Virtualization Gets a Complexity Reality Check

As businesses and enterprises of all sizes adopt and implement virtualization and the cloud, they expect the future of their IT data centers to be much brighter in terms of driving down infrastructure costs while improving agility. Yet the global findings coming out of Symantec's September 2012 State of the Data Center Survey suggest that complexity is doing more than surviving and thriving in today's virtualized data centers. The promised benefits of virtualization and the cloud are failing to fully materialize.

This year's 2012 State of the Data Center Survey was conducted by ReRez Research who contacted a total of 2,453 IT professionals in organizations across 32 countries. Of those individuals interviewed in the survey, 40% (*1,003*) were from the Asia-Pacific region, 28.5% (*700*) were from EMEA, 20% (*500*) were from North America and the rest (11.5%) from Latin America.

One of the objectives of this year's survey was to understand how organizations across the globe ranked the complexity of data center infrastructures since the advent of virtualization and cloud computing began in earnest a few years ago.

It asked these IT staff to rate the level of complexity in their companies on a scale of 0 – 10 (*0 being the simplest, 10 being the most complex.*) What it found was that no region of the world rated their IT infrastructures as "*simple*." The closest any region came was the Asia-Pacific region was gave the complexity of their IT environments the lowest ranking of any region (**6.15**) while those in Latin America assigned the highest ranking to their levels of complexity with a **7.81** average.

Source: 2012 State of the

Data Center Survey

How complex each region of the world ranked the complexity of their environments seemed to be directly proportional to how quickly they were willing to adopt new technologies. Those regions that said their IT environments were more complex (*Latin and North America*) tended to take an incremental approach to adopting new technologies.

While this methodology is sometimes perceived as "*safer*" from a business perspective, due to the level of change that virtualization introduces into organizations, it forces IT staff to concurrently support both physical and virtual environments. This results in making data center infrastructures more, not less, complex to manage and support.

This incremental approach to implementing virtualization and the cloud seems to be less of a factor in the European and Asia Pacific regions of the world. While neither region deemed their environments as "*simple*" as their respective 6.68 and 6.15 scores indicate, their willingness to more quickly virtualize their environments and avoid this incremental approach to virtualizaiton seemed to translate into them reporting lower levels of complexity.

However virtualization presents its own set of challenges regardless if an organization virtualizes quickly or slowly. Those interviewed report that data center power and cooling issues never go away, IT skill sets have to be updated and the number of applications that need to be supported increases. One IT director for a healthcare organizations laments, "*Vendors want you to run their applications on a single machine. So you run it on a single VM but they just multiply*."

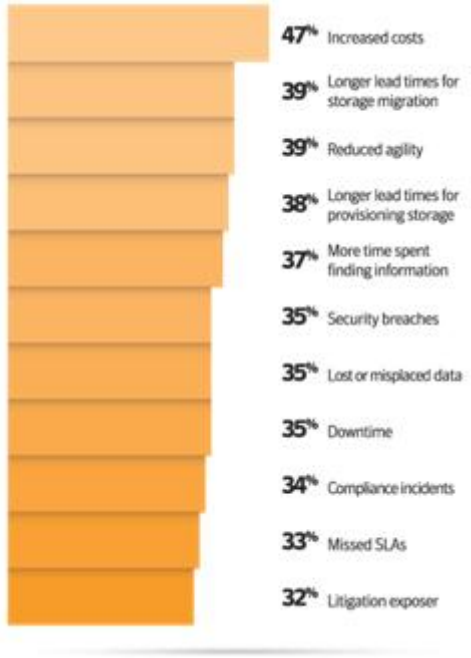
A chief of IT operations who also shares his thoughts in the

survey reports that adopting virtualization and the cloud did not automatically equate to hard dollar savings across his data center. He observed that virtualization definitely saved money in some areas but the cloud… not so much. He concludes, "*You may alleviate expense in one area but you increase it in another.*"

This was evident by the side effects that these IT professionals found virtualization and the cloud created in their data center.

- ***47%*** found that they had ***increased costs***
- ***39%*** cited ***longer lead times*** for ***storage migrations***
- ***39%*** had ***reduced agility***
- ***38%*** needed for ***longer lead times for storage provisioning***

Side Effects of Data Center Complexity



Source: 2012 State of the Data Center Survey

This is not to imply that all news about virtualization and the cloud is bad nor that complexity is an inevitable result of the implementation of these technologies. The key is to understand what the risks are at the outset and then take

steps to mitigate the complexities that can result.

For instance, the survey found that ***90% of the organizations are either actively discussing governance or have implemented trials or actual governance programs***. Driving the deployment of this type of technology is enabling organizations to look at all applications and software they have within their IT infrastructure and then classifying them. One Global Technology VP at a large financial company who has already started doing this governance simply states, *"It is going to save us quite a bit of money and make the environment less complex."*