## TECHNOLOGY THAILAND

By Avigail M. Olarte Asia News Network

# THE CLOUD FACTOR

## Across the world, governments adopt an uber cool technology called cloud

#### Bangkok

utting through red tape could be tough, but as they say, there are more ways of killing a cat than choking it with cream. These days, governments rid of it via a platform called cloud.

Imagine having to go through a mountain of paperwork that would probably take months before the request for a piece of hardware like a PC for a server gets a nod because of some excessive bureaucratic regulation. With cloud, or specifically, cloud computing, it cuts it down to five minutes, or at most to a day.

By definition, cloud computing is seen as the "next stage in the Internet's evolution". It's a kind of a service that virtualises virtually everything—from hardware, network, storage, software and other services—and could be accessed from anywhere, anytime. For governments, this could be the next best thing, if they're thinking of efficiency in delivering services and securing and storing important data.

"The government's objectives while migrating to the cloud are to meet its operational needs, while reducing costs and increasing agility and efficiency," says the global consulting firm, Frost & Sullivan, in its 2011 study, "State of cloud computing in the public sector: A strategic analysis of the business case and overview of initiatives across Asia Pacific".

"The increasing buzz around cloud computing has prompted the governments to assess the new delivery model. With the governments of major countries, especially the United States, encouraging cloud adoption, governments of Asia-Pacific countries, too ,are gaining confidence and increasingly evaluating cloud computing," adds Frost & Sullivan.

In the region, Japan takes the lead. In Asia Cloud Computing Association's (ACCA) Cloud Readiness Index for Asia in 2011, Japan's huge score was mainly because of its mature IT market, and the regulations and conditions that encourage cloud computing in the world's third largest economy. Hong Kong comes in second with South Korea and Singapore following close.

But countries like Thailand are being bullish, and it is starting to beat the pack with recent innovations in cloud computing. While the index gave it a score of only 51.0 for its cloud readiness-due to series of political unrest in the past years that limited technological progress-it says cloud computing is likely to play a significant role in the kingdom. The fact, too, that Thailand's Global Innovation Index in 2011 jumped 12 points up from the previous year and ranked 9th in the East Asia Region shows Thailand is ready for cloud growth.

### CHEAPER BY FAR

"By adopting cloud computing, government agencies can create a central pool of shared resources software and infrastructure. The fact that cloud computing is more costeffective, leads to reduction in ICT spending," says Frost & Sullivan.

In Thailand, the government's IT spending is expected to be reduced by 30 per cent with the new cloud service that it has launched this January. Each year, Thailand spends about 50 billion baht or US\$1.6 billion on hardware and software, and government units end up buying "old but pricey technology", says the ICT department.

Which is why the Electronic Government Agency (EGA), Thailand's technology adviser and state agencies, adopted the cloud technology.

"Cloud computing services make the government more efficient. It's making IT implementation (for agencies) easier, more convenient," says EGA Director Dr Sak Segkhoonthod, in an interview with *AsiaNews*.

He says that in Thailand, buying a server could take about six to nine months, as the request needs to go through the budget process and the approval of several committees. But with cloud service, which EGA currently provides to 10 agencies for free, one can get it with top speed within a day.

By virtualising everything, an agency need not worry about purchasing hardware, or what hosting service to get and how to store data. Once they've availed of the service from EGA, and the servers are up, the agency can develop its own cloud-based application—a computer software designed to help the user perform specific tasks like accounting or building databases. The beauty of it is once cloud is set up, an agency can use it for any service it wants.

#### EFFICIENCY, SPEED

EGA is currently pilot-testing the cloud with 10 government agencies (*see box*). The entire system runs on a private cloud, which operates solely for the Thai government and hosted within the country. The vendors involved in the project are NetApp, Cisco, VMware, Microsoft and CAT Telecom.

During its three-month run, agencies reported an overall 69 per cent satisfaction of the cloud service, with 78 per cent of the respondents saying they put premium on its convenience and speed. This was the result of the survey released this month, which the EGA used to assess the efficiency of its cloud. If all 10 will be successful within the year, more government agencies will be involved in the project until all 35 will be covered.

The National Science and Technology Development Agency, the leader in testing new technologies in Thailand, is one of the agencies that joined the pilot phase. "The service is important to them because they want to know how cloud works. They're testing the cloud too," says Nantawan Wongkachonkitti, EGA's director for IT intelligence. Another agency, the Department of Disaster Prevention and Mitigation, went for EGA's services because it wanted to move the database on flood relief to the cloud.

One of the reasons why agencies are warming up to the idea of migrating to the cloud is because electronic data stored in hardware were damaged during last year's flood, the worst to have ever hit Thailand in decades.

"We planned this project before the floods. But it seems that now, government agencies have to think about back-up. Cloud would be the ideal solution for them," says Segkhoonthod.

Nantawan adds that at the end of the day, what matters are the clients,

in this case, the citizens. "The citizen will benefit from speedy work. It's changing the way they utilise services (from the government)."

#### BETTER, SECURE SERVICES

EGA says in the future, it plans to build two or three data centres—a centralised system of storage and connectivity for the entire Thai government—where all agencies and local governments can share and use the facility, instead of each agency having its own. "It would be more cost effective...and make the government more efficient," says Segkhoonthod.

Thailand also plans to put in the cloud the national ID system. EGA is about to sign in June an MOU with the Ministry of Interior, the agency that holds the database for the smart cards. "If put on the cloud, imagine if all government agencies have access to that—they can authenticate the ID and do services easily," he shares.

But one major challenge for Thailand would be data migration. As with other governments having to deal with legacy issues, EGA is now finding ways to fit systems that ran in old technology into its new cloud platform. "Some of the applications are not written to be on cloud. So migration is key," explains Nantawan.

But in terms of security, Nantawan says there's nothing to worry over. He says EGA has set a standard of security by employing a firewall, anti-virus, intrusion detection, intrusion prevention and such mechanisms to guarantee security. Before using cloud for an agency, EGA does a risk assessment of information. It helps an agency determine if a certain information is sensitive, highly sensitive, secret or top secret. From there, EGA customises a security package for them.

In other Asian countries like India, one of the things that hamper the cloud technology growth is security. During last month's NetEvents APAC Press and Analyst Summit in Hong Kong, Nanotel CEO Pranay Misra says a country like India must find a business model that would ensure security when it comes to, for instance, sharing data of telecom firms on a cloud.

"Security is paramount to government adoption. Governments will adopt cloud computing only if they are convinced that their data will remain secure and available," says Frost & Sullivan.

For EGA, cloud computing is all about trust, especially since it's a fairly new technology. Says Segkhoonthod: "Agencies need to trust us. Everything they will be doing will be on the cloud. How can we ensure it's okay, secure and up and running all the time? The trust issue is the first concern."

#### ■ 10 PILOT CLOUD PROJECTS OF THAILAND

1. Department of Disaster Prevention and Mitigation; Ministry of Interior

2. Promotion and Development ICT Usage Bureau; Ministry of Information and Communication Technology

3. Geo-Informatics and Space Technology Development Agency (Public Organisation)

4. National Institute of Metrology (Thailand)

5. Electronic Transactions Development Agency (Public Organisation)

6. Deposit Protection Agency

7. The Secretariat of the Cabinet

8. Office of Election Commission of Thailand

9. The Treasury Department

10. National Science and Technology Development Agency

Source: EGA