## 3 principles for embracing the cloud in the cognitive era

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Did you know that 70% of the companies that were once on the Fortune 1000 list in 2003 have now vanished? In fact, analysts predict that over the next three years, at least one-third of the top 20 companies in every industry will be equally disrupted if they do not move fast enough.

So what is the cause of this disruptive trend?

According to IBM's 2016 Global C-Suite study, 77 percent of the CIOs interviewed, attribute this disruption to the influence of new technologies. While they believe mobile solutions, cloud computing and the Internet of Things will continue to have the most significant impact on their organizations over the next three to five years, over 60 percent of them think cognitive computing could revolutionize businesses as well.

As we enter into the cognitive era, an era where systems have the ability to learn at scale, reason with purpose, and interact naturally with people, companies are beginning to realize that they are merely scratching the surface of what cloud can do if they deploy cloud in their business to solely save money.

Previously, companies merely looked to the cloud as a means of reducing infrastructure costs and to achieve operational efficiencies. This allowed companies to channel and spend more time on value-added activities such as strategy and innovation while saving money, instead of commoditized activities. In other words, employees no longer needed to spend as much time on IT maintenance.

Today however, the role of the cloud is changing, and rapidly so. Companies are starting to explore ways to use the cloud in truly disruptive ways to drive innovation and growth, break into new markets or create new revenue streams.

Here are three guiding principles that you can follow to become a cloud leader in a cognitive world:

Firstly, you need a broad catalogue of robust services that allows you to create cloud native apps quickly in the cloud.

We all know speed is of the essence and time means money.

The introduction of cloud computing provides new tools and techniques to reduce the time a developer needs to go from idea to application. What used to take weeks or months, can now be done in days or even hours!

Shortened development time is made possible because the "as-a-service" model has simplified developers' workload and facilitated a transformation in DevOps using the cloud. Infrastructure-as-a-Service (IaaS) reduces the effort and time required to provision and manage hardware while Platform-as-a-Service (PaaS) reduces the effort needed to manage the various middleware from databases to APIs to services. Lastly, Software-as-a-Service (SaaS) gives end users access to business applications hosted and maintained by the vendor.

To summarize, both IaaS and PaaS cloud models simplify the workload of developers by managing complex tasks that are orthogonal to the developers' goals, thereby freeing up more time for them to create innovative new applications.

## The second principle is to connect what you do in the native cloud, seamlessly across your enterprise IT without compromising governance or security.

We talk about public clouds and private clouds, but the reality is that most clients will go to a world that is hybrid. After all, one size does not fit all. This is the classic bimodal IT conundrum.

CIOs spend billions of dollars to build up their data centre for a reason. It provides a rich source of data that should and can be leveraged instead of simply letting it stay locked away. For example, the vibrant API economy today lets you open your business to new markets and extend your business assets to ecosystem developers.

Unfortunately, many of our clients today spend large amounts of time dealing with issues related to deployment and operations. Consider using deployment scripts that are repeatable, which helps to reduce errors and variability in this part of the lifecycle, improve productivity and improve speed time-to-market as simplified. Reusable deployment processes with built-in actions help to enable faster testing and deployment of changes.

Leveraging your existing IT investments will certainly help to lower the risks of any cloud deployment.

## Finally, the third principle to any successful cloud deployment is optimize each workload to the best fit.

This is especially important when CIOs are now investing in analytics, mobile, social and related applications. All these new workloads present different patterns, run at different speeds, but need to work together.

So it is important to know what runs where, how close the data is to the application, how fast the analytical queries can be done, and how secure the integration is done on different platforms. It matters what workloads run where and how.

In short, you should be able to optimize each workload to the best fit.

Make no mistake, there are many companies out there who are catching on to all the cloud can do. The IBM Institute for Business Value projects that the number of companies that are using

cloud to drive innovation will more than double from 16 percent to 35 percent in just a few years.

For those who are still undecided about what more cloud can do for your business, just remember: Disrupt now, or be disrupted.

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