into trying to come up with administration and orchestration tools because without them you won't really have Infrastructure-as-a-Service."

laaS may be the dream, but the current situation can be a nightmare.

"What you've got is a bunch of resources that you're going to spend a lot of time cobbling together for whatever it is you want to do," Toigo said. "So, we're confronted by the fact that there's a lot of technology and a lot of it's new and new means it's susceptible to disruption either by the fault of the technology or the inexperience of the operator. With that technology you're going to have problems and challenges. And companies need to be keenly aware of that."

### ZETTABYTE APOCALYPSE SOON?

When considering putting corporate data in a cloud environment, another big issue is data growth, Toigo warned.

"If you have been reading the analysts we're looking at somewhere between 10 and 160 zettabytes of new data, depending on the analyst you read, by 2024," he said. "Ten isn't a small amount of data. That's 10 followed by 17 zeros. One hundred sixty certainly isn't a small amount. That's 160 followed by 17 zeros. I call it the zettabyte apocalypse. I think it's funny to refer to it that way, but it really isn't very funny."

Toigo said cloud vendors are doing studies to determine how to deal with the mushrooming data many corporations are amassing from both storage cost and data availability. How is your cloud vendor going to get specific data to you on demand to meet the needs of your customers or the requirements of government agencies?

It is something organizations need to consider when planning to put their data archive or even their current customer data in the cloud. Where is that data going to be? Are you going to be able to access it in five years? Those questions need to be answered before you migrate data to the cloud.

"There are a lot of tough issues to tackle and if you're trying to do all this alone, you're shooting yourself in the foot," Toigo said. "Just one storage manager is not going to be able to manage trillions of files and objects that are coming across the transom. The best thing to do is to find a partner that's a vendor with a sufficiently deep bench to be able to provide a lot of the hardware and software components that you need plus the expertise and the training to get the job done."

software and best-of-breed availability software so you're ensured to have the application workload and the environment for processing it available when you need it," Toigo explained. "Empowering the data-driven enterprise is the goal of the relationship between these two companies."

Both Veeam and HPE are experiencing triple-digit year-over-year growth since coming together to provide a comprehensive, flexible and affordable solution for companies seeking to move into hybrid IT.

The representatives of both companies pointed to their solid financial position as

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### HYPER AVAILABILITY WITH VEEAM AND HPE

The long-standing partnership between Veeam and HPE can provide both Hybrid IT and Hyper-Availability as well as data security for backups, recovery and archiving made possible through a combination of best-of-breed infrastructure hardware and software along with best-of-breed availability software.

According to HPE and Veeam, two leaders in their own sectors of IT, the key to realizing hybrid IT is hyper availability.

"First and foremost if you are going to adopt Hybrid IT, you must combine bestof-breed infrastructure hardware and a key to reassuring their customers that they are major players in this new technology and will be there with support and products for the long haul.

"HP recognized several years ago that IT was going to hybrid and we have been very much focused on this hybrid model," said Andrew Manners, General Manager and Sales Vice President at Hewlett Packard Enterprise (HPE).

With strong earnings, Veeam is becoming a billion dollar privately held company, noted David Harvey, Global Head of Strategy and Execution HPE Alliance for Veeam Software. "Having partnered with HPE more than six years ago we have discovered that we have synergy between the two companies. There's deep integration between our products."

What about this partnership sets it apart from other ISVs? Toigo asked.

"From a customer perspective it takes risk off their shoulders," Harvey replied.

Manners added that the close relationship between the two companies includes doing their product releases in tandem. "We talk about the Veeam HPE solutions as one." he said. Because their solution is comprehensive and dealing with the partnership provides one point of contact it saves customers from having to shop around hoping to find best of breed solutions and then having to integrate disparate products, which can turn into a clumsy and time-consuming process. Having worked together on providing both IT infrastructure as well as backup, recovery and management software, all the integration is complete when the customer buys it.

Making it even easier for IT departments to adopt the Veeam HPE solutions, they are now offered as part of HPE's GreenLake, which provides IT as a service, Manners explained. With the goal of providing cost effective flexibility, GreenLake customers only buy what they need now without having the expense of purchasing infrastructure and software that they might need five years from now. HPE GreenLake is IT as a Service with a cloud consumption model where you basically

pay as you go. "If you use it you pay for it. If you don't use it you don't pay for it. It gives a lot more flexibility to the user,"

Manners explained.

GreenLake now comes with Veeam as part of it.

The Veeam backup solution, the Veeam availability solutions and the Veeam management suite are all part of HPE's GreenLake IT as a service. It provides customers with all the advantages of moving IT infrastructure and maintenance offsite, but it also gives them all the tools necessary to manage their software and protect their data, Harvey explained. It provides trusted and experienced partners and technology to help customers through the transition from traditional on-premises IT to virtualization and cloud-based IT.

The combined solutions popularity has resulted in GreenLake experiencing 300 percent quarter-over-quarter growth.

To help update skillsets for Hybrid IT, Veeam has joined HPE's PointNext educational offerings for IT professionals making the transition to hybrid IT, so they can learn how to succeed with this new infrastructure paradigm.

Find out more

https://www.veeam.com/hpe-storagesolutions.html



