



OpenStack Cloud Helps Fuel Hong Kong Tech Start-up Incubator

OpenStack provided the cost-effectiveness, speed, and security tech incubator Cyberport sought.

With a growing base of tech start-ups and entrepreneurs, Hong Kong-based information and communications technology incubator Cyberport is already well on its way to becoming the leading technology hub within the Asia-Pacific region. Operated by the Hong Kong Cyberport Management Company, Cyberport is nurturing these start-ups through cost-saving resource pooling that help accelerate technology adoption through strategic partnerships and initiatives.

Building effective IT systems has long been a challenge for start-ups and small businesses. This was especially true when start-ups had to make significant investments in IT just to put the necessary infrastructure in place to build a sustainable business. Today, cloud computing has changed that model, offering businesses exponentially more computing power at much lower costs. This means that start-ups can focus more of their resources on developing their business, not just IT.

Initial clouds proved cumbersome, lacked security

As the Cyberport IT team experienced though, building a cloud infrastructure isn't without its own set of challenges. Cyberport needed to build a secure, trusted, and agile cloud service that would be used by numerous businesses. Unfortunately, as the Cyberport IT team began building its cloud, the team had to pilot a number of cloud platforms that appeared at first to be straightforward but were not workable.

"Our first attempts at building our cloud turned out to be riddled with security vulnerabilities, and no matter how much we tried, they couldn't be eliminated," says Dr. David Chung, CTO at Cyberport. "This forced us to go back to the drawing board several times in order to evaluate different options."

With such unacceptable outcomes, the Cyberport IT team returned to search for the right platform for its incubator cloud. It was during this subsequent search that Chung and his team found the open source cloud operating system OpenStack and began to evaluate its capabilities.

OpenStack is a large-scale open source cloud computing initiative that is used by organizations such as CERN (European Organization for Nuclear Research), MercadoLibre, Live Person, PayPal, Wikimedia, Workday, Yahoo! and many others. The project automatically manages at scale, pools of computing, storage, and networking resources.

OpenStack: Fast, Cost-effective, and Secure

Cyberport was quickly able to build an OpenStack test cloud environment on its existing hardware infrastructure. "A lot of cloud platforms are good at talking about cloud, but their actual implementation falls short when it comes to overall capabilities and security," says Chung. "By contrast, OpenStack is a global movement that is constantly evolving and becoming the de facto standard for cloud computing. OpenStack has proven to be the fastest-to-deploy, most cost-effective cloud option."

With OpenStack, Chung explains, because it is built on open standards, there is no vendor lock-in caused by proprietary standards and APIs, and OpenStack runs smoothly on commodity hardware. This dramatically lowered Cyberport's cost of ownership. Additionally, the security issues that Cyberport initially encountered were solved. "No

matter how hard we tried to secure the previous cloud, there were always security defects. Not so with OpenStack; the software is much more secure," he says.

Soon after its test, Cyberport developed its pilot cloud computing platform, based entirely on OpenStack Folsom. "The OpenStack cloud facilitated the deployment of new application pilots delivered by participating Cyberport entrepreneurs and the Cyberport Startup Alumni Association," Chung says. "It is a great success."

Today, more than 30 IT-intensive start-ups rely on the Cyberport cloud built on OpenStack to forward their businesses. These startups engage in a wide range of business-use cases, including social media, game-based programming, and computer-intensive geospatial information and mapping services. Moreover, new applications are continuously being developed and deployed on the Cyberport cloud, including an on-demand 3D modeling cloud. The 3D cloud supports more than 30 local school teams currently participating in a 3D animation competition.

The OpenStack Community: Insight On-demand

The global OpenStack community, which consists of developers, corporations, service providers, researchers, and users, has proven to be a valuable asset to Cyberport's cloud building efforts. "The community is very helpful at providing answers. Our team has been in touch with a number of people around the world and it makes our journey much easier," Chung says.

The community is also taking root in Hong Kong. Shortly after the Cyberport cloud was built, the Hong Kong OpenStack User Group and Rackspace cohosted a four-day fundamental OpenStack training workshop with real-world implementations, including a hands-on training lab. The training equipped local cloud providers with the knowledge needed to deploy, configure, and administer their own OpenStack clouds.

Within a year, Cyberport and the Hong Kong OpenStack User Group organized the second workshop, where OpenStack was used to build a distributed computing architecture to support the digital entertainment and media business.

Since the launch of Cyberport Cloud platform, the OpenStack cloud has provided local entrepreneurs the computing scalability and flexibility they need to succeed. More specifically, the platform has helped these information and communication technology businesses to adopt cloud computing technology and implement a cost-effective IT infrastructure that will lower their IT costs and help speed their time-to-market.

With strong demand from the community, Cyberport is launching a new scalable cloud community service platform. Based on OpenStack Grizzly, the Cyberport Community Cloud ("Cyberport Cloud") will be the first such community cloud platform in Hong Kong, and provide users with self-provisionable infrastructure-as-a-service and software-defined networking capabilities, plus advanced security features such as ensuring secure storage. "We needed to build a cloud platform that would be secure, cost-effective, and agile enough to help support the growth of the information and communication technology businesses in Hong Kong. Fortunately, OpenStack has provided us a way to do exactly that," says Chung.



Hong Kong Cyberport Management Company Limited

<http://www.cyberport.hk/en>

Industry: Information Technology

Headquarters: Cyberport

Size: 21-100 employees

OpenStack technologies Hong Kong Cyberport Management Company Limited uses:

Openstack Compute (Nova)
Openstack Block Storage (Cinder)
Openstack Object Storage (Swift)
Openstack Network
Openstack Dashboard (Horizon)
Openstack Identity Service (Keystone)
Openstack Image Service (Glance)

Links About Hong Kong Cyberport Management Company Limited

[🔗 User Group/Meet-up \(http://osug.cyberport.hk\)](http://osug.cyberport.hk)