Digital inclusion

Crossing Asia’s digital divide, one child at a time

IT outsourcing in Hong Kong
Expanding government delivery capabilities

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23 No lap un-topped: digital inclusion from the bottom up
Nicholas Negroponte, Chairman Emeritus, MIT Media Laboratory & Chairman, One Laptop Per Child, talks about the role of the US$100 laptop in promoting digital inclusion.

FEATURES

16 MAKING IT OUTSOURCING WORK IN HONG KONG
Alfred Ng, Assistant Chief Information Officer at Hong Kong’s Office of the Government Chief Information Officer, explains how outsourcing expands government delivery capabilities.

20 FIJI INAUGURATES E-GOVERNMENT PROGRAMME

28 DRIVING USER PARTICIPATION FOR GOVERNMENT INTRANETS
Dr Mingu Jumaan, Director of Sabah State Computer Services Department explains the process of achieving organizational buy-in for your intranet.

32 BANKING ON INFORMATION: KM AT THE BANK OF ENGLAND
Simon Mills, Head of Information Management for the Bank of England, discusses the role of Knowledge Management at the United Kingdom’s central bank.

38 OVERCOMING OBSTACLES TO PPP IN SINGAPORE
Singapore is farming out S$1.3 billion (US$843 million) worth of projects to the private sector over the next 3-5 years, allowing it to operate big public projects. Analysis: Professor Dr Wang Shou Qing & James Tan.

46 SINGAPORE SCHOOL LEVERAGES ICT FOR GLOBAL IMMERSION
Technology is making the world a virtual classroom at Nanyang Girls High School.

56 TAIWAN’S CHALLENGES IN GOVERNMENT E-PROCUREMENT
Tze-Lung Chang, Director, Institute for Information Industry, Taiwan, sheds light on the Taiwanese experience of e-procurement.
4 COMMENTARY
A world without margins

6 POLICY
Chinese government to consider the standardisation of electronic files; Telecom Minister predicts Vietnam’s ICT investment floodgates to open; MAMPU sees 30 per cent reduction in upfront costs from open source projects; ICT Agency loses CEO, but moves ahead with govt computerisation; China initiates 4G mobile standardisation; US$31 million loan from South Korea to build IT network in Cambodia; Community centre project to drive e-government access in Fiji; Malaysian State Assembly puts more expenditure on science and technology education; Programme to develop Singapore’s government IT manpower; US$800 million for Saudi Arabia’s e-government project; New Zealand’s government relaunches its e-strategy; Kazakhstan e-government formation issues discussed.

15 IMPLEMENTATION
Hong Kong awards contract for operation of e-Cert services; Singapore’s polytechnic sets up enterprise computing learning centre; New electronic procurement system for Thailand; Securing Singapore’s e-passports; Canadian public libraries turn page on internet access; New smart card identification introduced to Thai citizens; India’s Karnataka State to establish e-procurement platform; Ministry launches Jordan’s e-government project.

30 NETWORKS
Canada’s PPP helps Kamloops showcase wireless services; Taiwan island’s first integrated local government WIMAX network; Wellington, New Zealand, deploys WiMax; Singapore’s Free Wireless@SG to be launched one month ahead of schedule; Free Wi-Fi planned for cities in New South Wales, Australia.

49 TECHNOLOGY
China-Japan-Korea robot technology seminar in Beijing; Children’s hospital ERP improves patient care in the United States; New municipal wireless solution released; SAP framework for ROI promotes better governance; Enterprise solutions not suitable for administrations in developing countries?; New Security Risk Management Strategy for government.

52 SUBSCRIPTIONS

55 CALENDAR
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A world without margins

As you can see from the cover, this issue profiles part of the work of Nicholas Negroponte, and the One Laptop Per Child consortium he heads, to enable children in the developing world to participate in the global conversation and become change agents for their societies.

Awais Ahmad Khan Leghari, Pakistan’s Minister for Information Technology, has come out to endorse the aims of the One Laptop Per Child consortium, adding his voice to a growing chorus of top policy makers in the region: “The government is keen to use IT as a tool to facilitate the process of learning at the school and college level and the introduction of low-cost laptops would act as a catalyst to revolutionise the whole concept of education,” he said, following a demonstration of what the little multicoloured laptops can do.

At the moment there are only just under 900 of the laptops in circulation, produced by Quanta Computer, the Taiwanese company that is the world’s largest manufacturer of laptops. But China, Indonesia and Thailand are amongst the first wave of countries gearing up to distribute the first 15 million units of the US$100 laptops.

As Negroponte makes clear in his featured commentary, these aren’t dumbed-down cheap and nasty devices. Actually they are highly-engineered, very rugged and single-mindedly fit-for-purpose. I was amused when Negroponte told me that he had done away with his pet hate: the ‘Caps Lock’ key on the keyboard in order to avoid ACCIDENTAL UPPER CASE SENTENCES LIKE THIS.

But it’s a measure of how well designed they are that the laptops “use flash memory, eliminating a disk, has no need for a fan, uses a rugged LED backlight rather than a fluorescent light, and uses a sealed rubber keyboard”. And I particularly like the fact that the devices will come suited and booted for mesh networking – something which enables these laptops to act as full-time wireless routers. Even when the laptops are switched off, the mesh networking will still function provided there’s sufficient juice still left in the battery.

I think about how my laptop, and the internet in general, has set me free as a knowledge worker - and then I scale that technological impact out across the millions of children at the bottom rung of the opportunity ladder, and you start appreciating what a profound impact this will make – whether you live in the rich world or not.

My ageing relatives are on the wrong side of the digital divide, probably yours are as well. The poorest members of all our societies are counted amongst the digital have-nots, whether you’re in the United States, South Korea or India. So just think how mobility, connectivity and applications will be able to widen the horizons of societies’ most marginalised.

That’s why governments, NGOs and the solutions provider community have a lot to learn from one another. And that’s why, as our modest contribution to this need for discussion, we’re launching the Digital Inclusion Forum next year as a means of drawing together regional perspectives from both private and public sectors (see page 22).

We at Public Sector Technology & Management have had a great 2006 bringing the magazine to you, and meeting you at our events. I hope that by keeping you connected to the activities of your regional and international peers we were able to contribute positively to your year as well.
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CHINA

Government considers standardisation of e-files

The Chinese government is to set up a committee to consider the standardisation of electronic files so they can adapt to different software, according to the Ministry of Information Industry (MII).

Electronic files created by different software are not inter-adaptable, which hampers the communication and sharing of information.

"With the fast development of information technologies, electronic file information, including design blueprints, geographical information, electronic documents and archives information, have become increasingly important," said an official with the MII.

Today, governments are burdened with electronic file challenges such as rising demand for more and higher-quality digital content, the increased need to share data with partners, employees, and customers on a global basis, the greater emphasis on collaboration and collaborative tools, as well as business intelligence-related tools to increase the intelligence and adaptability of operations and the need to download large files – files that can take a very long time and are not transportable via email.

However, the lack of a standard system hindered the circulation of information, with many electronic files confined to more than 10,000 formats. Occasionally different versions of the same product were incompatible with each other. In most cases the ruptured information flow was monopolised by very few big companies.

He said the research and development of electronic file technologies and standardised systems had made it possible to advance the communication and sharing of electronic file information.

Recommended link:
Ministry of Information Industry
www.mii.gov.cn

VIETNAM

Telecoms minister predicts opening of ICT investment floodgates

Vietnamese Minister of Post and Telematics Do Trung Ta has predicted strong foreign investment in information technology and telecom next year.

Speaking with the press on the sidelines of a meeting of Asian and European Information and Communications Technology (ICT) ministers in Hanoi, he said he based his forecast on the fact the country had become a WTO member.

In its commitments to open up the sector for acceding to the WTO, Vietnam has pledged to allow foreign companies set up joint ventures.

Foreign companies will be able to partner telecom service providers with developed network infrastructure given their share does not exceed 49 per cent.

In joint ventures with Vietnamese companies without infrastructure, they can hold 60 per cent in the initial stage and increase it later on without limit.

In 2006 foreign direct investment in the telecom sector reached US$1.8 billion, of which the US’s Intel Corp alone contributed US$1 billion.

Recommended link:
Ministry of Post and Telematics
www.mpt.gov.vn

MALAYSIA

MAMPU sees 30 per cent reduction in upfront costs from open source projects

The Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) is ready to move into the second phase of its open source initiative, in order to expand the use of open source software (OSS) by government agencies.

Open source refers to practices in production and development that promote access to the end product’s source materials - typically their source code. Some consider it as a dogmatic philosophy, others more pragmatically as a futher software licensing choice.

MAMPU says that those government agencies deploying OSS have seen savings of up to 30 per cent on their upfront deployment costs. OSS is generally free to use, under certain conditions, resulting in low initial acquisition costs. However longer term, when support and personalisation costs kick in, much if not all of those savings disappear.

According to Dr Yusseri Yusoff, OSS Consulting Project Director, MAMPU, OSS implementation has enabled the government to address increasing licensing fees and constant upgrades of proprietary software. Yusoff said the first phase of the initiative, which took two and a half years, covered areas such as portal and content management, as well as web and email servers and security tools — and that MAMPU managed to lay a foundation for future OSS adoption, such as formulating policies, OSS technical implementation plans, setting up the Open Source Competency Centre (OSCC), design and launch of national awareness programmes, and establishing a research and development governing framework.

Following this success, MAMPU is ready to move into the second phase of the initiative, which is to expand the use of OSS in more government agencies.

"Over the next three years, the OSS initiative will move a step ahead, where the completed four pilot projects under Phase One will be replicated at selected government agencies," Yusseri revealed.

Under this phase, implementation will see OSS usage extended to areas such as operating system virtualisation, monitoring tools, workload schedules, collaborative tools, e-learning, databases and development tools.

Yusseri said MAMPU is looking at monitoring local OSS adoption progress through predefined KPIs. There are also plans to start bilateral initiatives with countries adopting OSS, he added. On the OSCC, Yusseri asserts that the centre will continue to help coordinate and monitor OSS implementation in the public sector, including positioning Malaysia as a ‘world-class OSS hub’.

Recommended link:
MAMPU
www.mampu.gov.my
Initiative for Software Choice
www.softwarechoice.com
The face may have changed at the top of the ICT Agency of Sri Lanka, following the abrupt departure of Manju Hathotuwa from his position as Chief Executive Officer, but the organisation’s mandate continues much unchanged.

Hathotuwa, was widely respected in the regional government ICT community as a thoughtful consensus builder, and displayed considerable humour during his tenure at the agency.


E-Sri Lanka focuses on the use of IT to improve governance, reduce poverty and improve the quality of life of Sri Lankans.

Since the CEO’s departure a new programme, Vidatha, has been launched to provide technology and digital know-how to the small and medium sized employers in rural areas with a view to improving their IT literacy.

In the absence of the experienced Hathotuwa, the task of supervision and implementation of the new ‘Vidatha’ programme has been entrusted to the Science and Technology Ministry.

According to Minister Tissa Vitharana, action is being taken to set up a ‘Vidatha’ Resource Centre in each divisional secretary’s area. 150 centres have been established to date.

“By end of 2007, we look forward to be able to realise the set target of 300,” Vitharana assured. “The President’s ‘Mahinda Chintanaya’ policy envisages a new era for Information and Communication. The Information Communications and Technology Agency (ICTA) was tasked with the responsibility of implementing the e-Sri Lanka Development Programme among other ICT developments.”

ICTA reports directly to the Office of the President, and was established to enable the Sri Lankan government to implement the e-Sri Lanka Development Programme among other ICT developments.

Its role is to facilitate the integration of the entire government network into one organic whole for information technology.

ICTA also took a leadership role in the wake of the Indian Ocean Tsunami in December 2004, establishing ad hoc ICT systems that enabled the authorities to coordinate relief and recovery efforts. In addition, an E-Social Development Fund has also been established by the ICTA for the benefit of the low-income youth groups, students of the disabled.

Recommended links:
Ministry of Science and Technology
www.most.gov.lk
Information Communications & Technology Agency
www.icta.lk

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www.most.gov.lk

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www.icta.lk
Reducing the risk and improving the governance of Linux migration

Financially alluring but technically challenging, Mark Manners, Director of Hewlett-Packard’s Open Source Linux Organization, explains how government agencies can partner with HP to get more predictability out of their Open Source Software programmes. Interview: Eric Brooks.

The performance and stability of Linux are widely trumpeted; compared to proprietary operating systems, it performs the same tasks and runs similar applications whilst using less processor power, memory and computer time. The gap between Linux’s great potential and the less overwhelming track record of deployment has always been attributed to a lack of technical support. This deficiency is something felt particularly acutely by the public sector, where every individual agency’s legacy of applications, servers and platforms can require unique integration solutions.

Mark Manners, Director of HP’s Open Source Linux Organization & Cooltown Innovation recalls that “five years ago, Linux was gaining momentum at the edge of networks. Now CIOs and IT directors are saying, ‘we’re already getting value from Linux at edge of network and now we have to look at it more strategically’. The cost benefits are known but now we want to get better performance by bringing it to the heart of the enterprise. So while Linux’s value proposition at the edge of networks has been pretty well defined, interest from other areas is now coming in as well.”

And Linux has made some significant inroads. Governments as diverse as those of China, Germany, Malaysia, a number of European cities and Singapore’s Ministry of Defence chose Linux as their primary platform, in some cases even deploying it on user desktops.

Manners adds that, “in government, open source is being used in areas like patient management systems, and digital hospitals.”

But most public sector CIOs continued to take a very conservative approach to Linux – and for a good reason: according to a Forrester Research survey, 60 per cent of respondents cited a lack of support for Linux as preventing them from migrating to it.

Manners explains that, “Policymakers are interested in Linux but there is a major issue of how they integrate it and support it afterwards.” He adds that, “Getting Linux to run is easy. The challenge lies in integrating with your accumulated body of applications.” Managing the world’s largest collections of legacy IT assets and sensitive information, public sector CIOs are both tempted and put off by Linux’s performance characteristics, lower costs and technical conundrums.

Sensing the potential to bridge the gap between Linux’s advantages and its implementation in the public sector, HP has put Linux at the core of its government solutions. Offering government Linux migration solutions in Red Hat, Novell and Red Flag versions of Linux, Manners explains that HP offers several services that provide government departments an easy road to Linux’s advantages. First of all, “There’s always going to be compatibility issues with old systems and their legacy code and this is why we developed a middleware stack.”

Complementing the middleware stack are DIY guides designed to mitigate the risks that typically accompany new deployments. Manners adds that, “If you’re a typical CIO, you want to know what support you’re getting so this middleware stack helps to port Linux into legacy systems. We’ve also been investing heavily in our services capability.”

The second leg of HP’s public sector Linux migration strategy is a strong, standardised governance process. The vast, Byzantine nature of public organizations means that government sector CIOs often do not know all the areas where they are already using Linux. In addition to preventing the waste of time and resources in such redundant instances, Manners comments that, “Compliance involves legal aspects and we believe that is a big area in the government space.”

Once a full accounting of IT assets has been conducted, bringing Linux from the periphery of your enterprise system to its core requires a fundamental redesign of its architecture. Manners explains that, “a lot of government sector customers say that they have some form of Linux at various levels of their organization but they now want to integrate it into an architectural
design. To do this, we offer one or two day workshops. We start mapping out from there how we create a strategic architecture that meets the unique needs of their organization."

Manners elaborates that, once HP has created a rational, customised migration strategy, “That moves us into building blocks such as middleware stacks. This involve, everything ranging from consulting, training, project management, training and porting to the actual migration.” Doing a successful, efficient porting often requires HP to assume a middleman role between its government customer, and the large software providers such as Oracle and SAP. We are seeing more of these bigger partners getting on board and all the major players are in.”

Indeed, Manners considers HP’s intermediary role to be an important part of its value proposition. With its international experience and numerous partnerships with both large and small companies, HP is uniquely positioned to create secure niches for ecosystem partners. He explains that, “If you roll-out a nation-wide or state-wide implementation, a lot of governments become concerned that the smaller partners cannot manage it but in the case of HP, our size and depth creates a secure ecosystem where ISVs can effectively fill in critical niches.”

Aside from having years of experience with open source platforms such as Linux and its UNIX predecessors, Manners cites several other value propositions that HP brings to a government sector migration to Linux. Firstly, from the perspective of an individual military or finance department CIO, migrating to Linux is a one-off, once in a life time affair. Methods cannot be refined through practice nor are there any previous implementations to compare against.

With decades of experience in rolling-out government sector solutions, HP brings an entirely different perspective to the same project. Manners states that at HP, “You build up this expertise and knowledge of how to do it and then leverage it to other countries.” For HP, unlike the internal IT staff, migrating to Linux is not a one-off, non-repeatable action but something that has been honed over many years of implementations in different countries and situations.

Perhaps the greatest impact of HP’s Linux migration solution is the permanent body of Linux trained internal IT staff it leaves behind. In this sense, governments like Linux because a new body of IT skills is built up in their country – partially funded by the royalty payments that no longer have to be sent to proprietary software vendors that are based overseas.

A government’s Linux-empowered IT staff can declare permanent independence from software vendors. They are now part of a large, international open source community that steers the destiny of applications while adapting them to the unique needs of their respective countries.

Moreover, once you have migrated to Linux, the days of enduring years of delays for the next software update are over, asserts Manners: “Application development is very fast because it is not one company running the application development but a whole community so development cycles are fast.”

“Governments also like Linux from a security point of view, as they can view and, when necessary, alter the source code,” explains Manners. “If you’re military, you want to see the source code; you don’t want to just take [the software proprietor’s] word for it. They can check Linux’s source code and change it when they want to. That is why security conscious departments such as revenue and home affairs are usually among the first to migrate to Linux.”

Given all the advantages a Linux migration offers Asian governments, Manners does raise a note of caution: “The idea it is free is simply not true. If you want the support and reliability, there are problems involved. Especially in government, they say ‘why should pay for something that is free?’ But if you want it tested and certified, it is not free.” It is just that in the case of Linux, there appears to be a definite case that the long run benefits completely outweigh the short-term costs.

Manners concludes that, “It’s not just technology and processes. The key value proposition is open source middleware stacks with pretested reliability plus training and a governance process.”

**Know More:**

For more information, Contact: Alvin Chan, Regional Marketing Manager, HP
Email: alvin.chan@hp.com
Web: www.hp.com/apac/publicsector
China initiates 4G mobile standardisation

4G supports Open Wireless Architecture (OWA) which is a big movement from 3G technology.

One of the most important special programmes is to construct an open-architecture based broadband wireless (including mobile) communication system to meet the nation’s future ICT infrastructure development. Same as open computer architecture in the computer industry and open network architecture in the internet era, the wireless industry is rapidly transitioning from proprietary and closed architecture to more flexible, extensible, cost effective Open Wireless Architecture (OWA) systems. This transition is creating interesting challenges for developers, manufacturers, integrators, operators and end-users as they wrestle with complexities of open wireless systems.

As too many wireless systems come out every day, the current closed architecture and proprietary systems do not bode well for its success, therefore open wireless architecture platform will definitely drive the future wireless and mobile communications.

Fourth Generation (4G) mobile communication will basically focus on the Open Wireless Architecture (OWA), and Cost-effective and Spectrum-efficient High-speed wireless mobile transmission.

China is on the way to evolve from a ‘Made-in-China’ country to a ‘Developed-in-China’ country by year 2020, and 2007 is a global year of 4G initialisation because ITU WRC’2007 will launch the 4G programme as well as spectrum allocation of the industry. As per China long-term development plan in ICT, the China initial 4G networks will be deployed in early 2012, and the 4G industrial standards will dominate in this emerging market.

Recommended link: Fourth Generation Mobile Forum
www.4gmf.org

Community centre project to drive e-government access

The Fiji government is planning a dramatic extension of e-services to the wider population, and is looking to leverage existing public sector infrastructure in order to take its services to the wider population.

The first stage has been the delivery of computers and peripherals to the country’s libraries and schools.

These will act as computerisation ‘nodes’ within the community. Currently the internet connectivity penetration is only 6 per cent in the country.

Josaia Gucake, Deputy Mayor of Suva, the nation’s capital, said that this programme was an important milestone in Fiji’s path towards a computer literate society.

The initiative will enable the Suva community to access information.

Known locally as the ‘e-Community Learning Centre Project’, this is being administered in partnership between the Ministry of Education Youth and Sports and Information Technology and Computing Services.

Education boss Alunita Taganesia, in a statement, said that the first e-Community Learning Centre had proven to be very successful.

She noted that the Nadogo e-Community Learning Centre faced difficulties in providing GOVNET internet and email service because of the poor telecom landline service.

ITC has since managed to secure funding to setup its own ‘V-Sat Dish’ to facilitate the installation of GOVNET internet and email service and not to rely on telecom landline service.

“Of the 12 school based e-Community Learning Centres Projects selected for 2006, all of them are in full operation now,” Taganesia revealed.

The five school based e-Community Learning Centres that have V-Sat installed have the following equipments on site; personal computers, duplex printer, 1 V-Sat Dish and 1 V-Sat Router which are connected back to ITC Suva.

The services available in the five school based e-Community Learning Centre are, internet browsing on the world wide web, GOVNET internet browsing and services, email services and GOVNET email address for each e-Community Learning Centre.

“This partnership is evidence of Government’s commitment to ‘e-governance’ and the Ministry of Education would endorse initiatives like e-Learning Centres as initiatives of this nature would enhance learning of students in these areas as well enable grass root people of our communities to acquire valuable information which they could use to improve their lives,” Taganesia disclosed.

Recommended link: Ministry of Education
www.education.gov.fj

US$31 million loan from South Korea to build IT network in Cambodia

South Korea is stepping up its technology assistance efforts in Cambodia with a view to deepening inter-government e-government ties, according to an announcement from the office of the South Korean President.

President Roh also met separately with Chea Sim, President of Cambodia’s Senate and acting head of state, for similar discussions.

Following the summit, the Cambodian cabinet ministers signed an Economic Development Cooperation Fund (EDCF) arrangement binding the South Korean government to disburse an additional US$31 million in EDCF money to help finance the Southeast Asian country’s construction of an administrative electronic network, called the Province Administration Information System (PAIS).

The PAIS project calls for building a high-speed e-government network linking Phnom Penh with two other major Cambodian cities.

Apart from the soft-loan agreement, Roh agreed to further expand his government’s invitation to young Cambodian workers to come to South Korea for industrial IT training.

Over the past decade, bilateral trade has tripled and South Korea’s investment in Cambodia has increased six-fold. The Cambodian economy grew 13.4 per cent last year, following a 10 per cent growth in 2004.

South Korea has been particularly active in promoting its homegrown e-government expertise (see p 37, ‘E-government for export’, PSTM January 2005).

Recommended link: Cambodian Investment Board
www.cambodianinvestment.gov.kh
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www.urbandevelopmentasia.com/municipalwireless07

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E-administration a key focus for moves to advance cause of IT in Terengganu

Menteri Besar Datuk Seri Idris Jusoh has declared 2007 to the Science and Technology year during the tabling of the State Budget.

His interpretation of science and technology extended beyond the IT industry itself to include the public administration such as agriculture, tourism, social and welfare, and religious administration.

“The focus will be on maximising science and technology in development. It will be used as a catalyst for the development of all sectors,” he explained.

Efforts will not be spared to encourage innovation and to add value so that new findings, approaches and activities could be undertaken.

“Innovation will be the measurement to gauge our strength to compete,” the Menteri Besar said.

To turn this vision into reality, the Menteri Besar said the government will allocate US$41.2 million or nine per cent of the budget for science and technology.

In the development of skilled manpower, Idris sees the demand in creative multimedia being in line with the government’s plan to develop the Multimedia Super Corridor for the east coast.

“Creative multimedia and animation had a bright future. It is an industry which has been valued at US$644 billion, the Menteri Besar added. “Our effort is not just to create jobs for our youths but to equip them with skills and knowledge that will enable them to compete globally, apart from contributing to the state’s economic growth.”

Programme to develop government IT manpower

A new programme has been set up to help develop public sector workforce skills to deliver, support and use next generation public sector information technology.

The iNspire Academy is brought up by two tertiary educational institutions in Singapore – Nanyang Polytechnic (NYP) and Singapore Management University (SMU) in partnership with HP. The programme takes its name from iNspire team, the HP-led consortium bidding for the Singapore government’s S$2 billion (US$ 1.26 billion) IT outsourcing Standard ICT Operating Environment (SOE) outsourcing tender.

Announced last year, SOE aims to standardise the desktop, network and messaging system used by 60,000 civil servants in Singapore and four consortia are bidding for the tender. With NYP, iNspire Team will develop and deliver training and certification in IT Service Management (ITSM) to technical professionals from both private and public sector. ITSM, provides everyone a common language and process-based approach to use in planning, developing and documenting large-scale outsourcing projects such as this, helping to simplify and standardise IT processes.

“NYP recognises the increasing importance of ITSM capabilities in the ICT industry, and has been actively working with industry partners to develop solutions for companies to support IT service processes and functions, ICT infrastructure & application deployment, and performance management,” says Edward Ho, Depute Principal for Technology, Nanyang Polytechnic. “Our collaboration with HP allows us to pool resources and expertise in developing ITSM programmes, and provide in-depth training for students and industry professionals.”

Aimed at senior executives in the civil service, the SMU curriculum will have a special focus on strategic change management.

Managing change on many fronts is critical to ensure a smooth transition in the projects like the SOE project, in terms of business processes, technology, organizational model, human resource issues and customer management.

“With the support of the SMU Lee Kong Chan School of Business and the School of Information Systems, SMU is well-positioned to facilitate the training of senior executives in strategic change management. Together with HP, our industry partner, we hope to contribute to the development of public sector information technology,” says Associate Professor Annie Koh, Dean, Office of Executive Education, Singapore Management University.

Academy training will focus on issues crucial to the success of IT implementation, such as IT service management, change management, process innovation, and people and market development.

Recommended links:
- Malaysian Science and Technology Information Centre
  www.mastic.gov.my
- Terengganu State Government Portal
  www.terengganu.gov.my/c5/bi

Recommended links:
- Ministry of Communications and Information Technology

SAUDI ARABIA

US$800 million for 150 service e-government project

The rapidly growing business and industrial activities in the Saudi Arabia stress the increasing need for the implementation of advanced systems such as an e-government programme in the kingdom, Arab News reported.

The Council of Ministers allocated recently US$800 million to implement an e-government project by 2011.

The project aims to bring 150 government services with 1000 subsidiary services offered by 40 government departments under an e-government system.

At the conference, IBM vice president of Value Creation and government team leader for Northeast Europe emphasised the significance of an e-government system for the Saudi Arabia all-round progress.

An official said that IBM successfully assisted more than 150 countries in offering e-government solutions.

He expressed his optimism in implementing the system in the Kingdom in its second phase, which would have the advantage of rectifying several negative aspects in the first phase of implementation.

However, Saudi Arabia and other countries in the Gulf region are passing through a stage of sustained growth in terms of economy and population, which are the two basic factors in the success of e-government programmes.
The Asia Pacific Health Collaboration delivering integrated digital hospital solutions

Cisco, HP, Intel and Microsoft recently announced the Asia Pacific Health Collaboration (APHC) – a joint effort designed to accelerate digital healthcare transformation throughout the Asia Pacific region. These industry leaders together with healthcare solution providers will deliver integrated, cost-effective technologies and solutions based on open industry standards to transform healthcare organizations in the region.

A key component of the Collaboration is the “Health Challenge” – intended to encourage healthcare organizations and their technology providers to solve business problems within the medical environment using IT. The winners of the challenge will receive US$80,000 worth of hardware, software and professional services to help make their innovative idea a reality.

The Health Challenge

Hospitals across South East Asia can submit proposals for innovative IT projects, for a chance to win US$80,000 towards a digital upgrade. Interested hospitals can contact Belinda Noakes – bnoakes@microsoft.com – with any questions about potential project proposals or any aspect of the Challenge.

Project Ideas

A range of problems commonly found in clinical environments could provide a basis for an innovative technology project – for example:

- Relying on time-intensive, paper-based processes which are prone to error
- Dealing with ageing or incompatible IT systems
- Critical patient information locked up in paper or “silo” information systems
- Repeating tests because patient lab results are not accessible
- Spending too much time hunting for paperwork and films
- Having trouble locating critical staff members or equipment in emergency situations

These types of problems can be addressed using technologies and solutions such as:

- EMR and document management systems
- RFID
- PACS and Medical Archiving solutions
- Integration of silo systems
- Mobile devices & wireless access to data

Terms & Conditions

All applicants must agree to the Challenge terms & conditions, including:

- The projects proposed must include solutions from all four of the founding members of the APHC, and not include solutions from their direct competitors
- Hospitals or healthcare organizations in Singapore, Malaysia, Brunei, Indonesia and Thailand are eligible to enter
- The winner must be prepared to be a showcase site

Full terms & conditions are available at www.APACHC.com

Proposals

Proposals must be submitted in English using the template downloadable from www.APACHC.com and must cover the following areas:

- Why your organization deserves the award
- Details of your critical business problem, including metrics around business processes
- Details of the technological solution that you are proposing
- Details of the solution providers, including their role and technology contributions
- Details of the total projected budget and expected return on investment for the project

Judging

All submissions received by 10th February 2007 will be considered by the panel of judges with representation from the founding members of the APHC (Cisco, HP, Intel and Microsoft). There may also be one guest judge. Entries will be judged on:

- The significance of the business problem selected – both to the entering organization and to the rest of the industry
- The level of innovation in the technology solution proposed to solve this problem

For more information on the Challenge and to download a proposal pack, interested hospitals can visit www.APACHC.com or email Belinda Noakes – bnoakes@microsoft.com

The Asia Pacific Health Collaboration

The APHC aims to combine innovative technology solutions to change the way healthcare is delivered and will enable healthcare organizations in the Asia Pacific region to benefit from innovative digital healthcare solutions.

The joint effort draws on each company’s best practices and cross-industry experience to enable healthcare organizations to strategize and deploy innovative solutions to address current healthcare IT challenges. Working together, they can help healthcare organizations lower costs, integrate information silos, shorten waiting time and improve patient safety. Each company in the APHC provides proven technologies and solutions that facilitate an integrated healthcare ecosystem:

- Cisco: offers powerful enterprise software for delivering on the promise of collaborative healthcare, including an entire software platform from the data center to the point of care. Cisco’s architectures and designs scalable, reliable platforms underlying many of the powerful systems used in today’s digital hospitals – from Tablet PCs and hand-held devices for information at the point of care, to robust back-end servers that house massive hospital information systems and huge files such as digitized images.

- HP: develops powerful, innovative hardware infrastructure including Tablet PCs, PDAs and servers based on the Intel architecture, which are deployed at the front- and back-end of many hospital systems. HP also provides medical imaging solutions: cost-effective, scalable storage solutions for medical images and documents.

- Intel: develops powerful, innovative hardware infrastructure including Tablet PCs, PDAs and servers based on the Intel architecture, which are deployed at the front- and back-end of many hospital systems. HP also provides medical imaging solutions: cost-effective, scalable storage solutions for medical images and documents.

- Microsoft: offers powerful enterprise software for delivering on the promise of collaborative healthcare, including an entire software platform from the data center to the point of care. Microsoft operating systems, database, server and communication technologies enhance the robustness of the solution through end-to-end integration.

Know More:

For more information on the Asia Pacific Health Collaboration, visit www.APACHC.com
NEW ZEALAND

Government relaunches its e-strategy

The Government has tweaked its e-government strategy for the third time to try to provide greater clarity about the results it hopes to achieve.

This third update of the e-government strategy builds on the progress made over the last five years, and the launch of the Digital Strategy and Development Goals for the State Services in 2005 - both have changed the strategic environment for e-government.

Recent moves to encourage the delivery of faster, cheaper broadband have also provided an impetus to use network technologies to encourage innovation and add value.

The 2001 E-government Strategy, together with the 2003 review, highlighted the ways government could use the Internet to increase the value of services it provided to New Zealanders. Government agencies have increased their focus on the Internet as a channel for publishing information, and for delivering interactive services.

Central and local government agencies are now working together to deliver transformed services which link services provided by different parts of government. This collaborative service delivery provides further opportunities to reduce compliance costs, improve effectiveness, and in the process, improve user satisfaction and the value they receive. This collaboration is expanding to include all levels of central and local government as services are designed and delivered to meet users needs.

But the transactional nature of providing government information and services to New Zealanders is only one aspect of e-government. Equally important is the growing part people are playing in policy development and delivery, and in contributing and using information.

It has added a new goal of transforming people’s engagement with government by 2020 as increasing and innovative use is made of the opportunities offered by network technologies.

Much has changed since the Government’s first ‘e-government vision’ in May 2000 - not least the bursting of the dotcom bubble and the abandonment in 2003 of a flagship multimillion dollar project to build a centralised system that would have let government agencies buy from suppliers over the internet.

State Service Commission Deputy Commissioner Laurence Millar says e-government initiatives remain relevant.

“New Zealand can’t afford anything other than world-class government. We have a number of challenges, such as distance and our small population, and we need low-friction, low compliance, and efficient government,” Millar stressed.

Millar is responsible for overseeing the execution of the country’s e-government programme, and has overseen the pan-government ICT coordination efforts of the State Services Commission since the launch of the Achieving E-Government strategy document in 2004 (see p.20-23, ‘Building New Zealand’s e-government ecosystem’, PSTM January 2005).

According to Millar, governments worldwide are finding it hard to adequately measure ‘transformation’ and there is therefore considerable interest from other OECD countries in New Zealand’s approach.

The latest e-government strategy asks 15 questions of agencies, such as - whether people can easily get information they need and don’t need to provide the same information to one agency that they have already provided to another.

As part of the new strategy, also asks whether government workers put ‘getting results for New Zealanders’ ahead of the interests of the agency for which they work.

KAZAKHSTAN

PM takes the lead in laying out e-govt roadmap

A regular session on realisation of the state programme on Formation of e-government has been held at Ukimet Uyi. It was chaired by Kazakhstan Prime Minister Daniyal Akhmetov.

Realisation of a comprehensive plan for 2007 on reduction of information inequality will define future of the State programme, Akhmetov noted while learning the detailed document.

According to specialists, about 590,000 people will go through computer training programmes by the end of next year, including government employers, workers of state-financed organizations, military men, nurshings from orphan asylums and labourers of extra-budgetary spheres.

Next year summer schools plan to involve more than 1000 teachers and 2000 university students specialised in IT to train Kazakh nationals. According to Deputy Chairman of Kazakhstan’s Agency on Informatisation and Communication.

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**HONG KONG**

**Contract awarded for operation of e-Cert services**

Hong Kong Government has awarded a contract to operate the e-Cert services for four years beginning from 1st April 2007.

The company whom the contract was awarded to, E-Mice Solutions (HK) Limited, will be responsible for the full operating cost in providing the e-Cert services and is entitled to receive subscription and renewal fees from e-Cert subscribers. The level of e-Cert services provided to the public, including the service outlets and service hours, will be unaffected after the contractor takes up the service in April, 2007. The e-Cert fees will also remain unchanged.

At present, the Hongkong Post Certification Authority has issued about 1.54 million personal and organisational e-Certs, including 1.26 million free personal e-Certs embedded in smart ID cards.

A spokesman for the Office of the Government Chief Information Officer said that the objective of outsourcing the e-Cert operation was to generate a self-financing public certification authority (CA) operation and to further drive the utilisation of e-Cert.

The company proposed a number of value-added services in its tender proposal as part of its business plan for generating a self-financing public CA operation.

“While the Government welcomes the contractor’s proposed value-added services, they are subject to separate discussions and agreement to ensure that all such services riding on the e-Cert comply with the Electronic Transactions Ordinance, the Code of Practice for Recognised Certification Authorities, government security rules and regulations, as well as privacy requirements under the Personal Data (Privacy) Ordinance, in addition to the terms and conditions of the contract.

“Any value-added services that may be provided by the contractor will be done under its own brand name and distinct from the e-Cert operation. Consent of the e-Cert holders will also need to be sought on whether they wish to receive information about these services,” the spokesman said.

The spokesman noted that with the award of the contract, the Government remained the owner of the e-Cert scheme and data, and was responsible for monitoring the contractor’s performance during the contract period.

“In preparing the tender, the Government has conducted a Privacy Impact Assessment and consulted the Privacy Commissioner to ensure that adequate measures are included in the contract conditions to protect the personal data privacy of e-Cert holders.

**SINGAPORE**

**Polytechnic sets up enterprise computing learning centre**

Singapore’s Republic Polytechnic announced the establishment of the S$86.3 million (US$4.05 million) Enterprise Computing Learning Centre.

This investment aims to train students and IT practitioners in mainframe technology. The Centre includes provision of training curriculum, materials and resources and collaboration opportunities with mainframe end users. The centre will house a system mainframe that will be used to train selected diploma students from the School of Infocomm Technology and to offer continuing mainframe education to industry practitioners over the next three years.

RP is embarking on this initiative to address the skills shortage in mainframe professionals locally and globally. The RP Enterprise Computing Learning Centre will run curriculum modules related to operating systems and data centre management of large-scale enterprise computing infrastructure. Such enterprise computing infrastructure is crucial to the back-end operations of large organizations such as banks and government organizations.

Commenting on the establishment of this centre, Mervin Beng, Director of Republic Polytechnic’s School of Infocomm Technology said, “RP will offer exposure to mainframe computing technology, including training on System z Operating Systems (zOS) curriculum. We have received industry input that there is a healthy demand for graduates who have some hands-on experience on mainframes. This initiative will provide our students a strong edge when seeking employment in industry.”

The centre will be the first in Asean to offer this training, and the second in Asia, outside of China. It will take in both students and industry professionals alike.

“There is, in fact, a shortage of skilled mainframe professionals globally. As the current generation of IT executives retire, there will be a void that needs to be filled,” added Beng.

RP will tap on the System z Worldwide Academic Initiative Programme and will be among the 266 global community colleges and universities that offer training in mainframe technology. The Academic Initiative programme aims to fill the marketplace with new mainframe talent.

— Recommended link: Singapore Polytechnic
www.sp.edu.sg

“It is clearly stated in the contract that all e-Cert data is owned by the Government and the contractor will only be allowed to use the personal data of e-Cert holders in performing its obligations under the contract for the provision of e-Cert services,” the spokesman stressed.

After conducting a review on the e-Cert scheme in mid-2005, the Government has come to the view that the current mode of operation of the public CA, which required substantial funding support from the Government and Hongkong Post’s cross-subsidisation from its postal services, was not sustainable in the longer term.

To explore possible synergy with the private sector, an open tender was issued in June this year to invite proposals from the private sector to run the e-Cert services and come up with new value-added services/businesses to generate a self-financing public CA operation, and to further drive the utilisation of e-Cert.

— Recommended link: Office of the Government Chief Information Officer
www.oegi.gov.hk
Making IT outsourcing work in Hong Kong

Alfred Ng, Assistant Chief Information Officer at Hong Kong’s Office of the Government Chief Information Officer, explains how outsourcing expands government delivery capabilities. Interview: Jianggan Li

Outsourcing is also one of the major tools under the Hong Kong government’s Digital 21 Strategy which builds on the solid foundations the government has established for leveraging IT to position Hong Kong as a leading e-business community and global digital city.

According to Alfred Ng, Assistant CIO at the Office of the Government CIO (OGCIO), there are a number of factors that have contributed to the take-up of outsourcing in the former British colony. “There are three main reasons. The first one is simply to enlarge our delivery capacity. Second to that is the need to accelerate our pace of system delivery, and then finally the third reason is to foster the development of the IT industry.”

Over the years, the OGCIO and its predecessor agencies have been outsourcing a number of different forms of IT activity to the private sector - including one-off application development, ongoing systems maintenance, and even some non-core IT-related business functions.

“We have limited resources, and we have a lot of IT projects to accomplish, so we need to outsource our projects, so as to enlarge our delivery capacity,” says Ng, elaborating on the first reason.

Similarly, through outsourcing the government “can get extra resources” to streamline the IT project process so as to accelerate the system delivery.

Ng goes on to elaborate the third reason that it is to foster the IT industry “in Hong Kong as well as the neighbouring countries”.

Raising the level of execution

Hong Kong’s Office of the Government Chief Information Officer was established in 2004 in accordance to government’s vision to improve service delivery and rationalise the management of the government’s IT projects.

Headed by a Government Chief Information Officer, the OGCIO was formed by merging the functions of the former Information technology Services Department and the IT-related divisions of the Communications and Technology Branch of the Commerce, Industry and Technology Bureau.

An important role of the OGCIO is to centralise all pan-government IT initiatives aimed at raising the productivity of Hong Kong’s public sector.

Through outsourcing initiatives, OGCIO seeks to leverage on the private sector’s expertise and best practices for practising more cost-effective solutions and management services to the government.

Prior to a project being outsourced, certain cost analysis for the delivery of the outsourced project needs to be accomplished.

“For this, because outsourcing is our preferred option, once the baseline costs of doing something inhouse are known there is no question why we should not outsource,” says Ng.

“And for each IT project, we will do assessment of the cost as well as the benefits.”

When it comes to benefits, the authorities look for tangible as well as intangible benefits: “Tangible benefits are obviously accountable, in terms of savings of staff, savings of money,” Ng explains. “Whereas intangible benefits are things like better service, better quality, better delivery time. So for every project, we do a case assessment and confirm prior to the decision to outsource.”

Currently, around 90 per cent of the OGCIO IT projects are done through outsourcing. In terms of contract value, this amounts to around 95 per cent.

It pays to be selective

Provided the massive amount of IT outsourcing companies out there competing for a share of the pie, the selection for suitable partners has become tricky. Normally a tender process is launched for each project, and a comprehensive set of criteria needs to be put in place to streamline this process.

“For the selection of contractors, we have two the principal criteria: one is the price, the other is the quality,” shares Ng.

Price factor is obvious, particularly for governments who have to be prudent in expenditure since they are spending taxpayer’s money.

“For quality, we look into different quality aspects; and these aspects might be different for different projects,” elaborates Ng.

“In general, we consider company capabilities and experience, and references, the outsourcing qualification and experience of the proposed personnel, past performance in previous projects, and also whether the company or companies have some innovative technology. These are the general items that we look into as criteria for the proposal.”

While launching a bidding process, OGCIO follows the World Trade Organisation’s Government Procurement Agreement (GPA), a special multilateral regime that applies to government procurement of WTO member states. The GPA establishes an agreed framework of rights and obligations among its parties with respect to their national laws, regulations, procedures and practices in the area of government procurement.

“We will issue an open tender to all registered bidders, also put up our requirements on the government procurement website, so every company involved will get noticed,” explains Ng.

OGCIO maintains a list of 22 technology contractors. These contractors are classified into four different categories in accordance to different kinds of services they provide. The four categories are:

- Pre-implementation & project management services
- On-going delivery services
- Full system development life cycle services
- Information security services.
Those who are listed will get notified for the new government tenders. The list of contractors is reviewed and updated every 42 months.

In the beginning of this year, OGCIO awarded the host and management of Hong Kong government’s Central Computing Centre, which consists of ten IT infrastructure systems from seven government departments. This project is the first major data centre project outsourced by Hong Kong government.

After the tender is awarded, the implementation of the project by external partner(s) needs to be constantly monitored to ensure the quality of the project. Even when the implementation phase is accomplished, a certain level of services and updates need to be maintained.

"First of all we have to specify our service requirements, making sure there is no misunderstanding or misinterpretation after we have awarded the contract," explains Ng. "During the entire process we will obviously review contractors and put in place the mechanisms to ensure the appropriate ongoing management of that contract."

"I think in our case, a number of things that other government agencies can make reference to, because in our case, we take a ‘business utility’ type of approach," Ng continues.

Ng explains that the Hong Kong authorities have developed a firm understanding of the requirements of the private sector, with a view to ensuring that the delivery of contracted services is supported by robust parameters.

Whether for technical delivery, or relating to payments, the government has had to learn how to engage with external parties over the course of its outsourcing projects – and true to the territory’s reputation as a business-friendly haven, Hong Kong is now very responsive to market needs in the preparation and management of outsourcing contracts, whilst at the same time safeguarding the public interest: “I think these arrangements are most important, and something that other governments can make reference to.”

The other side of outsourcing

Since the implementation of the outsourced projects is carried-out by external parties, the impact to internal staff needs to be monitored and managed. In addition, effective communications and information flow within the organisation need to be maintained.

“I think we all know that outsourcing brings about big changes. For example, in our data centre outsourcing project, it did bring some change to the personnel,” Ng shares. “After outsourcing contract, we have to inform our staff to win and maintain their support for the process.”

In some cases the Hong Kong government has established specific training schemes seeking to target the needs of employees affected by a transition to an outsourced environment – and there is support for the needs of prospective outsourc partners as well, in order to ensure that all elements of the process are managed in accordance with the highest HR standards. In this way the Hong Kong administration has been able to streamline its operational structure without undue resistance from civil servant staff themselves.

Commenting on whether the scheme is working well, Ng says, “Yes, we have a number of staff applying to join the scheme. I think most government departments are doing similar things, in different areas. Different countries have different characteristics,” Ng comments. “But there are some common things that we apply.”

Open to ideas

From what Ng says, a key ingredient in the successful expansion of the territory’s IT outsourcing programme has been the willingness of the OGCIO to engage openly with all involved stakeholders – whether individual government agencies, government employees, and interested parties in the private sector. In a sense the relatively small size of OGCIO in relation to the primary delivery departments has helped establish a culture that remains open to feedback.

“I think generally we are doing well,” adds Ng. “What we need is a good forum for us to share information and experience. This is something where Public Sector Technology & Management is a good channel for people to know each other, for different governments to share experiences,” he rather kindly concludes.
SINGAPORE

Securing Singapore’s e-passport

Singapore adopts technology to protect the digital security of its new passports.

The Entrust Authority solution will be used to help provide the assurance that an e-Passport has been issued by the Singapore Government. Netrust has managed the deployment of the Entrust Authority solution to conform to the strict standards required for the issuance of e-Passports according to the guidelines laid down by the International Civil Aviation Organization (ICAO).

Netrust has also integrated the verification of the e-Passports in the border control system.

The project is designed to offer an architecture that can provide flexibility, high performance, scalability and security. In addition to the many physical security measures to be implemented for information security, the electronic chip will have the passport holders’ information secured by a signature from the passport issuing authority.

Singapore is one of the most forward-looking countries in the Pacific Rim, and is the first in the region to move forward so aggressively with the e-Passport programme.

Recommended link:
Immigration and Checkpoints Authority
app.ica.gov.sg

THAILAND

New electronic procurement system

The Ministry of Commerce is preparing to amend regulations concerning e-procurement in order to promote greater ease of contract biddings. Chaiyot Saomsup, the Assistant Minister of Commerce, stated that the ministry needed to mend many regulations in order to overcome obstacles to electronic hiring and purchases, or the auction system. Chaiyot commented in response to an enquiry from Public Sector Technology & Management that the ministry was faced with difficulties in coordinating with other agencies due to large number of regulation conflicts. The minister believed that with more discussions a solution can be formulated. Chaiyot added that in the past misunderstanding between agencies has hindered electronic auction, but the ministry is working hard to overcome these problems and also to allow the private sector greater access to the bidding process in order to ease the transfer of money and funds.

Recommended link:
Ministry of Commerce
www.moc.go.th

CANADA

Montreal’s libraries deliver free Wi-Fi

Montreal’s public libraries and cultural centres will get unplugged early next year.

The city executive committee approved a US$165,500 initiative this week to provide free wireless internet access at municipal libraries and cultural centres by April. The budget is to cover the purchase and installation of equipment, like wireless antennas, to permit communication between personal electronic devices and the internet network.

Montreal is one of the last cities in Canada to provide wireless access at municipal facilities, a civil service report to the executive committee notes.

The facilities going wireless include 44 public libraries and 25 cultural centres, like Maisons de la culture, which host art exhibitions, concerts and plays. The project doesn’t include facilities in the suburbs that demerged from Montreal.

The service will be free, the city says. It will enable a person with a computer or other device equipped with a card that allows access to wireless internet – known as Wi-Fi – to connect to the Net and receive and send emails, said Luc Jodoin, responsible for planning and development for the city’s library network.

As for municipal facilities, the city will restrict access as much as possible to inside each library and cultural centre, Jodoin said.

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The city still has to decide whether it will block offensive websites and prevent people from doing online banking transactions, he added.

For security reasons, a person will have to log on to the network using a password to be provided by the city, so the city can monitor the person’s Web activities, he said.

Some municipal wireless networks cover entire neighbourhoods, like in Fredericton, New Brunswick, where it’s free, and in Philadelphia, where one with a fee is being developed.

Recommended link:
Montreal’s public libraries
www2.ville.montreal.qc.ca/biblio

More books, less wires: Montreal’s public library system is set to provide users with free wireless access to the internet from January
**THAILAND**

Paper gives way to smart cards for Thai citizen identification

Traditional Thai paper identity cards has become a thing of the past for Thai citizens. The Thai Government recently introduced and issued a new multi-purpose Smart Card Identification to its citizens throughout the country.

With the new Smart Card ID, a Thai national would be able to access various government departments with ease should they see the need to contact them.

The card will contain definite and specific details of its holder using various finger printing systems, hence making it virtually impossible to forge. In addition, the card would be made of hard plastic. This allows it to be more durable than the previous paper format, and consequently, lead to the reduction of long term paper costs.

Moreover, holders of the new Smart Card I.D will be able to access their personal data through the government’s on-line database, as well as, using their new ID card as a substitute for their driver’s license.

**Recommended link:**
Smart Card Standard Working Group of Thailand
[ntl.nectec.or.th/SmartCard](http://ntl.nectec.or.th/SmartCard)

**INDIA**

Karnataka State to establish e-procurement platform

The Government of Karnataka started a new programme to implement a unified online e-procurement platform. This programme will cover contract management, track the progress of projects and would run on a public private partnership model. As of now, Andhra Pradesh is the only state in the country to have an e-procurement platform. The platform would facilitate government procurement activities like publishing of tenders/RFP, bidding online, empanelment of suppliers and contractors, contract management and demand aggregation.

The project also involves training for not just the Government staff but also contractors and suppliers in rural and urban areas. To facilitate access to the system, the Government plans to set up cybercafés at the taluk (South Asian administrative subdivision equivalent to a county) and sub-taluk levels in a public-private partnership model.

Rajeev Chawla, Secretary, e-governance, said that shared business centres would be set up in government departments at the taluk level. “The system would enable accessibility, transparency and reduction in corruption,” said Dr Malathi Das, Chief Secretary, Government of Karnataka. The pilot phase would be carried out in departments like the Sarva Shiksha Abhiyan, Krishna Bhagya Jal Nigam and Karnataka Drugs Logistics and Warehousing Society.

**Recommended link:**
Government of Karnataka
[www.karnataka.gov.in](http://www.karnataka.gov.in)

**JORDAN**

Ministry launches e-government project

The government has formally inaugurated its e-government programme with the intention of streamlining bureaucracy and enhancing access to the internet in rural areas.

In front of an audience at the Royal Scientific Society, Minister of Information and Communications Technology, Omar Kurdi said the e-government website would eventually act as a one-stop gateway to the government.

“We will soon be able to provide citizens and businesses with all government-related information without having to switch from one website to another,” elaborated Kurdi.

The programme, which is slated to cost JD45 million (US$63.5 million) until its scheduled completion in 2009, seeks to improve communication between ministries, citizens, and businesses by offering internet browsers quick access to information.

“People won’t have to go to two or three ministries in a single day to get their passports renewed; they can just go online, fill out a form, and the ministries will do the rest. e-Government will be citizen-centric and will save all of us time and money,” he added. “At the end of the day. We’re looking for e-government to act as a mechanism for public sector reform.”

The ministry is pushing for e-government to serve as a tool to expand greater internet access to rural communities. As part of the ambitious programme, the ministry plans to install 5000 kilometres of fibre optic cables, expand broadband internet access to 3200 public schools, 23 community colleges, and roughly 120 internet knowledge stations by the end of this year.

Hasan Hourani, director of the e-government programme, said the ministry has begun training 8000 government employees and managers of the country’s knowledge stations in how to navigate the e-government project’s website.

“Internet technology has only modestly penetrated Jordan,” he said, “but our training courses and programmes will help change mindsets and get more people familiar with this technology.”

Internet penetration in Jordan currently stands at around 7.5 per cent out of which three per cent are paying subscribers.

Musa Shteiiwi, a sociologist at the University of Jordan, believes that if Jordan wants to enter the information technology age, a considerable effort must be made by the government.

“How do you become an internet culture without rapidly promoting internet technology?” he said. “Jordan has a lot of potential to develop an Internet culture.”

Shteiiwi said, however, that the government must be committed to keep positive momentum going. “It would be a waste if they the government got sidetracked; they must continue promoting these changes in a progressive way.”

**Recommended link:**
Ministry of Information and Communications Technology
Fiji inaugurates e-government programme


The objective of the Fiji e-government programme, at the broadest level, is to improve social productivity, economic growth, employment creation and quality of life for our citizens. The project is not only visionary, but also comprehensive and tailored to answer the needs of Fiji today,” shares Ratu Jone Kubuabola, Fiji’s Minister for Finance and National Planning.

According to Kubuabola the goal of the e-government project is to increase greater efficiency in government through the use of information and communication technology. The implementation of the e-government development project will be the responsibility of the Information Technology and Computing Services (ITCS), in conjunction with Alcatel Shanghai Bell of China and NCS of Singapore.

“Fiji’s Public Service Commission will be responsible for facilitating the provision of suitable personnel and the relocation of the ITCS office accommodation and data centres,” Kubuabola revealed. “Consultations on the various aspects relating to the e-government development project were undertaken with the Public Service Commission, Ministry of Information, Communications and Media Relations and the Ministry of Finance.”

**Customed Needs**

Kubuabola noted that the Fiji government is satisfied that the proposed project is not only visionary, but is also comprehensive and tailored to fit the needs of Fiji today. “The Fiji team has had fruitful and successful negotiations resulting in a high degree of flexibility and the accommodation of most of our requirements. Our partners are committed to realising for Fiji a world class expertise in ICT and e-government solutions that will contribute towards Fiji’s social and economic development and growth.”

The five components in the e-government project includes:

- e-government blueprint
- e-government applications
- government data centres
- infocommunication infrastructure
- ICT competency training & development

Whilst in terms of scope, e-government facilitates access to far greater range of services and products, in terms of scale, e-government also enables the involvement of the marginalised groups. Thus, e-government fosters increased awareness and understanding, facilitates the availability of access to information and enables citizens to participate in the governance process.

Fiji’s National Information Communications and Technology policy was adopted by government last year and it is based on three platforms for development, which is the e-government, the e-commerce and the e-community. This proposal will begin to put the Fiji government’s business online through the e-government, and make some strategic linkages with the community through the e-community, empowering selected communities to access government services that are provided online. This also encourages businesses to a direct access of government services available online.

“The rationale of promoting investment in the Fiji e-government project include its support for leadership and development, contribution to improved productivity and economic growth and its contribution to employment creation and improved quality of life,” Kubuabola continued. “Fiji also stands to gain through this investment, in terms of application, which can create new markets and products and new ways of organizing the operation of society. In terms of capital investment per worker, e-government effectively lowers the cost of capital, thereby freeing resources that can be used elsewhere and increasing productivity.”

On the e-government blueprint, this will involve the planning for long term strategic development of e-government in the country and includes the formulation of the e-government blueprint and its related mission, goals and objectives. It also involves the generation of e-government roadmap, strategic plan, its implementation phase and related governance and management aspects. It will also address the human resource programme, skill and competency development.

**Vital applications**

On the other hand e-government comprises the technical functions of the overall IT architecture upon which, eight key applications will ride. These applications are amongst the first to be enabled and other application areas will progressively be made available as part of the e-government blueprint.

These eight applications are:

- Public-private partnership will ensure adequate on-going training and knowledge-transfer to the Fiji government and local ICT vendors.
Included as follows:

- e-Learning
- e-Scholarships
- Prison Administration
- Crime Database
- e-Social Welfare
- Document Management
- Human Resources

“Currently, the primary data centre is the existing ITCS infrastructure. And the Centre will be upgraded and new IT platforms and servers will be installed to mitigate intrusion, and facilitate system monitoring and management,” Kubuabola explains. “Two secondary data centres, are being recommended to be located in other locations, that is in Lautoka and Labasa for data recovery purposes. The Centre will replicate mission critical data with the Suva data centre. The existing ITCS data centre will be relocated to a secure location and a new state of the art Primary data centre constructed at the new location with its associated security facilities.”

On the Government Infocommunication Infrastructure (GII), Kubuabola highlighted there are five development components namely, government expansion and upgrade, integration of voice over GovNET, establishment of a one-stop public contact centre, e-community development and linking of the Suva fibre optic network to the new primary data centre.

The GovNET expansion and upgrade will aim to create a publicly accessible broadband infrastructure that will support efficient delivery of Government services to the general public. Voice over GovNET entails the convergence of voice and data in the GII broadband and infrastructure to enable Voice over Internet Protocol (VoIP) communications between Ministries and Departments within the GII.

“The Public Contact Centre is intended to establish a single integrated point of contact through which all non-emergency service and information requests will be handled. Once e-community Centres are progressively established, more communities will be able to access the Government E-Services and information online,” he says. “Another area, the project is to tap into is the ICT competency development and training which is primarily for ITC competencies required to support the e-government mission, which is also positively impact on the three sectors of government, business and the community.”

The five components in the e-government development will be rolled out in four phases over a 24 month period. This will involve:

- procurement of hardware and software material
- consulting work and development of e-government blueprint
- e-government applications development
- data centre requirements
- competency development and training
- capital development for levering ITC data services
- project management and on-site technical support

Turnkey services to the Fiji e-government project will include consulting, programme design, development, implementation, management and maintenance as well as training. Targeted to be completed by 2008, the new systems will provide online access to and improve service delivery of a wide range of Fiji’s government services, enabling better policy outcomes, enhancing greater interaction with all citizens as well as increasing administrative efficiency.

PPP

Plans for consulting services to help the Fijian government to develop a blueprint, governance plan and ICT competency development plan for e-government are being provided by the selected vendors. Additionally the design and implementation of several e-service application projects and consulting service in the design of the government data centre will be accounted for by the private sphere.

To ensure the sustainability of the e-government project, this public-private partnership will ensure adequate on-going training and knowledge-transfer to the Fiji government and local ICT vendors.

“The Fiji government needs cost-effective ways to reach our citizen constituencies. We demand the vision of making life easier for Fiji citizens. By working closely with the vendors, we will be able to leverage from the IT and management strengths of the private sphere to deliver innovative effective e-government e-services that will bring benefits to the citizens, and further contribute towards Fiji’s social and economic development and growth,” explains Kubuabola.

Recommended links:
Fiji Ministry of Finance & National Planning
www.mfnp.gov.fj
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No lap un-topped: digital inclusion from the bottom up

Nicholas Negroponte, Chairman Emeritus, MIT Media Laboratory & Chairman, One Laptop Per Child, talks about the role of the US$100 laptop in promoting digital inclusion.

I want to describe, as thoroughly as possible, not just the US$100 laptop, but also some of the impacts that it could have on society and the wider IT industry. And no matter what I say, you’re all going to forget one thing: that this is not a laptop project. This is an education project. And I’m so passionate about the laptop - I actually have one and it works, it’s the first one off the assembly line - I’m so passionate about the laptop and start talking about it, that I even sometimes forget myself.

One Laptop Per Child is about eliminating poverty. And that’s the reason we do it, that’s why everybody who’s involved in the project is involved with it. And the belief is very simple. That is that you can eliminate poverty with education, and no matter what solutions you have in this world for big problems like peace or the environment, they all involve education. In some cases, it could be just with education and in no case is it ever without education. And we particularly focus on primary education. What happens when children start to go to school and just get the opportunity to learn learning itself. So I’m going to show you some slides, talk about this and share with you, as I said, what I think it might also do to the industry.

Ambition

We’re effectively a start-up. And when somebody like Gaddafi agrees to invest US$250 million in twelve months, he doesn’t write me a cheque. Citibank are our bankers and they run everything. So Citibank deals with the countries and the vendors. And the money doesn’t even pass through us or come close to us. So almost everything is outsourced including the financial arrangements. The manufacturer is Quanta who makes roughly 37 per cent of all the world’s laptops.

And if we were having this discussion last year, this date, you could have walked out of the room and said “Great idea. But they can’t do it.” And you could have said that for two reasons. One you could have meant they, in other words me and a bunch of professors, could not execute. Or you could have meant, ‘It’s not possible. They’re whistling in the wind.’

On 12 December 2005, Quanta raised their hands and said, “We’ll do it.” And as soon as Quanta said they would do it, nobody asked questions any more. They didn’t say ‘is it possible?’ The question became ‘when?’ and ‘how much?’ - but not ‘if?’ So the ‘if’ has gone away. The financing has also been resolved. The first year will be somewhere between US$1 and US$1.5 billion. That’s a huge number. So the finances are daunting, but then the manufacturers are big players. It is not Nicholas Negroponte and One Laptop Per Child. It’s Quanta, it’s Citicorp, it’s Google, it’s Nortel. It’s people who wear long trousers who are doing it.

You know, the hesitations that a country might have fall into basically three categories. One category is the numbers are so big, it’s daunting. I have spent quite a bit of time with the Minister of Education of China and he has 220 million students in primary and secondary schools. 220 million. That’s more than all of Europe and non-EU members combined. It’s more than all of the Americas. It’s just the numbers are staggering.

The second is you have particularly with ministers of education, there’s a block that comes from the assumption that teachers won’t like it. Because teachers are going to be suddenly shown up by the kids who know more. And it’s going to destroy the teacher student relationship and so on, which turns to be total rubbish.

The numbers game

If you look at the world as a whole, there are, in rough numbers, 1.2 billion children. Of those children, about half a billion live in rural parts of developing countries. If you go to a rural part of a developing country, you find that the education is even more primitive. This is certainly true in China and India.

China and India together have almost 50 per cent of the children in the world. Now when you go to these rural schools, the teacher can be very well meaning, but the teacher might only have a sixth grade education. In some countries,
which I’ll leave unnamed, as many of as one-third of the teachers never show up at school. And some percent show up drunk. So really, if you are going to affect education, you cannot just train teachers and build schools. That will take you the next 30 years and it’s a long and slow process. So the only alternative is to leverage the children themselves and that’s what One Laptop Per Child is. It’s how can you give the child an opportunity to have a bigger role in his or her learning.

Let me give you one more statistic: in the developing world, most schools, certainly rural schools, are two shifts. And by that I mean one group of children goes in the morning and another group goes in the afternoon. You get double the duty cycle. A shift typically starts at eight in the morning and ends at noon. It starts late, it ends early, there are recesses. So a child is in school two and a half hours a day, five days as week. That’s the amount of time a child spends in the best of all possible conditions. So you can’t just do something for a school, let alone build a computer lab, which is really ridiculous. What you’ve got to do is to take advantage of the other hours and again that’s why you’re doing One Laptop Per Child.

I remember back in 2002 in one Cambodian village where we shipped laptops the children took them home at night and the parents loved it. Because they were the brightest light source in the house. No electricity, no telephone, no water and in fact, in our five villages, two of which do not even have a road, the average income in that village is US$47 a year. And would somebody like to guess what the first English word of every kid is? It’s Google.

That’s their first English word. The first thing the kids did, and again they only read and write Khmer, in fact these kids are so young, most of them don’t even read and write Khmer, but they pretty quickly, in something like 30 days, are pecking away in English and going to the Brazilian football site and they all now wear Ronaldo t-shirts for better or worse [Ed. For worse].

But the point being that this had an enormous impact, one of which is that this year, this September, in this exact same school, twice as many kids showed up for first grade. And these weren’t from neighbouring villages. And clearly five years ago everybody didn’t have twice as many kids. What happened was that the parents had been keeping the kids at home, not sending them to school. And simple peer pressure, one kid saying to the other, “Hey, this is pretty interesting. You should consider coming to school” and parents sort of thinking “Well maybe this really actually is something interesting.”

So what we did is, we decided to scale that project. To scale this, if you look at it, the telecommunications are very elastic. We brought two Megabits into the village, and that will support 30 kids, 50 kids, 80 kids, 100 kids. Really, you may get slower response time, but it’s pretty elastic. If you want One Laptop Per Child, there’s no elasticity whatsoever. You get five more kids, you need five more laptops. And one of the problems with laptops is an industry-wide problem. And trust me, I know it from both sides of the fence.

In full disclosure, let me remind you, or tell you if you don’t know it, I’m on the Board of Directors of Motorola and have been for a very long time. I think I may even be close to their most senior board member in more ways than one. What do we do in the mobile phone industry? The natural tendency of electronics is to drop in price. Now what you do is, to compensate, you add features. And each year, as it drops in price, you add more features.

That’s what’s happened in the laptop industry. So the price is constant. The laptops I see in the shops today are roughly the same price they were 10 years ago. Now it’s changed a little bit recently, but still not much. But as you add more and more features, you make a bigger and fatter system. And that system then starts to become unreliable. But more importantly, it starts to become so big that it’s like a very fat person uses most of their muscle to move their fat. And that’s what’s happened with laptops. Your laptop is using most of its muscle to move its fat. And so what we said to ourselves is “Let’s change that.” And it’s not that we build a compromised machine.
a fat person. A very fat person uses most of their muscle to move their fat. And that is what has happened with laptops. Your laptop is using most of its muscle to move its fat. And so what we said to ourselves is ‘Let’s change that’. And it is not that we build a compromised machine. In fact, I think I could show you that my laptop is actually better than yours in a number of key ways.

So we created a non-profit vehicle to develop and distribute these laptops. It had to be a non-profit, because it is the moral purpose that drives the enterprise. And the reason I can talk to a head of state, where it is harder for the Chairman of a profit-making company, is that I have no shareholders. My shareholders are the stakeholders, who are the children. And I don’t have to sell one laptop. And if somebody wants them, they want them, if they don’t, they don’t. It’s a very different proposition.

**Scale**

We really need scale, and I’ll give you two reasons why. Most people, this is certainly true in India and China, who want to make a low cost computer, or low cost laptop, take cheap components, cheap labour, cheap design and make a cheap machine. And cheap in the most pejorative sense. It looks cheap, feels cheap, is cheap and often unreliable. What we do is the exact opposite. We take very large scale integration, very large numbers, pour chemicals into one end of the factory and stew out iPods by the millions. And the machine is so gorgeous, that you’ll want one.

The idea is to make it very, very high end, nothing cheap about this laptop. But scale is what makes it happen.

Now why scale, other than just the large scale integration. It’s not for component costs alone. Obviously, if you buy five million or 10 million connectors, you’re going to get a better price than if you buy 10,000. But the bigger value is in the following.

Very early on, I went to the CEO of a large display manufacturer whom I’ll leave unnamed. And because of Media Lab, I know all these people. (One of the few advantages of age is you know everybody.) And I said “I need a small display, not very bright, doesn’t have to have perfect colour uniformity, but it has to be very inexpensive.”

He said to me, he said “Nick, we have large displays, perfect colour uniformity, zero pixel defects, very bright for the living room. Our corporate strategy and your project just don’t go together. I’m sorry we can’t help you.” And I said “That’s a shame, because I need 100 million units a year.” He said “Well, maybe we can change our corporate strategy.”

What happens is those numbers are so big that it changes corporate strategy.

Just to put it in context, at the end of 2007, the worldwide production of laptops, worldwide, every company that makes something that even approximates a laptop, was 47 million. And we’re talking about 50-150 million units for our laptop. The numbers are off the charts. They’re totally different. It’s more like the mobile phone industry than the laptop industry. The mobile phone industry is rolling right now at about 1 billion units. So this is closer to that sort of animal than it is to a laptop.

And I want to say global, and I’ll talk about that separately, but it really is not a Brazilian project or a Nigerian project. It really has to roll out globally. And it will have many global features like mapping into languages, it will come out in a minimum of five languages, probably six. And the kids talking to other kids is very, very much part of the agenda.

You announce a laptop with Kofi Annan and you get a lot of press. We had a working model of this in Tunis a year ago and it was a real crowd pleaser.

But the thing that everybody remembered was the pencil yellow crank. That’s what stuck in everybody’s mind, which was wonderful.

Even though it’s not realistic to have it on board, we still have the option – not the option, we still have the ability to crank all the laptops.

I don’t want to go down this in great detail except to say that the three I’ve highlighted are very important. The first one, the less than 2 watts, compare that to your laptop, the ones I see in the room, are all running somewhere between 30 and 40 watts. So that is 15 to 20 times less power. And it turns out that the 2 watt average is important because you, you’re well nourished adults, can generate about 15 to 20 watts with your upper body by just turning a crank, like a salad drier or even an eggbeater or starting an outboard motor engine with your arms and your upper body.

You can do a lot more with your legs. But if you want to power it, we want to achieve at least one to 10.

So if you do something for one minute, you get 10 minutes of laptop time. And people forget this. Most of the kids, over 50 per cent of the children of this world have no electricity at home, and most of them have no electricity at school. So you cannot run around with AC adaptors, plugging these in. It’s really very important that they work on human power.

The Wi-Fi mesh is important and I gather, there has already been discussion about mesh networks, it’s critical that they have to roll out in environments that have no mobile phones, no nothing. So they have to make a network themselves, and they do.
The laptop’s dual mode display is also critical. And by dual mode I mean that it’s both transmissive like all your laptops and it’s reflective like none of your laptops. And that is basically you change the display so it takes sunlight and reflects it, it doesn’t charge the computer, but it allows you, in the sunlight, to see your display very, very well.

Afterwards we can open the shades and I can show you in reflective mode. It is startling. The more sunlight the better it is. You can’t even use your cell phone in the sunlight. You take out your mobile phone and you’re covering it up if you’re outdoors. So the idea that it’s reflective is really very important.

I now just want to go through some more of the benefits very quickly. It turns into an electronic book, which is one form factor. And a games machine and that would be typically when you use it in reflective mode. The controversy of having games is not one that we indulge in. It’s really very, very different. We sell power devices. This one happens to be electronic it adjusts itself to the strength of the child and the arm length of the child. So if it is say a small, young girl she may only generate 10 watts - but that will be sufficient.

If it’s a big strapping 18 year old boy he could maybe generate 20 or 25 watts for a few minutes and might have a much longer throw. So this is actually a pretty good way of doing it. They’re connected as a mesh and that’s very important.

I don’t talk about the mesh often enough, but the mesh is then either connected with cell powers, WiMAX or satellite, but usually a school will have a server. We provide the server, and the server costs US$100 and has 330Gb of storage.

Building your own network is not out of the question. Most of this is built by the kids. The maintenance of the machine, 95 per cent is done by the kids.

It’s really not that we’re rolling out entire technical teams that are launching this with armies. It takes 600 people to launch 1.2 million laptops in a country, and 600 is not a big number.

The user interface is different. You can run Windows, you can have a typical desktop – but we don’t.

We have the user interface being more like a buddy list, who’s on when you’re on, what they are doing, how can you participate.

You are the central figure, your friends have various colours, what they’re doing, can you participate with them. And this shows you what you’re doing and which programmes you have running and how much memory you have left. This is really new in the sense that the software runs on top of Linux, you can strip out this user interface, but what’s there has been pretty well received so far.

Now, one thing you should realise is that there are about 250 people full time on this project, not counting the Linux community. The Linux community I estimate as about 2000 people, but that’s a very funny number, so you should almost ignore that.

But, of the 250 people who are working on it, if you want to think of a sales and marketing department, which is kind of an odd concept for a non-profit – then it’s the person writing this article. I do that all alone. It’s not a gang of 50 people that go out and explore markets and sell. This is not that kind of project. It’s really very, very different. We don’t sell laptops.

The economics of it are pretty interesting. We are launching at about US$150, probably a little lower, and then we expect to hit the US$100 mark around the end of 2008.

The four things that control the cost are DRAM, Flash, nickel, the price of nickel is very important, and cobalt. Then there are some other technical things that we believe,
but if you just track those four and estimate them, you'll come very close to US$100.

**Battling the grey market**

One point about grey markets, grey markets are really a major issue. Not because they're going to be stolen in Customs, or people are going to give them to their cousins, it's because the parents will sell them.

If there's a market, the family is so poor, you have some countries that give shoes to children as part of school and the parents take the shoes and sell them. And the reason that works is there are a lot of feet out there, so there's a market for the shoes. But if you can create no market, or there isn't a market, then it's a little bit harder.

So there are two things that happen. Which is why I underline the role of grey markets. One is simply that you don't put the laptop on the commercial market. There isn't a commercial version. And it's a little bit like post office trucks.

There are thousands of cars stolen every day in the United States, but in the history of the United States not one single post office truck has been stolen, not one. And the reason is, oh yes, you can spray paint it but it looks like it is a post office truck. So our idea is to make this laptop look so special, so unique, so stand-out from the crowd that whatever it ends up looking like, if you have one and you are walking around with one of these, you had better be a child or a teacher! There really will be no other way to get one.

Now that doesn't stop everything. Because people steal from the Catholic Church, they steal from little babies, they steal from the Red Cross. But the second thing is the security on this machine is extraordinary.

If you steal one off the truck before it arrives at the school, it is useless, absolutely useless. You can rip it apart for the parts, but even that isn't too useful. Once a child gets it, because they're delivered, not just dropped at the school, but people install them and get the kids - the identity is such that if the machine is stolen from the kid, within some number of days, anywhere from, this is what the country decides, but let's say five days, it is disabled.

So it will become useless again. So it's actually the security that's been done for this machine is really quite exceptional. And the person who heads up our security programme happens to be 22 years old, so you can imagine it probably is pretty good. And it's really very, very important.

Two last remarks that reach into some of the industry questions. The initial economics of this is a bit traditional. It is to get big countries to make big commitments because your sales and marketing is one person.

After that, you start doing things that are very different. In fact, I think everybody in this room would be willing to buy one of these laptops for US$300. And Jeff Bezos of Amazon was visiting the other day, and in his inimitable style he came up with a jingle. You know how, in retail stores, you find very often “Pay for one and get two”? Well his jingle is “Pay for two and get one.” And so that things like that, really in the future will do it, will create a grey market, but could be of such a large scale that it would really finance it.

I just want to talk about bloated software, Linux on the desktop I think is important. It doesn't really exist today. It's something that doesn't have the critical mass. This will create it.

I have known Bill Gates his entire adult life. And we talk, we meet one on one, we discuss this project. And Windows is fine. I have set it up so we can put Windows on it. We put in an SD slot in the machine just for Bill. We didn't need it but those machines are at Microsoft right now, getting Windows put on them. They have a genuine issue with open source. I don't want to go into the pros and cons but it's genuine. And they struggle with it. That's their issue.

Intel's issue is less genuine. We don't use their processor. We went to AMD, who accepted it in less than three hours. And so we use an AMD processor. So Intel has got a different problem.

As I said in the beginning, we didn't start out to revolutionise the laptop industry, or the display industry or, for that matter, the software industry. We just wanted to dramatically raise the educational capacity of the developing world in order to eliminate poverty.

I have known Bill Gates his entire adult life. And we talk, we meet one on one, we discuss this project. And Windows is fine. I have set it up so we can put Windows on it. Those machines are at Microsoft now getting Windows put on them.

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**Recommended link:**

**One Laptop Per Child**

[www.laptop.org](http://www.laptop.org)
Driving user participation for government intranets

Dr Mingu Jumaan, Director of Sabah State Computer Services Department explains the process of achieving organizational buy-in for your intranet. Report: Gerald Wang.

Sabah, one of the states in the Federation of Malaysia, has been moulded by the Sabah State Public Sector to undergo the process of transformation enabled by ICT with the launching of Sabah. Net and EG as its intranet system in September 1997.

“In almost 10 years, we have achieved our State Public Services’ mission, which was to transform the public sector with a fully networked and functioning Electronic Government System,” shares Dr Mingu Jumaan, Director of Sabah State Computer Services Department. “The State’s Public Sector Intranet implementation had been guided by the State IT Master Plan which lays a foundation to transform operations of State government. In addition, directions for efficient and effective service delivery were introduced so as to be able to strengthen the decision-making process of the State.”

An intranet is a private computer network that uses internet protocols, network connectivity, and possibly the public telecommunication system to securely share part of an organization’s information or operations with its employees. It consists of a set of network services based on internet technology that is accessible only within an organization or authorised area. A standard central point of access allows access to designated individuals across unparalleled geographical distances.

“Due to the mountainous regions and hard-to-reach municipals within Sabah, we needed to build a low-cost telecommunications infrastructure that is able to provide internet access for our citizens. The laying of phone lines would be highly expensive and difficult to build,” says Dr Mingu. “For Sabah. Net, it is a single common dial-in number that is accessible nationwide. The entire info-structure of the Sabah State Intranet is supported by an SM2 database where human resource applications are made readily available to citizens.”


Valuable, and valued

It is vital to ensure the success of an intranet. The critical aspect of delivering value and motivating wide-spread use, would lead to the maximisation of the return from investments. Organizational buy-in involves making sure all users are not just behind the intranet projects, but actively championing it.

“It is not just about the IT people who create and maintain the intranet, all citizen users have to be involved in the development and continuance of it,” asserts Dr Mingu. “The benefits of an intranet offer tremendous digital power to the government and its citizens. The key to that power lies in the achieving total organizational buy-in for the State’s intranet.”

According to Dr Mingu, there are a number of key steps required in order to achieve organizational buy-in.

“Top management needs to demonstrate support and commitment,” he says. “The top management knows best their organizational strategy and business needs. Therefore they need to be the champion to support projects by constantly informing and updating both employees and shareholders of the projects processes. Only then, would they be able to convince and achieve the support of stakeholders with regards to the viability of any project.”

User involvement is another key element: “It is important to keep users involved from the beginning, to determine their requirements and to keep them interested throughout the project. It is not just a matter of technical expertise, but it also involves the process owner,” he says. “Users should know what the project is called, what it means for them and who they should talk to if they have questions about it. This active involvement would help avoid the blaming culture to happen should a project fail.”

“Reengineering of processes is necessary because government agencies need to be prepared to transform their current processes before automating the new business process into the intranet,” he continues. “It has to be done together with the users as to start building
their understanding of the intranet system. This allows users to tap into the systems anytime, anywhere.”

According to Dr Mingu there has to be constant interaction to ensure that user expectations are widely understood and managed. Knowing what the true cost and problems of current business processes are, and what improvements can be achieved through a new intranet are important issues. Obviously users need to understand that the new system will not negatively impact their workload, but instead alleviate administrative redundancy. The aim of the intranet is to make the work of civil servants easier through the provision of more accurate, reliable and timely information. It is the job of senior management to make this clear to staff!

“Cultural change is a key change management issue when establishing a new intranet,” he adds. “People’s expectations and habits are not easily changed. This project may have been seen as a threat to the existing cultural routine of the users. For us in Sabah it was vital to show the users how the system will benefit them. This will help stop user resisting change. Another way to overcome this is to listen to users’ concerns so as to make them see it as their project.”

“Awareness and understanding of the roles and benefits of the intranet is crucial. It should be part of an ongoing process as the intranet develops. Again, it is stressed to constantly receive feedback from users of the usability of the new intranet system,” he continues. “By building a sense of ownership in the intranet system the user is able to determine the success of intranets. Users will not support the project and, at worst, will actively undermine it if they do not have any sense of possession with the system.”

Dr Mingu believes that the best form of leadership is through example, and the intranet provides government leaders with a very visible means of communicating and building consensus throughout the state bureaucracy: “The intranet has to be reliable. It has to have information that can be easily accessed by the user. It must touch user’s personal interest, and the information must be easy to share and relevant. Getting senior government officials to visibly use the intranet is the quickest way to demonstrate benefits, and reduce cultural resistance.”

**Potential benefits**

“We have found that with our intranet we are able to communicate strategy and vision more directly to users. It offers a tremendous potential as a communication, collaboration and knowledge-building tool, and at the same time it helps bring public agencies closer to both their citizens and the private sphere, using a more efficient and automated environment,” he says. “By the time you calculate the cost savings, through the reduction of redundant work processes and the freeing up of manpower, you are able to demonstrate productivity gains.”

Dr Mingu believes that there are a number of challenges facing the development of government intranets in future: creating a culture of sharing across different government agencies responsible for different objectives is likely to be an enduring challenge. In addition it is not just about a technological change. The experience in Sabah has been coloured by staff mindsets which have yet to become entirely comfortable with the rapid pace of change.

“Budget constraints, geographical and wide area distribution and the lack of basic infrastructure readiness lead governments to push for a greater take-up of intranets in order to be able to close the digital divide within the State,” says Dr Mingu. “A strong leadership with good foresight and professionalism is required to enable this transition towards a digital society. Without the right direction, it is hard to convince the change in the people and processes. Currently, we are looking to expand our intranet service beyond the major towns towards the rural areas.”

Intranets need to be managed with knowledge and understanding to deal with the challenges of an increasingly digitising society. They alone cannot transform the public sector, but the public sector cannot transform to meet modern citizens’ expectations without better ways of sharing knowledge within organizations.

“Intranets amplify brain power in the same way that the technologies of the industrial revolution amplified muscle power. It is the enabler to create the change in the public sector to move to the future,” concludes Dr Mingu. “Intranets present several technical, economical and social challenges as it develops from one phase to another. Nonetheless, with strong management commitment in using ICT brings its full potential to achieve organizational buy-in which leads to continuously improves public sector delivery systems to its citizens.”

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**Special feature: Intranets**

**Recommended link:**

Sabah.Net

www.sabah.net.my

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Island’s first integrated local government WiMAX network

A new Mobile WiMAX network in the north-eastern county of Yilan is to become the first fully integrated broadband wireless network driven by a local government under the Mobile-Taiwan (M-Taiwan) project.

Radically impacting the daily lives of Yilan residents, visitors and businesses - and positioning the district as a national showcase for ubiquitous wireless broadband services - the WiMAX infrastructure will enable broadband wireless access to such services as M-Learning, M-Commerce, M-Tour as well as video surveillance and IPTV services.

“This initiative demonstrates the significance of Mobile WiMAX technology in advancing the government’s rapidly evolving M-Taiwan project,” said Chun-Ming Hsieh, vice president, Chunghwa Telecom, the company which built the system in association with Nortel and eASPNet.

The people of Yilan will now be able to take the Internet with them wherever they go, and enjoy high-speed mobile access using virtually any wireless-enabled device.

An Access Service Network Gateway, customer premises equipment will be provided in the meantime, along with network management capabilities, network integration and optimisation services.

Taiwan is playing a pivotal role in WiMAX development. Nortel recently signed an agreement with Chunghwa Telecom to deploy a WiMAX solution in the operator’s experimental park to create an environment for testing WiMAX and integrating the technology with the Nortel Wireless Mesh Network solution deployed in Taipei and Kaohsiung as part of the government’s M-Taiwan initiative. In addition, a WiMAX trial system is being deployed at the National Taiwan University campus.

The M-Taiwan Initiative is one of Taiwan’s top 10 new infrastructure programmes. It engages local governments and private sector partners in constructing an island-wide wireless broadband environment to provide people with convenient Mobile WiMAX services and applications. The vision of the M-Taiwan Initiative is to develop an infrastructure providing wireless Internet access for eight million subscribers and to provide broadband internet coverage to 80 per cent of the population in urban areas.

Recommended link:
Yilan Country Government
www.e-land.gov.tw

New Zealand

Wellington deploys WiMax

Following a six month trial period and an investment of more than NZ$1 million to establish base stations, 2Mbps downlinks is offered in the Wellington CBD and Lower Mt Hutt area.

A 3Mbps service is also available at NZ$125 (US$85.7) per month while the slower 2Mbps is priced at NZ$80 (US$54.9) per month. Both have a 10GB limit, but you can sign up for an option of unlimited downloads for an extra NZ$25.00 (US$17.15) per month. The company is letting users make the most of the WiMax technology by making both plans symmetrical promising either 2Mbps or 3Mbps upload speeds respectively. On the downside, there is a NZ$500 (US$343) installation fee.

The company explained away the relatively slow speeds claiming that quality is more important than quantity, saying 20Mbps ‘is not really necessary’ and the fact that its WiMax network has ‘never dropped a packet’ and has no interference is more important.

Recommended links:
Greater Wellington Regional Council
www.gw.govt.nz

Canada

PPP helps Kamloops showcase wireless services

In a few weeks, realtors, contractors, meter readers, city inspectors, insurance agents and other mobile workers will be able to go ‘wireless’ throughout the city. 80 per cent of the populated areas of British Columbia’s Kamloops community will have wireless access service through a unique PPP between the city and the privately owned internet service provider called ‘On Call Internet Services’.

The state-of-the-art wireless service will be available on a pay-per-use basis or a monthly fee that will be approximately half the cost of wired internet service. The WiFi ultra high-speed wireless connectivity is enabled by the City-owned Kamloops Community Network with its 40 kilometres of fibre optic cables. Nine access locations have been constructed to provide WiFi connectivity to laptops and other compatible devices. An additional 14 ‘hot spots’ for wireless internet connectivity have been provided by private businesses bringing the total to 23. The expectation is that other businesses will help ‘grow’ the system by providing their own wireless access points.

“This unique model for wireless connectivity is a huge boost to our economy and gives people and businesses another great reason to move to Kamloops,” said Terry Lake, mayor of Kamloops. “The service will improve the city’s reputation as a great place to visit, live, study and work.” Enhanced productivity and increased safety for mobile city workers could be derived from automatic vehicle location for snow ploughs and municipal vehicles, parking and other bylaw violation information recorded instantly and inspectors downloading and uploading information instantaneously. It may eliminate the need for many to return to the office to conduct Internet-based transactions. The city expects a strong return on its US$106,000 investment over the duration of the three-year partnership arrangement for the inexpensive wireless connectivity that can be charged on a per use basis at US$3.50 per hour, US$14.95 per day or through a monthly fee of approximately US$40. Among the many attractions of the service is the ability for users to buy time which can be charged on a per use basis or held for up to 12 months.

Recommended links:
Canadian Council for PPP
www.pppcouncil.ca
City of Kamloops Municipal
www.city.kamloops.bc.ca
AUSTRALIA

Free Wi-Fi planned for cities in New South Wales

Central business districts of key cities in New South Wales will get free Wi-Fi broadband within the next three years, under a plan announced by the state’s premier Morris Iemma.

The NSW state government will look for suppliers to establish ‘universal coverage’ of free Wi-Fi in Sydney’s central business district, in addition to the suburbs of Parramatta, Penrith and Liverpool and outlying cities Newcastle, Wollongong and Gosford. Iemma announced the move as part of a statement on innovation released by his government. In a statement, he said the state government would look to make the free Wi-Fi a reality in the next three years.

“As one of the world’s greatest cities to do business, visit or live in, Sydney deserves state of the art broadband coverage that is accessible by all,” the Premier said. “Universal access to wireless broadband in our CBDs will further boost the state’s economy and make NSW more attractive for expanding or new businesses.”

In early 2007, the state government will launch an Expression of Interest (EOI) project to find commercial parties interested in providing the free broadband.

The EOI will specify that the government is seeking interested parties to ‘build, own and maintain their own wireless broadband network’, and that the network will have ‘extensive indoor and outdoor coverage’, at a minimum, of the CBDs of the areas listed above.

“The government envisages it may be able to provide access to government buildings, water tanks and towers, parking ramps, streets and traffic lights among others to assist the provider to set up the required infrastructure,” said Iemma’s statement.

The state government expects to make a decision on responses to that EOI by the second quarter of the 2007 calendar year. “The government sees itself as a facilitator between local, state government and the provider,” the statement said.

The statement noted that governments in North America and Europe are currently examining various models to provide wireless infrastructure. For example, similar initiatives are under way in San Francisco and Mountain View, Philadelphia, Paris and in the UK.

Iemma’s statement also addressed the question of whether NSW’s initiative would undercut existing wireless broadband providers and internet cafes. The statement said the state wanted to stimulate the broadband market and get more people using it, not less. All existing providers are encouraged to participate in the EOI.

“Wireless broadband will never replace wired broadband. Many people, particularly visitors, will still prefer to access Internet cafes which have high speed wired broadband access and this will allow them to travel without a laptop.”

Iemma’s move comes as competition in the wireless broadband market is entering a fever pitch, with large telecom companies launching upgraded services every few months based on the WiMAX or 3G standards.

Recommended link:
New South Wales State Government
www.nsw.gov.au

Recommended link:
Wireless@SG
www.ida.gov.sg/ida/web/wireless

SINGAPORE

Free Wireless@SG to be launched one month ahead of schedule

Wireless@SG is the Government’s wireless broadband programme that aims to extend broadband access beyond the homes, schools and offices, to public places. The InfoComm Development Authority of Singapore (IDA) called a Wireless Broadband Market Development (WBMD) Call-For-Collaboration in March 2006, to grow Singapore’s wireless broadband market and catalyse broadband adoption.

It is part of the Next Generation National Infocomm Infrastructure which when ready by 2012, will also comprise an ultra-high speed wired network. Following the announcement on 10 October 2006 by Prime Minister Lee Hsien Loong, that Singapore will get to enjoy two years of free wireless broadband connections from January next year, the IDA announced that the three Wireless@SG operators have extended this free offering to three years.

Users can also begin to enjoy wireless connectivity from 1 Dec 2006, one month ahead of schedule at selected hotspots for a start. Wireless@SG will be available at public areas with high human traffic such as the Central Business District, downtown shopping belts like Orchard Road, and HDB Town Centres. Network coverage will be made available progressively from 1 December 2006 and subscribers are encouraged to provide feedback on how to improve the Wireless@SG service via email to their respective operators. In addition to the free ‘Basic tier’, there will be a paid ‘Premium tier’ for those hungry for bandwidth beyond 512 Kbps, or for connectivity options with higher-quality of service. The three operators have different packages to suit different needs and there is no limit on the number of premium accounts users can sign up for. The three operators supporting Wireless@SG, iCELL Network Pte Ltd, QMax Communications and Singapore Telecommunications Ltd will extend the free access period till December 2009.

To enjoy the free Wi-Fi basic-tier access with surfing speeds of up to 512Kbps, users can sign up with any of the three Wireless@SG network operators starting 1 December 2006. This offer is open to all residents and visitors in Singapore, and users can sign up with any operator to access all the hotspots in Wireless@SG. By September 2007, the number of Wi-Fi hotspots in Singapore will increase by more than five-fold from 900 to about 5000.

There are various ways users can register for the free basic services. These include online registration, where users can complete an online registration form at any of the three operators’ websites. A password will then be sent via SMS to subscribers’ mobile phones. If they happen to be at a Wireless@SG hotspot, they can also select the Wireless@SG network and click on the ‘New User Sign Up’ button found on the log-in page. Similarly, a password will then be sent via SMS. Alternatively, those without mobile phones or online access can visit any of the operators’ customer service centres to register and collect their passwords. Users can also check with their operator of choice for other registration methods.

Recommended link:
Wireless@SG
www.ida.gov.sg/ida/web/wireless
Banking on information: KM at the Bank of England

Simon Mills, Head of Information Management for the Bank of England, discusses the role of Knowledge Management at the United Kingdom’s central bank with Sarah Sim.

The Bank of England (BoE) is focused on maintaining the economic stability of the United Kingdom, having responsibility for the setting of sterling interest rates as well as general oversight of the country’s financial infrastructure, including the commercial wellbeing of the City of London, one of the world’s preeminent financial centres.

The government agency places a high level of value on the role of Knowledge Management (KM) to deliver significant operational benefits in the way the Bank accesses, stores, shares and retrieves information.

“Each of our individual capacity to deal with information is limited, and the capacity of information is growing,” explains Simon Mills, Head of Information Management, Bank of England, by way of introduction.

“Some of us are coping with the situation, while some are out of control.”

Referring to a quote from Andrew Carnegie c.1900 to substantiate his point, he continues that: “The only irreplaceable capital an organization possesses is the knowledge and ability of its people. The productivity of that capital depends on how effectively people share their competence with those who can use it.”

The definition of knowledge that is mentioned in the above quote is, tacit knowledge, which in layman’s terms means, ‘the knowledge that is in people’s heads’. This type of knowledge is inaccessible to all, except for the person who has it, quite unlike the other type of knowledge, explicit knowledge, where information is well-documented and everything is fully and clearly expressed, leaving nothing merely implied.

There are two ways to manage these two forms of knowledge, for the former would be personification and for the latter, codification. By personification it means to associate the person with their various expertise, which results in people making connections to get information that they require and the appropriate skills that they need. This establishes a system of who knows what in the corporation. On the other hand, codification captures all information into a database making it straightforward, and accessible to all users who require appropriate information.

The Bank set about establishing an information strategy in early 2004. However Mills faced many obstructions and hurdles - such as their dated information infrastructure being disconnected. The key elements of this infrastructure are the Bank’s electronic document management (EDM) system, intranet, information centre and records. Another issue was the absence of a unifying information management vision – something which prevented the full potential of the organization’s information resources from being realised.

This strategy, which will be implemented across systems, aims at five focus points namely, information for better decisions, integration, professionalism, less paper and people’s skills and behavior. It is especially important to ensure that the people are competent and able to share the knowledge that they may have with others proficiently.

Going into detail as to how the strategy was implemented and the way it took place, it was noted that various projects are carried out to correct distinctive areas of the systems. This systematic step by step plan was took place over a period of time, ensuring that no area of in system is neglected and that new changes are fit into the present system seamlessly.

In order to improve the Bank’s intranet, Project 1a was carried out, a web team was recruited to manage the web content and BankNews. The main objective is to organize the website for easy navigation and easy retrieving of necessary information. This was achieved through the introduction of a single web content management system in the intranet and the enforcement of web management policies.

The eventual aim of this move is for BoE to benefit by having lesser out-of-date pages, a simpler system with fewer web-page designs and navigation, a single set of policies for the
intranet with no home-grown content systems. Users should also find it easier to publish and re-use content, and there would be an increased usage but lesser broadcast emails and an increase in satisfaction and positive remarks about the revamped system.

The entire project is slated to an eleven to twelve months schedule and regular project board meetings will take place every two weeks.

A couple of intranet policies are laid out as a form of quality control of web content, all information that is published or broadcasted to a number of people should be well-written and structured deliberately for the specific group of audience. It should be in an HTML format or web format, and not solely word documents. The web editor responsible for the site will have to ensure that the author is indicated and all sources are attributable and dated. Regular review will be conducted and measurement of successful of the system will be made known.

In the process, all content based parts of the Bank’s intranet (and internet) will be migrated to a single content management system whereby a single web based search tool will be implemented to allow the intranet and iManage to be searched from one place. The newly introduced web portal search engine engages not only concept based search but combines an exact phrase searching per week showed disappointing results with a majority spending up to an hour and only two-third of the users think they might have found the information they require after searching. As this survey is still in the midst of compilation, Simon and his team hope to receive good news by the end of collation.

In Project 1b, the Bank’s information management systems were well-integrated and a cross-system search was integrated. Apart from that, there was a review of policies.

Project 2 and 3 is targeted at the implementation of e-records management; it introduced new improvements and another new team to the BoE which is the Bank Knowledge Team which overlooks the entire system and does the information security review. Other work that is done includes resourced archives that are in place to support the Bank History.

The records management project will put a structure to the pile of documents handled everyday. A records management framework has been implemented and the bank-wide records classification scheme was given the thumbs up by the management team. Creation of a Bank-wide records folder structure has been set up in the EDM, which includes some minor systems changes, folders are registered in the records database and through the use of folders, application of the records classification, review and retention policies to all new records are arranged in the EDM.

In the long run, the records management project is aimed to save time in information retrieval through the use of folders and improve search engine effective, reduce risk
through consistent and appropriate retention of information, increase in number of people filing records in folders, increase greatly in user's satisfaction and reduce the average net monthly growth in iManage. There will be an overall increase in access to external information as a portfolio of 'tools and techniques' are in place to support knowledge sharing.

The infrastructure and systems aside, to make sure that users’ competencies match the level of technology integrated into the BoE, a lot of emphasis is placed on technical training. One such would be on the topic of email.

"More and more are struggling with the amount of emails they are handling, therefore we start to question them, is email the right communication vehicle to engage with on all occasions?" notes Mills.

Although emails is one of the cheapest, simplest and direct manner of communication but with the mass amount one is dealing with, will adequate attention be paid to each email? That is one reason why users are not encourage to use 'reply to all', unless appropriate, and they are not advised to send out broadcast emails.

The training also touched upon emailing etiquette as users are taught to use out of office assistant whenever they are going away, and to use standard prefix such as URGENT, ACTION, REQ, FI and EOM to assist recipients as to how to handle the email. It is boldly noted that all emails are discoverable and if one would like to store important emails, it should be sent to the EDM promptly as Outlook deletes everything else after six months.

As of currently, the weekly email usage within the organization has decreased drastically from a nineteen percent increase compared to the same period last year to only a three per cent increase dating September 2006. The amount of emails received from BoE Outlook accounts during the period of October 2005 to January 2006 has also decreased by ten per cent in total over five divisions.

To further understand the BoE communications chart, a social network analysis was conducted to note who needs to speak to whom most frequently and what information is most needed by which specific person and the results were alarming.

A questionnaire was mass sent to all staff and in reply they have to indicate six people that they most frequently come into contact with, the survey was well-received and with the information gathered, a point chart was plotted to link the various people up together. The overall communications chart turned out like a mesh of fur ball.

Narrowing down to a six departments, a clearer picture was presented and the chart now looks more like a cobweb than a messy mesh. From there it was noticed that there was a breakdown in communication between certain departments, and most amusingly, the two departments that have absolute no contact with each other is the department of IT infrastructure development and the department that is in-charge of running the IT infrastructure.

Further analysing, the chart was zoomed into one specific department. This time, it looks like a neatly plotted mind map and through this chart, yet another intriguing fact was shown. In the case of this department, though supposedly to be working as a team, there are in fact two distinct cliques present and only one person is in contact with both parties. And interesting to note, these two teams are separated by six levels, so maybe distance and the floor you work at, does play a part in how effective communication will be.

After the detailed analysis and step by step explanation of how KM strategy is being carried out in the Bank of England, Mills sums it up by promoting the importance of information management, records management and information security: “The absence of control within the organization will lead to a lost in opportunities due to poor quality decision made as a results of inadequate information availability.”
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For more information or RSVP please contact:
Mr Wendy Tan Kim Sun, Telephone: (65) 6316-4600, Email: appsec@nus.edu.sg
General Practitioners go electronic

Infocomm Development Authority of Singapore (IDA) launches a US$10.5 million infocomm programme for General Practitioners (GP) to provide more personalised healthcare to patients.

Come 1st October, GPs in more than 1000 clinics will be able to tap on a four year infocomm programme launched by the IDA, to accelerate infocomm adoption in the primary healthcare sector. GPs are encouraged to leverage on infocomm to seamlessly update and retrieve their patients’ health records, through integrated Clinic Management Systems (CMS).

Presently, the adoption of infocomm by GPs is still low and many, especially solo practitioners and small GP groups, work on different systems to access patient information, billing charges and insurance claims. The integrated CMS will offer a comprehensive suite of functionalities through a single interface. This was announced by Dr Balaji Sadasivan, Senior Minister of State for Information, Communications and the Arts and Foreign Affairs, at the second annual International Healthcare Facilities Exhibition and Conference.

Beyond this integrated service, the CMS will eventually help GPs in Singapore to plug into the national healthcare network to achieve the Ministry of Health’s (MOH) ‘One Singapore, One Electronic Medical Record’ vision. In the future, the system will facilitate GPs to submit mandatory information to MOH, for example infectious disease reporting, immunisation reporting to the Health Promotion Board and access to patients’ allergies and medical alerts. Seamless flow of information can also be achieved via the CMS, to allow GPs to work in an integrated and coordinated manner with other hospitals and step-down care providers. Aligned with the MOH’s MediSave for Chronic Disease Management Programme, the CMS can help participating GPs with the capturing of clinical indicators so that GPs are able to keep track of their patients’ progress and enhance their care delivery as well as make MediSave claims.

In order for GPs and other providers to effectively participate in the care of patients within the healthcare ecosystem, it is necessary to accelerate infocomm adoption in these facilities. Patients, especially those with chronic diseases, and whose GPs adopt the CMS, will be able to benefit from better trending of their clinical record and reminders for their regular annual screenings. They will also benefit from smoother clinic operations and claims processes.

“Using IT can bring important new benefits to patients. Real time access to timely and accurate patient information will help doctors provide better care to patients. This is especially important for patients suffering from chronic diseases because they require coordinated care over the long-term. We hope that GPs will adopt the integrated CMS to provide more personalised healthcare for their patients,” said Yong Ying-I, Permanent Secretary, MOH.

Chan Yeng Kit, Chief Executive Officer, IDA said: “Like healthcare, infocomm is today an intrinsic part of our lives. By marrying the two, and harnessing our local infocomm capabilities, we can provide a more personalised standard of care to patients. With more than 80 per cent of the primary healthcare sector managed by GPs, the integrated CMS will form a fundamental building block of an infocomm-enabled personalised healthcare delivery system.”

IDA is working with leading Application Services Providers (ASPs) in the healthcare industry to provide a comprehensive suite of functionalities within the integrated CMS to the GPs. Through the ASP model, clinics can avoid high capital investments required to develop their own CMS. IDA is also working with the major medical groups to enhance their enterprise CMS. Currently, CrimsonLogic and Frontline Technologies are developing the integrated CMS solution to meet the GP’s needs. IDA is also working with Internet Services Providers (ISP) such as SingTel on special broadband subscription packages to the clinics.

UNITED ARAB EMIRATES

Awareness campaign for e-government services

Dubai e-Government is launching an awareness campaign next year to increase usage of its online services, according to Rehab Lootah, e-services provisioning manager. The organization aims to ensure that 50 per cent of government services transactions are carried out online by the end of 2007. Lootah said Dubai e-Government is confident of reaching this goal; the aim of the awareness campaign is to educate business users and members of the public on the online services available and how to access these.

“In 2007 we need also to focus on the enablement of the services plus the adoption of the services,” said Lootah. “We are not there yet but we have a campaign that will target the individual businesses, encouraging them to reach or to help us use those services and reaching the goal we have.” The campaign would also involve visits to schools and colleges, outdoor advertising, seminars and participation in community events. At the start of the year, the amount spent on online transactions had reached AED44 million (US$11.9 million) compared to just over 200,000 AED (US$54,000) in 2003, which is a good indication of the public’s confidence in online services.

The amount is tripling on a yearly basis, indicating both greater awareness and greater trust on the part of users. “Because when you pay online that means there is trust between the government and the people,” elaborated Lootah. In addition to ensuring 50 per cent of transactions are carried out electronically, Dubai Government also has a target to put 90 per cent of its services online by the end of 2007. Recently, Dubai Municipality announced it had reached the target a year ahead of deadline. Lootah said she expected all departments would follow but said teamwork and alignment between the 23 government departments was essential if they were to reach their goal.

“In Dubai we know that when we say something we do it,” she claimed. “The other government departments are in good shape but not all departments are on the same level. We want them to keep in mind that there is a mission that they have to accomplish by 2007,” she continued, warning that if one government department does not reach (the target) it will affect the overall objective.”
INDONESIA

Patching up local government to boost service delivery

Burgeoning local democracy needs to improve the delivery of services, especially to the poor. Poverty does not mean just a lack of income, but also a lack of access to services that would benefit the poor more than any other group, such as education, technology access, health services, clean water and sanitation.

“As fighting poverty has been declared one of the main priorities of the central government, improving service delivery to the poor should be the guiding principle of any local government,” says Paul Wolfowitz, World Bank President.

Strengthening democracy at the local level by introducing direct elections of heads of local governments, ie. governors, regents and mayors, has in some ways helped improve service delivery.

“An independent judiciary, a free press, and a vibrant civil society are important components of good governance. They balance the power of governments, and they hold them accountable for delivering better services, creating jobs, and improving living standards,” continues Wolfowitz.

“Some countries can achieve growth for many years without all of those factors. Indeed, Indonesia’s history in the 1970s and 1980s is an illustration of that. But the devastating economic crisis that followed here shows how fragile growth can be when institutions that keep governments accountable, transparent, and responsible, are systematically weakened.”

The system of decentralization needs complementary regulations or institutions, or may even require some changes in areas already in place to make it more responsive to the demands of the people, especially the poor. Another area that needs to be strengthened is the adoption of performance budgeting by local governments, which is mandated by the Public Finance Law. Currently, local governments are accountable to local people more than to the central government through local legislative councils, or DPRD.

KAZAKHSTAN

Justice ministry recognised as best e-government institution in the country

On the results of Best e-Governmental Agency/contest, Kazakh Justice Ministry is recognised as the winner in 2006, Kazinform refers to press service of Kazakhstan Agency on Informatisation and Communication.

The competition aimed at identification of the best state agency of Kazakhstan in information-communication technology (ICT) field and the best government employer introducing ICT.

Readiness of state institutions to use e-Government system for interaction of population and enterprises with government bodies was analyzed there.

The best government body had to meet following requirements: access of regulatory bodies to ICT, availability of electronic document management system and possibility of its using for changing of traditionally paper documents control, prosecution of government accounting and human capital assets.

AUSTRALIA

Local government delivers enhanced coastal data for Exmouth

Tides and Waves Coordinator Tony Lamberto said the Department’s second permanent ‘directional’ wave buoy had been deployed off Exmouth to provide fishermen, boat owners, surfers and the wider community with comprehensive information about coastal conditions.

The information from the buoy, which includes the direction and height of waves, would significantly benefit the safety of those going to sea and provide long-term data to assist in the management of the coastline and also in the planning and design of coastal infrastructure.

“The initiative represents a significant improvement in the information available to skippers operating out of Exmouth as previously they only had weather reports to predict conditions at sea,” Lamberto shared. “Now skippers can log on to the Department’s Coastal Data Centre website at any time and immediately access near real time data about the conditions off the coast.”

Lamberto said both the Exmouth and Rottnest ‘directional’ buoys had been deployed to provide information to complement data that was received from the Department’s network of 28 tide gauges located from Wyndham to Esperance and also the five wave buoys at Jurien, Cottesloe, Naturaliste, Albany and Esperance which only measured the height of waves.

“The quality and detail of the coastal data collected by this network is a valuable resource. It is used for coastal infrastructure planning and design, and all maritime commercial and recreational activities including marine safety,” reveals Lamberto. “The information adds to our understanding of the wave climate off our coast and we can use that information to better manage our coastal resource. The information is also used by the Bureau of Meteorology as part of daily weather forecasting.”

Recommended link:
Ministry of Justice
www.minjust.kz

Recommended link:
Coastal data website- Department of Planning and Infrastructure

Recommended link:
The World Bank
www.worldbank.org

To make the system of decentralisation complete, we need to empower local people so that they can do their part in overseeing the performance of local governments,” asserts Wolfowitz.
Overcoming obstacles to PPP in Singapore

Singapore is farming out S$1.3 billion (US$843 million) worth of projects to the private sector over the next 3-5 years, allowing it to operate big public projects. Analysis: Professor Wang Shou Qing & James Tan.

Under the PPP scheme, certain public sector projects worth more than S$50 million (US$32.4 million) may be outsourced to the private sector, with concessions lasting up to 30 years. Singapore is adopting the PPP approach as part of the government’s move towards better value for money. This is unlike a number of developing countries which are employing PPP for budget reasons. However, there are apparently a number of obstacles to be overcome before PPPs can be widespread in Singapore. This article focuses on the pertinent issues in the Singapore PPP scene and provides suggested solutions where possible.

The tasks of government

The Ministry of Finance in Singapore has commenced a committed promotion of PPPs since its first project in 2003. But apparently, the concept of PPP has not sunk into the consciousness of all the industry players. This group of participants includes lenders, sponsors, construction contractors, facility and operation managers. The government’s lead in pursuing PPP - a method whereby the private sector delivers services and facilities to the government - is still relatively unknown territory to many of them.

It is especially important to educate and not to isolate certain participants such as the construction contractors and facility managers in Singapore whose main expertise manifest in the construction and post-completion stages of the project rather than the pre-construction investment analysis phase.

Towards the end of raising the understanding of PPP, the government firstly has to attain some level of expertise in it. Many countries have found that the private sector can only add value if the public sector specifies well. This is in addition to having an external consultant experienced in PPP like a legal and/or accountancy firm to advise the public sector. That being said, realistically, it takes time for the public sector personnel to get up to speed about the societal and financial aspects of PPPs.

It may take 4 to 5 years to truly comprehend the fundamentals of PPP and this comes about only by being thoroughly involved in PPP for that whole period of time. Secondly, the government would do well to identify more projects and areas where it wields monopolistic power and to instead allow private partners to play an active role in without compromising the public’s welfare. Thirdly, the public sector can engage the various professional associations like the Institute of Engineers of Singapore, Singapore Contractors Association Limited, Singapore Investment Banking Association and others to help potential players demystify the subject of PPP as well as catalyse a change in traditional mindsets about project and project finance.

It should be noted that it is important not to blindly import the practices of more established British or Australian PPP methods into Singapore. Major issues still have to be scrutinised to see if they are suitable or must be tweaked to the Singaporean context. This is important as infrastructural polices affect societal, political and cultural sensitivities.

A breadth of projects on offer

The range of projects until now in Singapore has included a desalination plant, a water treatment plant, an incinerator plant, an IT software system project, a sports stadium, a school, a university hostel and a network cabling project. The government has been cautious in the selection of pilot projects to implement to ensure that the PPP scheme does not die a premature death due to a single wayward project. Having said that, the government has recently unveiled the Sports Hub project, which is the world’s largest sports facilities PPP project.

This is indeed an indication of the commitment and optimism the Singapore Government has in PPP in the long term.

In reality, it is difficult to define types of project that are high-risk. And whether they work in the local context is another matter altogether. For example, the transportation and the health sectors provide many examples of successful PPP schemes. Many housing, school campuses and prisons adopting the PPP approach have proved effective also. But it cannot be generalised in this manner. Further, it should be noted that very often, a multi-pronged approach to each project has to be adopted. For instance, secondary policy issues such as fare control and land-owning policies have to be tweaked or conjured up to raise the “profitability” prospects of a project so that private players will take it up.

Clarity of PPP documentation

From the above, it is seen that the types of Singapore PPPs implemented so far have...
differed significantly. Needless to say, the project documentation in important aspects still lacks uniform standards, causing a bottleneck in the documentation process. Standardisation of documents is an issue that every country including Singapore, implementing PPPs is grappling with. Indeed, it is not easily solved. Many states face this same problem after decades of employing PPPs.

Standardisation can only be achieved through time and a body of precedents. Success of PPP would in part depend on the standardisation of documentation for private applications. However, with so many projects underway of different sizes and genre, model documentation is unlikely to happen any time soon. Model documentation is a work in progress. Whilst expending resources on standardisation measures, attention should also be better spent on refining the substantive commercial viability and value for money return of each type of projects.

This is especially so for countries who have only recently embarked on the PPP route. Investors must be confident that the project is bankable and the processes of the deal transparent. Mainly, the critical success factors are that the contract must be well-defined and the terms fair to both the government as well as the investor. Other factors include a robust contract, revenue protection, land certainty and protection against possible changes affecting the public agency buying the service.

**The real cost of financing**

The cost of financing an infrastructural project in Singapore is still in the healthy range. It has not reached a stage whereby bidders are put off by the financing costs relative to their expected returns.

Nevertheless, Singapore can take a leaf from one of the innovations of the United Kingdom government in achieving further financial incentives for potential players. The United Kingdom government has set up a Credit Guarantee Finance (CGF) scheme whose aim is to reduce up to ten per cent of the costs of PPP projects by using the government’s cheap borrowing costs, while letting the private sector bear the credit risk. Under the CGF, the government issues Gilts (Risk-free bonds) to finance the project and lends the money to the project company. The State then lays off the credit risk to a bank or monoline insurer through a credit guarantee.

Although these institutions need remuneration for taking the risk, savings is likely achievable. Besides cost savings, the CGF also helps to diversify the sources of funding for PPPs. By this way, the CGF does not replace conventional private finance but merely supplements it. The Treasury has been circumspect about the future balance, but market participants believe a successful CGF would finance between a third and a half of PPP projects.

On a regional scale, bond market cooperation can be an important avenue for fostering regional infrastructural development and enhance the region’s position in the global arena. With the private sector being increasingly responsible for arranging financing for public projects, this will also add on to the demand for bond issuances and enlarge the pool of assets available for securitisation.
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Combined efforts to facilitate cross border trading and investment within the region is beneficial for the local bond market development as it increases the pool of investors and liquidity. Greater regional cooperation will ensure sustainable development and insulate the region from international financial and capital markets risks.

**Inadequate size of deals**

It has been remarked that the deals in Singapore are typically not big enough to attract investors, especially overseas ones. Invariably, the big-ticket projects are the ones that will capture the imagination of international sponsors and lenders. Further, there may be an insufficient number of similar-type projects to attract investors.

The market prefers to see a pipeline of similar transactions being developed in an orderly and consistent framework. This is so that the investors can build on their previous experience and achieve greater economies of scale on another similar project. The down side is that this may make one-off PPP projects, particularly small ones, particularly unappetising to potential players.

This may be a reality that Singapore faces, apart from the odd large-scale project that it may put into action. Nevertheless, one solution is to bundle similar projects together. For example, schools, fire stations, police stations, and similar small capital value projects within a PPP project can offer economies of scale to investors. The public sector benefits from a focused and consistent approach to the delivery of the projects objectives. The private sector will naturally be more willing to invest in schemes greater than critical mass, as such schemes bring greater scope to offer innovation and deliver more cost-effective solutions in terms of finance, capital, life cycle, and operational costs. Further, bid costs per project reduce as the number of projects increases.

**A lack of benchmarks**

Currently, Singapore PPP tendering is done without employing a Public Sector Comparator. The government’s main reason for PPP i.e. value for money is expected to be delivered without any strict benchmarking. However, benchmarking provides for efficiency gains to be projected from implementing a project during the tendering process. This allows for improved efficiency and cost savings and is an important part of the risk allocation process through competition of the private sector bidders and efficiency gains in the market feedback period.

Further, a team of experts or consultants can be commissioned to assess how services are being delivered and satisfaction levels periodically. As a general rule of thumb, in assessing value-for-money on a whole of life basis, the cost of private sector capital (which is typically 1 – 3% higher than public finance) must be offset by the lower running costs over the life of the infrastructure.

Another suggestion to note is that output specifications should be adhered to but not to the letter. Not only must the private sector supplier fail to deliver the service, it must also fail to remedy within a prescribed time before it may suffer remission from the payment it was going to receive. The broad aim of PPP is to incentivise the private sector supplier to remedy or improve its service, not to bankrupt it. It is probably more appropriate to agree to an increasing remission related to the number of criteria which are not being met.

**The value of short tender periods**

The tender period for Singapore PPPs so far is kept at a relatively short period. This is healthy. Even for a complicated project such as the Singapore Sports Hub, the tender period is a mere one year and four months from pre-submission qualification to appointment of the successful bidder (this is assuming the government is able to keep to its timeline as the tendering remains ongoing at this point in time). For a relatively simpler PPP project such as the student hostel accommodation project, the tender period was only nine months.

The tender period until the service provider is named can range between ten months and three years. If the length of time it takes to bid for a PPP project is too long, it may put off many potential investors, thus reducing the number of bids to
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make a tender competitive. The extension of the Docklands Light Railway in south-east London to a nearby airport is the type of project that might potentially attract committed bids from many but only has two. Similarly, the Supertram project for the northern English city of Leeds has only two bidders even though nearly 100 companies attended the meeting to launch the tendering process. A major attributing factor is the long tender period. If local contractors are involved in a mega project where they are expected to carry large bid costs for a long time, they may have to stop bidding for other projects. Thus, contractors will invariably be able to participate in fewer projects if the bids are going on for too long. Further, the problem of a lack of bidders can be attributed to a perception that private sector capacity can be switched on instantaneously. However, such capacity requires time not only to grow, but also to convince private sector players to develop the capacity in the first place.

Cost of tender

The cost of tender preparation may be prohibitive especially for small projects. In respect of Singapore’s first PPP ie. the desalination plant project, the cost of tender preparation alone paid out to accountants and lawyers amounted to half a million dollars. This is a significant figure for a S$158.5 million (US$102.8 million) project.

The typical fee structure is that the client pays a relatively low fee to each adviser up front and then more if they win the bid. For large contracts, the transaction costs are intimidating but may be justified by the potential earnings of the project.

The fees asked for are reasonable if you consider the amount of work and resources that go into a project. For instance, 40 people at Mallesons were on the job for a year-and-a-half for Connect East, the consortium that won the bid for the Mitcham-Frankston project. The problem is that for smaller contracts, if the bidding costs are S$2-3 million (US$1.3-2 million), this can be prohibitive. Clearly, the small to medium sized projects can hurt the pockets of investors and construction companies. The complexity of bidding doesn’t vary that much between projects of different sizes but the transaction costs can be high for some small projects relative to the project value.

Outlook

Countries around the region have all expressed interest in jumping on the PPP bandwagon, albeit motivated by different reasons. Indonesia needs PPP for financial and technical reasons whereas Malaysia’s inclination towards PPPs appears to be more politically and socially motivated. More opportunities in PPP will open up in China, Korea, Hong Kong and the Philippines. However, it remains to be seen if PPP can indeed fulfill Singapore’s aim of value for money. The tangible benefits will take at least several generations of public officials to manifest themselves. So far, the small number of PPP projects implemented in Singapore has all proved commercially viable with potential social benefits.

In the broader scheme of things, Singapore can latch onto its excellent reputation in infrastructural planning and operation and put one more string in its bow by developing exportable PPP skills eg. Singapore contractors’ experience in doing PPP projects can enable them to export the skills they learn to other countries in the region, just like how the South African and Australian firms are becoming active in their regional PPP markets. Moreover, the PPP concept is a useful counter approach to outright privatisation.

This method marries private initiative and services with the authorities’ need to provide critical social goods, services and distribution to the people. Most importantly, public assets remain in public hands, although its services are farmed out to the private sector through an agreement or partnership. Indeed, Singapore is already aided by its established legal framework and commercial transparency to help push the PPP movement. It would do well to identify the obstacles along the way and effect strategies to overcome them. Only then would it be able to entrench PPP as a long-term strategy for infrastructure in Singapore.
Indian government sets up 100,000 Common Service Centres

Government’s decision to create a network of 100,000 e-kiosks, to be known as Common Services Centre (CSCs), in the rural areas in 2007 is to become a reality. e-kiosk is seen as a nodal point to make e-governance meaningful. It is when villagers can transact official business through the network of e-kiosks that it can be claimed digitalisation of governance has been achieved.

E-kiosk is being seen as an ICT unit that includes PCs, printers, digital cameras, scanners, projection system and tele-medicine equipment.

The kiosk project is being structured as a three tier system, with the village-level entrepreneur (VLE), who will manage the kiosk, and who is being seen as a franchisee. The next level is that of the Service Level Agency (SLA), with an apex agency facilitating the service at the state level.

To work out the modalities, the Department of Information Technology (DIT) has chosen Infrastructure Lending and Financial Services (IL&FS) as the national level agency (NLA). The mission-mode is the favoured means to implement the scheme.

A private document of IL&FS looking at the implementation of the CSC project argues for a bottom-up model that “can allow like-minded public and private enterprises—through a collaborative framework—to integrate their goals of profit as well as social objectives, into a sustainable business model for achieving rapid socio-economic change in rural India.” The basic model on offer is a public-private partnership.

It is clear that government alone will not be able to create the 100,000 e-kiosk network because lack of funds will remain an obstacle. Private-sector participation will enable the scheme to be a sustainable one by creating an appropriate business model.

It is argued that this is not the first time that private sector has played a key role in the rural sector, especially in spreading rural connectivity through satellite technology and by offering entertainment through cable network. So it does make sense to harness the capability and expertise of private sector to spread IT-enabled services in the rural sector.

The promising part of the scheme is its employment potential. It is projected that the scheme would create 225,000 direct jobs in the villages, apart from the indirect job opportunities through the expansion of rural markets.

Sabah plans to develop a knowledge park to stimulate information and communications technology development in the state. Datuk Dr Yee Moh Chai, Resource Development and Industry Minister shares, “My ministry is currently in discussion with institutions of higher learnings such as Universiti Malaysia Sabah.”

This development is aimed at getting inputs on how best to set up a platform to integrate the existing ICT infrastructure and pool of information technology savvy workforce to produce multimedia products and service like the Multimedia Super Corridor (MSC) project.

“Our focus would be on ideas generation, innovation, creativity, and research and development. Malaysia looks set to tap into its potential pool of untapped talents,” says Dr Yee. “If we can combine the technological and management know-how with the artistic talents of the young and the old, I am sure we have a winning formula. Our success depends very much on our own attitude. A positive one will definitely help us to move forward.”

Although Sabah may lack behind in terms of infrastructure compared with other states, he said Sabah has some niche advantages in developing multimedia contents given the artistic talents of its young people.

Sabah’s unique multicultural society, strategic location and commendable infrastructure would certainly play a major role in enabling the growth of the local knowledge-based economy. It has one of the highest mobile phone subscribers’ growth rate which shows a total reflection of the desire of its people to use technology equipment to communicate and indirectly improve its productivity.

To date the Sabah state government has already achieved much in developing multimedia applications and technologies such as the Sabah.Net, e-government applications, des@net and e-Desa, notes Dr Yee.

Malaysia looks set to tap into its potential pool of untapped talents, Malaysia looks set to tap into its potential pool of untapped talents. It is projected that the scheme would create 225,000 direct jobs in the villages, apart from the indirect job opportunities through the expansion of rural markets.

These numbers are considered to be modest in relation to the size of the problem – but event so are likely to challenge the ability of administrators to execute on the ground. The 100,000 e-kiosk scheme will be an interim stage, and there is potential for substantial growth in the future.

The scheme also conforms to the long-term plan of Prime Minister Manmohan Singh’s economic reform agenda that the net should be cast wide to bring in beneficiaries. The focus on rural areas is therefore a key platform of the central government’s development agenda.

The CSC scheme is a necessary complement to e-government. The e-kiosk will enable the village to access the information and services that government offers through its e-government windows.

Instead of doing the endless and fruitless rounds of government offices in the village and in the district headquarters, where the hierarchy-based bureaucracy throws its weight around, villagers can access information as well as get work done more efficiently through IT modes.

If more than one service provider exists, then competition will keep prices down as well as ensure that people are not taken for a ride.

More importantly, it is one of the best ways of empowering economically and socially weak villagers. By giving them access to computers they will be brought within the scope of the digital economy.

The administration hopes that by giving information to the poor, the poor will then be in a better position to help themselves climb out of poverty and illiteracy. The kiosks will be the interface through which that information is distributed.

Recommended link:
Department of Information Technology
www.mit.gov.in

Recommended link:
Sabah e-government network
VIETNAM

Vietnam’s Deputy PM emphasises IT applications to alleviate poverty

Deputy Prime Minister Pham Gia Khiem noted that Viet Nam considers information and communication technology (ICT) development one of the key factors to achieve hunger eradication and poverty reduction target.

“ICT is an important driving force of development,” the Deputy PM stressed, “it helps increase enterprises’ competitiveness, effectively supports the nation’s international economic integration, and contributes to improving people’s living conditions and ensuring national security and defence.”

The minister spoke highly of ICT cooperation initiatives raised by ASEM members. In recent years, ASEM members have encouraged ICT cooperation programmes, especially those focusing on ICT application in education and health as well as improving rural people’s living conditions.

The first-ever ASEM ICT Ministerial Meeting is organised at Viet Nam’s initiative on ‘Promoting ICT applications in human resource development and capacity building’ which was approved by ASEM members’ leaders at the 5th ASEM summit.

At the two-day meeting, ministers will discuss and approve cooperation programmes and activities to promote ICT applications and mutual support in ICT among developed and developing countries. Especially, priorities are expected to be given to universalising ICT services, and step-by-step bridging the gap of development among ASEM members and between the two continents.

Ministers are expected to release a joint communique on the meeting’s results and concrete cooperation fields at the end of the meeting. Several proposals and cooperation projects with the participation of ASEM ICT enterprises will also be approved.

The meeting attracts about 250 participants from 42 ASEM delegations.

THE PHILIPPINES

ADB signs US$500,000 grant to boost civil service through ICT

ADB and the Philippine Government have signed an agreement for a US$500,000 grant that will use information and communication technologies (ICT) to promote enhanced information sharing and exchange among the country’s civil servants.

The grant assistance is funded by the Government of Japan through the ADB-administered Japan Fund for Information and Communication Technology (JFICT).

Central to this will be the planned development of ICT to modernise and strengthen the integrity of the Government and resource development structures, systems, and processes. The improved availability of data and information will help rationalize the selection, appointment, placement, promotion, and career/capability development of state managers and strengthen compliance with state policies and laws.

Civil servants can be an important agent for change, and improvements in the ICT infrastructure supported by this project will help facilitate the process. The project is expected to develop and operate a shared database; web portal; and online products that include a system of learning and skills application modules for management concepts, tools, and data commonly used by third level executives.

The government will contribute US$250,000 toward the project’s total estimated cost of US$750,000. The Civil Service Commission (CSC) will be the Executing Agency for the project.

A steering committee will be created to provide overall guidance and facilitate coordination among government agencies. The project will be carried out over about 18 months.

SRI LANKA

E-Citizen program empowers citizens with IT knowledge

Computer usage is widely considered to be an important source of economic and educational opportunities as well as a means of communication and connection with the global community. Unfortunately in Sri Lanka, most of the population remains cut off from this important resource. According to a survey by the Department of Census and Statistics in 2004, ICT literacy is as low as 10%.

This figure is shocking considering that Sri Lanka tops other South Asian countries with its high rates of overall literacy. Although this problem seems immense, hope is here in the form of the ‘e-Citizen’ program, an initiative of the Information and Communication Agency of Sri Lanka (ICTA).

‘e-Citizen’ is targeting an initial 100,000 citizens and ICTA is mounting an island-wide ICT literacy drive. The project promotes internationally recognised ICT certifications to the Sri Lankan public at greatly lowered rates in order to make the courses more accessible. As an added incentive ICTA refunds the cost of the examination fee to all participants upon passing the final examination.

‘e-Citizen’ provides opportunities to all citizens for basic ICT skills training. People from all walks of life including students, youth, professionals, labourers, and housewives all find an improvement in their lives through the ICT training offered by the ‘e-Citizen’ project.

In parallel, ICTA will also raise awareness and provide incentives for private training institutions to expand their current training networks and centres in all parts of the country. With the increased awareness being created it is hoped the project will have a catalytic effect on ICT skills adoption, with a targeted 60% ICT literacy rate in the country by 2009.

‘e-Citizen’ will also help to ensure that quality courses for ICT education become the norm as citizens deserve only the highest standard in ICT education.

ICTA’s mission is simple— the creation of an ICT literate society and skilled workforce and the fostering of the engine of a knowledge driven economy and society to serve our long term goal of economic prosperity. ICTA’s current projects include training in basic ICT skills for over 10,000 government employees, creating a workforce of over 20,000 to meet the needs of the emerging IT Enabled Services industry and most importantly increasing ICT literacy levels in line with the vision of the State’s Mahinda Chintana. The ultimate beneficiaries of the e-Citizen project will be the family, children, and the Sri Lankan workforce of today and tomorrow.

Recommended link:
Asian Development Bank
www.adb.org
Singapore school leverages ICT for global immersion

Technology is making the world a virtual classroom at Nanyang Girls High School.

Established in 1917, Nanyang Girls’ High School (NYGH) has a long tradition of academic success, and more recently technology innovation. It instituted a fully wired campus in 1999, and the IT department of NYGH has played an important role in modernising curriculum delivery. Also in 1999 the school launched its first ever web-based email and e-record books, and each staff member has been issued with a notebook.

“This was a very bold step by the then Principal, Ng-Gan Lay Choo as she wanted to equip every staff member with the very best that IT could offer,” says Chi Pin Lay, Dean of Marketing and Technology, Nanyang Girls’ High School.

In December 2002, the school partnered Wizlearn, a spin-off of National University of Singapore (NUS) to customise the IVLE, a Learning Management System (LMS) for our students. This was at a time when the LMS was not common amongst secondary schools.

In 2003, the SARS outbreak which forced schools in Singapore to close resulted in high usage of the system amongst staff and students.

In 2005, the school partnered the University of New South Wales to customise an online ‘creative peer-to-peer portal’ for Secondary One and Two students (13-14 year olds) to showcase their e-portfolios for IT Education and society.

One class of girls per semester was selected to use the tablet PC lab as a classroom and they were issued the tablet PCs free of charge. They are allowed to take their tablet PCs home or use them in school. “We firmly believe that pen-based computing is here to stay so the girls do not have to pay for trying out new technology,” says Chi.

97 tablets were issued to teachers in July this year in recognition of the increasing importance of pen-based learning. NYGH was also selected by the MOE to be one of the LeadIT@ Schools in recognition of the school’s good effort in using IT as an enabler – the school was awarded S$75,000 (US$48,720) over three years to do action research on e-portfolios.

Seeding ICT

Also in this year, the Infocomm Club was formed at NYGH with the seed money of S$40,000 (US$26,000) from Infocomm Development Authority (IDA) of the Singapore government for over a period of three years to promote and fund infocomm training for the students.

The Infocomm Club programme is part of IDA’s larger Student Infocomm Outreach programme under the infocomm Manpower Development Roadmap. A joint effort by IDA, the Ministry of Education (MOE) and industry partners, the programme aims to:

- Excite students about the possibilities of Infocomm in a fun way
- Expand students’ creative and entrepreneurial spirit through application of Infocomm in school and society
- Provide a platform where Infocomm industry partners in collaboration with IDA can play an active role in developing the youths in schools

Infocomm Clubs are targeted at primary, secondary school and junior college students. The initiative started in January 2006 with some 30 schools, but over the next three years, more than 150 schools will have Infocomm Clubs.

Benefits of Club participation include potential credit exemption and/or direct admission into Infocomm courses at Institute of High Learning schools. Students also enjoy mentorship opportunities and certification by industry partners when they complete there membership. Infocomm clubs offers structured curriculum in new Infocomm growth areas such as Animation, Virtual Reality, Video Software, Web Publishing, Security and Networking Software, Mobile Content, Software and Applications, Security, Mobile Content Software and Applications, Security, games development and Digital Media.

Global classroom

“The learning environment today is very different from what it was 20 years ago,” says Mak Lai Ying, Principal of Nanyang Girls High School Teachers. “Parents and traditional media are no longer the primary source of knowledge. There is a paradigm shift in how students learn through online peer-to-peer and teacher-to-peer interactions and discussions.”

Mak continues, “Technology is a key enabler to boost our next generation’s learning capacity and we should develop our students beyond their school curriculum, to develop broader perspectives and deeper awareness of global, social and economic issues.”

This year, the school organised the first ever Silicon Valley trip as part of the end-of-study sabbaticals. The trip is made possible with contacts established with top IT companies like Oracle, Adobe and Google.
and supported by IDA. The trip is conceived as part of the Secondary Four (16 year olds) End-of-Year Programme (Global Classroom).

“We are probably the first school in Singapore to organise a study trip to Silicon Valley that is completely customised according to our students’ needs,” says Chi.

The objective of the trip is to expose students to the spirit of entrepreneurship and innovation that is prevailing in the successful IT companies like Google, Adobe and Oracle.

“We hope that through the trip, students may be inspired to learn more about the history, development and applications of Information and Technology,” explains Chi.

The trip also allows them to learn more about studying in the US from their visits to the top universities like Stanford and University of California (Berkeley) and interact with the NUS students who are on an exchange programme in Silicon Valley. To enhance the learning experience, the students have been organised to do group research on various organizations and places which they will be visiting prior to the trip. They have been sharing their research on Think.com hosted by Oracle.

As the names ‘Global Classroom’ and ‘Regional Community Involvement Programme’ suggest, the programme makes sense that NYGH students get on board the global educational community of think.com.

NYGH is using this platform as a pre-trip preparation for its work with street children and children rescued from child exploitation in Bangalore, Calcutta and Hanoi. “The fact is that our students come from privileged homes and have little first-hand knowledge or experience with people or communities outside their own,” explains Mak. “This platform allows students to read, reflect, and discuss the very sensitive issue of child labour, all within a safe and controlled environment.”

In the meantime, NYGH’s tie-up with a teacher in a Bangalore school, allows for virtual exchange on the shared issue. “Our hope is that we may in the near future help schools like Bornfree arts School Bangalore (an arts school for street children) set up their Think.com community so that they too may have enriching exchanges with the world outside their own,” adds Mak.

NYGH hope to do with sustainable help from Bangalore institutions or organizations in terms of infrastructure, hardware and training.

“As we scaled new heights in harnessing technology to enhance our curriculum, we look forward to using Think.com for our students to present e-portfolios and allow for collaborations across countries and cultures,” elaborates Mak.

NYGH is pioneering the project with its students in the following three programmes: the Bicultural Studies (Chinese), the Regional Community Involvement Programme at Bangalore and the Silicon Valley Programme.

“As we send more and more students overseas for attachments, the learning can start even before they see their counterparts overseas,” explains Mak. “Learning also does not stop when they arrive back home in Singapore. This will be our part in helping Singapore nurture bicultural leaders.”

The learning environment today is very different from what it was 20 years ago. Parents and traditional media are no longer the primary source of knowledge. There is a paradigm shift in how students learn through online peer-to-peer and teacher-to-peer interactions and discussions.

**Recommended link:**
Nanyang Girls High School
www.nygh.moe.edu.sg/
Two-day conference and full day workshop:
27-29 November 2006, Avillion Hotel Sydney, Australia

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- ACT Department of Education and Training
- Tabcorp
- Monash University
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www.ark-group.com
China-Japan-Korea robot technology seminar in Beijing

The first ‘China-Japan-ROK Robot Technology Seminar’ was conducted in the Beijing International Convention Centre on 9 October 2006. Ma Songde, Vice Minister of Science and Technology attended and addressed the conference. He proposed that scientists of the three countries should strengthen exchange and collaboration in robot technology and industrialisation.

More than 70 representatives from government, research institutions, universities and enterprises of China, Japan, and Republic of Korea attended this seminar, which was cosponsored by the Department of High and New Technology Development and Industrialisation of China’s Ministry of Science and Technology, Japan-China Organization for Business, Academy & Government Partnership of Japan and the Department of Industry and Technology in the Ministry of Information and Communication of ROK.

At the conference, government representatives talked about the strategic planning of each country for the development of robot technology. Relevant experts and enterprises introduced their research work and discussed cutting-edge technologies as well as international exchange and collaboration.

Recommended links:
The China-Japan-ROK Ministries of Science and Technology
www.most.gov.cn/eng
www.most.go.kr
www.mext.go.jp/english

New municipal wireless solution released

Rising interest in municipal wireless deployments in the region has led to increased effort on the part of vendors to provide the region’s city administrations with solutions that help governments embrace broadband wireless as a strategic way to deliver efficient services that keep communities safe and productive, as well as economically competitive.

Nortel has released a new solution that combines a comprehensive portfolio of Wireless Mesh, Wireless LAN and WiMAX technologies with a full suite of Nortel Global Services, giving customers the solutions they need to design, deploy, support and evolve municipal wireless networks. The company has been involved with the design, launch and installation of hundreds of public and private wireless networks around the world.

For municipalities interested in partnering with private sector companies, Nortel looks to connect customers with operators that best meet the economic development and public safety needs of the community.

The Municipal Wireless Solution, demonstrating how broadband wireless deployments can help governments lower operational costs, enhance the level of municipal government services and increase economic development and public safety for communities.

The company’s next-generation technologies, for both service providers and enterprises, span access and core networks, support multimedia and business-critical applications and help eliminate today’s barriers to efficiency, speed and performance by simplifying networks and connecting people with information.

Children’s hospital ERP improves patient care

Children’s Hospital and Health System has successfully implemented Oracle’s PeopleSoft Enterprise Applications to create an integrated enterprise resource planning (ERP) solution that is helping the hospital enhance operational efficiency and productivity.

Located near Milwaukee, the health system provides medical care for children through its flagship member, Children’s Hospital of Wisconsin, as well as family support and mental health services through Children’s Service Society of Wisconsin. The health system, with operations spanning multiple sites, deployed PeopleSoft Enterprise Human Capital Management, PeopleSoft Enterprise Financial Management and PeopleSoft Enterprise Supply Chain Management to automate its largely paper-based systems, driving improved productivity, facilitating financial reporting and streamlining materials management. Built on a single Oracle infrastructure, the health system’s implementation integrates information from across the organization for improved data integrity and comprehensive business intelligence.

“By leveraging Oracle Applications to streamline and automate our business processes, we are able to expand our focus on efforts designed to continually strengthen the quality of care we deliver to our patients,” said Children’s Hospital and Health System Vice President and Chief Information Officer Michael Jones.

“Oracle provides the operational backbone needed to help improve efficiency and business intelligence, and support quality improvements.”

The health system further enhanced its ERP system with PeopleSoft Enterprise Supply Chain Management to efficiently manage supply inventory, enhance materials services and improve clinical staff productivity. The system integrates directly with its group purchasing organization to help reduce supply costs and increase processing efficiencies. For example, the new supply chain management solutions interfaces with a third-party barcode-based operating room solution and personal digital assistant (PDA)-based supply cart management system to automate inventory management, allow real-time integration, enable decreased processing times and allow clinical staff to focus on providing care.

“Healthcare organizations today face intense pressure to improve patient care while reducing operating expenses,” said Oracle Vice President of Health Industries Mychelle Mowry. “Oracle applications and technology help healthcare providers, like Children’s Hospital and Health System, to streamline operations and expand business intelligence, freeing resources to ensure continued improvement of service to the people that need care.”

Recommended link:
Oracle Asia Pacific
www.oracle.com/global/ap/index.html
New Zealand’s Public Sector ICT Congress

- Identify what leading government ICT decision-makers consider their top priorities
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**SAP framework for ROI promotes better governance**

“Top line revenue and bottom line growth – if you use that as a framework in the public sector you can get into a lot of trouble,” chuckles Tom Shirk, President, SAP Global Public Services.

Shirk was speaking on the sidelines of meetings with regional clients, during a tour through the region, and was keen to talk about the vexed issue of demonstrating clear cut ROI to all the stakeholders in transformational government IT programmes.

“When political parties change as programmes are in mid-cycle, and a new government comes in, if there is not a framework to explain what the value is, the project will get chopped,” he continues. “And then there is the issue that some project have a social return, but if your metrics don’t measure that, then it will go unrecognized.”

One example Shirk cites in support of this is an IT transformation project that SAP were involved with in Western Australia: a 100 per cent return enabled the police to redeploy staff, and put more officers back on the streets. This was something that helped with the political ROI – because the police ended up doing what the politicians had said they were going to do.

“Of course there are varying degrees of precision in the measurement of all this,” admits Shirk, “but the point is that if you assign values to things, then you can track the performance of investments, and manage things for the better. There will always be trade-offs, but we have been working with a broad range of customers and partners to establish a meaningful framework to gauge ROI, and one that is neutral enough to accommodate very different public sector organisations.”

In August SAP unveiled a new methodology, jointly developed with the Centre for Technology in Government at the University of Albany.

**Recommended link:**
SAP ROI methodology
www.sap.com/industries/publicsector/roi.epx

**Enterprise solutions not suitable for administrations in developing countries?**

According to a recent paper in the Electronic Journal of Information Systems in Developing Countries (EJISDC), simple knowledge management solutions, and especially virtual communities, are considered the ‘most appropriate’ for developing countries. Enterprise solutions, on the other hand, are not considered suitable.

Nations with extensive interactive, knowledge-supported services, the 2001 study noted, typically also maintained considerable IT and government infrastructure to offer these, and were generally well funded. Authors of the recent paper, entitled ‘Enhancing e-government in developing countries: managing knowledge through virtual communities in the August issue of EJISDC’, question whether throwing money at e-government and knowledge management solutions will help bridge this gap.

In their investigation, Christian Wagner, Karen Cheung and associates of the City University of Hong Kong conclude that knowledge management is needed to facilitate information exchange and transaction processing with citizens, as well as to enable intergovernmental knowledge sharing and integration, and that the internet offers significant potential for developing countries, especially the creation of virtual communities which are “inexpensive and technically simple”.

“Virtual communities enable knowledge exchange and have been demonstrated to facilitate the exchange of know-how, both in the public and private sector throughout the world,” noted the authors. Several success stories point to their effectiveness for knowledge management in developing countries. No similar accounts could be found for enterprise solutions, they concluded.

**Recommended links:**
EJISDC website
www.ejisdc.org
City University of Hong Kong
www.cityu.edu.hk

**New security risk management strategy for government**

McAfee has announced its Security Risk Management strategy, designed to provide government with a more effective way to minimise risks from security threats and non-compliance.

This strategy builds on McAfee’s core strengths in threat prevention by adding new compliance management capabilities including remediation, network access control and data loss prevention.

With this announcement, McAfee has become the first IT security company to integrate threat prevention and compliance management, providing enterprises with greater automation, operational efficiency and protection of their investments.

Ashley Wearne, McAfee’s Vice President of Marketing and Integrated Solutions in Asia Pacific, said growing compliance and regulatory requirements, coupled with changing threat environments, have forced enterprises to re-think how they approach and manage security.

“Many organizations spend an enormous amount of time and money to manage security risks and to demonstrate compliance, but the smart enterprise must apply a business discipline to security, in order to manage IT risks to an acceptable level without draining corporate resources.”

McAfee’s approach to Security Risk Management provides a comprehensive approach to controlling IT risks that encompasses both threat prevention and compliance.

IDC research analyst Brian Burke said for years, organizations have focused security efforts on external threats posed by the explosive growth of viruses, spyware, blended threats and spam, but the situation is now changing, especially in light of new government and industry regulations that require organizations to protect the integrity of customer and employee personal information and corporate digital assets. “As non-compliance may result in substantial fines and executive liability, organizations are realising that information by insiders is a threat that can no longer be underestimated.”

IDC estimates the worldwide security compliance and control market to be valued at approximately US$5.79 billion in 2005 and forecasts this to grow to US$14.92 billion in 2010, representing a 20.8 per cent compound annual growth rate over the five years.
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**Section A - PERSONAL DETAILS**

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**Section B - ABOUT YOU**

**What are your primary topics of interest (tick all that apply):**

- Master planning
- Urban regeneration & renewal
- Intelligent buildings
- Water treatment
- Disaster Recovery
- Civil engineering
- Waste & refuse management
- Transport & logistics
- GIS
- Payroll, HR, Finance solutions
- Construction
- Architecture & urban design
- Lighting & lighting management
- Power transmission
- Green power & energy efficiency
- Telecommunications
- Mesh/WiMax
- Infrastructure financing
- Emergency planning
- Conservation strategy
- Road management

**Describe your key areas of responsibility:**

- Elected/civil leadership
- Local government
- Central government
- Urban planning
- Municipal works
- Architecture & design
- Investment promotion
- Urban transport
- Ports / Airports
- Environmental policy
- Infrastructure finance
- Construction
- Other (please detail): ____________________________

**How many people does your organisation employ?**

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Section B - ABOUT YOU

What are your primary topics of interest (tick all that apply):

- Networks & Communications
- Information Security
- Homeland Defence / Physical Security
- Call Centres / Helpdesk
- Service Delivery
- Supply Chain Management
- Information Management
- Decision Support
- Application Development
- Human Resources Management
- Content Management
- Knowledge Management
- Ports / Web / Intranets
- Asset Management
- Business Process Outsourcing
- Card Technology
- Biometrics
- Systems Integration
- Other (please detail)

Describe your primary area of responsibility (select one):

- Corporate Strategy
- IT & Telecoms
- Finance
- Procurement
- Human Resources
- Administration
- Operations
- Other (please detail)

Describe your position within your organisation: (select one)

- Executive Leadership (Perm Sec / Chairman / Director General / CEO / CIO)
- Senior Management (Director)
- Middle Management (Manager)
- Frontline (Officer)

What is your involvement in the IT procurement process: (tick all that apply)

- Approve Spending
- Assess Functionality
- Determine Requirements
- No involvement

How many people does your organisation employ? ————

Section C - FEEDBACK

How relevant was the content of the magazine to your job? Very / Quite / Not

Was the quality of the content … Excellent / Good / Average / Poor

Would you recommend PSTM magazine to a colleague? Yes / No

Is PSTM your primary external source of content for managing government IT? Yes / No

What other publications do you read to help you improve public sector efficiency (please list):

Additional comments:

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ITU Telecom World
4-8 December 2006, AsiaWorld Expo, Hong Kong
www.itu.int/WORLD2006

Transport Security Forum 07
2 March 2006, Raffles Hotel, Singapore
Email: edmund.ow@alphabet-media.com
Tel: (+65) 6336 9762

Municipal Wireless Forum 07
24 May 2007, Westin Kuala Lumpur, Malaysia
Email: edmund.ow@alphabet-media.com
Tel: (+65) 6336 9762

Knowledge Management Asia
7 – 9 November 2006, Suntec International Convention & Exhibition Centre, Singapore
www.kmasia.com

Government Technology World
14-15 November 2006, Wellington, New Zealand
www.terrapinn.com/2006/gtw_nz

Islamic Countries eGovernment Summit
20-22 November, Dubai, UAE
www.datamatixgroup.com

Government Ware
21-23 November 2006, Suntec International Convention & Exhibition Centre, Singapore
www.governmentware06.com

International Defence Exhibition & Seminar
21-24 November 2006, Karachi Expo Centre, Pakistan
www.ideas pakistan.com

Strategic Intranet Management for the Public Sector
27-29 November 2006, Avillion Hotel, Sydney, Australia
Tel: (+61) 2 8913 4000

Voice Over Everything World
28-30 November 2006, Singapore
www.terrapinn.com/2006/voe_sg

Cityscape
4-6 December 2006, Dubai International Exhibition Centre, UAE
www.cityscape-online.com

Public Affairs Malaysia
6-7 December 2006, JW Marriott, Kuala Lumpur, Malaysia
Tel: (+60) 3 2070 3299

Corporate IT Security
12-13 February 2007, Bombay, India
www.marcusevans.com

Global Security Asia
27-29 March 2007, Singapore Expo
www.globalsecasia.com

Municipal Wireless Forum 07
24 May 2007, Westin Kuala Lumpur, Malaysia
Email: edmund.ow@alphabet-media.com
Tel: (+65) 6336 9762

Connect IT Pakistan
7-9 December 2006, Karachi Expo Centre, Pakistan
Tel: (+92) 21 111 734 266

Govsec China
17-18 May 2007, Capital Hotel, Beijing, China
www.govsecasia.com/china

For marketing enquiry on PSTM and ASR, please contact:
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Sachin Satish at sachin.satish@alphabet-media.com Tel: (+65) 6336 8869 Mobile: (+65) 9221 1701
Taiwan’s challenges in government e-procurement


Taiwan’s Government Procurement Act and the Public Construction Commission’s (PCC) mid-term implementation plan (2005 – 2008) are the foundations of the administration’s e-Government Procurement plan (e-GP).

The objective of e-GP is to bring about enhanced transparency and efficiency, and to raise the government’s procurement procedures to meet internationally recognised standards.

“It is the responsibility of the government to save on the costs of the national budget, and also to promote increasing momentum towards greater IT governance. The strengthening of these competencies have led to strong reforms and regulations for government procurement in Taiwan,” reveals Tze-Lung Chang, Director, Institute for Information Industry (III), Taiwan.

“The e-GP encouraged rampant ICT application towards the government administrative and service reforms through the e-government,” he continues. “Additionally, improving international trade and industrial development through enhanced marketing and e-commerce has seen the birth of four current e-GP systems. The systems are namely, the GP information system, the bid retrieval and bidding system, the e-catalogue and e-quotation system, and the common procurement system.”

Taiwan has evolved its e-GP systems from one of just being an online presence to that of matured service delivery. This has been enabled by a close collaboration with Visa International’s government procurement solutions.

As a result it is set to achieve a single GP service window, a GP resource value-added application, a ubiquitous GP as well as a level of sustainable development that would not have been possible otherwise.

Sustainable e-procurement

An e-GP environment started with the leadership from the PCC. The legislation through the Government Procurement Act led to the creation of four core e-GP infrastructures today. This was an essential environment as there was a prevalence of an 82.8 per cent enterprise networked rate in Taiwan industry.

Out of this, 48.4 per cent of large enterprises use IT systems to support procurement operations. It was thus essential for the Taiwan government to establish an open, transparent and systematised set of operating government procurement.

“The Government Procurement Act was established in May 1999 to establish a predictable bidding environment to ensure transparency, to enhance the administration of contract performance and to prevent fraud and misconduct,” Chang said. “A government procurement card was introduced in January 2002. It was meant to simplify procedures for small-amount procurements and to reduce payment operations of government. It is estimated the card can save 64 per cent of time and 56 per cent of cost in operation for a single procurement.”

There are two types of government procurement card:

- GP card for small-amounts – eg. government car petrol, senior officer trips and general small account procurement among others, just like a real credit card.
- GP card of common procurement contract. This is used for all kinds of common procurement contract, with a view to simplifying the transaction process.

The e-GP was envisioned to build up an e-GP centre with transparency, high quality and international linkage, so as to increase procurement performance, create enterprise opportunity and to support decision-making.

“Currently, we expect to save US$195 million of social resources per year via e-GP services. We are looking to enhance PCC’s role via sharing GP resources through a clear and fair process that is conducted by a ‘single services window’. Leveraging on the existing resources, Taiwan is able to create a sustainable development in government procurement,” concludes Chang.

Chang believes that e-procurement has played a vital enabling role - with the first fruits of efficient procurement feeding back into the programme and leading to further successes.

“We hope to be able to build up a GP affairs performance and create government reform synergy to offer ubiquitous GP services and internationalising e-GP services. Most importantly, we are looking to open our GP information and drive forth our country’s SME development.”

What’s your view?
Email: jianggan.li@alphabet-media.com

Milestones of the e-GP programme:

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<th>Milestone</th>
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<td>2007 - 2008</td>
<td>Offering information value-added application and ubiquitous GP services</td>
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<td>Fostering e-GP affairs and sustainable development</td>
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58
Preparing a National eGovernment Master Plan for Islamic Nations.

Forum du eGov dans les pays Islamiques

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