

# **Public Sector Cloud – Constraints & Requirements**

**Infocomm Development Authority of  
Singapore**

# Pre Cloud ICT Situation

- IDA as Government CIO
- A WOG infrastructure (SHINE), operated by an appointed third party, to provide shared computing resources to government agencies on an "as-a -service" subscription model

# Easing Procurement

- Prequalifying public cloud service providers to enable agencies to overcome lengthy procurement process
- Intended for Government ministries, statutory boards & participating entities to ease their procurement of cloud services
- Services include
  - Infrastructure-as-a-Service
  - Software-as-a-Service

# Requirement - Cyber Watch Centre

- A requirement of all Internet facing sites
  - Can seek waiver based on
    - Impact analysis
    - Classification of information & system
  
- Impact
  - Every agency needs to seek waiver even if from same CSP

# NLB tackles Web Archiving

- Web Archive Singapore
  - Aim:
    - Crawl all .sg websites to capture materials of national & historical significance
    - Index all retrieved web contents
  - Challenge: Requires extensive use of IT resources



Photo courtesy of National Library Board Singapore

NLB's mission is to provide a trusted, accessible and globally-connected library and information service.

- First in Asia to provide Web 2.0 communication & collaboration tools to 30,000 teachers & staff in over 350 schools
- Goal is to adopt innovative technologies within education profession to drive next-generation learning & communications
- Use of Google apps was estimated to save ~ \$360,000 a year
- Applications also promote interactive teaching & learning

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## MOE takes big leap to Google platform

By **ONG BOON KIAT**

IN a landmark move and nod to the rise of the Web 2.0 phenomenon, the Ministry of Education (MOE) will be adopting a suite of Web-based software from US search giant Google.

By year-end, over 30,000 teachers and staff in over 350 schools will get the software, called Google Apps. It includes popular electronic messaging application Gmail, as well as office applications like word processor and spreadsheet.

The tender is worth about \$650,000 per year, for two years, MOE said yesterday.

The move is "part of MOE's goals to adopt innovative technologies such as Web 2.0 within the education profession to drive next-generation learning and communications", according to a joint statement by the three parties involved - MOE, NCS and Google.

It makes MOE the first in Asia to provide Web 2.0 communication and collaboration tools to all teachers in the public school system, the statement added. Web 2.0 is commonly associated

with the social networking trend and Internet software that promotes collaboration among users.

"This is a key project for MOE as it will facilitate collaborations and sharing among our teachers and help enhance their teaching practices," Chan Tee Miang, MOE's chief information officer said.

It will also transform the way educators work with their peers and Gen-Y students, added NCS chief executive Lim Eng. IT services provider NCS is implementing this project.

But MOE's move could come as a surprise to some industry watchers due to its timing - before the roll-out of MOE's mega computer project, dubbed the Standard ICT Operating Environment (SOE) for Schools. An MOE spokesman told BT that with the adoption of Google Apps, an e-mail system "will no longer be one of the base services" required of SOE for Schools.

SOE for Schools, which has a contract sum of around \$620 million and covers over 60,000 seats in schools, is slated to be rolled out from end-2010 over two years.

MOE had decided to escalate the implementation of a new e-mail system ahead of SOE for Schools because of limitations of the current system, which is also not able keep up with rising e-mail usage, the spokesman said.

Google Apps will replace MOE's existing e-mail system, but not - for now - the Microsoft Office software suite which MOE teachers are using for word processing.

Google Apps is available in both paid and free versions, including a free Education Edition - the version MOE is getting.

MOE will be paying NCS for project implementation, service and support.

A notable appeal of Google Apps is its cloud computing model. This refers to a platform that lets companies use applications over a network, such as the Internet, without owning the systems needed to run them, hence saving money. Cloud computing systems run software and store data in remote machines.

Yesterday's joint statement said MOE will become the first ministry in Singapore to adopt a public cloud computing platform.

# Central G-Cloud

- Aims to provide a cloud infrastructure for Whole-Of-Government (WOG) to leverage on
  
- Next-generation infrastructure to replace SHINE, enabling
  - Standardisation
  - Sharing of computing resources & applications at WOG level
  
- thereby generating cost savings to Government

# Central G-Cloud Design

- Designed to meet three levels of security & governance requirements
  - High Assurance Zone – physically dedicated computing resource pool which will only be used by Government to serve its high assurance needs
  - Medium Assurance Zone – computing resource pool which will be shared with non-government cloud users for lower cost computing resources for Government
  - Basic Assurance Zone – use of public cloud computing