

ASIA-PACIFIC 2004 PUBLIC SERVICES SUMMIT: CONNECTIVITY AND COMPETITIVENESS - NEW MODELS FOR E-GOVERNMENT IN CHINA, ASIA-PACIFIC, AND THE WORLD, 15 - 16 JULY 2004

EVENT OVERVIEW

Situational Analysis

The advancements in the field of Information and Communication Technologies (ICT) have without a doubt shifted the paradigms of how nations relate to each other and their constituencies and citizens. ICTs have made considerable impact on the political, social and economic structures within their respective communities within the last two decades and it is becoming increasingly difficult for government representatives to ignore the importance that ICT has and will play in their respective communities.

The new developments taking place within the Asia Pacific region has seen tremendous developments and growth in various areas including health, business and trade, telecommunication infrastructures, education, and even more so in the field of government administration and services rendered to the public.

In view of the ever changing paradigms influencing the mode in which governments develop their policies and interact with their constituencies and citizens, it becomes imperative that initiatives and ICT policies structured and implemented are undertaken strategically within a broader perspective on how best ICT can address the Millennium Development Goals, national needs and strategies, and bridging the digital divide.

Recent developments in the field of ICT require governments to have a deep involvement in the strategic framework, organizational structure and action plans for such endeavours taking place in their nations and constituencies. It is pertinent for policy-makers in Asia Pacific to mobilize stakeholders to support this strategic framework and the implementation of local, national, and regional ICT and e-government initiatives.

Over the past decade the Asia Pacific region, and China in particular, has come to signify explosive growth and innovative business models. This has also generated great opportunities and challenges for the governments within the region to balance political, economic, and social interests. Nowhere in the world has connectivity and competitiveness become more tangible for so many within such a short time-span. As China's importance within Asia-Pacific and the world rises, it is timely to investigate what models and initiatives are evolving and being developed in China and how they compare to those across Asia and the world.

Event Overview

The State Council Informatization Office of the People's Republic of China, UNDP China, UNDP-APDIP, and Cisco System co-organised the ***Asia-Pacific 2004 Public Services Summit: Connectivity and Competitiveness - New Models for e-Government in China, Asia-Pacific, and The World.***

In short, the Summit addressed some of the current critical issues facing government leaders, including:

- How to enable cooperation across multiple Ministries for delivery of enhanced public services;
- How to ensure that the benefits of e-Government are made universal, to government and business, and to all citizens in urban and rural regions;
- Exploring relevant evaluation methodologies and benchmarks for e-Government, and how to track program implementation.

In addition, the Summit also assisted in facilitating the following objectives:

- Sensitising high-level Asia Pacific policy-makers on the use of Information and Communication Technologies for the development and transformation of their constituencies and nation by showcasing different experiences in transforming cities, regions, and agencies;
- Facilitating an active and dynamic exchange process on e-Government experiences of Asia Pacific policy-makers by creating a forum for comparing and exchanging ideas, actions, and facilitating regional networking with input from speakers/ resource persons from across the region;
- Highlighting critical policy issues that affect the formulation and implementation of ICT policies and strategies, including policy options;
- Sharing lessons learnt and best practices from across Asia Pacific and around the world with sub-regional and regional contexts for inter-country cooperation that could be adapted and applied to situations in participating countries.

Delegates

150 delegates from China and 20 Asia-Pacific countries, comprising senior policy makers; CIOs; Mayors; and Director Generals of central Ministries and provincial and city governments attended the event.

Speakers

The Summit featured well-known keynote speakers and discussants from China, Asia Pacific, Europe and North America. The speakers presented in pairs to offer contrasting perspectives on six distinct topics. All presentations were simultaneously translated in English and Mandarin, and were made available to participants after the event and webcast via the Internet. Speakers were selected to represent a cross-section of perspectives and models of e-Government initiatives. The presentations are available at www.apdip.net/projects/2004/public-services/.

ASIA-PACIFIC 2004 PUBLIC SERVICES SUMMIT: CONNECTIVITY AND COMPETITIVENESS - SUMMARY NOTES

INTRODUCTION

The Summary Notes provides a synthesis of the ideas, discussions and findings derived from the Summit. It provides a summary of the intellectual content that was generated (including summit presentations, and thematic papers), and summarizes participants' and experts' thoughts on the present state of, and the way forward for policymakers to design, plan, implement and evaluate their respective e-Government services and roles. We have taken the liberty to rearrange, amend, and clarify information into a more coherent format with sub themes and categories that to a large extent echoes the structure of the presentation. A list of all the presentations and their respective urls is available in the annex for easy reference.

DEFINITION AND SCOPE OF E-GOVERNMENT

What and Where?

- Objective: e-Government services has made it possible to create for all-round operation linkages and integration; increase work efficiency; increase efficiency and utilization of resources; improve service quality from governmental offices; serve the interests of grass roots and citizen and increase satisfaction rates among citizens toward governmental services.
- e-Government in essence is about a process of reform in the way government's work, share information and deliver services to external and internal clients for the benefit of both government and the citizens and businesses that they serve by using ICT.
- e-Government is not only confined to be a reflection of present services but could and should also strive to be what people need or want.
- e-services deal with the delivery of public services at higher levels of convenience, efficiency and effectiveness. Governments are also becoming more accountable towards their citizenry and actively leveraging on the capacities offered by ICT to ensure provision of reliable, efficient, transparent, and relevant public services, driven by both citizen demands and active supply of public services by the government structures.
- The resulting benefits could be more transparency, greater convenience, less corruption, revenue growth, and cost reduction.
- Globally, it is increasingly clear and evident that governments share common visions, ideals, and objectives, to better serve their constituencies and citizenry.

Why?

- Technology is fundamentally changing the relation between government and society as putting government online may change the nature of how government operates.

- Demands and expectations are formed by five key inter-related and corresponding factors:
 - Economic globalization (interconnectedness of economies and businesses);
 - Changing expectations from the public (as their access, awareness and demands of work, study, daily life are impacted by ICTs);
 - Fiscal and resource pressures;
 - Multiple jurisdiction overlaps (Public Policy Issues are increasingly complex & multi-jurisdictional);
 - Technological advances and innovation (technology provides opportunities to transform organizations to connected entities).

How?

- e-Government harnesses information technologies, such as Wide Area Networks, Internet, World Wide Web, and mobile computing by government agencies to reach out to citizens, business, and other arms of the government.
- There have been attempts to change the equation to emphasize the acquisition and sharing of Information rather than the technological tools and systems.
- Three common objectives of e-Government Strategies in Asia Pacific can be summarised as follows:
 - **Streamlining internal services and transforming public sectors** - transforming the public service to focus on core business and service quality, becoming smaller and more innovative, integrating operations, and redefining and clarifying accountability;
 - **Improving operational processes** - information sharing for public servants and government suppliers and business partners. By harmonizing business practices and adopting a shared services model, benefits for government and institutions include economies of scale, preferred pricing and reduced operating costs.
 - **Citizen engagement:** citizens can obtain government information and services when, where and how they want. The web portal seems to be the bridge with the community – a reliable, efficient, and transparent portal that not only serves their immediate needs but also encourages them to share and provide input and feedback to public policy and decisions.

E-GOVERNMENT APPLICATIONS IN THE ASIA PACIFIC: OPPORTUNITIES AND CHALLENGES

Overview

- The presentations, deliberations, discussions, and the sharing of experiences have demonstrated that there are various specific and unique challenges and issues facing different countries within the region, that are determining, shaping, and hindering the adoption of ICT and e-Government in particular.
- Any attempt to implement e-Government needs to work on the basis and understanding that these new changes will impact the structure and expectations of how government functions (human resources) and the organisation of delivery of services.
- ICT and e-Government is a boon, but it is also an ever-changing and dynamic tool for better public services. ICT at the end of the day remains the means and not the ends.
- Overall impact is limited as very few applications are country/state wide. On the other hand, service delivery in urban areas has become efficient (especially in revenue earning).
- e-Government is common in Asia Pacific but not e-Governance. Few projects have demonstrated that e-Government can advance the agenda on governance reform, transparency, anti-corruption, and empowerment of civil societies. There is clearly a scope for enhancing impact on transparency and corruption by using ICT.

Opportunities

- These new opportunities provided by ICT opens doors for reaching out and engaging communities, who have always been marginalized due to geographical or economic factors, in ways that were never dreamed of before.
- Few projects demonstrate that E-Government can advance the agenda on Governance reform, transparency, anti-corruption, and empowerment. There is scope for enhancing impact on transparency and corruption.

Challenges

1. Relevance of e-Services and Content

- **Issue:** Most Government Web sites are not used. Citizens are uninterested and unwilling to engage. Issues are not only about supply (and the quality of it) but also to create the demand for it.
- **Solution:** There is a need for a paradigm shift and to focus on the grass roots and to make e-Government services serve the citizens and grass roots. Reengineering will make life easy for citizens, as there are many unnecessary approvals, filings, notifications eliminated. It must be designed to suit needs of citizens, not convenience of government workers.

- **Solution:** Establishing and communicating a clear vision and action plan both internally and externally to all stakeholders
- **Solution:** E-Government is not merely creating websites and developing a virtual version of the existing bureaucratic processes, but more so, it provides and creates new opportunities and encourages innovations to better serve constituencies. There is a range of how much citizen can obtain and participate – from static information to interactive to participate (e.g. website to filling up to queries) - a whole range and spectrum of services are being offered in the region.
- **Solution:** ICT also provides an opportunity to reach consensus of opinions, to consolidate resources and coordinate actions, serving the citizens and grass roots.
- **Solutions:** Intermediaries (NGOs, grass root organizations) should be engaged to facilitate a sense of accountability and relevance of services.

2. Technological Integration and Readiness

- **Issue:** Integration from different administrations and agencies also raise the question of compliance and technical incompatibility as some agencies use different standards and operating processes. Technical chaos is caused by all kinds of separate software and hardware. With in-house development of information services and increasingly widespread computer utilization and based on their respective operation needs, provincial and municipal agencies have delivered all sorts of Internet applications. However the different operating systems and varying database management systems has led to chaos in information management; insufficient and overlaps in the utilization of system resources; and difficulties in system management maintenance. In addition the overlap of basic data collection has resulted in issues such as inconsistent, insufficient and incorrect data.
- **Issue:** Possibility of lock-in to wrong standards in a rapidly changing technological environment.
- **Issue:** Inadequately planned system - citizens need to go to-and-fro several times to get things done (applies to both offline and online services).
- **Issue:** Sharing of resources is complicated as collaboration requires changes to traditional method and this usually presents a lot of barriers to be raised internally. One might also come across situations whereby some departments refuse to disclose information as it is emphasised that this remains the proprietary rights of the source organisation. Initiatives can also ground down to a halt due to bureaucratic inertia and opposition.
- **Solution:** Prior to design of the system architecture - undertake assessment of specific challenges to services rendered and explore and map the level of readiness of existing systems and infrastructure.
- **Solution:** The back-office infrastructure is critical especially in providing up to date information and details. As such, there is a need to streamline the content and streamline-integrate information from various government departments and agencies. There is a need to determine who is responsible for this and all subsequent updates.

- **Solution:** Ensure the location of public kiosks offering e-Services are well planned and thought out. Also ensure the content is relevant to the needs of the public. Engage the public in fine-tuning the type of information made available to their needs to ensure the quality of content.
- **Solution:** Enable service delivery and program areas to work as one entity to ensure improved effectiveness and client service. Internal integration of resources will ensure the reduction and duplication of both collection of information and information that is shared.
- **Solution:** Internal bureaucratic resistance across organisations can be addressed by the usage of the same technological platform that makes the sharing of information and resources easy. The key is to make the transition and the subsequent disruption as minimal as possible.

3. Human Resource Capacity

- **Issue:** Inadequate staff and skills to handle the e-Government services offered.
- **Solution:** The reforms that is prescribed for governments requires structural physical transformation but it also creates impacts on the types of job functions that requires streamlining, creating, re-skilling. This also requires re-designating of tasks and work process flows.
- **Solution:** Adequate efforts must also be made to attract and retain the necessary human resources to handle the services and demands.
- **Solution:** In scenarios where agencies face understaffed situations, job rotations or scheduled services have to be carried out, as e-Government services are online 24-7.
- **Solution:** Consider a pay for performance approach to management compensation (an increase in compensation for new ICT skills acquired or possessed) and in tandem with new employee classification levels.

4. Administration Processes and Change Management

- **Issue:** Unclear reasons for roll out. The work at the grass roots mainly follows the directions from the top government organizations. As a result, insufficient time and efforts are devoted to learn the real needs of the residents, or to offer quality service for the residents. The key purposes indicated for departments in government organizations is to deliver software packages to the grass roots and to serve the interests of their data collection and operation management within a particular defined time frame. This at times has led to the wastage of manpower and material resources, rather than improving work efficiency.
- **Issue:** Raising awareness is easy but ensuring acceptability is tougher as there will be senior civil servants who refuse to change. This raises questions of how effective is the carrot and stick approach?
- **Solution:** We need to motivate everyone to take it up via workshops. The senior management levels are usually the least responsive to technology and as such awareness programs for them should be undertaken before engaging them to become champions. Hunt for opportunities where it's feasible and promoted. Give them incentives and ensuring that abuse is avoided.

- **Solution:** Consider bringing in external people to demonstrate how they benefited from technology. This makes them realise the importance of ICT in improving processes. Enhance education efforts where the emphasis is on the benefits of technology. It has been proven that once the staffs are familiar with the systems and products, they are more supportive. They need to see the big picture and need to know the benefits. This helps people to change their minds.
- **Solution:** Technical Pilots are good as it showcases what works and what doesn't. It is tangible results will prove it works. We also need to provide tools that matter to these senior officials that makes it easy and efficient.
- **Solution:** Building corporate directions, priorities and commitments into performance management plans.
- **Solution:** All this points out for a need to plan; design and manage a new human resource structure; initiate change management strategies and establish awareness/ education projects within the organization.

5. Evaluation/ Measurement/ Assessment

- **Issue:** There are no adequate evaluation or performance indicators devised to gauge the success of the services rolled out.
- **Solution:** There is a need to set up targets and Key Performance Indicators (KPI) for the e-Services offered.
- **Solution:** Invite professionals and experts from outside to evaluate; measure; and enhance e-Services.
- **Solution:** Invite feedback/ comments from the public and encourage their input in the e-Government services design.
- **Solution:** Create mechanisms for measurement at the corporate, ministry, and project level.

6. Cross-Ministerial Collaboration

- **Issue:** Cross ministerial/ agency collaboration presents a whole new host of design, adoption and implementation issues for the government. It must be noted that different agencies and ministries have their own and specific functions/ role/ mandate and linkages to other agencies and beneficiaries. Cross services to one audience is where cross-ministerial integration is essential.
- **Solution:** Engaging leadership and Top Down Leadership - Political leadership is critical and adequate as they are elected and decide what is on the agenda. Political leadership should be at the highest level. It is not from the technology world but someone who knows the problems of the communities. There is a need for CIO in every government agency but more importantly is the coordination and collaboration between ministries.
- **Solution:** The ICT process adoption requires the efficient integration between ministries and agencies - both horizontal and vertical integration that is seamless, coherent, efficient, and effective. Consider establishing a comprehensive government wide approach with inter-ministerial committees.

- **Solution:** Establish formal working arrangements and agreements at the outset with all related and relevant levels of government through formal coordination of departments and agencies. Structural change has to be part of the solution and strategy. **Solution:** Cross collaboration within the government is difficult and as such it is important to provide a framework and approach that is singular and coherent. This vision/ framework should be shared and communicated to all agencies and staff within the government and all also to all stakeholders.

7. Security and Trust

- **Issue:** There is always the question of how important is the aspect of security to implementation of e-Government applications.
- **Solution:** Important to have rules and regulations to implement e-Government. A legal structure/ framework is important. This might require the strengthening or reformulation of existing laws or the development of a whole new set of laws and acts. Some need to be done at state level and maybe at different national levels. This could possibly be undertaken on a sectoral basis. Internal policies might also need to be created and utilised. This is made more complicated as there are instances when individual agencies have their own statutes and they need to reform before they can adopt a particular mode of operations.
- **Solution:** Ensure adequate security measures are considered when designing the e-Services.

8. Digital Divide

- **Issue:** Most countries have focused on improving service delivery to urban citizens however access points in rural areas are a major challenge.
- **Issue:** Large number of telecenter pilots with Internet/PCs but few has been scaled up.
- **Solution:** Explore setting up a national grid framework to assist in the planning and forecasting of the needs and demands of the public and businesses and provide the appropriate connectivity measures and policy.
- **Solution:** Develop a community integrated operation system, set up integrated service sites in the community offices, and assign specialists at the integrated service platform to handle all kinds of affairs for the citizens - provision of tailor-made service whilst protecting customer privacy.
- **Solution:** Explore competitive business fiscal policies to promote rural telecom access and investments to bridge the digital divide.
- **Solution:** Ongoing communications, education, awareness and involvement of staff and stakeholders within and beyond the organization.

9. Funding

- **Issue:** How do you ensure sustainability of e-Government services?
- **Issue:** Will the private sector build the infrastructure if it requires too much investment costs and is both non viable and has a long period before returns on investments can be expected?

- **Solution:** You need to re-look at cost and business models that exist and need to be certain that the e-Government services have a value that requires its continued implementation.
- **Solution:** Governments should explore means of responding to challenges in delivery of public services by also considering a collaborative approach that includes the participation of the private sector and civil society. The private sector is usually engaged when the services provided often involve multiple ministries, public sector, other levels of government, and the private sector.
- **Solution:** Public-Private Partnership - Public sector could be the driving force. However, governments need to determine its role and how much intervention it wants to play. It could be completely left to the private sector to offer the services on a fee basis, or in situations where the private sector does not rise up to the challenge, governments must determine how much grants it can afford or want to provide. The ideal role of the government is to provide grants and seed capital and stimulate the environment.
- **Solution:** An annual results-based planning process that drives the financial allocation process. This will ensure costs such as human resource; IT procurement and e-Government plans are integrated within the operations and administration budget of the respective ministries.

10. Champions and Intermediaries

- **Issue:** How do we move from high-level government vision to community level involvement and ensuring that all parties work together to have tangible benefits?
- **Solution:** Identify project and department champions who believe and will push the agenda. This is not necessarily the department heads. It is important to create and instil departmental ownership that will ultimately determine and contribute to finalising issues such as budget allocations, appropriate and adequate training, and meeting the demands and expectations.
- **Solution:** Need to push the point of self-empowerment to the civil society – the government need to play the role of providing adequate opportunities for this.

USING E-GOVERNMENT AS A TOOL FOR GOVERNANCE REFORMS: KEY SUCCESS FACTORS

Design Pre-Requisites

- It must be stressed that at the core of e-Government services is the importance accorded to information as it has now become a commodity that is sought, created, and disseminated. Ultimately e-Government services require the creation, collection, processing, analysing, and evaluation of data.

Scope and Parameters Pre-Requisites

- Client-focused
- Quality service standards for all staff
- Integrated across agencies; departments; and ministries
- Integrated across geographical jurisdictions
- Involving multiple delivery partners in public and private sectors

Technology Design Considerations

- Simple and seamless
- Manageable and measurable
- Accountable and transparent
- Interactive and responsive
- Trusted and secure
- Convenient and accessible
- Relevant and flexible/ modular

Critical Success Factors

FACTORS	ACTIVITIES
Top Level Leadership	<ul style="list-style-type: none">• Strong high-level political and administrative leadership is essential.
Clear Priorities	<ul style="list-style-type: none">• Clearly identified goals, priorities, results and benefits are essential as too many priorities dilutes and confuses the outputs and level of services provided.
Process Re-engineering	<ul style="list-style-type: none">• Significant process reengineering is required that includes the identification of key change management strategies at all levels – ministries, divisions, branches, individuals and highlight their respective performance expectations.
Strategic Phases	<ul style="list-style-type: none">• Start small and scale up through stages.
Awareness	<ul style="list-style-type: none">• Communications, motivation and training are essential.• Training expenses should not be minimized.
Project Champions	<ul style="list-style-type: none">• Identify champions or intermediaries at both the department and civil society level.

Partnership Modalities	<ul style="list-style-type: none">• Explore Public Private Partnerships as an implementation modality.
Evaluations and Assessments	<ul style="list-style-type: none">• Undertake timely evaluations and ensure that these assessments are shared and disseminated within the organisation.• Initiate Key Performance Indicators as an Evaluation Tool.
Revenue Models	<ul style="list-style-type: none">• Explore and create suitable options for revenue models to ensure sustainability in the roll out of e-Government services.
Consultative Process	<ul style="list-style-type: none">• Engage all stakeholders in the design and evaluation phases of the program.• Accountability and transparency through public reporting on progress in achieving results

VISION, STRATEGY AND IMPLEMENTATION PLAN

Case Study: Singapore

The Singapore example highlights how the vision, strategy and implementation are undertaken under two major thrusts; namely a customer centric perspective and a government centric perspective.

A) Singapore’s Strategy: Customer Centric: Building sustainable e-Services

STRATEGY	PURPOSE	ACTIVITIES	EXAMPLES
Strategy 1: Be Customer Focused.	Be customer focussed and organise content around customer needs and not government structures.	<ul style="list-style-type: none"> • Listen - Focus Groups • Understand & cater to customer segments - see what they want and design it accordingly and cater to these demands. • Personalise the content of the government services web portal. 	eCitizen Portal – Gateway to All Govt Services
Strategy 2: Make it Simple	Make it simple. Determine if by re-engineering the process by using the appropriate ICT tools, will it be simpler and convenient.	<ul style="list-style-type: none"> • Reengineering systems and processes. • Simplify or eliminate processes if required. • Integrate across agencies to create value and convenience • Create central funding to address recurring costs. 	Online Application System for Integrated Services
Strategy 3: Bridge the Digital Divide	Universal access for all.	<ul style="list-style-type: none"> • Intermediaries – private assistance centres • National IT education • PC ownership schemes 	eCitizen Helper Program; National IT Literacy Programme; NEU PC Programme
Strategy 4: Gain Customer’s Confidence	Trust and Security	<ul style="list-style-type: none"> • Secure online transactions • Data privacy and protection • Trust and confidence in e-services 	Authentication Using SingPass; Data Protection and Privacy; Trust mark initiative-TrustSg

B) Singapore's Strategy: Government Perspective: For Sustainable e-Services

STRATEGY	PURPOSE	ACTIVITIES	EXAMPLES
Strategy 1: Quality @ Competitive Cost	Deliver it fast with cost in mind.	<ul style="list-style-type: none"> • Central infrastructure & services cost recovery 	Central Infrastructure & Services
Strategy 2: Smooth, Deliberate Transition	In stages - from counter to online.	<ul style="list-style-type: none"> • Publicise • Differentiate service level self-service terminals @ govt agencies 	Awareness programs via the mass media.
Strategy 3: Governance & Management.	Cross-agency governance structure	<ul style="list-style-type: none"> • E-Government Policy Committee • Service-wide co-ordination • Public Sector CIO Forum • Private Sector Advisory Panel 	Online Consultation Portal

Public Private Partnership as An Implementation Modality

- It has been noted that Public Private Partnerships have enabled better services and support for government services.
- Integration of services between ministries and agencies has led to the creation of a more competitive environment of suppliers for government services and enabled a more active role for suppliers/ entrepreneurs.
- Public Private Partnerships and a competitive environment encourage innovation.

Options of Public Private Partnership are:

- Decision has to be made whether the service has to generate revenue to ensure sustainability or will this cost be absorbed by the government as the service is perceived to be an outreach avenue for the government
 - Fee-based funding
 - Shared cost savings
 - Shared revenue
 - Full service delivery

PROVIDING FOR UNIVERSAL ACCESS: CHALLENGES AND POTENTIAL DELIVERY MODELS

Digital Divide – Assessments

- **Overview:** The digital divide is a result of social, economical, geographical and technical factors that hinders the wide adoption of ICT and e-government services.
- **Geographical Access:** Those who live in the capitals have been always privileged with government interactions and this unfortunately applies to access to e-Government centres and services.
- **Capacity:** The governments of developing countries are over-extended and as such deliver sub-standard services that can be better provided by regulated private entities or by public-private partnerships.
- **Resistance:** Resistance is a hindering factor in implementation and is a major problem in adoption. This could be due to corruption and vested interest, either in financial and power.
- **Infrastructure:** High cost and poor quality of telecom access and poor quality of electricity supply.

Solutions on the Way Forward

- **Awareness:** Understand and work consistently to remove the reasons for rural people not being served.
- **Strategic Phases:** Too many e-Services can place an unnecessary burden for developing nations and as such it's better to roll out in stages and focus on a few core services. Successful experiments began with a few core services where value can be accorded. Over time other services are included to add value.
- **Affordability:** There is a perception that citizens in rural areas lack of ability to pay; this can be addressed by aggregating the demand in rural telecenters. Look at the various target audiences and try to get them all into one place as they are small and sporadic so try to get multi services into a telecenter. Vouchers can be provided for selected rural marginalized communities.
- **Funding:** Subsidies can help to build networks (unlike in case of giving the task of building a bridge to the lowest bidder, the end result of least-cost subsidy auctions is a network that is owned by the bidder, who has invested his own money in it, and has all reason to maintain/improve it) and competition for the market, that privileges the most efficient supplier.
- **Venture Capital:** Need to encourage venture capital to provide additional/ external funding for scaling up.
- **Killer Application:** Need to identify a killer application that is both relevant and useful for these marginalized communities.
- **Content:** Ensure the content created are both relevant and useful for the communities. Relevant content for the rural community is highly useful and if possible specific to the their community.

- **Champions and Intermediaries:** Identify local level champions to promote the adoption of ICT and local intermediaries to facilitate the process. Undertake efforts to create awareness and capacity building
- **Local Entrepreneurs:** Promote local entrepreneurs to take up the rural telecenters.
- **Empower Citizens:** Need to get civil society and community organisations and trade organisations to educate and increase the awareness.
- **Encourage Businesses:** Service industry will increase and be a focal point in the future. E-business is also part of e-citizen. Click n mortar business is part of that. Need to see their needs and see how they can participate.
- **Research:** Research is needed in technology to reduce costs of power and connectivity.
- **Private Sector:** Rural connectivity has slowly seen governments relinquishing roles of provision of services. Leased lines to entrepreneurs within neglected areas can address capital costs and revenue costs. Tender contracts for license to provide services and give subsidies as this provides cheap connectivity. It must be viable to ensure sustainability and is able to generate revenues. The rural community can't cope and do this; so larger corporations must undertake this role.
- **Scaling Up and Replicability:** Have to avoid the *Forever Pilots Syndrome*. Scaling Up is important and research has shown that the revenue model for cost of rural connectivity is slowly going down.

Scaling Up Requirements

- Success is likely in organizations with financial resources, leadership, strong project management and ability to discover services that are valued. Three models have emerged:
 - Large private/public/cooperative sector companies operating in rural markets may be able to derive sufficient value by improving business processes and make such centres viable and scalable.
 - Government services that are valuable can charge a user fee for electronic delivery through privately owned telecenters.
 - Intermediary organizations partner with providers of valued service and rural entrepreneurs who create access points to orchestrate the operations of a large network of kiosks.

WHEN IS E-GOVERNMENT SUCCESSFUL: MEASURING, EVALUATING AND ASSESSING IMPACT

Overview: Measurements, Evaluations and Assessments

- Most citizens use and see government websites as an additional or alternative modality for information and services, the question is what is behind all of this and what drives this and what does it take to drive this.
- Measurements, evaluations and assessments assist governments to innovate and remedy flaws and inefficiencies. This process assists to save costs.
- There is a need to develop new performance indices, matrixes, and indicators to assist in the measurement, evaluation and assessment of e-Services.
- For e-Government, the roll out of e-Services is ultimately not the gauge of how effective an e-Government service is implemented in a nation. The level of satisfaction of the clients ultimately marks the gauge.

Benefits of Measurements, Evaluations and Assessments

- **Transparency:** Helps to increase transparency of government information, services, decisions and operations. **Efficiency:** Helps to provide input to increase the efficiency of government services. **Reform:** Provides input towards facilitating changes and substantive reform to government process.
- **Performance Appraisals:** Outcomes locked into performance appraisals but not linked to performance pay
- **Resource Distribution and Management:** Performance targets on-demand replacement used to drive future resource distribution and management

Types of Measurements, Evaluations and Assessments

- **Usage:** Data sets now available and regularly reported
- **Cost/benefit analysis:** Work being undertaken to develop robust benefit realisation models
- **Customer data:** Better data sets to determine customer preferences

Challenges to Measurements, Evaluations and Assessments

- **Cost**
 - Developing the required Return on Investment metrics
 - Estimating tangible benefits with accuracy
- **Demand**
 - Accurate demand estimates
 - Measuring changes to other channels
- **Customer preference and satisfaction**
 - Clarity required on what needs to be built
 - Difficult to obtain hard data

Success Factors

- **Management:** Programs closely monitored by internal improvement committee chaired by a high-ranking official/ officer.
- **Cost –Benefit Relationships:** Good understanding of the cost/benefit relationship.
- **Data:** Reliable and quality data on customer preferences and satisfaction.
- **Frameworks:** Clear performance framework for measuring results.
- **Civil Empowerment:** Encourage adoption, ownership, participation and feedback from the public/ beneficiaries. Indicators need to be developed in collaboration in a multi-stakeholder approach.
- **External Evaluations:** Encourage expert evaluation and testing by external organisations and reassess existing standards, systems and services.
- **Pre-Design:** Measurement and assessments are critical and hence should be included in the design process with clear timeline and methodologies for its roll out within the project/ service.
- **Stages:** Consider undertaking evaluations pre-during and post project. Measurements and fine-tuning of operations and services can be undertaken more systematically. **Gain Sharing:** Other agencies can benefit from the measurements, studies and evaluations undertaken.

Rationale for e-Government Websites

- **Platform:** Work platform as it represents the basic components of e-Government services.
- **Window:** Communication and information sharing with citizens.
- **Integration:** Aggregation point of multiple government services.
- **Presence:** No e-Government without websites.
- **Alternate Channel:** New policies have created an urgent need to create an alternate channel to handle public demands.
- **Civil Demands:** Citizens preferred call channels to face-to-face channel and were early adopters of new technology and demanded greater access to service delivery, particularly at peak times.

Criteria to Evaluate Government Websites (Zhang Weijing)

Effectiveness: Upload time of government documents
Standardization: Standardization of form
Transparency: Information accessibility
External Supervision: Supervision and feedback on service results
Online Office: Online service processing
Easiness: 3CLICK -for information access
Interaction: Simulated monitoring, feedback
Coordination: Cross-section cooperation
Personal: Service targeting different people
Pervasiveness: Service scope.

Problems with Creating and Managing e-Government Websites

- Development of e-Government services is limited by institutional handicaps. Unclear division of authority between various levels of governments, especially between central and local governments. Many government agencies do not have the awareness of “public centred” approach and as such lack awareness, attitude and capability to serve the public. The government has not transitioned from regulation-based to service-based model, lack awareness

and incentives. There seems to be more focus on construction of sites and less on actual applications (e.g. focus on intranets and less on portal; more focus on investment than maintenance; more focus on department expansion than cross-department cooperation; little innovation in public service)

- Many government websites need to be rebuilt to offer better functions, structure, and processes.
- There seems to be an over-emphasis on addressing direct economic interests by providing information to attract investors, tourists, and commercial advertisement. There seems to be insufficient information to better serving citizens and businesses
- Internal Information Management System - internal news like meetings held, speeches by certain leaders, awarded people, appointments and retirements take much capacity of the website.

CONCLUSION AND THE WAY FORWARD

Lessons Learned and The Way Forward

- **Development must be balanced and holistic** In addition to the economic side, the social and governance aspects must also be given equal emphasis, if not more, since the latter two provide the foundation to sustain the former.
- **Investment in human capital is critical for technological innovations**
 - Increase knowledge workers (scientists, engineers, technicians, IT specialist).
 - Encourage and increase the number of entrepreneurs.
 - Take preventive measures against Brain Drain.
 - Acculturate society on the use of ICT.
- **Connectivity and Competitiveness as benchmarks**
 - This should remain an indicator and benchmark of the state of play of how we deal with constituents. This should be used as a position for governments for the betterment of citizens, businesses, and civil service structures and organizations.
- **Leadership and commitment is essential**
 - Public sector reform need top level leadership endorsement especially when it comes to ways to transform and re-engineer the government.
- **Multi-stakeholder smart partnerships as an implementing partner**
 - Partnerships are essential to must forward especially if there is a need to purchase technologies and ensuring mutual gain and acquiring of talents.
 - The foundation for building industrial clusters is collaboration and cooperation between various players for mutual benefit.

- **Public Private Partnerships as an implementing modality**
 - It has been proven to work and calls to be more transparent are slowly being accepted.
 - Partnerships gain from capital; expertise; management methods and processes; and networks.

- **Role of Civil Society Organisations**
 - Governments are sceptical of role of NGOs though there are reasons for it. Political will needs to be co-opted to support.

- **Role of the university in the innovation value chain**
 - Adequately and sufficiently train qualified technical personnel.
 - Invest in 'basic' research to help create an indigenous industry
 - Forge strong university-industry linkages to assist the industrial and research and development clusters.

- **Role of Industry clusters to promote and sustain innovation**
 - Industry is not matured enough to evolve on its own driven by market forces. Hence, 'top-down' initiatives are a must.

- **Effective innovation policy**
 - Long-term commitment to basic research and the creation of own intellectual property (IP), leading to 'technology sovereignty' Effective protection of Intellectual Property
 - Development of national technology roadmaps to provide focus, direction and align resources for R&D activities
 - Appropriate funding mechanisms to carry ideas all the way to market i.e., along the entire innovation value chain

- **Capacity building and change management is essential**
 - Change management is critical to ensure the staff is able to understand and reap the benefits of the adoption of technology.

- **Evaluation, Measurement and Assessments**
 - There is a need to justify returns on investment and hence measuring of success is critical, especially after a huge expenditure on technology adoption and reform of processes.

ANNEX 1: PRESENTATIONS AND INDIVIDUAL FILE LOCATIONS

PRESENTATION 1: PUBLIC SECTOR REFORM AND CROSS AGENCY COLLABORATION

Transforming Public Services in Ontario through Information and Communications Technology: Some Lessons from the Front Line

Joan Mccalla, Corporate Chief Strategist, Office of the Corporate CIO, Government of Ontario, Canada

Presentation: <http://www.apdip.net/projects/2004/public-services/presentations/mccalla.ppt>

Public Service Practice of Shanghai Municipality within the Framework of e-Government

Liu Yadong, Director General, Shanghai Informatization Office, China

Presentation: <http://www.apdip.net/projects/2004/public-services/presentations/liu.ppt>

PRESENTATION 2: CITIZEN SERVICE NETWORKS

Singapore e-Government Delighting Customer, Connecting Citizens

Mui Ken Chung, Head (e-Government), Ministry of Finance, Singapore

Presentation: <http://www.apdip.net/projects/2004/public-services/presentations/chung.ppt>

Building an E-Service Oriented Government

Zhu Yan, Director General, Beijing Informatization Office, China

Presentation: <http://www.apdip.net/projects/2004/public-services/presentations/zhu.ppt>

PRESENTATION 3: UNIVERSAL E-GOVERNMENT AND THE DIGITAL DIVIDE

Universal e-Government and the Digital Divide

Professor Subash Bahtanagar, Consultant, PRMPS, World Bank and former CMC Chair Professorship in Information Technology, Indian Institute of Management Ahmedabad

Presentation: <http://www.apdip.net/projects/2004/public-services/presentations/bhatnagar.ppt>

Universal e-Government and the Digital Divide

Rohan Samarajiva, Team Leader, Public Interest Program Unit, Ministry of Economic Reform, Science, and Technology, Sri Lanka

Presentation: <http://hephaestus.apdip.net/projects/2004/public-ervices/presentations/samarajiva.ppt>

Paper: <http://hephaestus.apdip.net/projects/2004/public-services/papers/samarajiva.pdf>

PRESENTATION 4: CONNECTED CITIES AND COMMUNITIES

E-Government: Serve Residents and Serve the Interest of Grassroots

Tang Wangsheng, Director General, Guangzhou Informatization Office, China

Presentation: <http://www.apdip.net/projects/2004/public-services/presentations/tang.ppt>

Connected Cities and Communities

Christer Marking, Director of ICT Strategy, City of Stockholm, Sweden

Presentation: <http://www.apdip.net/projects/2004/public-services/presentations/marking.ppt>

Paper: <http://www.apdip.net/projects/2004/public-services/papers/marking.pdf>

PRESENTATION 5: PUBLIC-PRIVATE PARTNERSHIPS FOR E-GOVERNMENT

Public-Private Partnerships for Electronic Delivery of Government Services

David Pao, Acting Head, Efficiency Unit, Government of Hong Kong.

Presentation: <http://hephaestus.apdip.net/projects/2004/public-services/presentations/pao.ppt>

ICT4D is ICT4I: Turning Ripples of Innovation into Tidal Waves of Development by Building Multi-Stakeholder Partnerships

Dr. Tengku Mohd Azzman Shariffadeen, President and CEO, MIMOS Berhad, Malaysia.

Presentation: [http://hephaestus.apdip.net/projects/2004/public-](http://hephaestus.apdip.net/projects/2004/public-services/presentations/shariffadeen.ppt)

[services/presentations/shariffadeen.ppt](http://hephaestus.apdip.net/projects/2004/public-services/presentations/shariffadeen.ppt)

Paper: <http://hephaestus.apdip.net/projects/2004/public-services/papers/shariffadeen.pdf>

PRESENTATION 6: MEASURING SUCCESS

Measuring e-Government Success

Grant Tidswell, General Manager Families Cluster in Centrelink, Government of Australia

Presentation: <http://www.apdip.net/projects/2004/public-services/presentations/tidswell.ppt>

Evaluation of e-Government in China

Zhang Weiyang, Professor and Associate Dean, Guanghua School of Management, Peking University, China

Presentation: <http://www.apdip.net/projects/2004/public-services/presentations/zhang.ppt>

Annex 2: Sponsors

The State Council Informatization Office, People's Republic of China

The State Council Informatization Office was established in 2001. It is in charge of routine affairs of the State Informatization Leading Group (SILG). The State Informatization Leading Group (SLIG) was formed according to a decision taken in 2001 by the Central Committee of the Communist Party of China and the State Council with a view to providing stronger leadership to the promotion of Informatization and to the safeguarding of state information security. The functions and responsibilities of SCITO include organizing the implementation of the principles and policies on Informatization approved by the Central Committee of the Communist Party of China and State Council. SCITO organizes the related Ministries to study strategies and plans for the development of Informatization. SCITO is also responsible for coordinating and promoting the drafting of laws, regulations, and related policies concerning national Informatization, and computer networks. SCITO also seeks to organize the planning of government networks and promote the implementation of electronic government. <http://www.scito.gov.cn>

UNDP

UNDP is the UN's global development network, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. It is on the ground in 166 countries, working with them on their own solutions to global and national development challenges. UNDP China's mission is to make a critical contribution to reducing poverty in China by supporting initiatives to achieve growth with equity, gender equality and environmental sustainability. <http://www.unchina.org/undp/>

UNDP-APDIP

The Asia-Pacific Development Information Programme (APDIP) is an initiative of the United Nations Development Programme (UNDP) that aims to promote the development and application of new Information and Communication Technologies for poverty alleviation and sustainable human development in the Asia Pacific region. It does so through three core programme areas, namely, Policy Development and Dialogue; Access; and Content Development and Knowledge Management. In collaboration with National Governments, UNDP APDIP seeks to assist national and regional institutions in Asia Pacific through activities that involve raising awareness and advocacy, building capacities, promoting ICT policies and dialogue, promoting equitable access to tools and technologies, knowledge sharing, and networking. Strategic public-private sector partnerships and opportunities for technical cooperation among developing countries are UNDP APDIP's key building blocks in implementing each programme activity. <http://www.apdip.net>

Cisco Systems

Cisco Systems, Inc. is the worldwide leader in networking for the Internet. Cisco's networking solutions are the foundation of the Internet and most corporate, education, and government networks around the world. Cisco is providing networking products and services that are linking governments around the world to their constituents, be they investors, businesses, citizens or other governments. This 'connectivity' however goes beyond simply technology since it also includes a worldwide exchange of ideas and best practices between governments that Cisco is helping to facilitate. Cisco's annual Global Public Services Summit at Nobel Week in Sweden, the Cisco Networking Academy Program and the upcoming Asia Pacific Public Services Summit in China are all milestones in a journey that is connecting more and more senior-level Public Sector decision-makers to think through, together, the tough questions about how to evolve new and more effective models of government. <http://www.cisco.com/>