

Examining the Asia Cloud

by Samuel Lee, president, Equinix Asia-Pacific

Cloud is not merely a change of infrastructure, but primarily a different business model, with a standardised, multi-tenanted service model. It allows constructing services with many more service components, since they all are available from the same Cloud. In the APAC, last year Cloud engagements originated from the US, but this year more local/regional providers are launching Cloud services. They seek to connect to one another and extend their coverage. This concept of a carrier-neutral ‘Cloud service hub’ is gaining momentum, where Cloud providers can form vertically aligned solutions stacks, improving performance and reducing network running costs.



Samuel Lee is the president of Equinix, Asia-Pacific. Samuel Lee joined Equinix in 2000 and now serves as president, overseeing the management, strategy and growth of the company's Asia-Pacific operations. Previously, he served as the managing director of Equinix Hong Kong, where he successfully led the team in building a strong position for Equinix in the financial services industry there.

Mr Lee brings a wealth of experience in telecom and Internet services, as well as expertise in start-up operations. Prior to joining Equinix, Mr Lee served as the managing director of Pacific Gateway Exchange (PGE), a provider of wholesale and retail long distance, Internet and bandwidth services. He founded Telekom Consulting Ltd, a consulting firm offering strategic assistance to network providers in the deregulated telecommunications market in Hong Kong and Asia. He also held management positions at Teleglobe International, Intel, and Sprint. Samuel Lee holds a BA from City University of Hong Kong.

Cloud computing has been getting an enormous amount of attention in recent years. This new computing paradigm has the potential to reduce IT costs, streamline IT consumption models, simplify business continuity and deliver enterprise grade capacity on demand. Gartner predicts that half of the Global 1000 enterprises will rely on external Cloud computing services to deliver their top revenue-generating processes by 2015. From an Asia-Pacific perspective, the statistics are as compelling. Frost and Sullivan believe that 30 per cent of APAC organisations will have adopted some form of Cloud computing by the end of 2012. The APAC market for public Cloud computing is set to

reach US\$5.8 billion by 2015 with a CAGR of 39 per cent between 2010 and 2015.

Service providers and smartphone manufacturers have been launching Cloud-based services, and the buying of content, the streaming of media and the sharing of office documents is now easy and convenient. Interested in printing photos from the Cloud? Many printer manufacturers have already incorporated this feature in recent launches. Such market phenomena pave the way for the spread of Cloud computing and confirm the upbeat research statistics. Therefore, it's no surprise that virtually every ICT vendor and service provider is racing to be part of the Cloud ecosystem.

Cloud focuses more on business than on technology

Cloud is not a new technology. For end-users, it is one way to consume applications and services. For service providers, it is a business model and architecture for delivering infrastructure and services to customers. The services themselves leverage a number of technologies, most of which are either well established or have evolved from existing technologies.

When considering Cloud services, it's important to treat the Cloud as a business model. This will help to keep the focus

on service aspects like Service Level Agreements (SLAs), service catalogues, and functionality rather than just technology.

Cloud is more than just infrastructure

Paradoxically, people who come from a traditional IT background often have a hard time understanding Cloud computing. This is because they are used to thinking of IT operations in terms of hardware and software. As Figure 1 illustrates, the traditional IT delivery models have largely relied on a limited number of partnerships to deliver dedicated platforms and applications. Even in a fully outsourced model, the provider delivers a service that is dedicated and tailored to the customer.

The Cloud, by contrast, is built on a standardised, multi-tenanted service model. All buyers get the same service, but the services can be composed of many components. Therefore, instead of one or two relationships like the traditional model, Cloud-based services may be built from a stack of many services.

increasingly relying on service providers to deliver the benefits of Cloud services.

The Cloud service approach presents both opportunities and challenges. The opportunities include a more efficient, elastic, capacity-on-demand delivery model. To deliver IT infrastructure and services to customers cost-effectively and efficiently, the Cloud infrastructure is based on multi-tenant systems with high degrees of virtualisation and shared resource pools. This translates into numerous end-users and businesses operating in very dense service delivery environments. This is how service providers deliver the economics of Cloud services. It is by design.

Network provider density

The network lies at the heart of Cloud computing. Unlike premise-based solutions, Cloud service providers may incorporate infrastructure and application services located a long distance from customers. The resulting service latency and its corresponding effect on the end-

business objectives;

- more vendor solutions choices to fulfil targeted architectures;
- optimised service delivery performance and cost management; that is, the ability to closely align network technologies and service solutions to business goals.

A carrier-neutral ‘Cloud services hub’

In Equinix, we have experienced a rapid growth of Cloud service providers over the last few years. Cloud service providers want to be in our facilities not just to connect to networks and customers, but also to connect to one another. As a result, Cloud has become an important vertical market, which now accounts for over 20 per cent of our annual revenues worldwide, and is keeping the company aware that more investments may be needed in order to keep up with demand.

A concept that is gaining positive momentum is the idea of a carrier-neutral ‘Cloud service hub’, where Cloud providers can interconnect to form vertically aligned solutions stacks. The Cloud is about flexibility and choice. At the same time, the delivery of Cloud services may span significant distances - especially when virtualised workloads can be anywhere. Aligning Cloud benefits with user Quality of Experience (QoE) requires distributed service delivery architecture. The result is lower network latency, fewer interconnections, and better SLAs. Due to the rich ecosystem of Cloud providers in key hub locations, many providers can directly connect to one another, resulting in significantly greater performance, improved security, and lower cost.

In the past year, we saw most of the Cloud engagements that have originated from the US, expanding into the APAC market. However, this year we are seeing more of the local and regional APAC providers roll out Cloud service portfolios, based on their foundation in managed services. For example, we have helped two Australian managed IT providers roll out their Cloud services within the first months of 2012. We’re also seeing stronger customer relationships in vertical industries including finance, telco, and enterprise. This is because many of these vertical customers have also started migrating portions of their business to the Cloud. ●

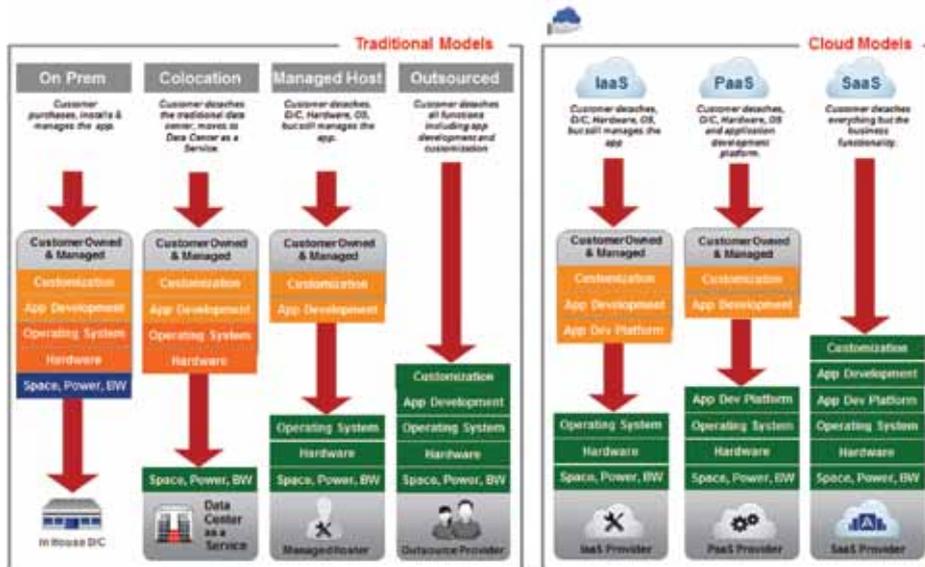


Figure 1: The Application Deployment Evolution

Underneath the Cloud service umbrella lie stacks of component services including computing, storage, networking, security, identity management, monitoring, and many more. These are all wrapped up within equally sophisticated data centre environments and delivered over various access and backbone networks. Cloud architecture and service delivery can be very complex. That’s why so many companies are

user experience are extremely important considerations. A single Cloud provider will service customers in many locations. To be successful they must pay close attention to optimising their Cloud backbone and edge connectivity to their customers. For this reason, network connectivity and network provider choices are hugely important to Cloud service providers.

Network provider density enables:

- more architectural possibility to achieve