

Driving forces behind cloud computing

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22 Jun 2015

As we reflect on the lessons learned through the big-data boom, of how organisations securely capture, store and retrieve data and how they can derive value from these huge data sets, we must begin to prepare for a yet another new wave of data. This data will come from millions of new internet-enabled devices, a continued push towards the use of virtualised machines and the adoption of cloud-enabled business-critical applications.

This volume will make it more important than ever for organisations to holistically manage their data and storage more intelligently, and cloud services will be a key element to achieving this. Although the cloud has been around for a few years now, it is only recently that organisations started to really understand how to leverage it to suit their business needs. More than simply shared hard drives in the sky, today we see an increasing array of enterprise-level cloud services from virtual computers to fully realised Enterprise applications.

However, what are the latest trends and services brought by the cloud and how can organisations now seize the opportunity to leverage on these new functions to enhance their business capabilities.

Leveraging cloud as a service



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We predict that enterprises, rather than continuing to spend capital in their own data centers, will become increasingly comfortable utilising big public cloud providers, such as Amazon Web Services (AWS), Microsoft Azure, Dimension Data and RackSpace. The cloud is becoming more adept at allowing the use of data-intensive applications, e.g. SharePoint, Oracle or SAP.

Currently, most organisations are knowledgeable about all of the different cloud service models (Infrastructure IaaS, Platform PaaS, and Storage SaaS) and the focus appears to be moving up the stack towards the application layer. In response, providers will likely grow their applications-as-a-service offerings, providing a broader range of alternatives to the traditional on-premises infrastructure.

Organisations should, therefore, already start researching the right vendors, start executing their cloud strategy, and get used to managing the IaaS layer. 2015 will also undoubtedly see PaaS at its zenith. Recent trends show an increasing number of organisations are investing resources into implementing guardrails around their cloud environments so that developers can consume the cloud services in a secure and compliant manner. At the same time, they are also - or should be - either evaluating PaaS or doing a proof of concept with one or more PaaS platforms.

It is now time for applications and developers to enter the ring. Ultimately, this move to manage some resources in-house and put others into the cloud will reinforce the need for a hybrid cloud strategy.

Embracing hybrid cloud

Working with cloud service providers provides organisations with the ability to take advantage of the private cloud. In fact, a growing number of enterprises are consolidating their IT infrastructures to private/public clouds. The growing importance of hybrid cloud environments is transforming the entire computing industry, as well as the way businesses are able to leverage technology to innovate.

One clear benefit of a hybrid cloud model is having on-premises, private infrastructure directly accessible - in other words, not having to go via the public internet for everything. This greatly reduces access time and latency in comparison to public cloud services. The hybrid cloud model gives the ability to have on-premises computational and storage infrastructure for processing data that requires extra speed or high availability for your business, while retaining the ability to leverage the public cloud for failover circumstances or when the workload exceeds the computational power of the private cloud component.

Building out the private end of a hybrid cloud also allows for flexibility in virtual server design. Organisations can automate the entire virtual machine life cycle to archiving older Virtual Machines (VM's) to the cloud. Some organisations are also looking at private compute clouds to provide disaster recovery (DR) and business resumption services for VM's that would traditionally run in the data center.

Using a hybrid cloud can also greatly facilitate employee connectivity in the workplace. In addition to employees sharing files for collaboration, companies must also integrate remote workers with core business processes, such as internal messaging, scheduling, edge protection (laptops, tablets, etc.), Business Intelligence (BI) and analytics.

For most chief information officers (CIOs), a hybrid environment is, or soon will be, a fact of life. More enterprises will start to figure out how to use the tools that are available to expose private cloud resources to their developers. With the hybrid cloud model, IT decision makers have more control over where to process data and how much to spend on that effort as it pertains to the value for the business.

Mining for data gold in the cloud with data analytics

Embedded systems, such as Internet of Things (IoT), will continue to add to the crush of structured and unstructured data already filling company databases. The amount and variety of data will demand more advanced analytics than the ones currently available. Although there are already sophisticated data management tools that can effectively help to turn archived/stored data into great business value, we have also started to witness recently the move of data analytics to the cloud.

'Analytics with purpose' will be a guiding principle for organisations. Whether they will be launching their first BI and analytics initiatives, or leading the next phase of an existing program, organisations will have to consider the cloud as a key element of their strategy. By implementing a hybrid data analytics strategy, organisations have the opportunity to make more intelligent choices about the unstructured big data in their environment, and thus quickly take actionable steps to retrieve valuable storage space, and mitigate the risk of compliance-related issues.

There are clear advantages for organisations to explore all of the new and innovative uses for cloud and the cloud will be a game changer for most IT organisations. As more and more companies seek to make sense of big data, profit from IoT and make the transition to the cloud, there will always be a need for organisations to keep a holistic view of the enterprise and take control of their IT environment. This means putting more focus on the people and process aspects of this transformational change. Now is the time for CIOs to align all of their computing capabilities to business strategy, regardless of location, and derive maximum value from their capital and operational expenditures.

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