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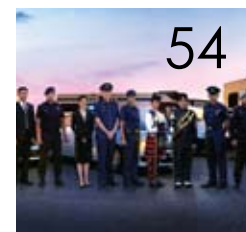
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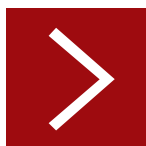
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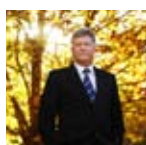
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It was a pleasure to be
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meeting other presenters
and attendees.

Executive Director
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AUSTRALIA



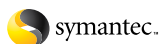
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> CONNECTED COMMUNITY

It is well understood that more good comes from sharing ideas than from locking them away – most of us need ideas from others to shape our own thinking. As parents have told their children over the years – it's good to share.

One of the most remarkable constructions of the internet age is Wikipedia – creating a source of information that builds on the efforts of thousands of individuals – which taps into sharing as the universal value at the core of humanity. Where do people find the time to constantly edit Wikipedia? Cognitive Surplus, published in June this year, provides some clues. Clay Shirky, the author, estimates that the effort to construct Wikipedia amounts to about 100 million hours; he

goes on to observe that 100 million hours is roughly the amount of time people in America spend watching advertisements on television every weekend. How much potential time is there in your city?

Finding how to use the willingness of people to participate and share, contributing some of their time to help find solutions to these issues, is a significant opportunity to build a connected community. To quote from Clay Shirky's earlier book "We are used to a world where little things are done for love and big things are done for money. Now we can do big things for love."

In our everyday work, we learn by sharing with others – the FutureGov community is

founded on the value of sharing knowledge and experience between government officials and technology supplies across the region. While every country has a unique political, social, and cultural systems and values, there are also many similarities in the work that we do. Every government is looking for ways to improve - delivering better services that meet customer expectations, reducing costs and improving efficiency, and increasing citizens' trust in their government.



Improving competitiveness at the national and the city level, using technology for emergency management and recovery, telemedicine, education revenue collection and sustainability are some of the topics in this issue.

You can use them to learn from

the experiences of others, and understand how to improve the performance of your department, agency and government. We also look at the use of Social Media by the police in Singapore.

Underlying the use of social media is a bigger social change – a move from the individual as consumer, to the individual using their time to produce and share information.

Successful leaders create communities to share information and actively seek opportunities to learn from the experience of others. The FutureGov summit, being held this year in Kotu Kinabalu, is a wonderful opportunity for sharing, as are the many other FutureGov events throughout the year. I hope you are able to attend, and I look forward to meeting you.

Laurence Millar

Editor-at-Large

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27 October 2010

ITC Maurya, New Delhi
India

> LETTERS

Smart phones for smart healthcare

Sir – It's interesting to see more and more new media technologies are assisting doctors in tackling conditions such as diabetes. In the past, we have only seen major game manufacturers such as Nintendo Wii Fitness producing several awesome fitness games.

Now, Microsoft's Xbox 360 Kinect is also coming up with Project Natal hand sensory technology. What will the future be like a decade from now for healthcare practitioners? I wonder.

Wan Harris

Group Technology Section
Radio Television Brunei
Prime Minister's Office
BRUNEI DARASSALAM

Role of ICT in education

Sir – I totally agree with Alice Cheong (Principal Assistant Secretary (Education infrastructure), Hong Kong Education Bureau) that technology isn't the issue here, but educators. I've come across far too many educators who preach "open-mindedness" and life-long learning but have never really embraced this axiom is reality!

Irene

SINGAPORE

Teaching in virtual worlds

Sir – Thank you for the article on the dangers of teaching in virtual worlds. But couldn't the same thing have been said about the Web 15 years ago, or even today? "Don't have Internet! The kids will surf bad things!"

Ron T. Blechner

Second Tense
UNITED STATES

Sir - The Immersive Education Initiative is free for educators and provides hundreds (maybe thousands) of free learning virtual worlds, learning games, resources and materials for educators who want to use immersive learning technologies in and out of the classroom. They are an international non-profit consortium with thousands of members that teach millions of students. Pretty impressive!

Qwan Jee

UNITED STATES

Education network for New Zealand schools

Sir – In a digital environment where LMS and SMS systems are effectively deployed by educational institutions, a greater effect can be had by decreasing drift to urban areas allowing smaller rural communities to better survive and thrive.

The adult population can also take advantage of this environment, turning schools into e-learning hubs both onsite and online.

Embracing the network described and taking advantage of the benefits of the cloud does mean that students have more opportunities to peer into the window of the future in a secure setting and have the ability to choose careers that have national and global potential.

The call for fast broadband is heard loud and clear by the New Zealand business sector which will need both the infrastructure and the new generation of digital natives to run it in order for us to compete in the global setting.

D. Hunter

Ziln internet TV network
NEW ZEALAND

Pay by performance in the civil service

Sir – I think Don Lewis' commentary, which argues that for pay for performance (P4P) to work group incentives should be used in combination with individual components, is most valuable. The only reason I plead for caution in using P4P in the civil service is the dangers of ruining the existing public sector corporate culture based on "ethos" without

creating a new culture - if P4P is implemented carelessly by ideologues or smart consultants.

Henrik Hjortdal
DENMARK

The priorities of Australia's GCIO

Sir – Thanks for revealing the Australian GCIO's priorities, which include reviews of the cost structure of government IT, and the use of social media by government. However, we must note that Ann is not like other GCIOs in many other countries. She does not have an overall carriage or responsibility for the IT decisions of the government which are made at a Departmental level, with a small amount of central legislative and regulation. So while she can talk about what has been done in her division, she is only the first to do so among many other Commonwealth public sector CIOs.

James
AUSTRALIA

Mayor of Chongqing on challenges ahead

Sir – Chongqing is the Goliath of cities. It's clear that Mayor Huang prioritises stability over growth and is trying to maintain affordable urban housing options for residents.

I would be interested to know whether the authorities of Chongqing believe that improvements in e-services are also a way of promoting transparency and good governance, as I feel these are also crucial to maintaining the social fabric of urban societies.

Semaj
INDIA

Better learning with web 2.0 and virtual worlds

Sir – I'm a student at Ngee Ann Secondary School, which you mention in your article for its "innovative use of technology in teaching and learning." For your information, the school is stalking the communication between students. Example, student A sends the text message "the discipline master is such an idiot" to student B. The school can see it, via paying the service provider, and can scan through our facebook posts and status updates. So I assume that the school is becoming the police! Is this an appropriate role for a school to play? Invading a student's privacy in the name of discipline?

James
Student, Ngee Ann Secondary School, **SINGAPORE**

Sir – Thanks for this wonderful article. What Ngee Ann

Secondary is doing is what I want to see in my country but I think we are far behind in how we use technology in my city. I will share this article with friends in my school and in the School of Education.

Jean Paul

Efficiency at Changi Prison

Sir – I worked in an Australian centre and I am very impressed by Changi Prison's security. Wow!

Louise
AUSTRALIA



Write to us!

We are interested to hear your thoughts on public sector modernisation in the region – the best letter received wins an iPad. Send your letter to us at robin.hicks@alphabet-media.com

A professional headshot of a middle-aged man with dark hair, wearing a dark suit, light blue shirt, and a blue patterned tie. He is looking directly at the camera with a neutral expression. The background is a plain, light-colored wall.

THE FUTURE OF TAX ADMINISTRATION

Korea's tax service is one of the most sophisticated in the region. The Commissioner of the Korean National Tax Service, Hyun-Dong Lee, explains how IT is used to boost revenue collection

IT plays a key role in improving operational efficiency, enhancing transparency and credibility within any organisation – and probably none more so than tax.

The process of technological adoption within the Korean National Tax Service (NTS) is fairly well established. A significant development came in 1997, when the NTS implemented the Tax Integrated System (TIS) – a database that connects information between different functional units. Since its implementation, the TIS has been at the centre of a stabilised management, and efficient high-volume data processing.

This was followed in 2002 with an online tax office – “Hometax” – that was introduced to reduce taxpayers’ burden of having to visit tax offices and file tax returns on paper. By 2009, almost 90 per cent of all tax returns were filed and paid online. Web-based services have now expanded to a simplified year-end tax settlement service which provides, at a ‘single click’, many of the documents required for wage and salary taxpayers to claim income deductions. Such achievements have been possible thanks to Korea’s strong IT infrastructure and

the eagerness of the taxpayers to use online services. If the past is any indication of future trends, technology will continue to serve as the central engine in enhancing the transparency and credibility of Korea’s tax administration.

“By 2009, almost 90 per cent of all tax returns were filed and paid online using Hometax.”

The recent recruitment of a CIO from the private sector is another illustration of how serious the NTS is in embracing and applying the latest technology to advance the development of tax administration in Korea.

Here, NTS’ plans for the future will be shared in the hope that our plan could serve as a useful reference for other government organisations. First, IT will be used to enhance transparency of the organisation, particularly if that organisation is publicly accountable for its operations. For NTS, this means further automating taxpayer data processing and enabling management to share the results of the staff work in real time. This calls for the development of a highly-intelligent IT system.

Second, IT will be used to improve a government

organisation’s service offerings. To this end, the **NTS will continue to expand the types of taxes that can be filed and paid online.** There will be efforts to provide taxpayers, on a single screen, with all of their relevant tax-related information to help them better comply with tax law. Further, tax offices will be equipped with automated kiosks that provide services even to visiting taxpayers who reside outside the administrative region and are under the jurisdiction of a visited tax office.

Third, NTS will ensure that careful attention is paid to ensure data security. Taxpayer data held by NTS tends to be highly sensitive as it pertains to the financial positions of a particular person or corporation. From a systems perspective, it is important to put highly secure mechanisms in place. Additionally, from a human perspective, it is also important to raise awareness on data security.

More than ever before, both public and private organisations will turn to information technology in achieving their set goals. The integration of technology in all aspects of the operation will help the organisation to reach its goals faster. <

Hyun-Dong Lee

A graduate of SungKyunkwan University with a Master’s degree in tax administration, Lee has enjoyed a stellar career as a tax official for the local authorities Kangdong, Jungbu, Daegu and Seoul, rising to Deputy Commissioner of NTS in July 2009. He was appointed Commissioner of NTS in August 2010.



- Education Editor
FutureGov Asia Pacific
Kelly Ng

> Business intelligence solutions map out complex entity relationships and identify fraudulent patterns with speed, Australian Taxation Office’s Chief Knowledge Officer Philip Hind told FutureGov in a previous interview.



SHOULD SOCIAL MEDIA USE BE REGULATED?

Policymakers across Asia have been busy drawing up guidelines for how civil servants use social media to engage with the broader public. But moving ahead through regulating its use may not be the answer.

In Indonesia, defamatory or indecent remarks published on social media could mean six years in prison or a US\$111,000 fine. But there are no clear rules for civil servants, a senior official admitted to me recently.

Hinting that this needs to change, my contact pointed to the story of a policeman who made a comment on his Facebook status about a lawsuit, which made newspaper headlines the following day. Some Indonesian ministries have limited or filtered access to social media at work to get around the problem. A more effective measure, the official suggests, would be campaigns to raise awareness of the pitfalls of web 2.0.

New Zealand is no stranger to the pitfalls of social media either. The government used blogs and wikis to test the

popularity of its new Police Act in 2009, but abruptly withdrew them because of a fiercely negative public reaction.

Channa Jayasinha, the CIO for New Zealand's Ministry of Fisheries, suggests that media relations policy should be extended to account for "non-compliant" use of social media. This, he says, should be complemented with ample Web 2.0 training and the creation of a network of "social media champions" to guide internal users.

IT teams should monitor the use of social media and produce regular (monthly) reports to highlight successes and failures and build a database of case studies which agencies can use to benchmark performance, he adds.

But regulation? Jayasinha is not convinced this is the right

route to take. And neither am I. We should be able to use social media without the need for regulation - as long as we have well informed internal users who will treat the channel with care, the same way they do when interacting with customers using email or the telephone, he says.

Users need to be encouraged - not discouraged - with social media. "The more comfortable they are using these channels, the less likely they are to use it inappropriately," says Jayasinha.

As a rule of thumb for new users, I like the simple view taken by Trudy Rankin, CIO of New Zealand's Department of Conservation. "If you adopt the Google mantra and you can't go too far wrong," she says. "Do No Evil."

> Robin Hicks

Editor, FutureGov Asia Pacific



RURAL SCHOOLS LEVEL UP

China is going great guns to digitise its education system. But there is work to be done to ensure that rural schools are included too.

Our recent FutureGov Summit China brought me to Dalian. Besides meeting over 150 senior Chinese government officials, I had an two-hour interview with the Dalian Education Bureau and a visit to one of their innovative secondary schools.

Having only been to Beijing and Shanghai, I did not know what to expect from Dalian. I was pleasantly surprised by how structured and successful their strategy has been in leveraging technology to improve education.

I will be reporting on their modernisation journey in the next issue – so look out for that. But here, I want to highlight one of their challenges which resonates with so many education policy makers and thought leaders across Asia.

Dalian, the second largest city of Liaoning Province in Northern China, has 1100 schools, with

close to 60 per cent of them located in rural areas. “Since 2005, we have started a city-wide programme to push the adoption of technology in rural schools,” said Chen Chun Lin, Director, Informatisation Centre, Dalian Education Bureau.

“Within the first three years, we installed over 22,000 computers, set up 850 computer labs and 887 satellite connection points.”

Despite these achievements, Chen felt that the digital chasm between urban and rural schools has not narrowed. **“The speed of advance in city schools is far exceeding the improvements in village ones,”** he added.

The widening gap between urban and rural schools is a common challenge across Asia. In Malaysia, the Smart School programme sees investment in ICT facilities in the most remote schools. “Some of our schools are isolated in very rural areas where the nearest facilities

are hundreds of miles away. Providing broadband to these schools was a major challenge. But it was a necessary step to ensure they can have access to educational resources,” said Tan Sri Dr Zulkurnain Hj Awang, Secretary General, Malaysia’s Ministry of Education.

“Last year, 50 rural schools were selected to become role-model rural smart schools,” added CEO Datuk Badlisham Ghazali of the Multimedia Development Corporation, which has been an equal partner in the Smart School initiative.

Recognising the need to level progress across schools is the first step. I see hope, therefore, for rural schools in the coming years as education ministries – from the national to city level – roll out these huge strategies to bring their schools up to speed.

> Kelly Ng

Education Editor, FutureGov Asia Pacific

BUILDING SHARED GOVT SERVICES IN SINGAPORE

Clarence Ti

During his career in the public sector, Ti has worked for the Economic Development Board in Singapore and the US where he was Director of the San Francisco Centre, the Singapore Land Authority where he was Director of Land Business & Management, and the Ministry of Law, where he was Director of Strategic Planning.



If you happen to be in the business of managing any large diversified organisation over the last ten years, you would more likely than not, have been asked to consider either setting up an in-house shared services centre or to outsource payroll, procurement & payments, human resource administration or other common corporate services. Chances are that you, like the Singapore Public Service, have done so.

Four years on, we have to admit that we have learnt many things while going through the process. We have had our fair share of successes and difficult times. Vital.org was formally launched

Clarence Ti was appointed CEO of Vital.org, Singapore's government shared services centre in January. Here, he tells the story of one agency's mission to boost resource sharing among government agencies

in July 2006 as a captive shared services centre for the Singapore Public Service, serving initially just shy of 20 agencies in areas such as payroll administration, HR, and finance services. Today, it serves over 100 agencies in the original service lines and new areas such as asset management and travel management. By 2010, over one million transactions pass through our hands. We hire some 450 people serving a population of 80,000 public servants.

When we compare Singapore with other captive shared services centres, we find that we are all fairly unique. We have all evolved to our present situations through the strategy-choices that had been made in the past.

Captive Client or Client Choice Dilemma?

One of the earliest choices in the design of a captive shared services centre is whether

the client units ultimately have a choice in how much to outsource, what specific processes to outsource and who to outsource to. Let us call this the "Captive Client or Client Choice dilemma". Like many large diversified organisations, the Singapore public service is organised into smaller units, in our case mainly Ministries, Statutory Boards and Organs of State. These are run with a great deal of coordinated autonomy.

If you have a diversified government structure yourself, you can appreciate the complexity. Some organisations were able or prepared to mandate the transfer of services from all the different client units to a shared services centre. This mandate, where given, would remove a level of uncertainty relating to staffing of the centre and the expected gains

from demand aggregation (commonly known as economies of scale). Where such a mandate does not exist, different client units would sign on at different times or permanently retain specific processes or free to choose between different service providers.

The concept of “client choice” creates far reaching implications for the operations of a captive shared services centre. It means that **the shared services centre must earn its place and not just inherit captive business**. Vital.org was created without such a broad mandate and hence we earn and lose business year on year and have to learn from each episode. In time, we expect this would make us more robust and client-centric.

Shared Services or Contract Services Centre?

Another key choice a shared service centre has to make is in the level of service she provides. Let us call this the “shared service or contract service centre dilemma”.

We understand that most shared service centres begin with many months or years of harmonisation of processes so that clients come on board with an understanding that they could be signing on a harmonised process potentially different from their existing one, more importantly that they may cede some control

for making future process changes, which would then have to be agreed upon by a community of peer clients.

If you are running a large diversified organisation, there are bound to be differences in expectations and performance of processing accuracy, timeliness and volumes. In an operating environment where clients can

“There are bound to be differences in both expectations and performance of processing accuracy.”

elect to use our services or not, one would assume that the clients would only come on board when they have weighed up the costs and benefits.

In theory, a shared services centre may start off lower in the quality of service ladder, work itself up the learning curve, gain even greater economies of scale and acquire more clients along the way. In our history, we did not take this evolutionary path. Vital.org started with the promise that we would take over administrative services “as-is”, effectively promising a seamless transition of services upon switchover and ‘more with less’. It afforded us speed in starting up a shared services centre. It was not a wrong decision.

We understand that some shared services centres never got out of

the harmonisation stage. That said, we believe we may be in the minority of captive shared services centres in taking over services “as is”. The result is that the harmonisation efforts would begin later, after the centre has begun operations. The key result is that for many processes, harmonisation may not be possible for any number of policy, system or legal reasons. The effect is that the shared services centre may then effectively be running a combination of shared services and unique and contract services.

Growth Strategy

Over the last four years, we have had requests to grow the business in a number of ways. Among them have been calls to provide citizen-centric shared services. **There have also been calls for expansion of our services to other common corporate services such as managing travel or physical asset and inventory management**. Certainly, we have also taken on board more clients in existing lines of services.

From a strategy viewpoint these requests have made us soul search as to what businesses we should be in, what competencies we should build and what difference to our clients we can make. At the end of the day, for many of the staff who had been with us since the beginning, though sometimes demanding, has been an enriching one. <

As told to *FutureGov* Asia Pacific journalists on our travels around the region...

“We didn’t want our videos to get spoofed.”



Dr Lee Hing Yan

Program Director of National Grid Office at the Infocomm Development Authority of Singapore, on why Singapore launched its own version of YouTube.

“While there are several areas that show that spark, many sub sections of the organisation have fallen victim to complacency and apathy that plague many government bureaucracies.”



New Chairman of the Philippines’ Commission on Information & Communications Technology, **Ivan Uy** on the challenges ahead for his agency.

“We want to move from ‘cost of recovery’ to ‘investment in prevention and mitigation.’”



Dr Yeon-Soo Park

Administrator National Emergency Management Agency on Korea’s emergency response strategy

“Broadband internet access in developing countries such as the Philippines and Indonesia is still too expensive, creating a barrier to digital inclusion projects.”



Heru Sutadi

Commissioner, Indonesian Telecommunications Regulatory Authority

“The big challenge is how people will extract knowledge from such data and do it quickly enough to make timely decisions.”



Dr Terence Hung

Deputy Executive Director, A*STAR, Singapore, muses on the challenges of open government data.

“Security in the cloud is twice as hard, but five times as important.”



Tim Grance

National Institute of Standards and Technology, United States

ENABLING INTEROPERABILITY AND PORTABILITY

Eighty percent of enterprises cite the lack of interoperability standards as a challenge in adopting cloud computing services, according to research by IDC. Open APIs and interoperability are essential to customers considering the cloud.

Red Hat's Cloud Foundations portfolio promotes consistency between enterprise applications and the cloud. Red Hat is the only vendor that has the infrastructure capable of delivering an open source, flexible cloud stack, incorporating operating system, middleware and virtualisation.

This stack is designed to run consistently across physical servers, virtual platforms, private clouds and public clouds. Red Hat recognises that customers have IT architectures composed of many different hardware and software components from various vendors. Hence, its comprehensive solution set enables interoperability

and portability and Cloud Foundations provides capabilities that allow customers to use multiple clouds effectively.

"With Cloud Foundations, Red Hat is on the right track with cloud by accelerating interoperability and portability to prevent cloud lock in," said Gary Chen, research manager, Enterprise Virtualisation Software at IDC.

Focus on Portability

Red Hat's cloud solution emphasises portability, giving customers flexibility and choice across private and public clouds. The next release of Red Hat Cloud Foundations will seek to deliver comprehensive portability across four key areas:

Portable Computing

Red Hat's cloud management capabilities offer the tools a customer needs to implement and manage a cloud, providing scalability, robust resource management and portals through an included cloud engine, self-service portal, tools and

Deltacloud APIs. This will allow customers to move computing to their choice of virtualisation technology or public cloud virtual machines.

Portable Applications

Red Hat's application builder provides cloud application lifecycle management. It lets customers build assemblies to manage the complexities of creating, versioning, configuring, tracking and updating applications for the cloud. With portability of applications and workloads, customers can write an application once and deploy it anywhere. Red Hat's application builder allows customers to manage applications more consistently across physical, virtual and cloud deployments.

Portable Services

Cloud services from Red Hat provide customers with the technologies needed to implement commonly used application features, a key need for deploying private clouds. With Red Hat's cloud services, customers are also able to move these features together with

their associated workloads between multiple clouds.

Portable Programming Models

Red Hat's Platform as a Service (PaaS) solution, designed to protect a company's application investment, enables developers to build once and deploy everywhere -- on traditional servers, on virtualised servers, on private clouds and in public clouds.

These four areas for portability in the cloud form an essential whole. If customers can migrate computational power anywhere but data is still tied to a particular cloud, there is lock-in.

Customers deserve the tools they need for the cloud, combined with real portability and choice.

Red Hat makes the cloud real and compelling. Today.

For more information on our cloud solutions, visit our website: www.redhat.com/solutions/cloud/ or contact us at apac@redhat.com.

IS GAMING AN EFFECTIVE

CONTEXT

Gaming in learning is no longer just for kids. It has crept into, and is now creating ripples, in government and healthcare organisations.

The Delhi State AIDS Control Society, part of the Government of Delhi, has been leveraging mobile phone games to raise HIV awareness among the public since 2005.

Within 15 months of its launch, it recorded over 10 million game sessions.

The US Department of Defence has training units which believe strongly in

using game technology for realistic and effective military training. The Air Defence Artillery Schoolhouse, which invested US\$80,000 on its project is just one of many



> **Dr. Daniel H. Heinke**

Head, Minister's Office, and Special Coordinator for Homeland Security, State Ministry of the Interior, Bremen, GERMANY



Developments in visualisation has made possible the experience of (close to) real-life situations in the gaming world. We want to explore the use of such technology in both large-scale disaster management and hands-on rescue services.

The quality of some games has come close to that of classic simulation software, which has been well-established in various fields of training. We have started using simulation in technical training and have long since included action-oriented capabilities into the mix. Promising pilot projects include even remote fields like crime scene activities of medical examiners. However, so far no suitable gaming technology has been introduced for the use in rescue services training.



> **Toru Fujimoto**

Chief Researcher, The Industry-Academia Collaboration Initiative, Keio University, JAPAN



The main concerns around gaming as an educational tool include the lack of clear evidence of its effectiveness, the difficulties of implementation in the classroom, and cost-effectiveness compared to traditional teaching methods. It is too early to conclude that gaming will never

work. While we have not fully invented the methodology to design, develop, and maximise the strength of gaming for learning, we have already seen its effectiveness in many fields. Health Games Research, a US national programme that aims to improve health through gaming technologies, is one of many great efforts going on globally.

Its research has shown many positive results in patients' interest, comprehension and physical performance.

TRAINING TOOL?

others, some with huge multi-million dollar budgets.

On the healthcare front, a trivia game, called Chinese Aged Diabetic Assistant, helps diabetic

elderly patients and their caregivers at Peking University First Hospital deepen knowledge in prevention, diabetic basics, diet and nutrition and exercise. Doctors

have reported higher compliance and secondary effects of improved clinical outcomes.

These examples show successes among the early

adopters. But can gaming technology take off and become a mainstream educational or training tool in the public sector? *FutureGov Asia Pacific* poses the question to our readers.



The Millennial generation has grown up with email, cell phones, PDAs, digital cameras, laptops, and computer games, and can process information quickly on many different levels. The skills required to be effective in the 21st century

workplace are increasingly reliant on this experience.

Whether or not gaming is an effective training tool depends on how well it is managed. Computer games can develop or reinforce the skills we need if we choose the right games.

How the game is contextualised, the kinds of cooperative and collaborative learning activities embedded in game play, and the quality and nature of debriefing are all critically important.



> **Muhammad Imran bin Abdullah**
General Manager,
Multimedia Development Corporation
MALAYSIA



The US Air Force's Air Education and Training Command (AETC) has begun Advanced Learning Technology Demonstrations to trial how gaming can be used in training. For example, the 'Expeditionary Air Base' game requires players to build an airbase

from ground up at an outlying location near a war zone. The game is won when an aircraft sortie is launched. AETC is also conducting a serious game event in Second Life. Gaming data results are still being collected. Preliminary results indicate high levels of interest and energy by the students over traditional classroom instruction.

The big challenge is finding games that are stable enough to be a long term training solution.



> **Larry Clemons**
Air Education and Training Command,
Randolph Air Force Base,
US Air Force, UNITED STATES



FUTURE READY GOVERNMENT

Mobility. Collaboration. Simplicity.

From disaster management to infrastructure construction, the ability of different government agencies to coordinate their efforts and work together is a key element to success. Government groups and NGOs alike recognise the need to work efficiently across different sectors without sacrificing data accuracy or spending unnecessary funds. In an emergency situation, the military, NGOs, healthcare providers and response teams need to coordinate their efforts and keep up-to-date with changes in the affected area, even when working in remote or widespread locations.

This process can be tedious and time-consuming. It involves risks in the accuracy, privacy and timeliness of the information disposed. It also takes a bigger chunk off government coffers when it involves numerous computing hardware and software, resulting in high energy consumption.

FutureGov talked to Guayente Sanmartin, Director, Large Format Printing, HP Asia Pacific, about the role of large format printing in addressing these challenges.

As the first web-connected eMFP in the large format industry, the HP Designjet T2300 eMFP can have a significant and fundamental change in the way government agencies work together. It presents an innovative, seamless solution to glitches and delays that occur when various groups collaborate on projects, communicate changes in plans and share new modifications. It will also be useful in disaster response situations, laboratory records, architectural and engineering plans.

Governments stand to benefit from the Designjet T2300 by enhancing and speeding up their disaster management and response operations. Sanmartin explains, "When we looked

into response and recovery situations to see the critical aspect that technology had to provide, one of the key elements was business continuity. The minute you have the Designjet T2300 printer, you're going to have access to your entire library of up-to-date maps and files".

Mobility & Collaboration

The Designjet T2300 enables file management with its HP ePrint and Share, through which

an online collaboration system – different groups can share and manage files with one another by accessing HP ePrint and Share through a laptop or a mobile device (e.g., a Smartphone). An added mobility feature that HP plans to activate on June 2011 is the ability to access HP ePrint and Share directly from the T2300 even without the use of a computer. This advantage can be maximised in



users upload, share and download files right from/ to the printer. In essence, the HP ePrint and Share becomes

emergency and disaster situations, such as in having the latest maps and most updated topography



HP Designjet 2300 eMFP



HP Designjet T7100

views of an area that has been damaged by an earthquake or flood.

In a flood situation, for example, rescue personnel in the field realises that there has been a change in infrastructure or a modification in the area's layout – the flood may have wiped out a bridge indicated on the map. The personnel would be able to modify the map on the field and scan it back into the HP ePrint and Share, allowing headquarters and concerned agencies to have immediate access to the modified map.

Such collaboration is also required in infrastructure construction projects, wherein engineers, designers, architects and contractors need the latest plans and design modifications to ensure quality and accuracy. An in-box vectorisation software simplifies the process of digitising any handwritten notes or changes to a map. Added to that, a preview screen on the printer's

panel allows the user to check a preview of the image to avoid printing errors.

Simplicity

The Designjet T2300 minimises space usage by combining scanning and printing functions in one relatively compact device. The device includes a touchscreen interface on its panel with intuitive menus that simplify the entire process. One may also plug a USB storage device directly into the printer and access this data through the Designjet T2300 without a computer.

To keep pace with technological developments, the Web-connected T2300 enables automatic upgrade functionality. This ensures a seamless integration with existing and changing IT infrastructure whilst saving time and cost in searching for software updates for the printer. The T2300 eMFP will be available for orders on November 1st 2010, and although HP

has not disclosed pricing, it is expected to be a real breakthrough on that front as well.

Total Cost of Ownership

HP also breaks new ground with its three-roll HP Designjet T7100 printer, the first high volume color and monochrome inkjet printer in the industry to compete with the speed of laser while costing up to 50% less¹. The device matches laser speeds with its capacity to produce up to four A1 prints per minute. It provides an alternative to devices that can only print in either monochrome or colour format, thus reducing space consumption and eliminating the need for two separate printers for attending to monochrome and colour printing environments.

The Designjet T7100 also poses a solution for time and efficiency concerns in the industry with

its ability to hold three different media rolls at the same time. While seemingly an insignificant detail, research in China, India, Russia and Brazil showed the changing of rolls to be a problem area in the printing industry, consuming time and involving complex processes. The Designjet T7100 incorporates the HP Smart Roll Loading System that allows easy loading of three separate rolls of media.

Each roll contains 250 metres of paper, which means that the HP Designjet T7100 can hold 750 metres of paper – the equivalent of one month of printing – at any one time. This results in unattended, continuous printing and a need to change the rolls only once a month.

For more information, please visit: www.hp.com/go/collaborate

1. The HP Designjet T7100 Printer offers up to 66 percent lower total cost of ownership over three years against competitive color devices and up to 50 percent against competitive monochrome solutions, based on HP internal testing.

A portrait of Ma Ying-jeou, a middle-aged man with dark hair, wearing glasses, a white shirt, a blue patterned tie, and a dark pinstriped suit jacket. He is smiling slightly and looking towards the camera. The background is dark and out of focus.

WHY TAIWAN'S CIVIL SERVICE NEEDS TO CHANGE

A robust civil service is a core pillar for government to remain competitive in a globalised world. *FutureGov China's* Jianggan Li quizzes **Kuan Chung**, President of Taiwan's Examination Yuan, on the country's controversial civil service reforms

In two reports published in 1994 and 2008, *CommonWealth*, a top news publication in Taiwan, used the phrase “black hole” and the word “quagmire” to describe the country's civil service. The descriptions disturbed Kuan Chung so much it prompted him to push ahead with reforms after being sworn in as the President of Examination Yuan at the end of 2008.

“Good governance is based on two fundamental pillars: democratic constitutionalism and, just as important, a mature civil service,” says Kuan, who promised to revitalise the public's confidence in civil service in his inaugural address.

The Republic of China, as Taiwan is officially known, has been stressing the establishment and maintenance of a comprehensive civil service system since its founding.

Unlike other democracies, whose governing power is divided between three branches of the government: executive, legislative and judiciary, Taiwan's government has five institutions, called “Yuan”, among which Control and Examination are unique to the country. The Control Yuan is an investigatory agency that monitors other branches of government. The

Examination Yuan is the highest authority on the civil service. The system was envisioned by Dr Sun Yat-sun, the Founding Father of Republican China, who believed in the importance of a stable, competent civil service, and the role merit-based exams play in ensuring best individuals are selected to serve the people and the nation.

“The challenge is that our democracy has been developing so fast in the past 20 years and, by comparison, the evolution of civil service has not kept up.”

“We had a civil service long before democracy was introduced,” he explains. “The challenge is that our democracy has been developing so fast in the past 20 years and, by comparison, the evolution of civil service has not kept up.”

Examination Yuan was established in 1930. Within a few years, all the legislations that constitute a civil service system were introduced and examinations were held. Under Examination Yuan there are four Ministerial-level agencies: the Ministry of Examination, the Ministry of Civil Service, the Civil

Service Protection & Training Commission, and the Public Service Pension Fund. In addition, there are 19 Ministers without portfolios assisting the President in policymaking.

More than 500,000 citizens participated in exams administrated by the Ministry of Examinations each year, and the pass rate is a mere three per cent. The popularity is massive given that Taiwan has only 23 million citizens. By comparison, mainland China, with a population of 1.3 billion, has only 1.5 million individuals sitting exams to become a civil servant in 2009.

The mature exam systems and stringent processes, reflected in the 23 national exams held annually, allow the government to choose the best talent. However, managing a good civil service doesn't stop at selecting good talent.

“When new recruits join the civil service, they are enthusiastic to serve the people and the nation. However, the current system doesn't provide them with an environment to help them do that,” Kuan says. “As a result, in the eyes of the public, they are regarded as mediocrities sitting in their comfort zone.”



A key target for reform is performance evaluation

Another key driver for reform is the combination of globalisation and the development of a knowledge economy. “Citizens expect our civil servants to be knowledge workers, to keep up with the times,” Kuan says. “We as Examination Yuan need to be an enabler of that.”

Performance evaluation

The key area that Kuan and his 19 Ministers without portfolios seek to reform during their tenure is that of performance evaluation. An opinion poll conducted in March by the *China Times* showed that only 14 per cent of the public believed that civil servants performed outstandingly. The

performance evaluation within the government showed 75 per cent of the civil servant scored “A” grade, meaning they gave an “outstanding performance”.

“Individuals who are asked to leave the civil service do so mostly because of criminal offences. Virtually nobody has been fired because of poor performance.”

“This is very ironic,” Kuan says. “Our performance evaluation is not meaningful if it does not correspond with public satisfaction. The current evaluation system simply

doesn’t work. We need to reform it otherwise it will lose its *raison d’être*.”

The proposed amendments of the Civil Servants Evaluation Act, which Kuan and his Ministers spent most of the past year working on, mandated that three per cent of all civil servants would receive “C” grade each year. Those who have obtained three Cs in 10 years would be asked to take early retirement or be fired.

“An exit mechanism is necessary so that public officials do not get complacent,” stresses Kuan. “This is both logical and constitutional.” Currently, individuals who are asked to leave the civil service do so mostly because

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of criminal offences. Virtually nobody has been fired because of poor performance.”

The amendments were presented to the Legislative Yuan, Taiwan’s parliament, earlier this year. After tough negotiations, the bill has passed its first reading, with the proportion of “C” grade-getters each year lowered to “between one and three per cent”

A continuous assessment mechanism is being built; interviews and polls are conducted throughout the year. “If you don’t assess in a structured way, you will have no data to give an objective evaluation at the end of the year,” Kuan says.

He also believes incentives and pressures should be applied to managers, who need to be accountable to give an objective evaluation. In addition, the evaluation of teams should be closely associated with that of individual civil servants.

“The public will never say when someone is not performing well; they will only see the particular department - or even the whole of government - as underperforming,” Kuan cautions: a government is respected based on the performance of each civil servant.

“A lot of this might sound like common sense to the private sector,” he says. “But it is important to remember

that while government can learn a lot from the private sector, it will never be the same as the latter because of the fundamental differences in objectives.”

Training priority

Many civil servants spend their entire careers in government, from the date they pass the exam to when they are

“Many governments in the world collapse because of the heavy burden posed by the mal-management of pensions. We don’t want to repeat that failure.”

assigned to a particular post. A phenomenon called Peter Principle, where “in a hierarchy every employee tends to rise to their level of incompetence”, is common to many bureaucracies across the world. This not only poses a negative impact on the person’s career development. It also affects the efficiency of the government organisation he or she works for. If no proper training and career development strategy is in place, individuals tend to leave the civil service when they reach this bottleneck.

“Over the past 10 years, we have suffered significant losses of senior civil servants. This is cause for alarm if we are

to remain competitive,” says Kuan, who has put an effective training strategy to remedy this as one of his key priorities for the future.

Fifteen years ago, serving the post of Minister for the Civil Service, Kuan went on a study tour to Europe where he was told by a famous Italian scholar: “Training is important, but is very easy to slip into mere formality, therefore wasting time and resources.”

“When you do training you have to be very clear why you need it. What are the outcomes? Would your organisation really be worse off without it?”

Last year, the Legislative Yuan, Taiwan’s parliament, endorsed the Examination Yuan’s proposal to restructure the National Civil Service Institute into the National Academy of Civil Service.

“We had basic training to equip civil servants with basic skills of working in the civil service. We had in-service training which helped them develop in their specialised professions within the civil service. What we lacked was continuous career development training.” Kuan explains the key objective the restructure was designed to achieve. “We as Examination Yuan have this obligation to create an environment to help our civil servants grow throughout their careers.”

A “Take Off Programme for Senior Civil Servants” is to be piloted over the next two years.

Pushing transparency

The reform covers all aspects. A revision of the pension system has recently caused a stir in public circles. “This might not be popular with civil servants,” Kuan says. “It ensures that our pension system continues to function, and our civil servants continue to get their pension when they retire.”

“Many governments in the world collapse because of the heavy burden posed by the mal-management of pensions. We don’t want to repeat that failure,” insists Kuan.

He admits that reforming civil service is never easy – there have been countless precedents of failure across the world. In fact, all the reforms being introduced by the incumbent Examination Yuan have been facing resistance from civil servants.

“Too many interests and too many departments are affected by our initiative,” Kuan says, who is well aware that lots of people are not happy about the changes. “But this is an acute reflection of people’s lack of confidence in the current system, therefore they are wary of any changes imposed upon them.”

The reforms also face the perils of being undermined by ‘hidden rules’, which have been rampant throughout the

The modernisation of Taiwan’s civil service exams

With Taiwan’s government continuously ranked one of the top in the world in terms of e-government, the Examination Yuan is also doing its bit. Computerisation within the Examination Yuan started in 1981. Standards of personnel data storage and transmission were adopted in 1984 with relevant databases set up. Most of the Standard Operating Procedures have been computerised, from registration to the announcement of results. Computerised adaptive testing and online grading will be rolled out soon.

In addition, with the support of the national backbone network, the government is able

to open exam centres across the country, saving attendees the hassle of travelling to the capital.

“It is clearly specified in our Constitution that participating in national examinations is a basic right of our citizens,”

“It is clearly specified in our Constitution that participating in national examinations is a basic right of our citizens,” Kuan says. “Therefore what we as administrators of exams have to do is make sure that they have the best services possible.”

The Ministry of Civil Service currently manages the

most comprehensive, accurate and updated civil servant database in the country. It is currently developing Decision Support Systems to assist senior level decision making. The Public Service Pension Fund has established a series of information systems to manage the funds as well as the investments associated with them.

One of the key priorities at the moment is to consolidate the IT operations between different ministries so that the intelligence derived from the information can be used by key decision makers throughout government. In addition, more services are in the

pipeline to enable the general public to better enquire, register and prepare for exams. And with 75 per cent of all government departments/agencies having computerised their Human Resources management System, the Examination Yuan seeks to continue to enhance a consolidated, nationwide human resource management system.

75%
of all govt agencies have automated HR

“Our employees are enthusiastic about the use of new technology, and we have the strong support from Taiwan’s robust IT industry,” notes Kuan.



Kuan wants to root out complacency from Taiwan's civil service

history of Chinese societies. People bypass written rules for convenience and hidden interests. For instance, people in the same departments might form a pact to take turns in getting C-grades, so that ultimately no one will get fired.

Kuan insists that a combination of transparency and fairness is the best preventive medicine here.

"The two fairest things in our country are national exams and compulsory military service," Kuan jokes. Over the years, the stringent, well-documented processes of exams, which are now computerised, have established a stellar reputation."

Kuan now wants to extend this reputation in the whole lifecycle of civil service management. "It is not as difficult as many would perceive," he says.

Winning public trust

"Our reform is actually very mild," Kuan says. "It is a gradual process and at the moment we want to keep civil servants aware that they can't take things for granted."

Although facing huge resistance within the civil service they are trying to reform, the proposed changes are very popular with the general public. The revision of Civil Servants Evaluation

Act was supported by 87 per cent of citizens in a recent poll. More than 90 per cent support increasing the percentage of C grade-getters in the annual evaluation.

87%

Of Taiwanese citizens support reform of civil service examinations

"I dare say that no other public policy in Taiwan over the past 20 years has received a similar level of support from the public," Kuan says proudly. "This strong mandate from the people gives us the confidence to continue our reforms, regardless of the difficulties we face." ◀

What's on at



FutureGov TV is Asia's dedicated channel for the world's top civil servants and leading technologists to share their experience of public sector transformation!

Jim Davis

Senior VP and Chief Marketing Officer
SAS INSTITUTE



Advanced Business Analytics

FutureGov spoke to Jim Davis, Senior VP and Chief Marketing Officer, SAS Institute, at the recent Premier Business Leadership Series in Hong Kong about the evolution of business analytics and its role in measuring performance and transparency in the public sector

New!

www.futuregov.asia/tv/jimdavis

Manish Sharma

VP, Asia-Pacific
NCOMPUTING



Strategy to lower ICT acquisition costs

Manish Sharma, VP, Asia-Pacific - NComputing talks about a proven strategy to significantly lower the purchase and maintenance costs of computers in Education, Government and Enterprise by converting physical desktops into virtual ones.

New!

www.futuregov.asia/tv/manishsharma

Jeremy Godfrey

Government Chief Information Officer
HONG KONG



Evolving role of govt CIO office

Hong Kong Government is making its new pan government IT strategy, Jeremy Godfrey, Government Chief Information Officer of Hong Kong, believes it is sensible for the Office of Government Chief Information Officer to involve more in IT delivery than just standard setting.

Number of views: **348**

www.futuregov.asia/tv/jeremygodfrey

Dr Sapiah Sakri

Deputy Director, ICT Compliance division,
MAMPU, MALAYSIA



MALAYSIA 2.0

The Malaysian government is treading carefully into the uncertain world of Web 2.0. Dr Sapiah Sakri, Deputy Director of the ICT Compliance division at the Malaysia Administrative Modernisation and Management Planning Unit, explains how her country is managing risk, compliance and citizen engagement in social media.

Number of views: **373**

www.futuregov.asia/tv/sapiahsakri

Adesh Partap Singh

Minister of IT, INDIA



Closing the digital and financial divide

Minister of IT Adesh Partap Singh reveals how the government is dealing with the digital and financial divide in the agricultural community of Punjab. What are the key challenges? How successful has technology been in alleviating the divide? What is the role of the private sector?

Number of views: **283**

www.futuregov.asia/tv/adeshpsingh

Glyn Evans

Director of Business Change, Birmingham
City Council, UK



Transforming Britain's second city

Glyn Evans, Director of Business Change, Birmingham City Council, has a tough job on his hands to push change through the public sector at a time of financial turmoil.

Number of views: **277**

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SIMPLICITY: KEY TO SOLVING COMPLEX IT SOLUTION

If you're the CIO of a group of companies that comprise a large enterprise - regardless of which industry vertical you come from - your IT team has to deal with huge amounts of data that resides on virtual storage clusters in your data center.

The key challenge today is getting complex data to move across data centers seamlessly. Data needs to be rapidly moved, easily accessed, and transparently mirrored between data centers, allowing both storage and applications to work without physical boundaries.

How does a modern, global and strategic organisation manage all its mission-critical data, processes and systems? The key is simplicity.

"A typical IT leader these days needs to be a

psychologist, technically savvy, a trouble-shooter and a finance manager," says Charles Koh, CEO of Trusted Source Pte Ltd. "The secret is to give the user what he or she wants and all the tools they need to do their job better. The ultimate goal is for users to have access to their data anywhere, anytime, in a secure manner via any Internet-enabled device."

That's easier said than done, he admits. "However, we partnered early on with industry leaders," Mr Koh says. "They in turn brought new capabilities and a tech eco-system to the table on short notice. With joint planning, we went about understanding the businesses requirements from an IT infrastructure and together we assembled the pieces of technologies that were needed."

Mr Koh says that the company continued to relentlessly simplify the customers' IT operating environment. "As an example, we recently acquired EMC's VMAX solution which allows us to treat our data centers without constraints of geographic boundaries," he says. "We can use VMAX to instantly remap storage location or re-route data load. In the past, this could only be achieved by 'brute-force' & lots of sweat."

Research house International Data Corp (IDC) says EMC's solution provides relief to the issue of distance and could be a necessary solution in distributed cache coherency.

Trusted Source is the single source that Temasek Holdings trusts for all of its IT requirements. Set up in 1974, Temasek Holdings

is an investment company with 12 affiliates and offices in Asia and Latin America. Temasek owns a diversified S\$186 billion portfolio (as at March 31, 2010).

"Our focus has been to simplify IT for our customers, to kind of Google the way IT is consumed," Mr Koh says. "Most technology consumers don't have the time to learn how to navigate a piece of software. They would rather use the search function to find the most relevant tool for their needs. That's the goal - make search the new navigation and enable it securely on Internet-enabled devices. They then get what they want without worrying about where the information really resides."

Where the information resides and how it is delivered is important,



Our focus has been to simplify IT for our customers, to kind of Google the way IT is consumed

but that's something an internal IT department has to worry about.

"Call it virtualisation, or cloud computing, or software as a service, or whatever you wish, but the user doesn't care," Mr Koh says. "The application may be sitting somewhere, and bits of data may be scattered in data centers across the world. How it comes to the user, with minimum delay, without being corrupted, and in a highly secure pipe is key."

In tech terms, the time is now right for private clouds (data networks, storage, memory & CPU all in one) to be linked (with proper privacy) and for private computing resources to be pooled on demand. According to Gartner Inc, in the next 3-5 years, more MNCs will seek to support

such a blended approach to enterprise architecture (EA), with up to 95% of companies adopting multiple approaches to EA by 2015.

Apart from cutting costs, private clouds also helps companies achieve energy efficiencies and go green. Research shows that most servers in physical infrastructures in organisations of all sizes are less than 10% used (including their own). But in a virtual environment, usage rises to 75%.

This has been the case in EMC itself. "Watching our IT groups worldwide take 1,250 servers down to 50 in the first wave, and another 1,600 servers down to 40 or 50 in the second wave has been amazing for me," says EMC's President for South East Asia, Ron Goh. "I like thinking about all that power and cooling we're avoiding."

Trusted Source's computing infrastructure was fully virtualised in mid-2008. This meant business software applications are no longer physically tied to a server or a PC. Computing resources (CPU, memory, network, storage) is drawn from a pool of interlinked servers when required. The combined computing power - after pooling - was many magnitudes more than what a single standalone server could offer. That was the beginning of a private cloud.

The bottomline: IT management needs to look at data management not just in terms of physical storage, but in totality, including issues related to bandwidth, latency, and distributed cache coherency. Once you do this, several new perspectives will emerge. Here are some perspectives, from IDC Corp:

- Think of IT as a service, in much the same way as other distributed services.
- Build common data centers that replicate identical machines and processes.
- Create virtual storage models based on virtual server models.
- Solve the problem of distributing Data at a Distance (DaaD).
- Free information from physical devices.
- Federate systems to be utterly consistent from the local, to the global scale.

For more information on VMAX and EMC's solutions, please contact us at 6427 1464 or email us at southasiamktg@emc.com

MALAYSIA'S SMS GOVT PORTAL

Malaysians may still have limited access to the internet. But they have at least one mobile phone. A citizen and a media consultancy put Malaysia's mobile government portal, mySMS, to the test. By Robin Hicks and Diana Jumaat.

The Malaysia Administrative Modernisation and Management Planning Unit (MAMPU) launched mySMS in July 2008 to take advantage of the high penetration of mobile phones in Malaysia - which exceeds 100 per cent - and narrow the digital divide for users of government services (only around a quarter of Malaysians have internet access).

MySMS offers information on government services in short coded form, profile management for citizens who are members of Rakan mySMS ("Friends of mySMS"), and front-end services for government agencies to activate their own services.

MAMPU points out that mySMS is not a core service, but compliments the central government portal (Malaysia.com.my).

Agencies can use mySMS to get information and documents on demand, news alerts, and to monitor the performance and transactions of their SMS services. Available at a minimal rate, the service will save

agencies' the trouble of creating their own platform and ease procurement worries, explains



> Dr Nor Aliah
Government CIO and the Deputy Director of MAMPU, Malaysia

Malaysia's Government CIO and the Deputy Director of MAMPU, Dr Nor Aliah.

"The platform allows a direct interaction between citizen and government, reducing or sometimes eliminating bureaucracy," says Dr Aliah.

A single number – 15888 – provides access to the portal and at a negligible cost (each SMS sent costs RM0.15, or five US cents, each message received

costs RM0.20, or 6 US cents). Services are segmented by using short numbers, which are code for different agency services, and users can personalise the services they want to receive - such as legal advice, a job application status or exam results - from the portal.

Since its launch, 1300 services have been rolled out on mySMS involving 84 agencies. Two SMS communities have been formed as a result of the project, mySMS and OneJPJ, which has over 35,000 members.

The average monthly hit rate of mySMS services now exceeds 700,000. The plan is to grow usage by introducing mobile web services, such as SMS vote-casting, blogging, traffic updates or payment services, on a centralised government portal that is accessible on any mobile device - not only through mySMS 15888, but also through applications that can be easily downloaded.

The mySMS initiative was derived from an early study of several models that were implemented by early initiatives by several agencies, says Dr Aliah.

The media consultant's view

FutureGov Asia Pacific spoke to Farrel Tan, Founder of PR firm Orchan Consulting, for his view on the strengths and weaknesses of mySMS.

mySMS's vital statistics

Web address: www.mysms.gov.my

Target audience: Citizens and businesses

Average monthly hit rate:
705,948 (mySMS services)

Visitor frequency (last 90 days):
23,531

Cost: mySMS services - RM 500,000 (US\$162,000); mySMS web site - RM 150,000 (US\$48,500)

Design

Not too fancy or cluttered. The fonts and sizes are easy on the eye. It is not the most colourful or engaging site, but is an improvement of most government web sites I've used.

Rating: 3.5/5



Functionality

The site has an English language version, but it is not well translated. Some of the information displayed is a little confusing as a result.

Rating: 2/5

Navigability

Everything I need is easy to find. And the links are very easy to use.

Rating: 4/5

The citizen's view

Through mySMS, I can get information on government activities such as traffic summons, educational loans approval, elections, exam results and a lot else in a timely and effective manner. My work means that I'm not near a computer that much, so a mobile channel is usually the only way I have of accessing government services.

It's slightly irritating that the service isn't free, which I really think it should be. But on balance I reckon it's just about worthwhile.

The site is easy to navigate. It features all the links I

could possibly need, it's not particularly cluttered and - thank God - has no pop-ups. Plus the number 15888 is pretty easy to remember

It's not the most beautiful site I've ever seen, but it's functional and does what it says it does. **I don't think government services online should be in any way fancy. They should just work.** And work quickly in a way that saves me time and effort. This site succeeds in this regard.

It isn't confusing, which government services are sometimes guilty of. There are quick links to related sites, and I have no problem finding



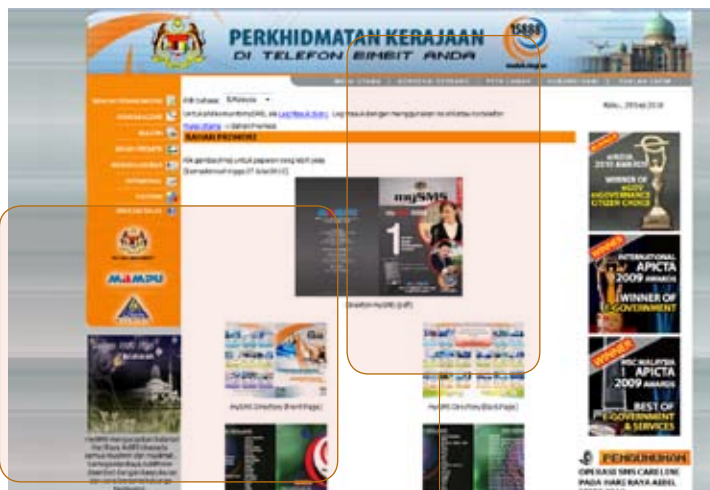
> **Norman Firdaus Osman**
Executive cook
Alam Maritime Resources

what I need. I'd recommend the site to anyone who needs information about public services while on the move.

Innovation

The fact that the service can reach every Malaysian in possession of a mobile phone, which apparently is every one of us, is an impressive feat. But the services offered on the platform are fairly basic.

Rating: **3/5**



Quality of services

Again, the idea is a good one: to put services into the palms of our hands. The services, although rudimentary, are easy to use and seem to be pretty reliable.

Rating: **4/5**

> SOUTH KOREA

SMART WORK PROJECT FACES CULTURAL OBSTACLES

South Korea's Smart Work Centres (SWCs) project aims to decongest the capital, raise productivity and make Korea greener. But if it is to work it will require new laws, buy-in from the private sector and a shift in Korean work culture, an official at the National Information Society Agency (NIA) told *FutureGov Asia Pacific*.

"Korean workers think that, if they are going to get promoted, they need to put in face time with the boss. There is also a sense of detachment

colleagues might feel from being away from the mothership. We want to create a new work culture that pushes out the old," said Yoonseok Ko, a Senior Researcher at the NIA.

Ko said the NIA have been drafting a bill for regulatory reform that would ensure that public officers do not have to visit their offices to do their jobs. The new laws would define SWCs as remote working offices.

The success of the project also depends on the private sector, Ko noted. "We talk to experts all over the world, including cities such as Amsterdam in The Netherlands, where there are also smart work initiatives. They all say that



Seoul

private sector involvement is a critical ingredient."

Launched this year, the smart work project aims to see 30 per cent of the public sector workforce - eight million employees - work in wireless broadband-enabled SWCs located in areas outside of Seoul by 2015.

> AUSTRALIA

AEC TO LOOK INTO E-VOTING

Australia is lining up automated polling for the next election, an Australian Election Commission (AEC) official has told *FutureGov Asia Pacific*. While e-voting is not possible under the current legislation, other forms of automation are under discussion, said Micheal Cuddihy, Director, Project Management Office, Strategic Capability Branch, at the AEC.

More than 70 per cent of the AEC's budget goes on maintaining the voter register, and automation could significantly reduce this cost Cuddihy noted. "The AEC anticipates that by enhancing its electronic services such as online enrolment, some of the barriers to citizens maintaining a current enrolment will be removed."

> SINGAPORE

GOVT DELIVERS YOUTUBE REPLICA

In March this year, Singapore launched its own version of YouTube. Government agencies can now upload videos on to a site that will give them copyright ownership, and allows uploading to be managed in a controlled environment. In an interview with *FutureGov*, the Infocomm Development Authority revealed how using the cloud has saved the government US\$4000 a month per video.

Agencies pay for the service, which is called EnVision, according to service quality and availability. Both services offer a Pay-Per-Use model and agencies can scale their requirements in line with user demands. For a ten-minute video for a nationwide event aimed at 150 concurrent users, an agency would pay about seven times more if

it had bought its own servers and for connectivity - and double the amount if it had used an external video-on-demand provider.

Unlike existing free online video hosting websites (i.e. YouTube), EnVision allows the copyright owner to retain full rights of the use of videos, and to be able to manage the upload of videos in a controlled user environment.

To keep the platform secure, it is only available to agencies via subscription. Only authorised personnel will be given accounts to upload videos on to the site, which they can access using a username and password. In addition, EnVision encrypts videos before they go live from the cloud hosting servers, which are monitored round-the-clock to ensure smooth operations.



- Assistant CEO, IDA
Khoong Hock Yun

> "They can either opt for a guaranteed service which is best suited for large events which require good quality delivery. Or a best efforts service, which have slightly higher latency but lower charges that are suitable for promotional videos. We envisage that EnVision will be used by all users in government agencies (including healthcare professionals) to host and stream videos for a wide variety of purposes, from training and dissemination of information, to nationwide events and promotional activities. Healthcare agencies can also use EnVision to educate the public on health campaigns," IDA's Assistant Chief Executive Officer, Khoong Hock Yun, told *FutureGov Asia Pacific*.

> CHINA

BANGALORE LEVERAGES GIS FOR CITY PLANNING

Geographic information systems (GIS) technology is an important tool for accurate base map and precision planning, said Vatsala Watsa, Chairman, Bangalore Development Authority (BDA), India.

Bangalore's population is expected to reach 10 million in 2010. Within 15 years, it will be one of the world's

top 20 mega cities. "Proper planning must be in place to prepare us for this growth. The city accommodates an increase of 190,000 inhabitants per year," revealed Watsa, whose organisation's main functions include planning, development, regulation and preparation of the Master Plan for Bangalore Metropolitan Area.

Using digital mapping tools, the new Master Plan 2015 marks out green spaces, water bodies and natural values, ancillary land uses to support main land use, and mixed land use zoning.

"One of the challenges we face is implementing this master plan as a planning authority," she added.

> THE PHILIPPINES

MAKATI POLICE LAUNCHES WEB SITE

In a move to bring the community closer the police in the financial district of Makati has launched its own web site, www.makatipnp.com.

The site, which is still under development, will provide users of all ages with a view of the station's organisation, operations and accomplishments. An email facility, which allows citizens to write to the chief of police, is already operational.

Makati PNP (Philippine National Police) Online will give its users a direct link to the station's crime prevention program, including its ongoing anti-drug campaign, deployment in communities and the business hub, bus-to-bus checks, and intelligence gathering.

The site will also give viewers windows to the station's administration, its officials and personnel, training programs and logistics.

> THE NETHERLANDS

DUTCH SMART TRANSPORT TO BEAT BEIJING'S JAMS?

A 60-mile traffic jam on the Beijing-Zhangjiakou freeway that lasted ten days at the end of August has been called the worst traffic jam ever. Could traffic management systems make jams like this a thing of the past?

In an interview with FutureGov, the Netherlands' Minister of Transport, Public Works and Water Management, Carmiel Eurlings said: "Just because Beijing's traffic problem is big, that doesn't mean that it can't be managed effectively." The Minister proposed that the Dutch approach to traffic management could be used to de-clog Asia's most congested cities.

The Netherlands' National Data Warehouse for Road Traffic Information is a collaborative venture between local authorities and telco providers to process,



Beijing at rush hour

store and distribute traffic data to commuters. Dutch drivers can receive current information on traffic intensity, journey times, road conditions, accidents, road works, and alternative routes through digital channels both inside and outside of the car – electronic road signs, in-car computers, and mobile devices.

Better informed drivers are able to make smarter journey choices, and local authorities are able to manage traffic better, re-routing it or adjusting traffic light signalling if necessary, explained Eurlings.

The aim is to get congestion on Dutch roads, which account for 14 per cent of all European road transport, down to 1992 levels by 2020.

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> TAIWAN

E-GOVT ROLL OUT BRINGS US\$38M IN PROCUREMENT COST SAVINGS

Speaking to FutureGov Asia Pacific, Dale Su, Director of Information Management Office, Examination Yuan revealed Taiwan's plan to become an 'Intelligent Government'.

Citizen-centric and on-demand e-services, citizen participation through increasing transparency, mobile access to citizen services, social networking and web 2.0, and ICT-enabled green services are five key areas that needed to be worked on, said Su.

Since 1998, Taiwan has enjoyed a steady increase in efficiency and effectiveness. Su showed a graph that showed 45-degree progress

in public sector performance over the years. Among the main accomplishments is a government procurement web site. Agencies have posted close to 1.9 million tender announcements and reported cost savings of \$1.2 billion Taiwanese dollars (US\$38 million).

"E-government empowers citizens and enhances good governance. Giving them power results in a strong citizenry and a strong government. Technology makes it easier, cheaper and more effective to instigate change," he noted. "It also gives citizens more power to scrutinise government. This transparency will highlight waste and dishonesty."

> AUSTRALIA

OPEN DATA RATES HIGH ON POLICY AGENDA

The economic value of government information can increase four-fold within a year if it is made freely available to the public. So said Peter Harper, Chief Operating Officer of Australia's Bureau of Statistics, who noted that public services are on the "cusp of a revolution" driven by open government data.

Harper, who is a member of Australia's Government 2.0 Taskforce which led to the country's Declaration of Open Government in July, said that too much government information is still unavailable to the public, and when it is, it is difficult to find or use.

"Keeping government information within government will not help achieve our aspirations for a first class public service," said Harper. Australia's Declaration of Open Government espouses three principles: informing, engaging and participating. Without open access to public data, all three are very difficult to achieve, Harper said.

"Government information should be, where possible, free as in beer and free as in speech," he said. "It should be available free of charge, and people should be able to share it freely."

Harper acknowledged that cost was a key barrier to overcome. Launching and maintaining open data can be "substantial" he said, although he added that the value of data would not be maximised if the public is charged to use it.



- Editor
FutureGov Asia Pacific
Robin Hicks

> THE PHILIPPINES

NEW ICT CHIEF REFLECTS ON CHALLENGES AHEAD

Ivan Uy, the newly-appointed Chairman of the Commission on Information and Communications Technology, has said that e-governance, human capital development, closing the digital divide and sustaining the growth of the Philippines' Business Process Outsourcing (BPO) industry were among the key challenges he faced in his new role.

Uy, a former lawyer and CIO of the Supreme Court of the Philippines, was selected by recently elected President Benigno Aquino to replace Ray Roxus-Chua as CICT Chairman earlier this month.

"BPO is now the second largest contributor to GDP next to Overseas Filipino Workers remittances," said Uy. "It is in hyper growth mode, growing by 500 per cent over the past five years. The sector needs to be nurtured and allowed to be more globally competitive."

He added: "The CICT is tasked to be the e-governance enabler for government. We should aim to significantly reduce red tape and make it easier for citizens and investors to transact with government online. This will make government more transparent and lessen opportunities for corruption."

> Uy's appointment is a vote of confidence for the CICT, which was in danger of being scrapped after the elections in May. But new President Aquino opposed the creation of a fully fledged department of ICT during his election campaign. Mixed signals and uncertainty remain...



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27 October 2010

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HIGHER EDUCATION DOWN UNDER

Does the increasing use of educational technology mean less time on campus? How are these research-intensive varsities responding to the changing learning needs of students? Kelly Ng, visits Canberra and Sydney to investigate.

Australia's top universities – Australian National University (ANU) and University of Sydney (USYD) – share several similarities. Both are long-standing institutions established around 1950. Both place strong emphasis on research and high-contact teaching. And more importantly, both recognise the importance of transforming the campus experience to suit new learning styles.

With 12,000 students, ANU is considered small compared to USYD, whose students number close to 47,000. The difference in size may lead them on separate paths as to what type of learning technology is deployed, but at

the heart of their tech-enabled learning journey, they share similar challenges and goals.

A university-wide strategic plan is important, both institutions agree. “The online learning experience is growing in every

80%

**Per cent of income
comes from research
at ANU, not students**

university; but in many cases, the growth is unstructured and unmanaged. If that is the case, you have no control over cost and quality, and no line of sight,”

observes Associate Professor Robert Ellis, Director of eLearning, Learning Space at USYD.

“We have just established a working group that will recommend a strategic plan for technology and education on the university level,” says ANU's Associate Dean (Education), Associate Professor Chris Johnson.

ANU's strong research profile will govern the development of the strategy. The university is risk adverse when it comes to changing the way teaching is conducted, according to Dr Kim Blackmore, Coordinator, Flexible Learning Unit at ANU (pictured above). “There is a big

desire for high contact teaching, so we deliberately try to have most of our teaching face-to-face on campus. Our small student population works to our advantage in this respect.”

25%

E-learning annual growth in USYD

While there has been a growth in off-campus or distant online learning courses globally and within these two universities, Ellis also emphasises the need to enhance students’ experience on campus. “About 12 to 14 per cent of our courses are either fully online or distant-learning (with a mix of print and online). But that is really not where our master plan or thrust is. Our reputation is on being campus-

4 million

Number of e-learning sessions at USYD last year

based research intensive. So majority of our e-learning growth comes from courses that run on campus, with web sites or assessments done online to complement face-to-face teaching.”

With so much online activity going on within the university’s walls, there is a need to manage



> **Associate Prof Chris Johnson**
Associate Dean (Education)
Australian National University
Australia

the virtual learning environment. USYD is building a seamless learning experience for students. “Students go between the physical and virtual learning environment all the time. Before they enter the lecture hall, they may access the course site for information. Or just after leaving the library, they go online to



> **Associate Prof Robert Ellis**
Director of eLearning, Learning Space
University of Sydney
Australia

share files or post comments on the e-discussion board,” Ellis adds. The university has systematically plotted its virtual and physical learning space on the campus map which is extremely useful when the leadership needs to assess its current progress and plan for the future.



FutureGov Journalist Kelly Ng visits Australian National University

THE CONTINUUM OF IT-ENABLED LEARNING

Whether you are planning to maintain a high level of face-to-face teaching, or experimenting with pure online courses, keeping students and the learning outcomes in mind is critical. Here, we look at two courses – one redesigned to replace face-to-face lectures with online components, and the other radically migrated all activities online.

Method: Blended learning

Course: Solar Energy Technology

University involved in trial: Australian National University and University of South Australia

No. of students in pilot course: 127

Online

- Lectures are replaced with 20 minute long online interactive presentations, with recommended links and activities
- Students take online quizzes throughout the semester to test their understanding.

Face-to-face

- Tutorials of 20 to 30 students for questions and in-depth discussion
- Exercises, such as computer modelling, allow students to develop deeper understanding and gain hands on experience with equipment.

Great for students who...

- ☒ Appreciate convenience of viewing lectures online
- ☒ Want flexibility on when to study
- ☒ Need to pause and replay lecture material

Potential challenges

- ☒ More work on design and delivery of the course
- ☒ Lecturers do not feel comfortable having their lessons recorded

Method: Pure online learning

Course: Green Information Technology Strategies

University: Australian National University

No. of students: Approximately 20 per class

Structure:

- Students are given materials to read and sometimes videos to watch
- Professor provides questions for discussion over an asynchronous online forum
- Discussion develops among the students without lecturer being actively involved
- Students are given a weekly grade based on their contribution to the discussion
- Individual coaching online – or at times face-to-face – is provided whenever needed

Great for students who...

- ☒ Want flexibility on when to study – students who are working



Tom Worthington, Adjunct Lecturer,
School of Computer Science

If you are planning a pure online course, take note:

- Regular assessment is critical to keep students moving
- Preparation – such as good materials and questions – is key.
- Remember, the online experience can be just as personal. When you use a telephone, you are not talking to a plastic box, but to the person on the other end. It is the same with online learning.

STUDENTS SPEAK THEIR MINDS...

What do the students think of the blended Solar Energy Technology course (on the previous page)? We speak to some of them before the course started, and others halfway through the term.

Christopher Kuta

I am a little nervous about the new format as it is different from how subjects have always been taught. It will probably take me some time to adjust. And once I overcome the initial getting-use to, I can actually see myself getting a lot out of this format.



< Shakir Rahman

It's great to have everything online. It makes it convenient and quick to access. I can go through the lecture more than once if I need to understand it perfectly. The content is also practical, allowing me to understand how it is applied in real-life. The tutor has been excellent so far.



< Ross Summerfield

I am learning more about the technology. As I have a full-time job, the online component tends to fit my part time studies arrangement well. While the lectures are online, we still have the opportunity to ask questions at the face-to-face tutorials. So the blended format works great.

Eeshan Kulkani >

The blended learning approach should be good for me. I have found that I learn a subject matter more efficiently when it is delivered in a flexible manner. A rigid lecture, tutorial, laboratory structure is not at all appealing to me. Hats off to the person who came up with the idea to implement this teaching method!



^ Nan Zhu

It's great to have such a new method in teaching. I like it, and I think it will suit me well

William Brady

The online lecture presentations are good. The length and content provided is just nice. I particularly found the ability to pause and re-watch certain parts of the lecture to be extremely useful. It is fantastic!



<Matthew Hocking

I have a lot of commitments outside the university. So I really like how I can decide when I do the online lectures and at my own pace. This will better help me manage my time between studying and other external activities.

> AUSTRALIA

STUDENTS TAKE VIRTUAL SCHOOL TRIP TO NASA

Virtual excursions - field trips taken online - widen opportunities that teachers can give their students to view life beyond the classroom, Emeritus Professor Jonathan Anderson, Flinders University of South Australia told *FutureGov Asia Pacific*.

> www.unesco.org

"Students can be taken back in time to view ancient sites and civilizations, they can explore the depths of the sea or voyage into outer space, and they can view remote specimens or valuable artefacts, all without leaving the classroom," said Anderson.

In a regional guide recently published by UNESCO, called *ICT Transforming Education*, Anderson pointed to the example of Randwick Public School in Sydney, Australia. Students from Grade 4, with the aid of an internet link coupled to video conferencing, took a field trip to NASA headquarters.

"Under the tutelage of a member of the space programme, the students participated in experiments simulating the effects of reduced gravity," Deputy Principal David O'Connell described the activity, which is one of a series of educational programmes hosted by NASA. The technology is particularly useful for schools in remote areas, he added.

> HONG KONG

PILOT CLASS SHOWS ONLINE LECTURES LIFTING ENGAGEMENT

How can educators ensure that learning continues after students leave the classroom? Eric Tsui, Professor of Knowledge Management, The Hong Kong Polytechnic University reveals how his students are reliving the experience of the lecture.

The Personal Learning Environment (PLE), which uses free Google programmes, has raised engagement among the pilot class of 37 students. "Google Reader pushes relevant articles to the students. And whenever I come across an article that

substantiates a concept, I make a comment and post it on Google Buzz for the students to discuss."

Over 60 per cent of students have set up their individual PLE. Unlike the current in-house system, PLE survives across semesters and eases the inclusion of external experts in discussion forum.

Unlike the normal electronic bulletin board which is available on some learning management systems, PLE brings the subject closer to reality.

"We want to integrate PLE into other platforms – such as Facebook and LinkedIn – so that students are not compelled to use Google," concluded Tsui.

> INDIA

TOP INDIAN BUSINESS SCHOOL CREDITS ICT FOR ITS SUCCESS

Tripling growth in income is one of many outstanding achievements for Indian Institute of Management Indore (IIM Indore), one of India's top business schools. Former Director Dr Sat Parashar claimed that technology played a critical role.

"At IIM Indore, we adopted ICT as a strategy to expand business, generate revenue, provide flexibility to increase student intake, extend faculty search and to cut costs," said Dr Parashar.

Within four years, IIM Indore tripled its income other than grants, increased its corpus fund by 6.3



Dr Sat Parashar

times, and grew its balance sheet by 33 per cent.

IT initiatives include wiring up the new campus for high speed internet access and adopting interactive audio- and video-conferencing solutions. Off-campus programmes were launched, attracting 200 students and generating INR 20 million (US\$443,000).

ENTERTAINMENT + LEARNING = E-LEARNING

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TELEMEDICINE AND THE FUTURE OF HEALTHCARE

Thousands of children have benefitted from the telepaediatric service at the Centre for Online Health at the University of Queensland. Dr Anthony Smith, Deputy Director of the Centre, tells Serene Leow what he thinks telemedicine means to the future of healthcare

Launched in 2001, the 1823 Call Centre is the Queensland Government's single point of contact for handling public inquiries. Since the service was opened in November 2000, more than 10,000 telehealth consultations have been carried out for children living in 97 regional and remote areas.

"This amount of activity makes it the largest telepaediatric service ever reported throughout the world," says Dr Anthony Smith, Deputy Director of the Centre for Online Health, University of Queensland.

The service is the result of Dr Smith's PhD project, completed in 1999, which included the

feasibility and cost-effectiveness of a novel telepaediatric service in Queensland. The project now receives funding - of A\$500,000 (US\$470,000) per year from the Department of Health and Ageing, Queensland Health and the Royal Children's Hospital.

US\$470,000

**Annual funding
for Queensland's
telepaediatric service**

37 paediatric sub-specialties are offered through the service, including: burns care; cardiology; dermatology; diabetes; ENT (ear, nose and

throat); general paediatrics; neurology; orthopaedics; psychiatry; and surgery.

The service makes use of technology like the Integrated Services Digital Network (ISDN) and Royal Children's Hospital's Wide Area Network (WAN) – which is where the centre is located – to carry out online consultations via videoconferences, emails and telephony.

Alternatively, some consultations are done using custom-designed telemedicine systems on the university's private network, which is able to reach transmission speeds up to 1MB per second. Basic ADSL

connections to webcams also enable doctors to communicate with and support patients and their families, Dr Smith says.

User satisfaction is generally very high. The telepaediatric service greatly reduces travelling time and expenses for patients, many of whom may have otherwise travelled hundreds of kilometres to Brisbane to see a paediatric specialist. Telemedicine may also reduce costs for the state health department, which sets aside A\$45 million (US\$40 million) a year for patient travel subsidy schemes.

However, while such technology has its benefits, the limitations of telemedicine are also respected, Dr Smith says. "In cases where a specialist feels that they are unable to make a clinical decision based on the information available, the option to transfer the patient for a face-to-face appointment is always available.

"Occasionally certain tests and procedures can only be

performed in Brisbane. If this is the case, telemedicine consultations serve as valuable opportunities to educate patients and prepare them for the procedure/transfer to Brisbane."

The majority of referrals, however, can be managed at a distance with the support of regional clinics at the referral sites, says Dr Smith. This likelihood has increased with the development of wireless (robot) systems which can be wheeled around and used in areas where clinical services are most likely to be needed, such as at patients' bedsides or in the immediate ward areas.

However, Dr Smith says telemedicine is not purely a technology-driven enterprise, a perception that has, among other factors, slowed uptake of the service, as it has done in other parts of the world.

"While technology is important in that you need to have the appropriate communication equipment and



> **Dr Anthony Smith**

Deputy Director, Centre for Online Health
University of Queensland
Australia

telecommunications available, significant effort needs to be invested in the development of support and administrative systems to support telemedicine operations. Essentially, introducing telemedicine requires change management strategies as the conventional method of delivering health services is being re-engineered," he says.

The current lack of appropriate funding models for telehealth in Australia is another potential

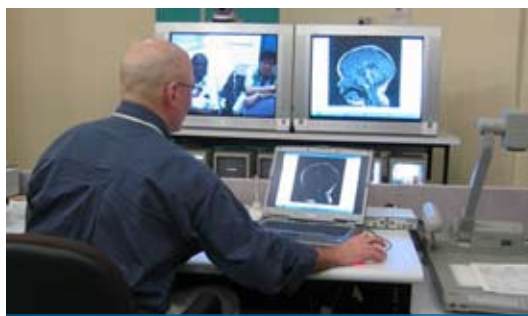


- Managing Editor
FutureGov Asia Pacific
Rob O'Brien

> In Australia's regional and remote areas access to adequate healthcare is a serious problem - the inequity is vast, but it could be addressed through a National Broadband Network, plans for which are now back on track following Australia's recent election.



Patients can be transferred to Brisbane



Inside the university's private network



Wireless robots are part of the service



Telehealth has helped regional areas

barrier to watch out for, Dr Smith points out, with models predominantly designed for conventional face-to-face services.

“That is, the patient attends an appointment with their doctor and the doctor receives reimbursement for the service,” Dr Smith says. “Reimbursement for telemedicine needs to take into account the multiple parties involved in the consultation.”

That requires careful consideration into how the service is rolled out, he adds.

“One requires a good understanding of the clinical problem; what information needs to be shared; what is the most appropriate method (real-time/store-and-forward); user requirements; technical feasibility; clinical efficacy; cost and clinical

effectiveness. These questions require a well-planned research effort.”

His advice to clinicians: “Take it one step at a time and avoid making expensive mistakes. Carefully design telemedicine services in response to clinical needs and make sure it is user-friendly and supported by the appropriate administrative and clinical support services.”

Queensland’s telepaediatrics service at a glance

1. More than 10,000 consultations have been conducted for children living in regional and remote areas of Queensland
2. Telepaediatric clinics are now scheduled 12 months in advance for routine specialist outpatient appointments
3. 37 paediatric sub-specialties are offered, including burns care, cardiology and dermatology
4. About 17% of all paediatric burns OPD services are now conducted via videoconference
5. Wireless (robot) systems can be wheeled around and used in areas where clinical services are needed

Dr Anthony Smith says successful telemedicine initiatives should be:

- Carefully developed (designed) in response to identified clinical needs
- Clinician driven
- Governed by the telemedicine users
- User-friendly – present no hindrance to the user
- Supported by appropriate administrative and clinical support services
- Evaluated and sustained in a clinically and user-friendly manner – technical feasibility, clinical efficacy, user satisfaction, clinical and cost-effectiveness
- Shared through publication (results and experiences)

> CHINA

OPHTHALMOLOGY TELEMEDICINE SYSTEM REACHES 11 MILLION RECORDS

Beijing Tongren Hospital has successfully built an integrated regional collaboration system on ophthalmology, according to Dr Xu Liang, Deputy President of the Hospital and Director of the hospital's Ophthalmological Research Institute.

Established in 1886, Tongren Hospital is now an 860-bed tertiary general hospital specialising in ophthalmology and ENT.

Led by Dr Xu, the Tongren team has built web-based PACS, CIS and telemedicine system linking eye specialists across the country. The pilot, which was initiated four years ago, now contains an ophthalmological database for 11 million patients.

Green channels have been opened in all eight districts in Beijing, allowing patients to get access to specialists easily. Results of consultations can



Tongren: 860-bed tertiary general hospital

be viewed from the web or heard through a voice mail system.

Moving forward, Dr Xu hopes that the model can be propagated across the country, enabling ocular disease prevention, consultation and research in rural areas.

> NEW ZEALAND

NEW HEALTH CONNECTIVITY STANDARDS SET

New Zealand's Health Information Standards Organisation (HISO) has approved Connected Health Network Connectivity Standards to be used in the creation of a secure, reliable Connected Health Network.

The Connected Health Network links the networks of private sector telecommunications service providers to build a 'network of networks' based on network connectivity standards, allowing for an open and competitive telco market in the health and disability sector.

The National Health Board, HISO's parent organisation, is now ready to certify telecommunication networks in accordance to the standards. The standards were developed in collaboration with the telecommunications industry,

facilitated by the New Zealand Health IT Cluster.

"They represent a major milestone in the delivery of the Connected Health Programme, which is establishing an environment for the safe sharing of health information," said a spokesman for the National Health Board.

"It is another step towards providing cost-effective choices for healthcare organisations when they review the purchase of their network connections," said Graeme Osborne, Director of the National Health IT Board.

The target date for the interconnection of the networks is December 2010. Standards will be trialed in stages, starting with the Midland Region of New Zealand.

> SRI LANKA

MOBILE DETECTION FOR COMMUNICABLE DISEASES

Sri Lanka has completed the trial of a mobile phone project which helps early detection of communicable diseases. The 'Real-time Bio-surveillance Programme' allows data on patients and symptoms of illnesses to be sent directly from hospital wards to the epidemiological centre through a web interface installed on mobile phones. Under the present manual system, set up in the 19th century, it can take more than two weeks for information of outbreaks to reach the epidemiological centre in the capital. As a result, officials first learn about the outbreak through the media. The mobile system allows quick analysis to identify disease patterns to be made before the outbreak spreads.



ROAD TO A GREENER GOVERNMENT

Australia has kicked off a whole-of-government drive to green its ICT systems. Peter Woods, the former CIO of the Department of the Environment, Water, Heritage and the Arts, talks [Robin Hicks](#) through the idea and the challenges it faces

Australia's net greenhouse emissions make up around 1.5 per cent of the global total. But, largely due to the country's reliance on coal to produce electricity, Australia has the highest per capita emissions levels in the developed world - five times more per person than China.

Under the Kyoto Protocol, which the former Prime Minister Kevin Rudd signed in 2007, Australia must limit emissions growth to 108 per cent of 1990 levels by 2012. A more recent target has been set for the country to

reduce emissions to 60 per cent of 2000 levels by 2050.

The government is under intense pressure to meet its Kyoto target from green groups and an increasingly environmentally conscious public. But so far it is on track to meet the Kyoto target.

Green issues were high on the political agenda during Australia's recently concluded federal election. The Australian Green Party hailed the election a "greenslide" having won a Senate seat in every state

and a seat in the House of Representatives for the first time in a general election.

Despite the upheaval caused by the election, which resulted in the first hung parliament for 70 years, the government is pushing ahead with an ambitious plan, officially approved in July, to green all of its ICT systems. [The Australian Government ICT Sustainability Plan is a five-year effort designed to better align agencies' use of ICT with the government's overall sustainability agenda.](#)

The plan will focus on “the responsible acquisition, installation, maintenance, use and disposal of ICT,” and on ways to use ICT more effectively, efficiently and productively, to shrink government’s carbon footprint.

In the following Q&A with *FutureGov Asia Pacific*, Peter Woods, until recently the CIO of the Department of the Environment, Water, Heritage & the Arts, the agency leading the plan (in consultation with the Australian Government Information Management Office) explains what it will take for the plan to work.

How did the idea for the plan come about?

It arose out of a number of things. In a broad sense the desire for the Australian government to take a strong approach to climate change in its policy settings and with regards to its own operations was a key driver.

More specifically, however, the development of a whole-of-government ICT sustainability plan was one of the recommendations arising out of the Sir Peter Gershon review of the Australian Government’s use of ICT. ICT accounts for only around two per cent of the world’s carbon emissions; some say closer to six per cent. But few argue that this is not increasing.

The review recommended that the government better align its ICT operations with its overall sustainability agenda and implement a range of measures designed to improve its environmental performance.

What has the Australian government's approach to ICT sustainability been up to this point?

Agencies have taken an uneven approach to greening their ICT systems. Some have been good, and are ahead of the plan’s

“Some [agencies] have been good, and are ahead of the plan’s objectives. Others less so, and have a lot of work to do.”

objectives. Others less so, and have a lot of work to do. But the beauty of the plan is that it lays down a coordinated, consistent approach to ICT sustainability and environmental performance that involves all departments.

Which agencies have been the best performers?

Actually, agencies you wouldn’t consider would be particularly green. The Attorney General’s Department has been using energy efficient technologies and has implemented sustainable printing practices. The Australian

Crime Commission has also been active and even the Department of Defence has introduced a scheme to shut down desktops automatically overnight. Because of the size of the department the impact has been quite significant, both in terms of energy savings and costs.

At my former department, a sound environmental performance is very much expected, and the culture of the department is such that measures individuals take to curb their own carbon footprint, such as shutting down their computers when they’re not being used, has become second nature. Duplex printing [printing on both sides of the paper] is set as default, and the department is undergoing a server and desktop virtualisation programme. We were also the first agency to implement green IT criteria within tender documents for managed services.

One of the main thrusts of the plan is around green procurement. How can you tell which suppliers are greener, since most – if not all – vendors claim to produce green products?

One of the issues here is setting consistent standards for agencies and creating certainty for industry. Relevant also is that what are said to be



Former CIO Peter Woods believes the government's plan will deliver savings

the best-performing products are quickly overtaken by others. This is happening continually, and with increasing speed.

So one of the fundamental aims of the plan is to look at what standards we should apply for provisioning new technology.

We want to establish a process that makes it easier for procurement agencies to select the most sustainable suppliers by making reference to a rating system based on established international standards. Suppliers will now be required to comply with standards, such as ISO 14024 or ISO 14021 at a level of EPEAT Silver or equivalent as a minimum. They will also

be required to align their environmental management systems with ISO 14001.

To what extent will the carbon footprint of government need to be reduced in order to bring emissions down to acceptable levels?

The question of how much current emissions need to be reduced by government to be sustainable is a matter for debate world-wide. As far as the plan is concerned no specific target has been set at this point given that more data needs to be collected on current performance. It is estimated, however, that a reduction of 20 per cent

in energy consumption and related emissions can be achieved over the five year life of the plan. It depends on the efficiency and life

20%

The total emissions reductions expected from the 5-year plan

cycle of products, and many other variables. But we're moving in the right direction. The plan will act as a driver for individual agencies to raise their game, and have a knock-on effect within the ICT industry through the introduction of mandatory requirements for procurement.

Will cost be an issue for agencies required to green their IT systems?

Yes, there is a cost involved in improving performance. But the plan does acknowledge that there is a transition process that needs to occur. Agencies can take some low cost initiatives to make quick wins. More significant changes to agencies' infrastructure and management will require a phased approach, in accordance with normal procurement cycles.

The plan will ultimately bring down costs for agencies. Independent cost benefit analysis has shown that there are cost savings to be made. There's both an environmental and economic logic to the plan.

What do you believe are the strengths of the plan?

The plan is holistic in the sense that it covers both all agencies and all aspects of ICT. It not only looks at the environmental impact of ICT. But also the enabling power of ICT to transform other non-ICT systems more broadly, such as water and waste management. It also promotes the use of ICT by agencies as an enabler of more sustainable practices in industry and the community more broadly.

Another strength of the plan is that it is consistent with

other government initiatives such as the new National Waste Policy introduced in late 2009 and with the National Packaging Covenant. These policies seek to minimise e-waste and packaging – we want to minimise packaging while ensuring that equipment arrives intact.

How will the performance of agencies be measured?

Targets have been set and agencies will be required to report annually on performance against these targets. Additionally there will be a mid-term review of the plan in 2012-2013 to ensure that we're on track and the measures in the plan are achieving their objectives and the targets are still appropriate or require adjustment.

Is Australia's plan being benchmarked against other plans elsewhere?

We looked to various other countries that are active in the area in the development of the plan - to the UK, in particular, which has an active green IT programme in place right now. Peter Gershon's experience was derived from the UK, so it's an obvious place to look.

The US also has quite strong directives issued by the President and the Environmental Protection Agency on energy efficient

ICT. And I recently spoke with Japan's Ministry of Internal Affairs and Communications to swap notes on ICT strategy. Japan has been doing some good work on data centre consolidation. Denmark is another country we looked at.

"It is up to governments to show leadership in their actions as well as their words by implementing better practices in their own operations."

Other countries have implemented initiatives which have been driven primarily by cost but they also have environmental benefits, but they aren't necessarily identified as such.

But the Australian government is under pressure to cut costs after a tough economic period. Isn't cost the main driver for any plan like this?

Cost will always be a key driver. There are always budget pressures no matter what the economic conditions. The extent to which there are environmental benefits is a question of government policy and the education of individuals and individual agencies. Not everybody has an environmental perspective foremost in mind, which is not



- Editor
FutureGov Asia Pacific
Robin Hicks

> Korea is another country going great guns to green its government. It has an aggressive, well-defined, widely-supported green IT strategy with measurable goals to cut costs and curb emissions. But sadly Korea is one of only a handful of governments in Asia in which environmental friendliness is on a par with saving money as a priority among policymakers.



Australian agencies are responsible for e-waste

surprising given the different roles agencies must fulfil. This is why a whole-of-government approach to ICT sustainability planning is important.

In this case, however, there is no conflict between cost drivers and environmental benefits. The plan delivers both. There is also an argument that it is up to governments to show leadership in their actions as well as their words by implementing better practices in their own operations.

Has there been any resistance to change?

It wasn't particularly difficult to get agencies to cooperate. We were selected as the lead agency because of our understanding of green issues, and early on we consulted agencies on what the plan would mean. At a philosophical level, there

has been no resistance from other agencies on being more sustainable. But they obviously are asking what measures need to be taken and what it will cost them.

Ultimately the plan has been well-received because it makes good policy sense and is workable in practice given the various measures and targets and sensible timeframe.

How do you propose to enforce this plan?

There are no specific penalties identified in the plan such as agencies having their budgets reduced if they fail to comply. They are however required to report annually on their performance and it will be obvious how agencies are performing. But the business case is compelling enough from a cost point of view, so compliance shouldn't be an issue.

What are the targets for the plan's cost savings?

The cost benefit analysis is not public. All I can say is that three different levels of modelling indicate that across all government agencies millions of [Australian] dollars will be saved over the next five years.

So are you optimistic that governments can rise to the climate crisis?

In a general sense, yes. That said, the adoption of better practices has been variable in this region. Some governments, like Japan and Korea, have adopted formal green IT strategies. Others aren't looking at it yet.

The issue is coming up with an holistic approach. At the moment, initiatives tend to focus on the direct impact of ICT systems, particularly energy consumption, not their full lifecycle management and use in a broader sense to promote greater sustainability.

In part it comes down to awareness. The more there is discussion about different approaches and an exchange of information, and **the more that people are informed about the issues through publications like FutureGov, the more likely that better policies and practices will be adopted.**<

ASIAN UNIVERSITIES PREPARE FOR THE MILLENIALS

A climate of austerity and more demand and competition has encouraged universities across the region to equip themselves for future generations with more investment in technology. Rob O'Brien reports.

Catching up with technology isn't easy. Just as governments come to terms with adapting to the all-pervasive role that it plays in a citizen's life, so too universities are realising that without significant investment, their product will not suffice when the millennial generation – 10 years and older today – eventually come to enrol.

Executives, deans and department heads are all aware that a half-baked approach to technology is going to leave them exposed to better equipped institutions and a growing online marketplace. Research conducted by FutureGov reflects how seriously campus decision makers are taking this state of flux and the huge influence of new technologies on the education agenda.

We surveyed 116 people across several regional institutes in China, Hong Kong, Singapore, Taiwan, India, Malaysia, Thailand and Indonesia on their views on campus technology.

According to our research, almost 40 per cent of those surveyed came from institutions made up of more than 5000 students – several with more than 20,000 students – and 24 per cent between 1000 and 2000 students.

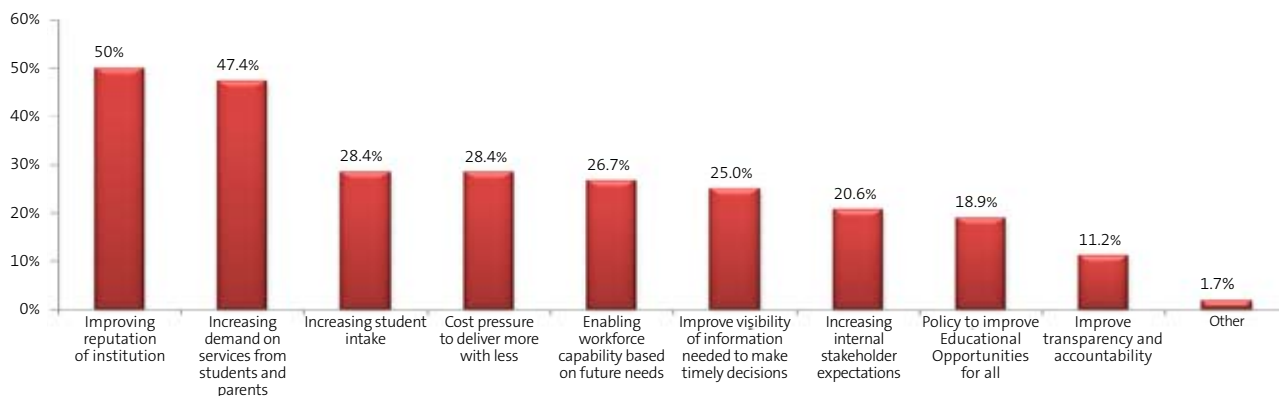
Nearly 60 per cent of respondents said their top priority for the next 12-18 months was to improve the quality of student learning. Around 40 per cent stated that their goal was to improve accessibility to learning technologies and 27.5 per cent said they wanted to achieve greater operational efficiency, a sign that higher education is taking the lessons of the financial crisis seriously.

When asked for the reasons for their answers, half of respondents said there was a need to improve their reputation, 47.4 per cent cited an increased demand from parents and students and a significant 28.4 per cent wanted to increase student intake.

Whether the effect of living in a climate of austerity or a rise in international competition – technology is very much part of the answer to intakes and, therefore, campus revenues.

In terms of practical solutions through major project work over the next 12 months 44 per cent specifically highlighted the role of technology in collaboration between students and teachers, 40 per cent told us they planned existing ICT upgrades and 34 per cent forecasted a greater role for ICT within curriculums.

There was close to unanimity when respondents were asked what they saw as key technologies in the campus of the future – with clearly 70 per cent citing e-learning applications. In essence the report shows a shifting mindset, a move from abandoning the status quo and equipping Asian universities with the tools expected to secure future enrolments and, more importantly, develop the bright minds that support any growing economy.



► What are the top three drivers for these priorities?



One of Asia's best examples of the public sector using social media is the Singapore Police Force (SPF) on Facebook. Assistant Commissioner **Ng Guat Ting, Director of Public Affairs, explains how SPF has used social media to keep the public informed and reduce crime. Interview: Robin Hicks**

Singapore cops made their first foray into social media in 2008 with the Singapore Police YouTube channel. The channel, which was launched to give wider exposure to SPF's *CrimeWatch* TV programme, crime prevention tips and public education messages, has just 677 subscribers but almost 700,000 uploaded views.

The next year, SPF co-produced the *i-Witness* programme with the *Straits Times*' web TV portal Razor TV. The show featured short video appeals for information on unsolved cases, with a telephone number and email provided for tip offs.

In 2009, the SPF launched its Facebook page to supply its group members with recruitment information, crime

prevention advisories, counter terrorism messages and public education materials on topics such as road safety, road courtesy and drink driving.

This year, SPF inevitably appeared on Twitter. "We see that it has the potential to be an important broadcast channel for crisis communications as tweets can be exponentially spread through the 'Twitterverse' via the retweet function," Ng (pictured) said.

Facebook and crime fighting

But of all the channels, Ng sees Facebook as the pivotal social medium for SPF.

"To date, Facebook has attracted a very active community of



> Ng Guat Ting
Director of Public Affairs,
Singapore Police Force, **Singapore**

25,000 fans. We get up to 600 unique visitors generating 5000 page views daily. Our page ranks among the top police Facebook pages around the world in terms of numbers of fans."



Facebook: central to SPF's social media strategy

The Federal Bureau of Investigation (FBI) is one of the few police pages that is more popular - it has more than 50,300 fans. The New York Police Department Facebook page has 20,500 fans, whereas the London Metropolitan Police Service has just 209.

A team of two regular officers in the Public Affairs Department was assigned to develop all of SPF's social media activities, including responding to online

conversations to "take the pulse of netizens".

Citizens' comments are investigated and often acted upon, as are suggestions for how to improve the page, although the team does not operate for 24 hours a day.

"The SPF Facebook Page is growing in users because it provides regular and timely crime alerts and crime prevention tips, appeal for information videos, recruitment updates, and a

platform for those who wish to know how they could contribute to crime-fighting as volunteers," notes Ng.

The page is updated with two postings every day during week

25,000

the number of fans on SPF's Facebook page

days, with additional posts on weekends and public holidays.

"The frequency of SPF postings is spaced out throughout the day with no more than three postings a day. We don't want to be seen to be spamming our fans' newsfeeds," Ng says.

SPF is taking a measured approach to comments posted by citizens. "Occasionally fans use the page to report suspected criminal activity. Although we keep an open mind in



SPF's YouTube channel: public education videos

Singapore Police Force's outreach milestones

2006

SMS Community Alerts. Crime alerts provided for community partners.

2007

SMS Crime Alerts. Due to the popularity of the Community Alerts, the SMS service was opened to members of the public. Supported by Singapore's three telco providers, SingTel, M1 and StarHub, the service now has over 10,000 subscribers

2008

SMS 70999 and SPF YouTube Channel. SMS 70999 allows the speech and hearing impaired to request Police assistance.

2009

SPF Facebook Page and RazorTV "i-Witness"

2010

SPF Twitter Profile

> www.youtube.com/user/SpfCommunityOutreach

> www.facebook.com/singaporepoliceforce

> www.razor.tv/site/servlet/segment/main/specials/i-witness/

> <http://twitter.com/singaporepolice>

listening and acting on feedback from fans, they are reminded not to use the Facebook Wall for reporting crime. They are re-directed to the proper channels - 999 for emergencies, or 1800-2550000 and spf_police_information@spf.gov.sg to provide information.

But the page has helped curb crime in the real world. Ng pointed to SPF's Facebook page as having played a key role in reducing cases of phone scams in Singapore. Crime prevention advisories sent to fans of the page, which quickly spread through the community, have been used in combination with traditional media to help reduce phone scam cases by 28 per cent, Ng claims.

Key to the success of the page has been a light touch, Ng says. "We only delete postings if there is a strong reason for it, if there is a clear breach of the Facebook Code of Conduct, postings which are offensive or

defamatory, or those considered as advertising and spamming."

The future of community policing

SPF has plans to organise 'live' e-Townhall meetings via online chats with community partners to strengthen its ties with the local community. "Online meetings are a great way for people to get involved without having to leave their homes and offices," says Ng. "Residents can ask about current crime issues, get security advice and report crimes." If the idea proves popular and effective, SPF may upgrade its e-Townhall meetings with video streaming.

"Key to the success has been a light touch approach."

Looking ahead, Ng believes that community policing can be brought to life online, beyond simply reaching citizens via its Facebook page. But how exactly this can be done is still being figured out.

"What we are sure of is that the SPF's involvement in social media has to go beyond using social media for public communication purposes to one which could galvanise the online community into action to fight crime and generate participation in Police-related activities, programmes and schemes," Ng concludes. "And once that is created, Police-online community relations will be significantly enhanced."

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> UNITED STATES

COULD SECURITY 'PARALYSE' GOVT CLOUD ACTIVITY?

Security will always be a top concern for government. But policymakers should not allow security to "paralyse" their cloud strategies, a senior figure at the National Institute of Standards and Technology in the United States, told *FutureGov*.

Government cloud computing is more challenging from a security perspective than it is for the private sector, noted Tim Grance, Program Manager, Cyber & Network Security Program, Information Technology Laboratory, NIST.

"A different level of security is needed for government. And a lot more transparency is needed from cloud providers. Governments need to know where their data is located, how it is being handled and be sure that policy requirements are being followed," said Grance.

"You need to prepare a solid business case for what it is you want to achieve, and your apps need to be rigorously prepared. You need to be able to answer the security questions posed by the cloud, but don't be paralysed by them," he added.

Standards for the cloud is one way of easing security worries, Grance noted. "Standards give you predictability, enabling greater interoperability, data portability, and, ultimately, trust. We need to define standards, but avoid over specification which could inhibit innovation."

> HONG KONG

BUSINESS ANALYTICS A CASE OF 'MORE ART THAN SCIENCE'

The Hong Kong Efficiency Unit implemented the Complaint Intelligence System (CIS) a year ago to improve the way government responses to citizens' gripes. But there is room for improvement, W. F. Yuk, the HKEU's Assistant Director, told *FutureGov*.

The CIS, which uses SAS software, is a work in progress and there is scope to improve the tool's accuracy. Prank or malicious complaints, for instance, can skew the data which leads to misleading findings.

"Sometimes lonely people call us in the middle of the night, just to talk to us. Sometimes people call us to complain about a rival business that has set up in the area. We can't stop that," Yuk said.

Yuk noted that text mining is more art than science: "Just because we now have access to more in-depth intelligence on why complaints are occurring, that doesn't mean that this information is perfect. One time out of ten it could be wrong. CIS serves as a useful guide to investigate cases."

> INTERNATIONAL

BLACKBERRY UNVEILS TABLET DEVICE FOR ENTERPRISE USERS

BlackBerry maker Research In Motion (RIM), which has been locking horns with governments over the encryption of its corporate services lately, has upped the stakes in the tablet computing category with the launch of the PlayBook, a rival to Apple's iPad.

The PlayBook is aimed at enterprise users, but RIM has included high-end multimedia and gaming capabilities to attract consumers – and attack iPad's dominance of the consumer market.

An advantage of the PlayBook over the iPad for enterprise customers, which include many governments in the region, is that many



BlackBerry's PlayBook

departments already use BlackBerry smartphones, and are using the BlackBerry Enterprise Server product to manage their connectivity.

The PlayBook is also said to have device management and security advantages over the iPad, which is still listed as an 'insecure device' by governments including the United States and Australia.

The product will be available in the US in early 2011 before rolling out globally.

> THE PHILIPPINES

LOW-COST TABLET COMPUTER PLANNED

The government is working on a low-cost tablet computer that could bring an end to the days of children dragging heavy schoolbooks around, according to Science and Technology Secretary Mario Montejo.

“This is education in the future: no more heavy textbooks for our hapless school kids. We really should replace books,” he said.

However Montejo said the planned tablet would lack many features common to other such devices in order to make it cheaper. “Every additional feature will add to the cost,” he warned.

The computer is expected to cost around 3,000 pesos (US\$70). He also said the move would make Filipinos more competitive in science



Low-cost tablet

and technology. No proposed date for the launch was given.

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> INDIA

GOVERNMENT TARGETS GOOGLE AND SKYPE ON DATA SECURITY

First BlackBerry. Now Google and Skype. The government of India not only wants BlackBerry to build data centres within its borders so that its intelligence agencies can more easily monitor communications. It wants Google and Skype to do the same.

Home Secretary G. K. Pillai has said that the government would be sending notices to the two firms, requesting that they set up servers in India.

The news followed soon after the expiry of a deadline for Research In Motion, the maker of BlackBerry, to give the Indian authorities access to its data traffic. The company has been given a further 60 days to comply.

In India, around 24 million people – many of them government employees – use Google's gmail service, from which users can now make phone calls. Orkut, Google's social networking service, now has 19.9 million users in India.

> THE PHILIPPINES

WEB DEFENCES EXPOSED AFTER HACKER ATTACK

On August 29th, the Philippine Information Agency's portal was hacked into. An error message was displayed whenever a user tried to enter the site, and the words "Hacked by 7z1" appeared when the site was searched for on Google.

According to a spokesperson from the Philippine CERT (PH-CERT), a Beijing-based hacker switched the agency's web server to "read only" mode, and infected the site with a SQL injection. It then took an hour for the hacker to embed cross-site scripts – the material which could be viewed by visitors to the page.

"The hackers were able to circumvent the security protocols

of the web site since the affected infrastructure – firewalls and intrusion detection and prevention systems – were outmoded and security programs and software had not been upgraded," said a PH-CERT spokesperson.

However, damage done to the site was minimal. "The sole intention of the attack was vandalism rather than compromising the agency's database," said the spokesperson.



This appeared on Google searches for the hacked PIA site

> GERMANY

THE WORLD'S MOST ADVANCED SMART ID CARD?

Starting on 1st November, the German government is to roll out a new national identity card that is billed as the most advanced of its kind. The contactless smartcard can be used as a travel document, enables transactions such as online banking, airline passenger check-in and tax declaration, and gives German citizens control over which service providers can access ID card data.

Around 60 million of the new ID cards, which contain fingerprint scans and a six-digit PIN digital signature, will be introduced for all citizens aged 16 and over in the next 10 years.

The system will allow citizens to use a single card to provide data needed to verify enrollment status at a university and then provide only residency status to another government organisation, such as for voting registration.

More than 150 companies are preparing for the roll-out by participating in trials to offer services such as registration for online shopping, airline passenger check-in, and car registration.

The Personalausweis (ID card) can also be used as a travel document within the European Union – and to some other countries such as Tunisia, Morocco and Egypt – instead of a passport.

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THE FUTURE OF GOVERNANCE IN CHINA

The first FutureGov Summit China saw three days of discussions on the key ingredients to making cities more liveable and intelligent, and government more efficient and service-oriented. Report: [Jianggan Li](#)

"We need to have a consolidated government IT talent management system," said Liu Weichun, Director of Dalian's Administrative Service Centre, who delivered the opening address at FutureGov Summit China. Believing that IT's importance in government transformation is only going to increase, Liu advocated for a systematic approach to training, selecting and promoting the right talent to join the government IT profession.

The Summit fell at a time when municipal planners are trying to decide on the direction their cities should go over the next five years. The main theme is how to make cities (there are more than 600 of them in China), where almost half of the country's 1.3 billion people live, become more intelligent and liveable for their residents, and the role that governments need to adopt to become more efficient and service-oriented.

This time in Dalian, Dale Su, Director of Information Management Office, Examination Yuan, Taiwan gave the attending mainland officials a comprehensive view of Taiwan's government IT development, from master planning to the execution of detailed projects. Liang Sheng-kai, Information Chief of Construction and Planning Agency and Jessica Pan of Taipei City Government also shared their experiences in building information management and citizen-centric government services, respectively.

The host city, Dalian, is one of China's e-government pioneers. The city, known as "China's Bangalore", is supported by a strong IT industry. Dalian Jinzhou New Area Administrative Committee, the other co-organiser of the conference, demonstrated its ambitious plans for the city's new Central Business Districts, built on reclaimed land.

Coincidentally, Vatsala Watsa, Chairman of Bangalore Development Authority also participated in the conference and exchanges ideas for high-tech city development with the hosts and other municipal planners from across China.

Drawing on his experience from both the IT industry and the legislature, Dr Samson Tam, Hong Kong's Legislative Councillor, echoed Liu's comments on talent development, saying that in order for the government to be competitive in attracting IT talent, a customised career development programme needs to be properly developed so that those who join the government IT profession feel they are on the right path.

Dr Tam also said that ultimately the government is not competing with the private sector, but rather, developing the IT profession in partnership with the local private sector,



Liu Weichun of the Dalian Administrative Centre

which will be beneficial for the local economy as a whole.

How to develop government IT together with the industry is also discussed by planners from Guangdong Province as well as Ningbo & Qingdao Municipalities – all three are among the top runners in China in this field.

The ‘internet of things’ and cloud computing were the two main areas that the government and private sector could work more closely together. Drawing on his experience helping to build the Guangdong Cloud Computing Centre, Arics Poon, Red Hat’s President for Greater China, shared with attendees how to create a cloud flexible ecosystem, not a “monolithic stack locked to the technology roadmap and business practices of a single vendor”.

Song Gang, Director of Beijing City Administration Information System & Equipment Service

Centre, said that to tackle the challenges in the current world, governments need to be at the forefronts of innovation.

The fundamental driver in the current revolution is the ubiquitous mobile network and the applications it enables, he said. “The social interactions between government, citizens, businesses and scholars have become action-oriented, real time and coordinated. This calls for a fundamental paradigm shift for the government to be more service centric. We need to better understand the needs of citizens.”

He hailed Apple as a model innovator, and suggested that with active engagement and participation of citizens, government could become more agile and responsive in understanding citizens’ needs and delivering services according to these needs. Nevertheless, Song cautioned that a sound strategy needed to

be put in place to ensure that innovations are channelled in the right direction.

Shi Mingfei, SAP’s Senior Director for Public Services in China, agreed, saying that while ambitious plans are mapped out in China, governments needed to put more effort into information gathering to make more informed decisions.

Binn Wang, SAP’s Public Sector Industry Principal in China, pointed out that having different systems in silos is the biggest obstacle to good municipal governance, as this severely affects the government’s efficiency and service delivery. He advocated for an integrated IT infrastructure for streamlined process across all government operations.

Another key topic was emergency management. China’s disaster response remains weak in many places. Thomas Hou, who heads Kodak’s Document Imaging business in Greater China, gave the example of a county’s medical records being wiped out after an earthquake to illustrate the importance of computerised record management. He was echoed by Ye Hong, Director of Data Recovery Centre at China’s National Information Centre, who gave a detailed overview of how governments can strengthen the resilience of their information systems.



HEADS IN THE CLOUDS

The Government Cloud Forum exposed the hopes and fears Asian's public sector modernisers have for the still-fuzzy idea of cloud computing and the future it promises. Report: [Robin Hicks](#)



- Education Editor
FutureGov Asia Pacific
Kelly Ng

> Speed and lower cost lures universities to the public cloud for learning applications, see case study on Hong Kong Poly University on Page 40.

Jirka Danek, the Public Works & Government Services Canada's (PWGSC) Chief Technology Officer (CTO), identified security and privacy as the two biggest hurdles for government cloud computing at the Government Cloud Forum in September.

The Canadian government has taken bolder steps than most into the cloud. Its cloud-based services provided through a 'Community Cloud' to its 325,000 Federal employees and 140 departments have already proved a success. But Canada is taking a "cautious approach" to the public cloud, noted Danek, CTO of the PWGSC.

"We have to get our house in order first. Security and privacy are significant concerns," he said. **"The Community Cloud gives us a viable, sustainable environment in which we can test concepts and the security framework before we go further."**

Two of Canada's key goals have already been met, Danek noted: agreeing on a common language for cloud computing, and setting the governance framework. But he admitted there is a way to go before sufficient trust is built between government and other cloud participants.

He said it was "too early to say" how much the Canadian government could make in cost savings from cloud computing, adding that saving money was only one of four motivations for entering the cloud.

"We use the term GEEE. That being our four drivers; economic, efficiency, effectiveness - and green," said Danek.

The K-Cloud

Green is one of the biggest drivers of the 'K-Cloud' in South Korea. Son Sung-Joo, Deputy Director, Information Resource Policy Division, Ministry of Public Administration & Security, told

delegates that cloud computing is playing a key role in the Korean government's bid to reduce carbon emissions, which are growing at a faster rate than any other OECD country.

Greening by IT, through initiatives such as the Smart Work Centres network and a cloud-based mobile working environment, hopes to reduce emissions from commuting by 20 per cent.

Launched this year, the smart work project aims to see 30 per cent of the public sector workforce - eight million employees - work in wireless broadband-enabled Smart Work Centres in residential areas of Seoul, a densely populated metropolitan area where one quarter of the country's population lives, by 2015.

Greening of IT systems through hardware consolidation, virtualisation, on-demand resource provisioning and cloud-based development



Green cloud thinking: Korea's Son Sung-Joo

platforms, aims to reduce emissions by 40 per cent.

The five-year plan is for Korea to reduce the cost of its government computing arsenal by 50 per cent through leveraging the cloud.

The cloud is also a matter of national competitiveness. "We want to be one of the world's leading cloud economies within five years – the aim is for Korea to account for 10 per cent of the world's cloud computing market by 2014," Son said.

Smart grids and the future of energy

Staying with the green theme, Par Botes, the Chief Technology Officer for EMC Asia Pacific, proposed that "electricity has become a fundamental economic building block for all modern societies," and smart grids will become the main method for energy management over the next 20 years.

"Heavy industry is no longer the biggest energy user. Cities and citizens are," Botes noted.

"Smart grids allow energy to be routed according to when and where it is needed. Consumers will be able to monitor how much energy they are using, which should bring energy use down. And bi-directional transmission will make the grid 'self-healing'".

Smart grids generate a lot of data: while legacy grids produce one reading a month, smart grids will read the meter of the average household 2900 times a month. This data can be used in combination with others, such as commuters, traffic and weather patterns, to optimise "smart, connected communities," Botes explained.

"In the future, I think smart grids using cloud computing technologies will route public transport and traffic, control heating, ventilation and airconditioning, and in other

ways make citizens' lives more efficient."

'The Asia century'

Cloud computing will also help Asian governments bridge the digital divide, suggested Microsoft Asia Pacific's Regional Director for Internet Policy, John Galligan.

"The cloud is the next great leveller for digital inclusion," he said. "Lower cost of entry for businesses and citizens will enable everyone to reap the benefits of the cloud."

Calligan suggested that "the next big leap forward" for Asia is around the "human capital agenda", and that cloud would be the fulcrum on which Asia's human capital would depend.

Asian governments have an opportunity to take a lead in cloud computing, Calligan noted. "There is an historic opportunity for Asian economies to negotiate a framework that would enable open and secure trade in online services while reducing the legislative provisions and regulatory practices that inhibit the flow and storage of information within and between jurisdictions," Calligan concluded. "The dividends from embracing a connected digital economy will help promote further productivity and economic growth and establish the region as the cloud computing leader."◀



- Managing Director
FutureGov
James Smith

> The Singapore officials I talked to highlighted the ability to execute more efficiently, and to roll-out services to internal and external users. The Infocomm Development Authority of Singapore's EnVision video sharing service (see page 33) is a great, and robust, example of this. The Cloud party is just getting started.



READY FOR ANYTHING?

Do you need a national system for managing threats? How do you lower disaster recovery costs? What is the role of the private sector in national disasters? These are just some questions raised at the Disaster Management Response and Recovery Forum. Report: [Kelly Ng](#)

Of the disasters reported globally, 38 per cent of them occur in Asia Pacific. However, this region accounts for 89 per cent of disaster victims worldwide, according to a 2010 report by United Nations Economic and Social Commission for Asia and the Pacific. Total mortality from tropical cyclones and floods is the higher here than anywhere else in the world.

Sobering statistics like these are motivating factors for bringing together over 100 senior leaders in government and critical infrastructure at FutureGov's Asia Pacific's Disaster Management

Response and Recovery Forum last month. While the delegates come from varying backgrounds – such as public safety agencies, government organisations,

89%

of the world's disaster victims are in Asia

banks, airlines, etc – they share common challenges and goals for disaster prevention, mitigation, preparedness and response.

Opening the Forum, Korea's National Emergency Management Agency

Administrator Dr Yeon-Soo Park reported that the country reduced average disaster death toll by 79 per cent with its two-prong pre-emptive climate change response – strengthen the national disaster management system and its response capacity.

National information system for managing emergencies

Dr Park added that technology is a key component of the strategy. “The Korean government developed a comprehensive disaster information system for



Choy Kin Chong of Singapore's SMRT Corporation

disaster prevention, preparedness, response and recovery. Other systems include automated rainfall warning system, automated disaster damage survey system, TV broadcasting system and earthquake response system," he said.

The Taiwanese government concurred the importance of such a system to coordinate efforts. The public and respondent groups look to the government to provide timely information on the disaster situation. Besides the difficulty of gathering and verifying information from multiple sources, every resource dedicated to this is one less for recovery effort.

"How to integrate fragmented information was a major challenge for us," shared Kai-Chun Chang, Chief of Disaster Management Team, Information Centre, National Policy Agency of Taiwan.

"During the Morakot typhoon disaster in August 2009, we had an open web site platform which volunteers and the

"How to integrate fragmented information was a major challenge for us."

public could access all verified data, such as commodity collection, distribution, demand, transportation, unaccounted-for person name lists, events geographic information and so on." Before the existence of such a system, the Taiwanese government had major difficulties in feeding the various stakeholders with critical information.

Engaging all stakeholders

Speaking on the same panel with Chang was Christopher Chua, Secretary General, Red Cross Society,

Singapore. Based on Red Cross' experience in previous regional disasters, Chua highlighted the need for government to plan beyond the coordination across agencies, but how it can better leverage external assistance when the disaster exceeds national capacity.

An important stakeholder in every disaster is the public.

"We run a public education programme called SMRT Community and Emergency Preparedness programme since end 2006 which is focused on security and emergency procedures. To date, we have trained 13,231 citizens and they serve as eyes and ears of our system," revealed Choy Kin Chong, Deputy Director, Security and Emergency Planning, SMRT Corporation Singapore. The programme, which cost S\$52,180 (US\$10,000) a year, prepares the public to play a more active and effective role in identifying and reporting suspicious threats.

The private sector must be a key part of this conversation. And they were, at the Forum. Deutsche Bank Group's Victor Meyer, Cathay Pacific Airways's Robert Kent and Thai Airways's Kathy Phosrithong – all of whom head up crisis or security management teams within their respective organisations – spoke of the importance of public private partnership."◀

>secureGOV FORUM MALAYSIA

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Kuala Lumpur, Malaysia

SPEAKERS INCLUDE:



Dr. Amirudin Wahab

Under Secretary
ICT Policy Division
MOSTI, MALAYSIA



Lt Col. Husin Jazri (Rtd)

Chief Executive Officer
CyberSecurity
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Anuj Singh

Director, Global
Response Centre
IMPACT
MALAYSIA



Prof Abu Bakar Munir

University of Malaya
ICT Law Expert and
Former Advisor to the
govt of Malaysia on
Data, MALAYSIA



Prof Mohd Ridza

Research Director of the
Advanced Information
Security & Advanced
Analysis and Modeling
Clusters, MIMOS
MALAYSIA



Dr. Ali M. Al-Khouri

Director General
Emirates Identity
Authority
UAE

The Malaysian government has been more actively protecting critical infrastructures in recent years, however the information revolution has transformed all areas of government administration and information security is more important than ever before in protecting critical infrastructures. This changes the way government transacts, operates, and national defence is conducted. It has worked to centralise its national cyber security initiatives to develop, foster and maintain a national culture of security standardise and coordinate cyber security awareness and education programmes.

SecureGov Forum Malaysia 2010 will discuss the latest security threats to government information systems, as well as strategies and technologies to mitigate risk as it is identified. The forum will bring together Government cyber security experts, industry and academia to discuss on the approach to cyber security readiness, identifying vulnerabilities and developing a comprehensive strategy for overcoming those weaknesses. It will also include analysis of current priorities, policies, and programs for information security and best practices from government and industry.

www.futuregov.asia/securegov/malaysia

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Robert Ellis

Director
eLearning and Learning
Space, University
of Sydney, AUSTRALIA



Prof Eric Tsui

Associate Director
The Hong Kong
Polytechnic University
HONG KONG



Assoc. Prof. Dr Cai Yiyu

Former President
International
Simulation and
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NTU, SINGAPORE



Datin Siti Sani

Director, Educational
Technology
Development
Ministry of Education
MALAYSIA

Malaysia launched the national Smart School programme more than a decade ago. Has the initiative produced 'smarter' students? How successful has the country been in making all 10,000 schools smart by 2010?

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Coming up...



FutureGov Vol. 7.6 December 2010

ON THE COVER! NAGUIBULLAH MALIK, PAKISTAN'S SECRETARY OF IT AND TELECOM

We ask Naguibullah Malik, Secretary for IT and Telecom, Ministry of Information Technology, how IT is being used to transform Pakistan into a knowledge-based economy during one of the most troubled periods in its history.

EDUCATION BREAKS TRADITION IN CHINESE CITY

Dalian, with a population of six million, is serious about technology-enhanced learning. After spending close to US\$300 million in the last ten years, what impact has it made on students? How is it coping with the widening digital gap between its urban and rural schools?

WHAT'S THE BUZZ IN TOURISM TODAY?

Facebook, iPhone applications, WebTV, blogs. What e-tourism strategies have Asian countries adopted? Which new media tool will they look to next as competition for tourists heats up all around the world?

GREEN ICT CHAMPION LEADS CHANGE IN UK GOVT

The founder of Government CIO and CTO Council Green ICT Delivery Unit, Catalina McGregor, analyses the current eco-footprint and reveals what efforts are underway in UK and worldwide.

THE WORLD'S MOST DANGEROUS MALWARE

What are they, who's creating them, where do they come from, and what can government do to stop them?

UNICEF - DRIVING EDUCATION TRANSFORMATION IN CHINA

How does UNICEF work with the Chinese government and other key stakeholders in promoting the use of ICT in schools? UNICEF Representative Dr Yin Yin Nwe reports.

TRAFFIC MANAGEMENT

Beijing's traffic woes made international headlines last week. We ask the extent to which traffic management systems can be used to decongest the most congested of Asia's roads.

WHY THE MANILA HOSTAGE CRISIS RESPONSE FAILED

The Manila hostage crisis, which resulted in the death of eight Hong Kong tourists, offers lessons in what not to do in an emergency response scenario, say security experts. We ask what should have been done differently.

TRANSFORMING EUROPE'S POOREST COUNTRY

How the World Bank and Singapore's Infocomm Development Authority are teaming up to devise a plan to transform the government of Moldova, Europe's poorest country.



CLOUDED JUDGEMENT?

The skies are overcast, but it's not about to rain. *FutureGov's* Research Director **Raphael Phang wonders what is holding governments back on their journey into the cloud**

At the Government Cloud Forum, we heard about how cloud computing is being pursued in Canada, United States, Japan, Korea and Singapore, with each actively promoting its use. Stages of maturity vary, but cloud computing is becoming a reality for many Asian governments.

We often hear security being noted as the big obstacle to adoption. But in conversations with speakers at the Forum, it emerged that the amount of money allocated to address security in the cloud does not tally with the level of concern it elicits. In other words, there was some scepticism as to whether security was the real reason governments are being so cautious on cloud.

An alternative view is that the cloud evokes a fear of the unknown. Officials are still hazy when it comes to exactly what cloud means to them. An interesting presentation I heard

recently from a university talked about the "accidental cloud". The university was attempting to tackle an IT resource crunch that was affecting their services. Consolidation of servers and storage followed by virtualisation of these resources was done out in tandem with the transformation of how the services were being offered to customers. A form of service level agreement was also drawn up to encourage a switch to these new services. The computer centre was in effect creating a private cloud, although they did not start off doing so.

This case shows that many IT organisations may already be well on their way toward implementing their own cloud without knowing it.

Indeed, in a recent *FutureGov* survey on cloud computing in Asia, we asked government respondents to indicate the level of virtualisation in

their organisations. 28 per cent indicated that they had implemented virtualisation at the department level with a further 26 per cent saying that virtualisation occurred across several departments. This indicates that many of these respondents are already putting in place some of the building blocks for a cloud.

Just as the British science fiction hero Dr Who time travels without knowing what new adventures await him, such is the way with cloud computing. At the end of the day, whether real or imagined, security (among a number of other issues) continues to remain a key concern that prevents full implementation of cloud computing in government.

Embracing the cloud is a journey and while issues such as security will need to be adequately addressed, it should not stop governments from taking the next step towards cloud computing.<

If you are interested to learn more about the survey findings I've mentioned above, they can be found in the *FutureGov* Research report "**Asia Pacific Government Cloud Computing Trends in 2010**".

Email: raphael.phang@alphabet-media.com

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This research demonstrates for the first time the impact the economic downturn has had on public sector IT objectives in the region – and reveals that a lack of metrics and accountability remains an impediment to successful project delivery.

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