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BOTTOM LINE

- *Data and mission-critical workloads are moving to cloud*
- *Cloud computing has become a platform for innovation and growth*
- *Integration and data security are the major challenges for enterprises to take cloud to the next level*

Cloud is becoming a platform for processing data, workloads and accelerating digital business and innovation

By Nancy Ho

Cloud computing is increasingly become mainstream in Hong Kong as more data and production workloads are moving to hybrid cloud environments. Companies have started to see cloud as a platform to fuel innovation and growth rather than just for cost reduction.

Despite its continuous growth, the

issues of integration, data security and skilled IT staff make taking cloud to the next level a challenge in 2016.

According to 451 Research, a US-based research firm, US\$1,862 billion was spent on cloud computing in Asia Pacific in 2014. With a 28% CAGR, the region's cloud computing spending is estimated to reach US\$6,303 billion by 2019.



In Hong Kong, the Office of Government Chief Officer (OGCIO) has made use of cloud technologies to deliver e-government services. OGCIO has enlisted some 40 service providers and over 300 cloud services were provided to the government departments as of June.

CITIC Telecom CPC noted that customers are increasingly demanding cloud services related to infrastructure operations. These services include disaster recovery (disaster recovery-as-a-service), backup, security and other one-off services like server migration and cloud disaster recovery plan design.

Moving data & workloads to cloud

“Customers have been spending more on cloud computing, driven by big data, business analytics and mobile application trends in 2015,” said Daniel Kwong, SVP of information technology and security services at CITIC Telecom CPC.

He added, “Enterprises are still keeping highly sensitive data in dedicated servers and private storage, but tend to leverage cloud services to store and analyze big data sets such as social media data and statistics information.”

“With cloud traffic expected to grow over 30% worldwide over the next five years, enterprises and government organizations are moving from test cloud environments to trusting clouds with their mission-critical workloads,” added Garrick Ng, head of systems engineering at Cisco Hong Kong & Macau.

Cost savings & SLA support

Cost savings and service level agreement (SLA) support are top on the agenda when customers turn to cloud services.

“Customers are looking for ways to transform capex to opex so as to increase company profits,” said CITIC Telecom CPC’s Kwong. “Cloud-based services minimize initial setup costs and provide pay-per-use or a monthly fee model.”

Take disaster recovery as an example. Traditional disaster recovery and offsite backup are usually complicated, highly customized and hence expensive. Moving them to the cloud is relatively cost efficient and easier to manage.

On the SLA side, Kwong pointed out that customers’ expectations towards an agreed SLA is much higher than a year before. “They expect the SLA to cover not only cloud infrastructure aspects such as platform uptime, network connectivity availability, but also the OS level and application management support with fast response time.”

Accelerate innovation & digital business

Kwong said that he expects enterprises to demand deeper integration in hybrid cloud in 2016, such as the allocation of dynamic workloads to the right place and a single management platform for different cloud environments.

Other cloud service providers noted hybrid cloud is becoming the enabler of digital business. Instead of just reducing



Kwong from CITIC Telecom CPC: Customers look for deeper hybrid cloud integration like dynamic workloads allocation to the right place

costs or enhancing efficiency, cloud is moving to help businesses to fuel innovation and growth.

According to a global survey released by Cisco and IDC in August, cloud is moving into a second wave of adoption. Businesses no longer focus on achieving efficiency and cost reduction, but rather are looking to cloud as a platform to empower innovation, growth and disruption.

Companies in the survey expect cloud adoption to drive increased revenue over the next two years. 70% of the surveyed respondents in China stated that they expect cloud to drive increased revenue, higher than the average of 53% on the global level.

A local executive from EMC also noted that the hybrid cloud is becoming the enabler of digital business, fostering new business opportunities and new

Customers have been spending more on cloud computing, driven by big data, business analytics and mobile application trends

– Daniel Kwong, CITIC Telecom CPC



innovations for Hong Kong enterprises.

“The right mix of hybrid cloud model is definitely on the rise, and it is quickly emerging as the enabler of digital business,” said Denis Yip, SVP of EMC and president of EMC Greater China. “Adoption is being driven by three key forces: digital business, an imperative to become and remain agile, and cost reduction.”

“Companies also see hybrid cloud as an opportunity to secure IT at the heart of the business action – delivering apps and brokering cloud services, which will solidify IT’s value and relevance,” Yip added.

In order to thrive in this new environment, he noted that IT executives should not focus only on improving IT environments, but also use the cloud to “build a new parallel IT stack that enables us to create and deliver new apps, products

Cisco’s Ng: Defending against threats and protecting data in the cloud are complex tasks



Hybrid cloud becomes the delivery mechanism to accelerate digital business

– Brian Groen, IBM

and services to disrupt the IT industry.”

IBM also expects hybrid clouds to remain strong in 2016 as it accelerates the development of digital business.

“Hybrid cloud becomes the delivery mechanism to accelerate digital business,” said Brian Groen, cloud business executive, IBM Hong Kong. “It is being used to make IT portfolio economics work and deliver faster application innovation.”

Challenges: integration & skills

Despite the growing adoption of hybrid cloud, the issues of integration and security, skills and economic outlook pose big challenges to enterprises in 2016.

“Enterprises will see challenges in integrating, managing, and securing hybrid environments so as to enable organizations to operate in an integrated and seamless way,” said Groen. “This includes integrating between cloud environments, as well as cloud with traditional IT infrastructure through technologies like API management.”

The lack of IT talents in Hong Kong is also making it challenging for enterprises to enable integration. Talents required include DevOps process skills, integration among cloud vendors and components, orchestration and service catalogue build and deployments.

IDC also agreed the lack of IT skills is an inhibitor for local enterprises to manage hybrid clouds.

“IT skills to manage change are on the low end of the skills scale in building and managing hybrid cloud infrastructure,”

said Robert Mahowald, program vice president, SaaS and cloud services at IDC. “For example, mechanisms for procurement, contracting/subscription, vendor management, and SLA monitoring are automated and abstracted from users—a result that takes great skills and investment.”

Challenges: security & economic outlook

Regardless of the cloud models chosen by companies, security remains a big challenge in cloud computing.

“Data theft, security attacks and time to recover from outages are top concerns among business organizations,” said Agatha Poon, research manager for global cloud computing at 451 Research. “Security is a necessary investment.”

“Defending against threats and protecting data in the cloud are complex tasks,” added Ng from Cisco. “A strong defense requires constant monitoring of threats wherever they occur and the skill to analyze their causes and the scope of outbreaks.”

The biggest challenge for Hong Kong enterprises in 2016, according to CITIC Telecom CPC, is the economic downturn in China and the uncertainty of the global economy.

“We would expect enterprise IT investment to become more conservative. The main driver for cloud computing adoption will be cost saving instead of aggressive business expansion,” concluded Kwong. ◀

HKUST deploys CRM to streamline MBA program applications

By Nancy Ho



HKUST offers around 300 seats in different MBA programs in each intake

Hong Kong University of Science and Technology (HKUST) Business School used to rely on a homegrown enrollment management system to handle their MBA program applications. But the system led to a huge amount of paper used and prolonged the time required to handle the applications.

The school was looking for a way to manage these challenges. It turned towards an innovative direction by deploying a cloud-based CRM system to streamline the MBA program application process. The new system helps reduce paper use in offices, raise revenue and improve collaboration between staff.

“Our MBA program and graduate management programs are revenue-generated programs that help fund our school,” said Sean Ferguson, HKUST’s associate dean of master’s programs and director of the MBA programs. “So we

have to be competitive in attracting the right students worldwide to study and in what we have offered as a business school.”

Legacy systems delay enrollment

HKUST offers around 300 seats in different MBA programs in each intake. Previously, during the application process, our staff had to download, print each applicant’s information before they can start the selection process.

“We are a university that focuses on science and technology. This is quite an ironic outcome,” he said. “Our CRM system was (basically) everyone’s Outlook mailbox. We did not have a decent collaboration or address book management system,” he said.

The school required an application to facilitate communications not only with their prospective students, but also between the administrative staff and their corporate partners, who are the prospective employers of their MBA graduates.

Raise efficiency & reduce paper use

HKUST Business School chose Salesforce Sales Cloud to handle its MBA applications process and corporate partnership management. By installing a plug-in, data can be synced in between its Outlook email system and the Salesforce CRM. A mobile app from Sales Cloud also enables staff to track and follow up on the go.

“The real benefit is definitely making

our team more efficient and accessing information must faster,” said Ferguson. “We cut 50% of paper used in our offices. On the first year after implementing the new system, our revenue also increased by 10%-15%.”

Better collaboration between staff is also an important benefit.

“Salesforce is driving more discipline to an organization to put everyone on a common platform, enabling us to work more collaboratively,” he said.

Ferguson and his colleagues have to engage with people like students, alumni and recruiters in different ways. With the Sales Cloud and the mobile app in place, he can easily share information and coordinate activities like recruiter meetings with his colleagues.

Commenting on the implementation process and success factors, Ferguson stated active engagement and involvement by the staff members and by-phases implementation are both important.

“People always have a bias towards an old system. I have to make sure people understand why we are doing this and encourage them to leverage the tools we have,” he said.

Extend to other graduate programs

Following the success, HKUST Business School plans to extend the system towards the mathematics and science programs applications as well as other graduate programs.

In the long run, the school plans to leverage Salesforce to turn into a paperless campus. ◀

