



How to go from Physical to Virtual to Cloud



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Businesses are fast transitioning their data centers from on-premises physical environments to highly virtualized ecosystems, and onto the cloud. Read how to make the transition less painful and more successful.

Savvy CIOs are looking long and hard at their data centers laden with traditional on-premise infrastructure. Managing the growth and complexity of a static physical environment is like trying to push a rock uphill. The dynamic business environment is weighing down the on-premise IT with a burden beyond its capacity. This limitation of the physical infrastructure had ushered in an era of virtualization.

To better prepare to move to cloud-based environment, virtualization offers greater manageability and cost reduction to the enterprises. It assures organizations the benefits of better IT resource utilization, reduced capital cost, and increased efficiency. That said, it is not the panacea to all your infrastructure woes.



VIRTUALIZATION IS THE FIRST STEP

It is at best an evolutionary step. And CIOs need to move beyond the first-wave benefits of virtualization technologies. By adopting server and storage virtualization, CIOs can build a highly virtualized environment within their enterprise. But this doesn't bring them any close to an internal cloud. If they think that a highly virtualized environment means having a future proof infrastructure, they're sadly mistaken.

Due to its inherent constraints, a virtualized environment cannot take you too far into the cloud journey. An 80-90 percent virtualized environment is a stepping stone to the cloud, but it is no substitute to the cloud

platform. The application ecosystem can start to give you headaches because not every application lends itself favorably to a virtualized environment. Then there is the perennial talent crunch arises out the lack of resources to migrate the applications seamlessly onto the virtualized environment.

It doesn't have the automation layer that makes auto-scaling and auto-provisioning of resources possible. It also doesn't provide the self-service module that allows your users to allocate and provision resources and services as they want.



MOVE TO CLOUD IS IMMINENT

The shift to a full cloud-based model is imminent. So how do CIOs transition from a virtual to a cloud platform? They can outsource their infrastructure and go on a hosting model. This is one of the most common ways. But, here, again the problem of scale persists because then you have to provision and de-provision your resources yourselves. So it is more prudent to turn your sights towards public cloud or Virtual Private Cloud environments. The more pertinent question then would be 'How to make the journey from an absolutely physical to highly virtualized to a semblance of private cloud to a hybrid cloud environment?'

The migration path is strewn with challenges. Security has always been a top of the mind challenge when it comes to deploying the cloud platform. But it's not the most pressing challenge anymore. There are other major issues that have hamstrung cloud deployments. According to the RightScale 2016 State of the cloud report, lack of skill sets or expertise has dethroned security as the top challenge plaguing cloud adoption. Organizations are staring at a yawning skill gap when it comes to cloud-based skills. And the story is pretty much the same at the IT industry level. This makes cloud migration a herculean task. Obviously, the most effective

way to mitigate the challenges is by opting for an experienced team of cloud experts.

The other challenge associated with the cloud is portability, which is the ability to run components or systems written for one environment in another. This is a bigger problem to deal with if CIOs are running custom-built or legacy application ecosystem. While most of the standard, new-age software systems are prepped to run in cloud environs, several enterprise databases and applications are yet to offer their portable avatars. It makes it pertinent for CIOs to double check their own environments for potential portability issues.

After lack of skillsets, security is still the most widely accepted challenge related to cloud transition. It is therefore of paramount importance to migrate IT environments under careful guidance of cloud experts, after thoroughly vetting the cloud vendor's security practices.

Undoubtedly, moving from physical to virtual to cloud involves jumping through several hoops before you find a steady ground in the cloud. That's why it is crucial to tread carefully keeping the mentioned parameters in mind for a successful journey.

