e-Government in the Philippines:
Benchmarking Against Global Best Practices

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Many Filipinos do not look forward to dealing with government. Many are frustrated with the bureaucracy and its myriad agencies handling different functions. A recent survey of business executives rated the Philippines "as having a pattern of worsening bureaucracy."[1] The bureaucracy is seen not only as ineffective, but also wasteful. According to a United Nations study on public administration in the Philippines, public opinion generally regards bureaucrats as not honest, not transparent and not neutral.[2] Mahar Mangahas of Social Weather Stations reports that "in the past decade and a half, corruption has been the second-most common subject of public dissatisfaction with government, after government failure to control inflation."[3]

While many efforts have been initiated to make government services more user-friendly and more effective and efficient, many of these initiatives have been less than successful.

In other countries, Information and Communication Technology (ICT) is being deployed to make government more effective, efficient, and transparent. ICT is not only helping make better governments but also providing citizens more information on their governments. Leaders in the e-government movement are demonstrating that by combining technology with new ways of operating, government can be much more effective and responsive to citizens.

What is e-Government?

E-Government refers to the use by government agencies of information and communication technologies (ICT) that have the ability to transform relations with citizens, businesses, government employees, and other arms of government in the delivery of services. For the World Bank, it is the use of ICT to improve the efficiency, effectiveness, transparency, and accountability of government.[4]

E-Government is the use of electronic media in the facilitation of government processes. It covers a wide range of applications making use of multi-media broadcasting, radio networks, computer networks, mobile phone communication technologies, and other similar electronic devices.

Internal information systems of Government agencies, information kiosks, automated telephone information services, SMS services and other systems all comprise e-Government services. All these are applications of Information and Communications Technologies (ICT) to improve the services of the Government towards its primary clients: the citizens.

Singapore's Government Electronic Business Centre (GeBiz), set up in June 2000 to simplify government procurement and tender activities, exemplifies e-Government. With this integrated, web-based e-procurement system, suppliers and tender bidders enjoy a broader access to government tenders and quotations. Public sector agencies also enjoy the benefits of making electronic purchases of commonly-used items from shared period contracts. Singapore is currently developing one-stop services which make it easier for businesses to deal with government, whether it is registration of businesses, application of building plans in the construction industry, or even getting public entertainment licenses from the relevant authorities from a single website. These e-services will result in significant time savings: the time taken for incorporating a company will be reduced from 4 days to 1 day, while the time taken for processing a public entertainment license will be cut from 8 weeks to 14 days.[5]

In examining e-Government, it will be useful to distinguish between an Internal ICT application and a Front-line ICT application for e-Government. Thus, e-Government may be classified according to where the ICT solution is applied. With respect to any government agency, there are *Internal ICT applications* and *Front-line ICT applications* for e-Government.

Internal ICT applications for e-Government are solutions for streamlining in-house processes. Processes such as data encoding, file retrieval, document processing,

data transfer, and other administrative tasks all exist in a government agency. These tasks may be accomplished more efficiently through the introduction of ICT solutions.

Internal ICT applications may further be categorized as Government-to-Employee (G2E), or Government-to-Government (G2G).

G2E includes services such as internal information on demand, reports via laptop or Palm, information systems for timing-in and checking of attendance, on-field data-logging and remote data uploads and downloads.[6] Examples of G2G are inter-office teleconferencing, Wide Area Networks for geographically displaced offices, centralized clearance, licensing or accreditation from various offices.

Front-line ICT applications for e-Government act as interface between the Government and Citizens or Businesses. Front-line ICT applications interact or transact with the Citizen via electronic media.

Front-line ICT applications may also be categorized as either Government-to-Citizen (G2C), or Government-to-Business (G2B).

G2C services are all services wherein the citizens interact with the government through ICT. These include information or transactions accessible via websites, processing of applications via kiosks, agency hotlines or call centers, online voting or council meetings, government payments with commercial banks, application status updates via landline or mobile phone, and the like.

Through Singapore's e-citizen portal (www.ecitizen.gov.sg), Singaporeans are able to access about 540 government services pertaining to business, health, education, recreation, employment, and family. The e-citizen portal is divided into categories based on the real-life needs of every individual, with every single ministry and statutory board providing e-services through the same portal. Singaporeans now have a one-stop access to government services without having to navigate through the bureaucratic jungle. A few of the popular e-services offered are: submitting application forms for purchase of apartments, searching for school information, employment search, career development, and voter registration.

CVISNET – Central Visayas Information Sharing Network (www.cvis.net.ph) "aims to promote and enhance the development of information and communications technology in the Region 7 through the establishment of a common exchange hub that will interconnect all government and non-government agencies through the Internet." Established in 1998, CVISNET

assembles different services and information relevant to Region 7. There are online services such as news, relevant information about the region, and an email service for the CVISNET community. It has an Information Center that provides links to government sites, NGO websites, regional reports, statistics, business guides, investment and industry info, directories, schools, municipalities and barangays in the region. It brings together various government services, too. Local price watch, business application forms, investor's guide, as well as forms required by government are available through the web. The e-Procurement link connects to the Procurement Service. There are health statistics and news provided by the Region 7 DOH office. The NEDA Region 7 office posts its project monitoring reports on the CVISNET website. CVISNET is also connected to BARANGAY.NET – a community-based project that aims to develop and implement a flexible, local approach to community development using information and communications technology (ICT) to promote connectivity, access, capacity building, and content creation. It also serves as a gateway for a number of NGO sites in the region.

G2B, on the other hand, refers to ICT-enabled trade or services between government and business. An example is the Philippines' Electronic Procurement System (EPS), also known as e-Procurement (http://www.procurementservice.net). EPS currently serves as the official system for public bidding opportunities by the Philippine government. Eventually, the system will be extended to support other aspects of the procurement process including direct purchases, bid submissions, central accreditation, and payments.

The key difference between Internal and Front-line ICT applications is whether the application is directly accessible to the public. Front-line ICT applications are interfaces between the government, its citizens and other relevant publics. These applications should be readily accessible and easy to use. Internal ICT applications are mechanisms within the agency that make their internal processes more efficient. It is possible for an agency to have a state-of-the-art Internal ICT infrastructure but very poorly implemented Front-line ICT interface. On the other hand, a good Front-line ICT interface is an indication of a fairly sophisticated back-end infrastructure able to deliver good quality Front-line services.

E-Government is a tool by which limitations of time, distance, and cost are reduced, thereby **enhancing citizens' access to government services**. Citizens will no longer have to wait in line to claim birth certificates, licenses or visas. Citizens will have better access to public government information such as application requirements, study and employment opportunities, policies and

regulations. The availability of these services will be extended outside the brick-and-mortar office and beyond the eight-hour workday of the government agency.

CITIZENS' ACCESS

Gyandoot: Community-Owned Rural Internet Kiosks

The Gyandoot project in Central India was launched on January 1, 2000 with the installation of a low cost rural Intranet covering 20 village information kiosks in five blocks of the district. Later, more kiosks were set up. The entire network of 31 kiosks covers 311 Panchayats (village committees), over 600 villages, and a population of around half a million (nearly 50% of the entire district).

User fees are charged at the kiosks for the services provided. Local rural youth act as entrepreneurs, running these information kiosks along commercial lines.

The following services are now offered at the kiosks:

- Agriculture Produce Auction Centers Rates;
- Copies of Land Records;
- On-line Registration of Applications;
- On-line Public Grievance Redress;
- Village auction site;
- Transparency in government, and
- Other services offered at the kiosks include on-line matrimonial advertisements; information regarding government programs; a forum for school children to ask questions; ask an expert, and e-mail (free for information on child labor, child marriage, illegal possession of land belonging to Scheduled Tribes, etc.).

To enhance the economic viability of kiosks, they are being given licenses to vend government judicial stamps, and delegated powers to write petitions. In addition, a public awareness campaign has been launched in the district to promote the kiosks.

Agricultural produce rates, land records and grievance services are the most popular features of the kiosks, accounting for 95% of their use. A few examples can underscore the benefits of the kiosks to the rural population:

- A complaint costing Rs. 10 brought drinking water to a tribal hamlet of 39 households;
- A cow sold at an auction for 3,000 rupees;
- 256 milch animals vaccinated in one day in response to an urgent e-mail alert;
- Access to market rates leads to better deals, and
- Greater computer literacy.

Reference: World Bank's E-Government Site
Website: http://www1.worldbank.org/publicsector/egov/gyandootcs.htm

E-Government initiatives also contribute to **citizen empowerment** by making information about government processes and decisions easily available, and allowing information-sharing among people and organizations, and between citizens and the civil service.[7] Well-informed citizens are better able to hold their governments accountable. Thus, governments are compelled to improve the quality of services, expand accessibility of these services, and increase responsiveness to their constituents.

EMPOWERMENT THROUGH INFORMATION

Cristal Government Initiative – Public Funds information on demand

The mission of Argentina's Cristal government initiative is to disseminate on-line, and in an easily understood format, all information concerning the use of public funds. This includes information not only about the amounts of money devoted to different programs, but also how these funds are administered.

The Cristal website was specifically created to fulfill the mandate of a law that requires that the State make available "to whatever institution or interested person" the following information related to the administration of public funds:

- execution of budgets, to the lowest level of disaggregation;
- purchase orders and public contracts;
- financial and employment data concerning permanent and contracted staff;
- an account of the public debt, including terms, guarantees, interest costs, etc.;
- outstanding tax and customs obligations of Argentine companies and people;
- regulations governing the provision of public services, and
- all information necessary for the communitary control of social expenditures.

It is a primary goal of the Cristal program to create a better informed citizenry that can exercise more effective control over their political representatives. While the content of the website is directed to all citizens, journalists are a particularly important audience for the site, as newspapers and television enable a much wider dissemination of its contents.

Reference: World Bank's E-Government Site
http://www1.worldbank.org/publicsector/egov

Many Government services rely on information passed among different offices within a department or across departments. The large amount of information and paperwork required results in an environment ripe for red tape, an inefficient bureaucratic workforce, and ineffective delivery of services. With ICT, both the government bureaucracy and citizens are winners in the battle against the paper trail. E-Government, **through the integrated operations of government agencies,** allows the wealth of knowledge and data exchange to be more easily accessed (whether public or secure) by the appropriate offices or

individuals, thereby reducing redundancies of information flows, and resulting in overall **increased productivity.**

PRODUCTIVITY AND INTEGRATED OPERATIONS

DagangNet.com: Malaysian e-commerce service provider

Implemented in 1993, the Port Klang Community System or PKCS facilitates a paperless exchange of business documents between the government, port authorities, port operators, shipping and forwarding agents, and banks. It also enables electronic financial transactions for payment of customs duties.

With PKCS, there have been tremendous time and cost savings, not to mention the dramatic improvement in efficiency, effectiveness, and productivity. For example, it used to take two staff about half a day to prepare a 10-line item invoice for submission with the manual system. With PKCS, it takes an average of 15 minutes by a single data entry clerk.

All PKCS messages conform to the internationally accepted UN/EDIFACT standards. It is the first system in the world to combine EDI messages, security equipment and features and a smartcard to facilitate electronic customs duty payment. Soon, Port Klang users will have the option of a web-based front-end application in line with the market bias towards anything Internet.

In the PKCS model, customs represents the government while the other members of the community are the private sector. In conducting trade documentation and cargo clearance processes using electronic means, we have an actual e-government application running.

Today, the volume of electronic transactions conducted by the e-commerce community at Port Klang stands at some 30,000 transactions a day, making PKCS an overwhelming success. A total of RM3.8 billion in customs duty payments have been transacted via the electronic funds transfer (EFT) facility. PKCS has created a 'paperless' transaction environment for the Port Klang shipping community. As it is now, Free Zone procedures using the same infrastructure, are already 100% paperless. Customs is preparing for a totally paperless environment in the near future.

Integrating the operations of government agencies also **improves transparency in government.** E-Government minimizes redundancies in information flow, eliminates duplications of functions, and improves adherence to proper government procedures, thereby reducing opportunities for corruption. This, matched with a well-informed citizenry, will help reduce the bureaucracy's dalliances with corruption and will help lead to a higher sense of accountability among government officials.

ICT and the Philippine Government

Computerization in the Philippine government dates back to 1971 when the National Computer Center (NCC) was established by Executive Order 322.[8] In 1978, NCC was designated the primary agency in the government with the responsibility of directing IT use for national development and rationalizing computerization in the country. Its functions include technical and professional IT assistance to national and local government agencies, the IT industry, SMEs, and civil society.

In 1994, the National Information Technology Council (NITC) was created and designated as the central policy body on ICT matters in the country (through E.O. 190). NITC was later reorganized on 23 February 1998 (E.O. 469) as the highest planning and policy advisory body on IT matters. In 1999, the NCC was tasked to provide NITC with professional and technical support.

In 1998 the government launched IT21 which outlines the country's action agenda for the 21st century. The plan promotes e-governance and encourages the outsourcing of government ICT projects to stimulate industry growth. That same year, the Electronic Commerce Promotion Council (ECPC) was created in recognition of the country's need for a coordinating body to enhance public-private partnerships to promote and develop e-commerce in the Philippines.

An important milestone for ICT development in the Philippines and for e-Government in particular is the enactment of the e-Commerce Act (Republic Act 8792) in June 2000. This law defines the Philippine government's policies on electronic transactions and provides the legal framework for enabling the country to engage in e-commerce. It also mandates government online by June 2002. While the e-Commerce law also gives NCC a role in policy planning and implementing the e-Commerce policies, it was the Department of Trade and Industry that was designated as the lead government agency in promoting and developing e-commerce in the country.

In July 2000, a Government Information Systems Plan (GISP) was approved and adopted as a framework and guide for all computerization efforts in government (EO 265). The GISP aims to create a system of governance that will lead to:

- Faster and better delivery of public goods and services;
- Greater transparency in government operations;
- Increased capacities of public sector organizations, and
- Proactive participation of citizens in governance.

The GISP was to be implemented in three phases: Phase 1 - Setting Up the Enabling Environment; Phase 2 - Building the GISP Information Infrastructure; and, Phase 3 - Sustaining GISP. Phase 1 was envisioned to be completed within 5 years of the plan's adoption (or 2005).

Also in July 2000, the Information Technology and Electronic Commerce Council (ITECC) was created out of the merger of the NITC and ECPC. ITECC was placed under the Office of the President, with the Department of Trade and Industry Secretary as Chairman. The creation of ITECC recognized the need to ensure a more streamlined and focused formulation and implementation of ICT policy. ITECC was also designated as the central policymaking and coordination body for the implementation of the GISP. In 2001, ITECC was reorganized with the President replacing the DTI Secretary as ITECC chair. The DTI Secretary and a private sector representative were both designated as co-chair.

ITECC has an e-Government committee that is looking into developing Online Government Frontline Services, e-Commerce Act Compliance, and the Development of a Government Portal. The committee is also reviewing the charter of the NCC.

Among the policy changes that the ITECC is promoting is the establishment of a Department of Information and Communications Technology (DITC). The creation of a DICT is seen as crucial in developing and promoting a policy and legal environment, as well as an effective and efficient regulatory regime that will help shepherd the Philippines to the forefront of the global information economy.

Philippine ICT Bodies

1971	NCC established by E.O. 322
1978	NCC as primary agency to direct IT use in gov't & computerization by P.D. 1480
1994	NITC created by E.O. 190
1998	ECPC created by E.O. 468
1998	NITC given additional functions via E.O. 469
1999	NCC designated technical arm of NITC via E.O. 125
Mar 2000	NCC moved to DoST via E.O. 222
July 2000	ITECC created by merging NITC and ECPC
May 2001	ITECC re-organized, President as Chair

Despite the Philippines's early start in computerization, its foresight to identify the crucial role ICT will play in the country's development, and the accompanying progress made in various government ICT policies and initiatives, many of our neighboring countries have overtaken the Philippines in the use of ICT in government.

In the following section, this paper will discuss the relative position of the Philippines against the world's and the region's best in e-Government.

Are We Ready for the Networked World?

The Networked Readiness Index (NRI) was developed by the Center for International Development (CID) of Harvard University as a global framework to map out the factors and dimensions that contribute to the capacity of countries to exploit the opportunities offered by information and communications technologies.[9] The NRI is a summary measure that focuses on the overall level of ICT development in countries. (Figure 1) It is a measure of a country's preparedness and potential to participate in the networked world. The NRI distinguishes between the factors that determine the usability of the Network and the variables that reflect the extent of Network use. This study evaluated 75 countries, representing 80% of the world population and more than 90% of the world's economic output.

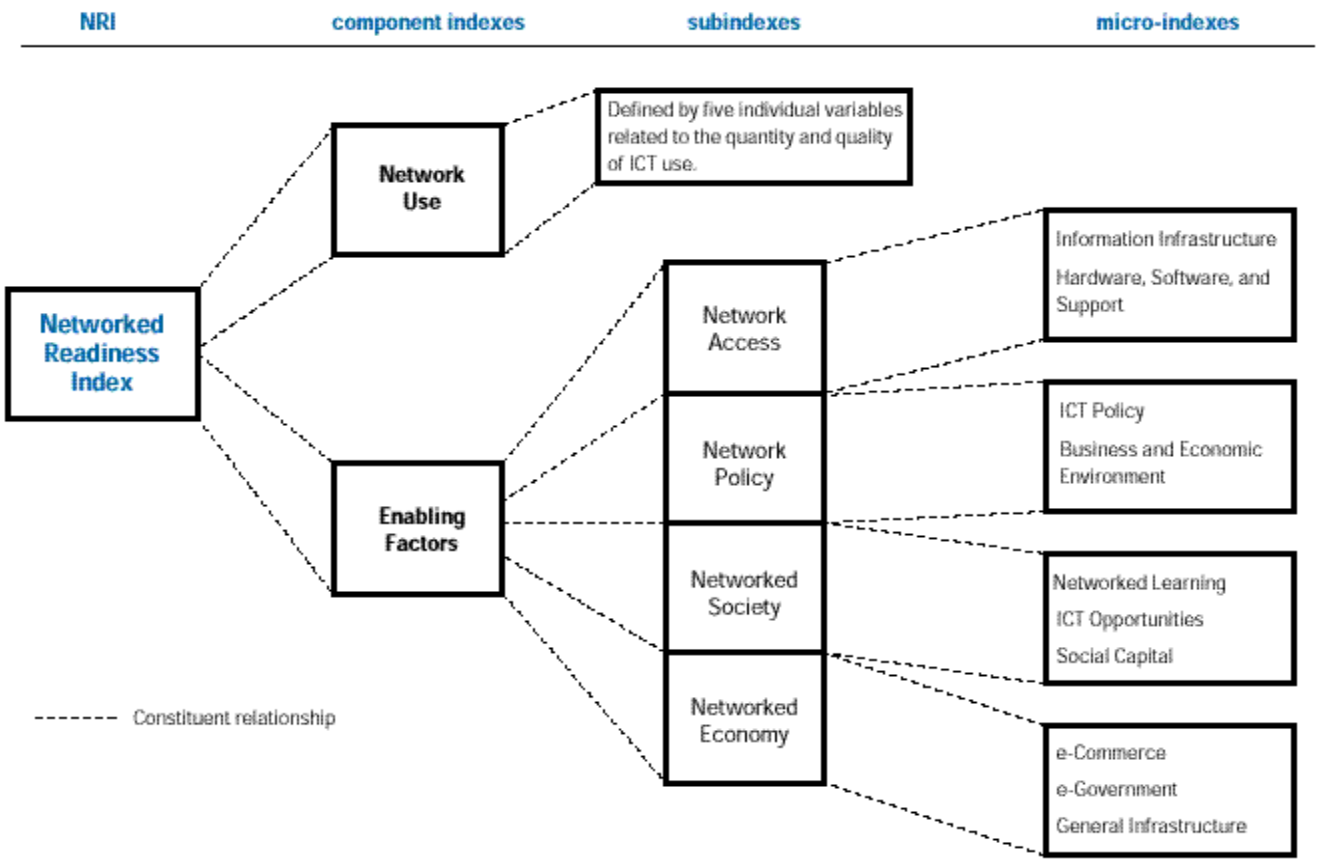


Figure 1

The NRI's top ranking countries are the United States in 1st place, Iceland ranking 2nd, Finland and Sweden slightly further behind, followed by Norway and the Netherlands (Table 1). Another Northern European country, Denmark, ranks 7th, followed by Singapore in 8th, Austria in 9th and the United Kingdom in 10th place.

In the NRI, Singapore is the best-ranked Asian country (ahead of HK at 13th, Taiwan at 15th, Korea at 20th, and Japan at 21st place). Malaysia, ranked 36th overall, is the second highest ASEAN ranked country. Thailand is 43rd, Philippines is 58th, Indonesia is 59th, and Vietnam is at 74th. India is in the bottom third of the overall NRI with its global ranking of 54th.

Table 1
Networked Readiness Index

Top Ten Countries	Networked Readiness Index	Rank
US	6.05	1
Iceland	6.03	2
Finland	5.91	3
Sweden	5.76	4
Norway	5.68	5
Netherlands	5.68	6
Denmark	5.56	7
Singapore	5.47	8
Austria	5.32	9
United Kingdom	5.31	10
ASEAN Countries		
Malaysia	3.82	36
Thailand	3.58	43
Philippines	***3.27***	***58***
Indonesia	3.24	59
Vietnam	2.42	74

As indicated in Figure 1, NRI is composed of two component indexes—the Network Use Component Index and the Enabling Factors Component Index. In Network Use Component Index, the top seven ranked countries are: Iceland, the United States, Finland, Norway, Sweden, the Netherlands, and Denmark. Table 2 shows Singapore leading the ASEAN pack, with the Philippines second to last. The Network Use Component Index is a straightforward measure of the extent of

ICT proliferation in a country. It consists of 5 variables: internet users per one hundred inhabitants; cellular subscribers per one hundred inhabitants; internet users per host; percentage of computers connected to the Internet, and availability of public access to the Internet.

The Enabling Factors Component Index reflects the preconditions for high quality Network Use, as well as the potential for future Network proliferation and use in a given country. There are four sub-indexes that make up Enabling Factors: *Network Access* (i.e., extent and quality of information infrastructure and hardware, software and support); *Network Policy* (i.e., ICT policy and business and economic environment); *Networked Society* (i.e., networked learning, ICT opportunities and social capital); and *Networked Economy* (i.e., e-Commerce, e-Government and general complementary infrastructure).

In the NRI ranking of Enabling Factors, the top five ranked countries are: Finland, the United States, Sweden, the Netherlands, and Iceland. Singapore again leads among ASEAN countries, with the Philippines in fourth place — behind Malaysia and Thailand, and ahead of Indonesia and Vietnam. India does better in Enabling Factors Component Index (49th overall) than in the Network Use Component Index (60th place).

Table 2
NRI Component Indexes

Network Use	Rank	Enabling Factors	Rank
Top Five Countries			
Iceland	1	Finland	1
United States	2	United States	2
Finland	3	Sweden	3
Norway	4	Netherlands	4
Sweden	5	Iceland	5
ASEAN Countries			
Singapore	8	Singapore	11
Malaysia	35	Malaysia	38
Thailand	54	Thailand	40
Indonesia	61	***Philippines***	***53***
Philippines	***63***	Indonesia	57
Vietnam	74	Vietnam	72

The NRI looks at e-Government as part of the Networked Economy Sub-index. In this study, e-Government is measured in terms of: 1) government effectiveness in promoting the use of ICTs; 2) availability of online government services; 3) extent of Government websites, and, 4) business Internet-based transactions with government. Singapore is the global leader in e-Government with Estonia in fifth place (see Table 3). Hong Kong and Taiwan are tied at seventh place and the US is tied with Denmark at ninth overall. India is at 33rd, ahead of 5 other ASEAN countries in the study. Among ASEAN countries, the Philippines is ranked 57th behind Thailand (41st) and Malaysia (45th), and ahead of Indonesia (62nd) and Vietnam (65th).

Table 3
e-Government

	Rank
Top Five Countries	
Singapore	*1*
Finland	2
Iceland	3
Sweden	4
Estonia	5
ASEAN Countries	
Thailand	41
Malaysia	45
Philippines	***57***
Indonesia	62
Vietnam	65

It is important to note that while the NRI provides important evidence for relative levels of Networked Readiness, there are inherent limitations that stem from using the nation-state as the basic unit of measure. The NRI will not capture the wide internal variation in a huge country. The NRI effectively penalizes huge countries like India for its size, scope and scale of its many social and economic development challenges, and the smaller degree of IT penetration.[10] Smaller countries like Ireland and Singapore tend to rate better.

The NRI is an indicative measure aimed at helping business leaders and policymakers understand the myriad of factors contributing to ICT advancement. The various dimensions of the NRI can be extracted by these

leaders to address the many concerns and issues that hinder ICT development, and, for that matter, overall economic growth.

Global e-Government Survey

In 2001, the World Markets Research Centre and Brown University conducted a survey of government websites worldwide. This is the first of an envisioned annual survey of government websites by the said institutions.

A total of 2,288 government websites in 196 nations were reviewed to determine common features, as well as those features that stood out among the rest. Ultimately, the websites were evaluated for the presence of 28 distinct features in relation to information availability, service delivery, and public access. Some of these features include:

- Phone contact information, addresses;
- Publications;
- Databases, links to other sites;
- Audio clips, video clips;
- Not having advertisements, not having user fees;
- Having privacy policies, security policies;
- Having online services, having a portal connection;
- Allowing digital signature on transactions;
- Options to pay via credit cards, and
- Search capabilities, areas to post comments, broadcasts of events.

The study's general conclusion is that "**e-government is falling short of its true potential**." This study emphasizes that while countries have embraced e-Government, most of the countries surveyed have not taken advantage of the interactive features of the Internet, which would facilitate communication between citizens and government agencies. As a result, these websites have been found to lack dynamism and robustness, failing to capture the potential of ICT to enhance democracy.

The top ten countries in the survey are the United States, Taiwan, Australia, Canada, UK, Ireland, Israel, Singapore, Germany, and Finland (Table 4). In the top twenty countries, there are eight (8) European countries and three (3) Asian countries. The Philippines is ranked 52nd in the survey, behind Malaysia and ahead of Vietnam, Brunei, and Thailand. India, the Philippines's deemed competitor for ICT services outsourcing, is ranked 69th.

Table 4
Top e-Government Countries

	Percentage Score	Rank
Top Ten e-Government Countries		
US	57.2	1
Taiwan	52.5	2
Australia	50.7	3
Canada	49.6	4
UK	47.1	5
Ireland	46.9	6
Israel	46.2	7
Singapore	44.0	8
Germany	40.6	9
Finland	40.2	10
ASEAN Countries		
Malaysia	39.0	16
Philippines	***32.8***	***52***
Vietnam	32.8	53
Brunei	32.7	56
Thailand	30.8	71
Indonesia	30.0	88

The Global e-Government Survey also looked at Online Services. In this study online service is narrowly defined as those services which were **fully executable in the website**. In other words, if a service required that an application form be sent via traditional mail, then it was not counted as an online service.

Of the 196 countries analyzed, Taiwan came out on top as the country with the most number of government websites which offered services that could be fully executed online (Table 5). Taiwan is followed by Germany with 59% of its government services fully executable online. The other Asian country to rank in the top ten is Singapore at 47%. The United States comes in 9th place at 34%.

Table 5
Individual Country Profiles for Online Services

	Percentage Score
Top Ten Countries Offering Online Services	
Taiwan	65
Germany	59
Australia	50
Cook Islands	50
New Zealand	48
Singapore	47
Seychelles	40
Canada	34
US	34
Bahamas	33
ASEAN Countries	
Malaysia	16
Philippines	***6***
Indonesia	4
Vietnam	0
Brunei	0
Thailand	0

Aside from the assessment of government websites, the study also documents other factors, such us the presence of publications and databases, privacy and security policies, as well as disability access.

Table 6 shows Individual Country Profiles ranked according to the presence or absence of the features mentioned above.

Table 6
Individual Country Profiles for Selected Features
(as a percentage of the country's visited websites containing the feature)

Country	Publications	Databases	Privacy Policy	Security Policy	Handicap Accessibility
Top Five Countries					
US	98	90	81	56	37
Taiwan	100	87	17	22	0
Australia	100	85	96	54	23
Canada	100	72	79	14	7
UK	100	67	7	0	7
ASEAN Countries					
Singapore	95	53	5	0	0
Malaysia	84	48	0	0	0
Japan	94	72	6	6	0
Philippines	***100***	***56***	***0***	***0***	***0***
Vietnam	100	20	0	0	0
Brunei	100	100	0	0	0
Indonesia	87	52	0	0	0
Thailand	100	41	6	0	0

Among the recommendations of the Global e-Government study are:

- Central government needs to undertake more work to upgrade e-Government
- Countries should create government portals that serve as the gateway to a particular country's website and offer a 'one-stop' web address for online services;
- A feedback mechanism should be included in government websites to further enhance public accountability, and
- Government should undertake steps that allow for digital signatures so that online transactions can be made through the use of a credit card.

ASEAN's e-Readiness

As part of its efforts to prepare the states of Southeast Asia for the information age and competitively position them in the global new economy, the ten-member Association of Southeast Asian Nations (ASEAN) launched the ASEAN e-

Readiness Survey. The ASEAN Secretariat and IBM Global Services conducted the study with the aim of determining each member-state's preparedness for the information age.

Each member-state was measured for e-Readiness based on the five main components of the e-ASEAN Framework Agreement: e-Society (i.e., home and business users, education, workforce, localization and public access points); e-Commerce (i.e., current environment, taxation, legal framework, payments and physical distribution); e-Government (i.e., penetration, use type, organization and promotion); ICT Infrastructure (i.e., communications infrastructure, Internet access services, end user devices and affordability); and Liberalizing Trade in ICT Goods and Services.

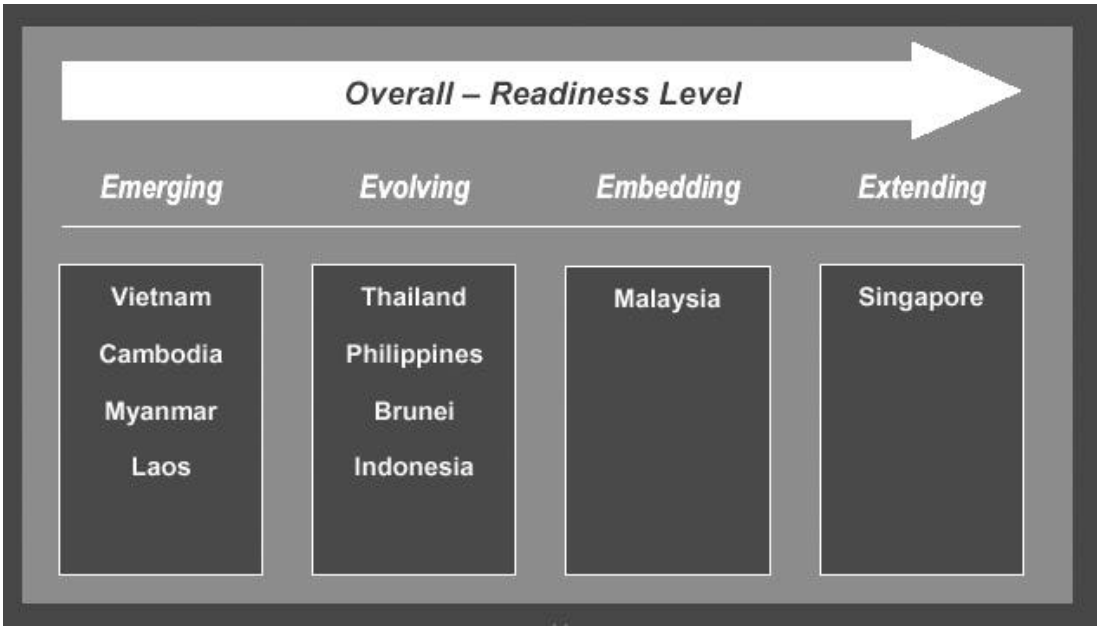
The methodology defined four stages in the development of an information economy – Emerging, Evolving, Embedding, and Extending (see Table 7). This classification was used to determine e-Readiness levels among the ASEAN members.

Table 7
Stages of the Information Economy

Key Characteristics of 4 Stages of the Information Economy	
Extending	• Very high penetration of communication infrastructure (power, fixed line, cable TV, cellular) • Broadband internet access services gaining popularity • Very high penetration of terminal devices (PC / cellular phone) • Liberalized market condition for communication and ISP sector • Key Indicators: Teledensity > 40%, PC penetration > 20%
Embedding	• High penetration of communication infrastructure (power, fixed line, cable TV, cellular) • High penetration of terminal devices (PC / cellular phone) • Mostly liberalized market condition for communication and ISP sector • Key Indicators: Teledensity 20-40%, PC penetration 5-10%
Evolving	• Moderate to low penetration of communication infrastructure (power, fixed line, cable TV, cellular) • Moderate to low penetration of terminal devices (PC / cellular phone) • Mostly liberalized market condition for communication and ISP sector • Key Indicators: Teledensity 5-10%, PC penetration 2-5%
Emerging	• Low penetration of communication infrastructure (power, fixed line, cable TV, cellular) • Low penetration of terminal devices (PC / cellular phone) • Generally closed market condition for communication and ISP sector • Key Indicators: Teledensity < 5%, PC penetration < 1%

As expected, Singapore led in all aspects of e-Readiness, followed closely by Malaysia (Figure 2). ASEAN's economies in transition were classified in the "emerging" stage of ICT readiness. Under the "emerging" and "evolving" stages, the study clustered those countries with similar readiness levels in order "to identify their common challenges and potential focus areas."

Figure 2
Overall e-Readiness



The ASEAN e-Readiness study emphasizes the key role that ICT can play as an engine of growth for the region. To improve the overall readiness of the region as a whole, and of individual ASEAN member-states, five recommendations are put forth by the study:

- Improve connectivity by building a robust common regional architecture in order to increase access and lower costs and strengthen one's legal and regulatory framework;
- Enhance human capacity development by focusing on education and knowledge sharing, and promoting local content and applications;
- Encourage a pro-competitive policy and regulatory environment with a view to generating self-sustaining growth in order to achieve development goals;

- Regularly share progress with the region towards the goals of e-ASEAN using the ASEAN e-Readiness assessment, and
- Exhibit leadership in promoting and using ICT for the attainment of government objectives in efficient service delivery.

The study also evaluated the ASEAN countries according to e-Government readiness. Using the e-ASEAN Framework Agreement, e-Government readiness of each country was measured in terms of penetration, use type, and organization.

The e-Government Characteristics and Readiness Levels are presented in Table 8 below.

Table 8
Key Characteristics and Challenges of e-Government

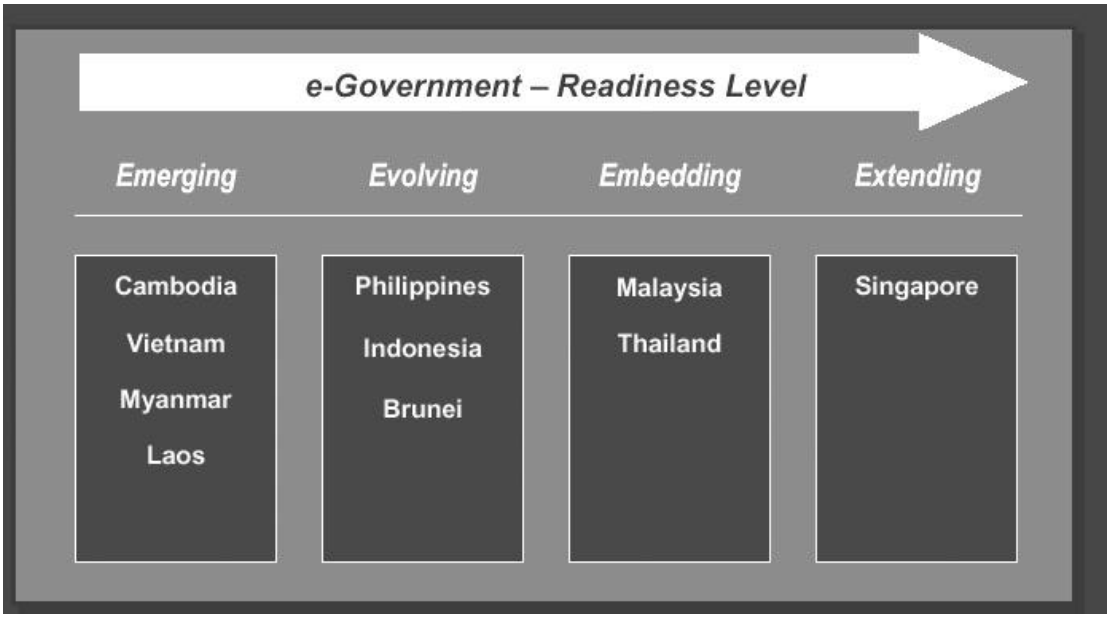
Key Characteristics		**Key Challenges**
Extending	• Very high PC and internet penetration in government • Government uses internet for providing citizen services, internal work processing and e-commerce • Very high proportion of government departments have websites, with high proportion of services online • Separate ICT ministry	• Reduce complexity for the citizen / business client • Improve quality of online services • Improve use of ICT for government transformation
Embedding	• Moderate / high PC and internet penetration in government • Government uses internet for providing citizen services and internal work processing • High proportion of government departments have websites, with moderate proportion of services online • Separate ICT ministry / department	• Develop roadmap to describe transformation strategies • Gain executive buy-in and management of transformation • Increase government web presence and utilization in service delivery
Evolving	• Moderate / low PC and internet penetration in government • Government uses internet mainly for e-mail • Moderate proportion of government departments have websites, with moderate proportion of services online • Separate ICT department	• Develop roadmap to describe transformation strategies • Gain executive buy-in and management transformation • Increase government web presence and utilization in service delivery

Once again, Singapore was recognized as the region's leader in e-Government, with Malaysia and Thailand under the "embedding" stage (Figure 3). The Philippines was identified as belonging to the "evolving" stage. Specifically, the Philippines was found to be in the following stages in each of the e-Government Categories:

- In e-Government Penetration, the Philippines was classified as "Emerging due to very low PC and Internet penetration in government. "
- In e-Government Use Type, the Philippines was classified as "Evolving" as characterized by the government's use of the Internet mainly for e-mail and the moderate proportion of government departments that have websites. Of those websites, only a moderate proportion of services are provided online.
- In e-Government Organization, the Philippines was classified by the study as "Embedding" particularly because of the existence of a separate ICT ministry

The ASEAN e-Readiness study further asserts that infrastructure development (including PC and internet penetration) in government is a prerequisite for the advancement of the e-Government agenda. Although infrastructure development will require a substantial budgetary allocation, eventually, this will translate to reduced operational costs and increased over-all productivity.

Figure 3
e-Government



Finally, the formation of an ICT Department or Ministry has been identified by the study as pivotal not only for the effective implementation of e-Government, but to lead the country in harnessing the potential of ICT towards economic growth.

It is noteworthy that Thailand and the Philippines are ranked closely in the Networked Readiness Index, Global e-Government Survey, and the ASEAN e-Readiness study.

In the NRI study, Thailand rates ahead of the Philippines. Even with such similar physical and legal and regulatory infrastructure in ICT, the difference appears to lie in the Enabling Factors Component Index. As the other half of the measurement of Networked Readiness, Thailand can be inferred to have scored better than the Philippines with regard to the sub-index *Networked Society*, which relates particularly to the presence of networked learning, social capital, and ICT opportunities.

The Philippines is rated ahead of Thailand in the Global e-Government Study. Given that this study focuses only on government websites, the ranking of the Philippines ahead of Thailand can be mainly attributed to the fact that the Philippines's websites are in English. According to the Brown University study, English is the language of e-Government, with 72% of national government websites evaluated having an English version, and only 28% without. On the other hand, the Brown University rating of e-Government is based solely on information and features found in websites. Other aspects of e-Government such as internal Information Infrastructure of agencies, services via telephone or mobile phone, Information Kiosks and other ICT-enabled government facilities are not taken into account to determine e-Government progress.

In the ASEAN study, Thailand and the Philippines are ranked similarly given their similar levels in PC and Internet penetration in government, the use of Internet for providing citizen services, internal work processing and e-commerce development.

These alternating rankings of Thailand and the Philippines can be explained by the differences in coverage, methodology and measuring instruments of the three studies, as summarized in Table 9 below.

Table 9
Comparing the Studies

	Coverage	Strength of Study
Networked Readiness Index	• 75 countries	• Use of Enabling Factors Component Index to measure potential in Networked Readiness, and not only actual Network Use
Global e-Government Survey	• 196 countries • 2,288 government websites	• Global comparison of government services available on the Web
ASEAN e-Readiness Report	• 10 ASEAN Countries • Both internal and front-line ICT applications	• Evaluation of Internal ICT applications / infrastructure • Evaluation of Policy & Regulatory aspects

Upon closer inspection of the rankings of Thailand and the Philippines in the various studies, it can be inferred that Thailand's internal ICT e-government infrastructure is better evolved. But the Philippines has implemented more Frontline e-Government websites.

e-Government in the Philippines

In order to deepen our understanding of the country's level of e-Government readiness, the Digital Philippines Foundation (Digital Philippines) has been examining Philippine government websites since September 2001. To complement this desk study, Digital Philippines also held a members-only seminar on November 29, 2001 entitled **"Facilitating e-Government - Case Studies on Private-Public Partnerships."** This seminar discussed private sector-led endeavors in e-government services and discussed the various issues, problems and barriers related to facilitating and implementing e-government in the Philippines.

From September to November 2001, in February 2002, and then in April 2002 national government websites were evaluated by Digital Philippines using the "Five Stages of e-Government" - developed by the **United Nations and the American Society of Public Administration (UN-ASPA).** These five categories measured a country's e-government progress:

> **Stage 1 or** "**Emerging Web Presence**" refers to a government website that serve as a basic public information source, indicated by FAQs, contact information and other static information about the agency.
>
> **Stage 2 or** "**Enhanced Web Presence**" refers to a government website that not only provide basic static information, this site is regularly updated, includes documents/resources that may be easily downloaded and has features that allow a site search and e-mail for queries/comments.
>
> **Stage 3 or** "**Interactive Web Presence**" refers to a government website that acts as a portal, with links to related sites. Users of this website can search specialized databases and forms can be downloaded or submitted online.
>
> **Stage 4 or** "**Transactional Web Presence**" refers to a government website that will allow users to directly access services based on specific needs. Since these sites are ultimately secure, users are able to conduct complete and secure transactions online.
>
> **Stage 5 or** "**Fully Integrated Web Presence**" refers to a country website where all services and links can be done through a single central portal and where all transactional services offered by government is made available online through a single integrated site.

Digital Philippines examined 140 national government websites. The initial list of government websites was compiled using various Internet directories and search engines. The list was later expanded by referring to the Philippine portal www.gov.ph, under the "Government Links" page. Digital Philippines

examined these websites using specific indicators based on the UN-ASPA categories of e-government to assess the selected websites. *(See Appendix I for Evaluation Criteria).*

Digital Philippines chose to evaluate government websites to gain an understanding of the prevalence e-government in the country. While websites are easier to study than other types of e-government implementations, it also the easiest to implement and has an enormous impact. Government websites are a new mechanism for delivering basic services to the public. In addition, government websites are the first interface between the Philippines and a number of relevant publics. The quality and sophistication of these government websites leave an indelible impression and perception of credibility for the Philippines as a tourist destination, investments hub and an ICT services and manufacturing center.

It is also important to note that the presence of a sophisticated or useful website does not imply the presence of a good back office. A number of government agencies that have developed good internal ICT applications for e-Government may not have a good Front-line ICT application. But a good back office makes the website more useful to the public.

In sum, Digital Philippines discovered the following:

- There is no "transactional" government website
- About 14% of the agency websites were unreachable
- About a quarter (24%) of these websites can be considered rudimentary)
- A significant number (42%) of the government websites are at stage 2, "enhanced web presence"
- Only 19% of the Philippine government websites studied can be considered "Interactive"

It also noteworthy that these Philippine government websites do not have a common 'look and feel'. Equally notable is that there are no common features in these websites and they do not explain their privacy and security policies. The lack of commonality is probably due to the fact these websites were created upon the initiatives of the respective agencies without guidelines from the relevant government agency.

The detailed results of the study are presented below.

Government Websites according to Stage

Stage 1 - Emerging

Stage 1 websites have static information such as contact telephone numbers, office addresses, Agency Mandate, Related Laws, Memos and Orders. Some of these websites amateur and some are extremely out of date.

Stage 1 websites are likely to be developed by employees of the agency. The quality of the website does not reflect the skills of a professional web developer.

For a Stage 1 website to develop into a higher stage, web developers and the agency should evaluate the existing processes and services of the brick and mortar office.

24% or 34 of the 140 websites visited fall in Stage 1

Lead Agencies
- Office of the Press Secretary
- Department of Justice
- Department of Public Works and Highways

Attached Agencies
- Agricultural Training Institute
- Air Transportation Office
- Armed Forces of the Philippines
- Bureau of Animal Industry
- Bureau of Fisheries and Aquatic Resources
- Bureau of Import Services
- Bureau of International Trade Relations
- Bureau of Local Employment
- Bureau of Nonformal Education
- Bureau of Plant Industry
- Bureau of Postharvest Research and Extension
- Bureau of Product Standards
- Bureau of Rural Workers
- Bureau of Small and Medium Business Development
- Civil Aeronautics Board
- Commission on Population
- Fertilizer and Pesticide Authority
- Information and Publication Service
- Local Water Utilities Administration
- National Labor Relations Commission
- Philippine Army
- Philippine Economic Zone Authority
- Philippine Institute of Volcanology and Seismology
- Philippine National Railways
- Philippine Navy
- Philippine News Agency
- Philippine Nuclear Research Institute
- Philippine Tourism Authority
- Radio Television Malacañang

GOCCs
- National Power Corporation

Constitutional Office
- Commission on Elections

Some of the questions to consider:

1. *What information is often sought at the Agency's Information Desk?* This information must be made available on the Website.
2. *What are the existing publications of the Agency*? These may published online, converted into downloadable format or be made available for on-line purchase.
3. *What are the developments in the Agency in the past month?* These developments may be posted on the website as news. *What are the activities of the Agency in the coming month?* If there are no news articles on an agency website, it may be a reflection of the activities or accomplishments of the agency.
4. *What forms does the agency use?* These may be application forms, inquiry forms, certifications, clearances and the like. Forms such as these should be put online, either for online submission or for download.
5. *What are the existing databases in the internal information systems of the agency?* The web developer may consider putting this information on the website.

Stage 2 -- Enhanced

Close to half of the Philippine government websites in this study are regularly updated, have search features or site maps and areas for comments or feedback.

Important documents like Application guidelines, procedures, application forms and requirements are also made available on some Stage 2 websites. These documents are presented in a variety of file types such as MS Excel, MS Word, Image Files, Zip, PDF or HTML.

42% or 59 websites fall in Stage 2

Lead Agencies:

- Department of Agriculture
- Department of Education
- Department of Environment and Natural Resources
- Department of Finance
- Department of Foreign Affairs
- Department of Interior and Local Government
- Department of Social Welfare and Development
- Department of Tourism
- Department of Transportation and Communications
- Office of the President [11]

Attached Agencies:

- Advanced Science and Technology Institute
- Board of Investments
- Bureau of Agricultural Statistics
- Bureau of Customs
- Bureau of Domestic Trade and Promotion
- Bureau of Food and Drugs
- Bureau of Immigration
- Bureau of Labor and Employment Statistics
- Bureau of Labor Relations
- Bureau of Soils & Water Management

continued on next page …

Some Stage 2 websites have downloadable forms. These forms are posted online to be printed by citizens. Instructions or guidelines for use usually accompany these forms. Through the availability of this type of information on the website, the citizen is able to prepare all of his/her requirements and complete the forms beforehand. This removes a step in the bureaucratic filing process wherein citizens would usually go to the agency to pick up forms and requirements first, only to return later to file their applications.

A distinct difference between Stage 2 and Stage 3 websites is how information is presented online.

Stage 2 websites present their data in either MS Excel or Word formats – formats that can be easily tampered or modified. Thus, it is important for agencies which allow citizens to download application forms or resource materials online to use the PDF format. The PDF format preserves the layout and prevents

42% or 59 websites fall in Stage 2

- Commission on Higher Education
- Environmental Management Bureau
- Intellectual Property Office
- Metro Manila Development Authority
- Mines and Geosciences Bureau
- National Commission on the Role of Filipino Women
- National Computer Center
- National Conciliation and Mediation Board
- National Food Authority
- National Telecommunications Commission
- National Wages And Productivity Commission
- Occupational Safety and Health Center
- Overseas Workers Welfare Administration
- PAGASA
- Phil Council for Agriculture, Forestry & Natural Resources Research and Development
- Phil Council for Aquatic and Marine R&D
- Philippine Air Force
- Philippine Convention and Visitors Corporation
- Philippine Council for Industry and Energy Research and Development
- Philippine Information Agency
- Philippine Ports Authority
- Philippine Overseas Employment Administration
- Philippine Rice Research Institute
- Presidential Commission on Educational Reform
- Protected Areas and Wildlife Bureau
- Public Estates Authority
- Science Education Institute
- Securities and Exchange Commission
- Statistical Research and Training Center
- Technical Education and Skills Development Authority
- Technology and Livelihood Resource Center

GOCCs

- Bases Conversion Development Authority
- Employees' Compensation Commission
- Philippine Health Insurance Corporation
- Social Security System
- Subic Bay Metropolitan Authority

Legislature

- Senate

Judiciary

- Supreme Court

Constitutional Offices

- Civil Service Commission

the modification of these forms.

On the other hand, Stage 3 websites are database-driven. Thus, the goal of Stage 2 websites is to transfer their raw data and create an online database. Database-driven websites allow for greater flexibility in the presentation of data and are tamper-proof.

Stage 3 – Interactive

The 27 Interactive government websites covered in this study feature searchable databases, up-to-date information, and downloadable forms. Some of these websites have forms that could be submitted on-line. They contain specialized databases that present an array of data. The effective use of databases often results in a searchable and user-friendly presentation of data.

There are 7 Executive Departments and 3 Constitutional Offices whose websites are ranked in this stage. The House of Representatives website also made it to this highest ranked group.

At the time of the study, the Philippine Government Portal <www.gov.ph> was classified as a Stage 3 website. The site focuses on Interactive and multi-media elements. It has video clips of events, a wide news archive, forums, and feedback forms. There are also features for mobile services. Furthermore, the site is host to the State of the Nation Address (SONA) Management Information

19% or 27 websites fall in Stage 3
Lead Agencies: • Department of Budget and Management • Department of Energy • Department of Health • Department of Labor and Employment • Department of Science and Technology • Department of Trade and Industry • National Economic and Development Authority Attached Agencies: • Bureau of Agricultural Research • Bureau of Export Trade Promotion • Bureau of Internal Review • Bureau of Trade Regulations and Consumer Protection • Information Technology and E-Commerce Council • MARINA • National Commission on Culture and Arts • National Council for the Welfare of Disabled Persons • National Mapping and Resource Information Authority • National Statistical Coordination Board • National Statistics Office • Philippine Council for Health Research and Development • Philippine Institute for Development Studies • Procurement Service - DBM • Tariff Commission GOCCs • Government Service Insurance System Constitutional Offices • Bangko Sentral ng Pilipinas • Career Executive Service Board • Commission on Audit Legislature • House of Representatives

System. Compared with the CVISNET portal (as discussed in page 4), the Philippine Government portal seems to lean towards news and multi-media applications. While the Philippine Government Portal links to most Government Head Offices, only a few of the existing Agency e-Services are being promoted through the portal. The CVISNet Portal, on the other hand, has made more effective use of resources and services of the agencies within their network.

Website Not Available

14% of the government websites studied cannot be reached. The addresses of these agencies have been listed in various Internet directories but their pages cannot be accessed at the time of study. [12]

It is unfortunate that in this list are a number of critical frontline agencies (DAR, LTO, LTFRB, Office of the Solicitor General), national security agencies (DND, NSC, NBI and Army) as well as those serving the youth (National Youth Commission).

14% or 20 websites were Not Available at the time of visit

Lead Agencies:

- Department of Agrarian Reform
- Department of National Defense
- Office of the Vice President

Attached Agencies:

- Food and Nutrition Research Institute
- Forest Products R&D Institute
- Industrial Technology Development Institute
- Land Registration Authority
- Land Transportation Franchising and Regulatory Board
- Land Transportation Office
- Light Rail Transit Authority
- Metals Industry Research and Development Center
- Metro Rail Transit Corporation
- National Bureau of Investigation
- National Security Council
- National Youth Commission
- Office of the Solicitor General
- Phil Council for Advanced S&T R&D
- Philippine Textile Research Institute
- Science and Technology Information Institute
- Technology Application and Promotion Institute

Distribution of Government Websites

Of the 140 government websites ranked on the basis of the UN-ASPA 5 stages of e-Government, 125 were from the Executive branch of government (23 lead agencies and 102 bureaus/attached agencies). Of the 125 websites from the Executive, 20 (16%) were not available at the time of study. The mean ranking of the Executive branch websites is 1.90. For the lead agencies the mean ranking is 2.20, while the mean ranking for its bureaus/attached agencies is 1.84.

7 GOCC sites were also visited for this study, 5 (71%) are at Stage 2. The mean ranking of the GOCC websites is 2.0.

In the legislature, the Senate's website is rated Stage 2, while the House of Representatives is at Stage 3.

The Supreme Court site was rated as a Stage 2 site.

The Bangko Sentral ng Pilipinas, the Career Executive Service Board and the Commission on Audit are all Stage 3 sites. On the other hand, the Civil Service Commission and the COMELEC are at Stage 2 and Stage 1, respectively.

Websites of the Executive Branch

Lead Agencies

Close to a third of the Lead Agency websites can be characterized as Interactive (or Stage 3). On the other hand, 13% of the websites in this category are not available online. The mean ranking for the lead agencies is 2.20.

Lead Agencies		
Stage	***%***	***Department***
Stage 1	13.0%	OPS, DOJ, DPWH
Stage 2	43.5%	OP, DA, DepEd, DENR, DoF, DFA, DILG, DSWD, DOT, DOTC
Stage 3	30.4%	DBM, DoE, DOH, DOLE, DOST, DTI, NEDA
N.A.	13.0%	Office of the VP, DAR, DND

NEDA leads the pack with its wealth of features such as press releases, on-line references, directories and feedback forms. Even the attached agencies of NEDA scored well (*see NEDA attached agency websites below*).

The DTI and DBM main websites have the makings of a Department Level portal. They have developed their attached agency websites to be visually and structurally cohesive with the main Department website.

Attached Agencies / Bureaus

Digital Philippines visited 102 websites of attached agencies and bureaus. Of these 102 websites, 17 were not available. The remaining 85 websites have a mean ranking is 1.84.

Office of the President

The mean ranking of the OP attached agency websites is 2.22. The relatively high mean ranking of the OP is due to the fact that it has two Stage 3 sites.

Office of the President	
Stage 2	CHED, MMDA, NCRFW, NFA, PCER, PEA, TLRC
Stage 3	ITECC, NCCA
N.A.	NSC, NYC

These agencies under the Office of the President do not have a similar look or style as expected of department-level portals. The mandates of these OP agencies are remotely related, and thus, these websites have been developed independently of each other.

Office of the Press Secretary

The Philippine Information Agency has a compilation of Issues, Editorials and Articles. It also has a gallery of photographs from Malacañang. The PIA website links to many pages on the OPS website. These cross-links between pages of the OPS and PIA increase the accessibility of articles of both websites.

OPS	
Stage 1	PNA, RTVM
Stage 2	PIA

Based on its Mandate to carry out national information programs, PIA should vigorously promote the use of government e-services.

DAR

Just like the website of its lead agency, the Land Registration Authority website was also Not Available at the time of study.

DAR	
N.A.	Land Registration Authority

Department of Agriculture

The mean ranking of the 10 websites of the DA attached agencies is 1.50.

The Bureau of Agricultural Research keeps a database of research papers. These papers are made available online for reference of visitors.

The BFAR recently launched the Philippine Fisheries Information System (PHILFIS) under the Fisheries Resource Management Project (FRMP). PHILFIS is designed to facilitate collection, processing and timely delivery of relevant, accurate and reliable fisheries

DA	
Stage 1	ATI, Bureau of Animal Industry, Bureau of Fisheries and Aquatic Resources, Bureau of Plant Industry, Bureau of Postharvest Research & Extension, Fertilizer and Pesticide Authority
Stage 2	Bureau of Agricultural Statistics, Bureau of Soils & Water Management, Phil. Rice Research Inst.
Stage 3	Bureau of Agricultural Research

data and information to support fisheries planning and management. Some of this information will be made available in BFAR's FRMP web site.

DBM

The Procurement Service has a searchable Public Tender Board, Suppliers Registry and Catalogue. Suppliers may submit accreditation requirements online. DBM also maintains a hotline and conduct trainings for various government personnel to promote the use of the Procurement Service website by other government agencies.

DBM	
Stage 3	Procurement Service

The next phase of implementation is the construction and testing of a fully transactional Procurement Service site. This will allow secure and real time e-commerce transactions.

DepEd

The BNFE website has not been updated in a long time. The seal on the main page has not been changed from the DECS logo to the DepEd logo.

DepEd	
Stage 1	Bureau of Nonformal Education

DENR

Most of DENR agencies fall under Stage 2. The NAMRIA stands out as it has won the 2000 and 2001 Philippines Web Awards (an Award-giving body for outstanding Philippine websites) for the Best Government Website Category.

DENR	
Stage 2	EMB, PAWB, Mines and Geosciences Bureau
Stage 3	NAMRIA

The NAMRIA website makes good use of current website authoring technologies. It also has interactive educational games online. But to some extent, a visitor with average Internet skills may have difficulty navigating the website. The website design focuses much on visual appeal but it may be compromising the website's ease of navigation.

DOF

Two of three agencies under the Department of Finance have Stage 2 or "Emerging" websites.

DOF	
Stage 2	SEC, Customs
Stage 3	BIR

The BIR's stage 3 website has an Electronic Filing and Payment System (eFPS) in its website. e-Filing (the online submission of income tax returns including attachments) and e-Payment (paying income taxes through the internet banking facilities of Authorized Agent Banks) facilities are currently available for large corporate taxpayers. eFPS will be available to Small and Medium Corporations by the year 2003.

The Bureau of Customs has a newly launched website which features the Bureau's programs, services and processes. Some internal ICT applications of the BoC are still under development, while some are already installed. For example, the front-line e-government services have yet to be made available to the public via the Customs website. At the time of the website visit, facilities for shipment tracking, online payments and other information important to local and international traders are not yet available on the BoC website.

During Digital Philippines' November 2001 seminar on "Facilitating e-Government: Case Studies on Private-Public Partnerships", some participants suggested that the BoC should also include online services such as shipping information, issuance of clearances, and secure payments, among others, as this will not only increase the transparency of the Bureau, but also improve the image and services of the agency.

DOH

DOH	
Stage 2	BFAD

The DOH website features statistics, advisories, information on health programs, policies, and FAQs on Diseases. They have downloadable application forms (MSWord format) for hospital accreditation, checklists and requirements. Various databases are also available.

Among the databases, BFAD publishes a database of registered food products, cosmetics, medical devices and drugs, including their regulatory guidelines. The databases are searchable by product, distributor or manufacturer.

DOJ

DOJ	
Stage 2	Bureau of Immigration
N.A.	Office of the Solicitor General, NBI

The Bureau of Immigration website provides very useful information on procedures and requirements for various transactions with the agency. The site also has a list of Immigration Fees and Frequently Asked Questions.

DOLE

The mean ranking of the websites of DOLE attached agencies is 1.67. The lead agency itself has a stage 3 website which features a job-matching facility. The database allows employers to post vacancies and for job-hunters to file their resumes online.

DOLE	
Stage 1	Bureau of Local Employment, Bureau of Rural Workers, Information and Publication Service, National Labor Relations Commission
Stage 2	Bureau of Labor and Employment Statistics, Bureau of Labor Relations, National Conciliation and Mediation Board, National Wages and Productivity Commission, Occupational Safety & Health Center, OWWA, POEA, TESDA

Through the POEA website, Overseas Foreign Workers are able to access POEA's various publications online, as well as travel information, application requirements and travel advisories.

Interestingly, the Region III TESDA owns the top-level domain name of TESDA <www.tesda.gov.ph>. The national office of TESDA, however, uses the URL <www.tesda.org>. The two websites appear to be independent of each other as neither of the two provides links to each other's websites.

DND

Three of the four websites of the agencies under the Department of National Defense fall under Stage 1.

DND	
Stage 1	Armed Forces of the Phils, Phil Army, Phil Navy
Stage 2	Phil Air Force

Most noticeable about the DND agencies is the absence of a cohesive style or structure governing these websites. Ideally, the AFP site should serve as a portal to the Philippine Army, Philippine Navy, and Philippine Air Force sites. However, there appears to have been no effort to centralize either the information or services of these sites.

DPWH

Both the DPWH website and the LWUA website are at Stage 1. The LWUA site displays basic information such as its history, mandate, mission, as well as Frequently Asked Questions. However, there are many loose links and their schedule for training programs has not been updated since 2001.

DPWH	
Stage 1	Local Water Utilities Admin.

DOST

Seven of DOST's attached agencies' websites fall under Stage 2 (mean ranking is 1.9). Eight other agency websites were Not Available at the time of visit.

NCC, the agency formally tasked to lead the government's computerization efforts, is only at Stage 2.

At the time of the study, the ASTI website was undergoing a major overhaul. The search function, research links, and user login was tested during the visit. However, these services were not functioning properly at the time of visit.

DOST	
Stage 1	PHIVOLCS, Phil Nuclear Research Institute
Stage 2	ASTI, NCC, PAGASA, Phil Council for Agriculture Forestry & Natural Resources R&D, Phil Council for Aquatic and Marine R&D, Phil. Council for Industry & Energy Research, SEI
Stage 3	Phil Council for Health Research and Dev't
N.A.	Food and Nutrition Research Inst., Forest Products R&D Inst., Industrial Technology Dev't Inst., Metals Industry R&D Center, Phil Council for Advanced S&T R&D, Phil Textile Research Institute, S&T Information Inst., Technology Application & Promotion Inst.

DSWD

The website of the National Council for the Welfare of Disabled (NCWD) features resources for Persons with Disabilities (PWA). These include Disability websites, a searchable Directory database, Legislations and Publications. They have an online application for a Transport ID which gives discounts for public transportation. After submission of information, the ID will be sent to the applicant via postal mail.

DSWD	
Stage 3	Nat'l Council for the Welfare of Disabled

While the NCWD was rated a stage 3 website, it was also tested for it's accessibility to persons with disabilities using W3C Web Content Accessibility Guidelines. An online Service named Bobby World Wide <http://www.cast.org/bobby> aims to help Web page authors identify and repair significant barriers to access by individuals with disabilities. Bobby World Wide also provides guidelines for improving the accessibility of a website. Using Bobby World Wide, the NCWD website did not meet the requirements of the W3C Web Content Accessibility Guidelines.

DOT

In order to promote itself effectively as a tourist destination, the Philippines must create an active presence on the web. Unfortunately, the DOT

DOT	
Stage 1	PTA
Stage 2	PCVC

websites are not being used effectively for this purpose. The websites require a major overhaul – there is a need to drastically enhance their overall look, update information and services. Visitors viewing the website may not be impressed with the superficial information available.

In the future, the site may benefit by including online services such as itinerary maker, accommodations or travel bookings, package tour reservations and others. Given the availability of other good quality private local travel websites, DOT may create links to these websites. Making travel plans is information intensive. A synergy may be created if different travel websites are brought together in a Philippine Travel Portal which may be hosted by DOT.

DTI

Tradeline Philippines <www.tradelinephil.dti.gov.ph>, an e-commerce website maintained by the Bureau of Export Trade Promotion, is at Stage 3. It has various databases available to the public, as well as user login and security.

DTI	
Stage 1	PEZA, Bureau of Import Services, Bureau of International Trade Relations, Bureau of Product Standards, Bureau of Small & Medium Business Dev't
Stage 2	Board of Investments, Bureau of Domestic Trade & Promotion, IPO
Stage 3	Bureau of Export Trade Promotion, Bureau of Trade Regulations and Consumer Protection

The Bureau of Trade Regulations and Consumer Protection (BTRCP) runs a Consumer Assistance Information Network System website known as E-REKLAMO <www.e-reklamo.net.ph/>. The site features a price monitor, consumer welfare desk and a complaint desk, among others. The complaint desk accepts online submissions of complaints. Upon submission of the complaint, a Reference Number is issued to the individual, which can be used when following-up a complaint online. There is also an area for consumers to chat with DTI. The BOI website, however, is only at stage 2.

DOTC

Four DOTC attached agency websites are Not Available. The mean ranking of the 6 DOTC attached agency websites that are online is 1.67.

DOTC	
Stage 1	Air Transportation Office, Civil Aeronautics Board, PNR
Stage 2	NTC, PPA
Stage 3	MARINA
N.A.	LRT Authority, LTFRB, LTO, MRT Corporation

MARINA website has a well laid out interface. It has a searchable database of registered Vessels and seafarers. Policy Issuances, important documents, requirements for various applications and process flowcharts are also available for ready reference.

The LTFRB, LTO, LRTA, and MRTC sites are hosted under the DOTC site but were not accessible at the time of the study.

NEDA

NEDA's attached agencies lead in implementing effective e-Government Websites (mean ranking of 2.5).

NEDA	
Stage 1	Commission on Population
Stage 2	Statistical Research & Training Center
Stage 3	Nat'l Statistical Coordination Board, NSO, PIDS, Tariff Commission

The NSCB has an enviable wealth of up-to-date charts, graphs and statistics on a wide variety of fields. Users may customize the display of graphs and statistics according to reference time, data fields, frequency and other variables.

The National Statistics Office features a separate website named e-Census <www.e-census.com.ph>. E-Census allows users to apply for birth, marriage or death certificates. The system gives clear instructions in filling out the online application forms. Multiple requests may be made and the total cost of the transaction is displayed upon filing of the forms. Payments for applications are still made over the counter at branches of Metrobank. Users may verify the status of their application using a customer access ID number. Alternatively, forms may be downloaded, printed and filed at the NSO office.

The Philippine Institute of Development Studies features publications, seminar schedules, and a comprehensive search of their various databases. The display of data may even be customized based on the specifications given by the user.

Websites of Government Owned and Controlled Corporations[13]

The GSIS website is the highest ranked website among GOCCs. It makes effective use of web applications. Customized computations such as retirement benefits, contributions, and loan inquiries can be done using GSIS's various online calculators.

GOCCs	
Stage 1	NAPOCOR
Stage 2	BCDA, SSS, Employees' Compensation Commission, PhilHealth, SBMA
Stage 3	GSIS

NAPOCOR publishes bid notices online. Information is also available with regards to an e-Bidding System but the transactional features are not yet available on the website.

Websites of the Legislative Branch

Legislature	
Stage 2	Senate
Stage 3	House of Representatives

The House of Representatives Website includes a "Know The Law" and "Status of Bills" sections. A myriad of features are available online, including a guided web tour of the House of Representatives and the voting history of the members of the House, adding to the House's intent to become transparent to the public. An interesting feature that was available in November 2001 (but no longer available when the site was re-visited in February 2002) was a search database of Philippine laws.

The Senate website only provides basic information. It has a section that outlines the status of bills and resolutions. The database is searchable according to bill number, author or committee. However, it is not user-friendly and it is difficult to find various resolutions or bills when searched by particular topic or subject.

Website of the Judiciary

Judiciary	
Stage 2	Supreme Court

The Supreme Court site is mostly informational. It provides the history of the Supreme Court, its mandate, organizational structure and the personal and professional background of each of the members of the High Court.

Websites of the Constitutional Offices

Constitutional Offices	
Stage 1	COMELEC
Stage 2	CSC
Stage 3	BSP, COA, Career Executive Service Board

The BSP, COA and the Career Executive Service Board websites found to be at Stage 3, among the constitutional offices in this study.

The BSP site has news, statistics, BSP regulations, procurement announcements and notices of properties for sale.

The COA website has an online form for reporting fraud. Another section features the response or result of a COA action based on a report filed. Specifics of the report are indicated, such as names, designations and dates and are posted with the corresponding action expected or accomplished.

The Civil Service Commission has a feature for submitting on-line Commendations, Requests for Assistance, and Complaints or Recommendations.

The Commission on Elections website is limited to facts about their organization and other static information.

The Private Sector and e-Government

The Private Sector is recognized as a partner in the country's ICT development efforts. Having the private sector participate in e-Government has many advantages. It could mean passing off the costs of design, development, maintenance, and risk to the implementing firm. Moreover, by using private partners, governments can build e-Governance systems with greatly reduced costs for start-up and ongoing operations. At the same time, more services can be delivered on a fee-for-service basis, with the private partner being paid from the fee revenues. Thus, e-Government can be a tool for moving certain government services from tax-based financing to user fees, where only those actually using the service pay for it.[14]

In this section, we present a few projects displaying best practices in public-private partnerships in implementing e-Government.

Facilitating Customs Clearance

The Bureau of Customs (BOC) has a reputation for being an inefficient and corrupt government agency. In her 2001 State of the Nation Address, President Gloria Macapagal-Arroyo challenged the BOC to evolve into a center of excellence in government. The current leadership in the BOC has used ICT as a way of responding to the President's call. The BOC leadership's faith in technology has resulted in real gains in efficiency, effectiveness, and transparency.

In 1994, the BOC embarked on a 5-year World Bank-funded computerization program to improve its operations. The computerization of the BOC features both Internal and Front-line e-Government applications. At the end of the project there are 700 computers, over 30 high-end servers in 21 Philippine ports. The computerization efforts of the Bureau of Customs have resulted in many benefits since they began in 1994. Among them are:

- Simplified procedures such as electronic submission, processing, and electronic payment;
- Reduction / Elimination of miscellaneous fees;
- Automated systems for data entry integrates Customs tables, codes, pre-assessment;

- More predictable and more precise information on clearing time and delivery time of shipments, and
- Increased legitimate revenues.

In its assessment of the BOC computerization project, the World Bank concluded that:

> Improved service was a major benefit. Quick clearance of a majority of transactions has brought down the cost of trade significantly. Cargo is released between four hours to two days, as opposed to eight days in the earlier system. Under the new system, business people also enjoy the greater convenience of making payments at familiar banks, instead of lining up for service at the Customs collection stations.

BOC computerization, however, was no walk in the park. Among other difficulties faced during this period is the lack of resources to sustain implementation and the absence of "Change Management". Perhaps the most difficult problem faced by the BOC's private sector partners in implementing the project was the erratic changes in leadership in the BOC between 1998-2000. The lack of continuity in the leadership of the Bureau meant that the computerization process proceeded haltingly during this period.

Building on its previous experience, in February 2002, the BOC launched three "M-Governance" or Mobile Governance projects which will use mobile phones to streamline and facilitate the processing of the payment of duties and taxes. In the *Cellphone-based Billing and Payment of Duties and Taxes* project, the BOC has established as its goal the reduction of end-to-end payment processes from the present 3-19 hours, to less than 5 minutes. This project is being implemented in partnership with Smart Telecommunications. The second M-Governance project is the *Cellphone-based Broadcast of Cargo Status*, which is being implemented with Globe Telecoms. This project's goal is to prevent the evasion of duties payment through the unauthorized use of EPZA locators (whose imports are mostly tax-free) as consignees. It will replace the current (inefficient) system where a telegram is sent to the consignee to announce/confirm the cargo's arrival. The third project is the *Cellphone-based Customs Website Surfing and e-mail*, in conjunction with Nextel, to allow wireless browsing and transaction with the BOC website. These M-Governance projects were conceived and developed in view of the fact that cellular phone penetration is higher in the country than computer and computer-based Internet penetration. It must be noted, however, that these initiatives are not without critics.

Government Documents a Phone Call Away

Getting a passport from the Department of Foreign Affairs is not easy. There is only one passport application center in the whole of Metro Manila. Nationwide, there are only ten (10) DFA regional consular offices (i.e., La Union, Cagayan Valley, Pampanga, Lucena, Legazpi, Iloilo, Cebu, Zamboanga, Cagayan de Oro City, and Davao) to handle passport applications and renewals. Moreover, the Manila office is only able to process 3,500 applications per day.

Passport applications require National Statistics Office (NSO)-certified birth and marriage certificates. Lining up at the NSO to get original copies of birth and marriage certificates can take up to one month – if you're lucky. Typically, it takes a day to line up at the National Statistics Office and fill out the necessary application forms. If the individual has an old copy of his birth or marriage certificate, this would be presented to the clerk who then confirms that the individual's record exists in the NSO archives. If it does exist, it will take about two to three weeks before the certified NSO document is released and available for pick up. However, there are numerous cases where an individual's records do not exist in the NSO archives. In such a situation, the process becomes more arduous and expensive.

Enter Pilipinas Teleserv Inc. (PTI). In partnership with the National Statistics Office (NSO) and the Department of Foreign Affairs (DFA), PTI facilitates applications for Birth, Marriage or Death Certificates, as well as the renewal of passports.

By using call center technologies, Pilipinas Teleserv is able to entertain applications 24/7, 365 days a year. Individuals interested in requesting any of these vital life documents can call a toll-free hotline number, where an operator assists in filling out an electronic application form, clarifies the requirements for the specific service requested, and gives out a reference number. Payments for these services are made with PTI-accredited banks. PTI will receive confirmation from the bank on the same day payments are made. A day later, PTI will pick up the application forms and other supporting documents. Pilipinas Teleserv guarantees the delivery of renewed passports in 7 days and NSO documents in 9 days, working with two private courier services -- LBC and Aboitiz One in the pick-up and delivery of these documents. Through these courier services, Teleserv is able to extend its services to even the remotest areas of the country.

Critics claim that Pilipinas Teleserv's service fees are expensive. PTI charges P175 for a P25 birth certificate and P1,200 for a P500 passport (P650 if you have it done overnight). But if one considers the total cost (transportation, meals, time out from work to fall in line for the documents, etc) associated

with obtaining these documents, it becomes clear that Pilipinas Teleserv provides outstanding value for money.

Clearly, the biggest benefit of this service is the convenience for the citizen. The cost of travel, waiting, and other accompanying costs are eliminated altogether as citizens are able to tender their applications from the convenience of their homes - any time of the day. This translates to time and energy saved for the hundreds of individuals who use this service each day.

There is also an improvement in efficiency within the government agency. Teleserv tenders applications in bulk and in the format that the government agency recommends. Thus, Teleserv has made application forms organized and easy to process for the government agency. Teleserv even screens these applications so that there is a lower occurrence of mistakes in the application forms. To date, Pilipinas Teleserve has already eased NSO's transaction load by as much as 30% and DFA's by half.[15]

A key element in the success of this service is the strong support received by Teleserv from the DFA and the NSO. A reason for this may well be that Teleserv does not charge these agencies for its services. Another reason is that Teleserv requires minimal adjustment or intervention on the part of internal government systems, and instead, makes use of the existing procedures in the government agency. What Teleserve does is facilitate the efficient tendering of applications. The outcome, therefore, is a seamless integration of the existing government system with an effective interface provided by Teleserv.

Computerizing the LTO

The Land Transportation Office (LTO) was cited by President Arroyo in her State of the Nation Address for its effective use of ICT in issuing drivers' licenses. What made this possible is LTO's ten-year computerization project which began in 1998. The LTO recently announced that they are already providing drivers' licenses and motor vehicle registrations via the use of computerized systems. Citizens are already enjoying the convenience of the shortened service periods for various processes. Among the aims of the project are: 1) to reduce the time required for the registration of vehicles to one hour from four to eight hours, 2) to issue new or revised drivers' licenses in five days, instead of six months, and 3) to renew drivers' licenses in one day, instead of three months.

With the installation of internal information and payment systems, the LTO will be able to accurately record all legitimate payments. Considering that the LTO is the fourth largest revenue owner of the government, stopping leakages is indeed important. This also builds the confidence of the citizens in the LTO as it eliminates channels for potential fixers or influence peddling.

The project also covers enhancements to LTO's existing back-end operations like accounting, payroll and human resources, procurement services, as well as public information systems.

The architecture of the computer systems will allow it to share information with other government agencies in the future. For example, one of the requirements for a license is a birth certificate. LTO and NSO will later be able to coordinate information systems such that licenses and birth certificates are applied for in one transaction. The LTO, PNP, and other law enforcement agencies will also be able to trace stolen vehicles cases using this national database.

The LTO computerization project is being undertaken under the Build-Own-Operate (BOO) scheme over a concession period of 10 years in accordance with R.A. 7718, or the Amended BOT Law. It will eventually interconnect LTO's more than 200 offices nationwide, enable online transaction processing, and integrate critical processes.

It is unfortunate that while the computerization efforts at LTO is reducing the processing time for various licenses and documents, the agency has deemed it necessary to add a new requirement for the issuance of licenses.

From Long Line to Online Tax Payments

The long lines come tax payment time may soon be a thing of the past. The Bureau of Internal Revenue has launched the Electronic Filing and Payment System, or eFPS, a system for electronic processing and transmission of tax return information due the government. This system is able to process 13 kinds of tax applications, using BIR-supplied validation and computation rules to check for completeness and correctness of taxpayer input.[16] This means a confirmation of receipt is issued and results of the processing are sent via e-mail to the applicant. The eFPS system also allows the payment of taxes through the Internet bank facilities of Authorized Agent Banks (AABs), such as Land Bank of the Philippines and Philippine National Bank. Eventually, the BIR will expand its accredited AABs.

The outright benefits of the system are:

- Paperless - no need for hard copy of BIR Forms and manual attachments; Convenient to use - it is quick, simple and secure;
- Interactive – information exchange is immediate and online;
- Validated information – errors are minimized;
- Quicker response or acknowledgment time;
- Available 24 hours a day, 7 days a week even on holidays, and

- It has verification features that point out errors in data entry or lack of data submitted.

The BIR, with the help of its private sector partners, aims to extend its electronic services beyond its current offerings. Currently being planned is the electronic process registration of businesses and new taxpayers. Later on, BIR will be able to make issuances of tax clearances, permits, and licenses online.

The BIR also has a number of projects meant to improve its internal operations. It has begun to digitize its books and accounts and archive documents securely. BIR is also using email and file transfer facilities among the national office, 5 revenue data centers, 15 regional offices ITS, and 86 revenue district offices. Its On Line Help Desk Facility manages the reporting and resolution of all types of problems faced by BIR personnel at any level and from any unit. BIR also uses e-procurement using the "reverse auction" method, which is done through Source Filipinas and Bayan Trade.

Hastening e-Government in the Philippines

E-Government in the Philippines is in an early stage. While it may be ambitious to have as a target the same level of e-Government as in Singapore -- which is among, if not the world's best -- approximating the level of e-Government in Thailand and Malaysia should be "do-able." And in trying to ensure that we are abreast with our neighbors and competitors, the GISP remains an important touchstone for e-Government in the Philippines.

The GISP not only provides vision and a development framework, but also includes strategies and solutions for the realization of Philippine government online.[17] The latter includes the establishment of "Priority Information Systems" that are organized by function and not just agencies. These "Priority Information Systems" to be developed include:

- Mission Critical Frontline Database and Information Systems
    - Public Service Information System (PSIS)
    - Justice, Public Order and Safety Database and Information System (Expanded National Crime and Information System)

- Oversight and Common Application Systems
    - Office of the President Executive Information System (www.malacanang.gov.ph)
    - Government Procurement System (Electronic Procurement System)
    - Government Human Resource Management Database and Information System
    - Government Physical Assets Management Database and Information System
    - Government Integrated Financial Management Database and Information System
    - Statistical Database and Information System
    - Government Integrated Records Management Database and Information System

- Sectoral Information System
    - Agricultural and Agrarian Reform Database and Information System
    - Education and Manpower Development Database and Information System
    - Trade, Industry, and Tourism Information System
    - Land and Environment Database and Information System
    - Health Care Database and Information System
    - Welfare, Security, Employment, Housing and Community Services Information System

- Local Government Information Systems
    - LGU Revenue Management System
    - LGU Business Regulation System

GISP identified the information systems gaps in government and provides corresponding solutions, which includes the use of "VPN technology in the RPWeb as the nationwide WAN of government" and the use of "Open Systems standards government-wide."

GISP also includes an Institutional and Policy Framework as well as a Financing and Implementation Strategy.

Under the Institutional and Policy Framework, the GISP underscores the need for "High-Level Policy Advocacy and Championship" for Philippine government online. It calls for the alignment of Department and Agency Information Systems Strategic Plans (ISSPs) with the GISP and Performance and Results-based management. GISP also identifies the following areas for further study and policy formulation:

- Computer Security
- Privacy
- Electronic Commerce
- Government Reengineering
- Government Performance and Review, including the implementation of an Information Resource Management (IRM) Program
- Standards and Technology

Included in the GISP is an Implementation Strategy with clear objectives and deadlines. Among the targets by the end of the first year of GISP implementation (or 1 July 2001) are:

- Inclusion of the GISP in the key results areas and performance reviews of the Department service;
- Development of prototypes for the Priority Information Systems (enumerated above);
- Connection of all government agencies to the Internet and the Web;
- Setting up of Web homepages by all executive departments to allow electronic publishing;
- Conversion of official documents into electronic forms initiated in all government agencies for the implementations of electronic document management, and
- Intensive use of GIS applications by the DOTC, DOH, DENR, DA, DAR, etc.

By the end of July 2002 or end of year 2 of GISP implementation, the following are envisioned:

- Office of the President Executive Information System operational at the Executive Secretary's Office;
- Final rollout/operationalization of the Government Electronic Procurement System;
- All Central Offices of the executive departments connected via Intranet, and
- Homepages set up by all other government entities/agencies and highly urbanized LGUs.

The political crisis in the last quarter of 2000 -- resulting in the change of leadership in 2001, as well as the government's dire financial situation, prevented government from implementing GISP. But as government kicks its ICT development strategy into gear, it is important that it revisit the GISP to update it, where needed, and to implement it aggressively.

In the immediate term, particularly in light of the looming deadline imposed by the e-Commerce law, there is need for a web strategy. All government agencies should have at least an interactive website by June 2002. In order to facilitate efforts at creating/upgrading websites, the government should consider adopting the UN-ASPA 5 Stages of e-Government as a standard. Furthermore, all government websites should have a common "look and feel," and adopt common security standards as well as a policy on privacy. Government should aim to transform the Philippine government portal into a Stage 4 (Transactional) site by the end of this year, and Stage 5 (Fully Integrated Portal) by June 2003. Government should also seriously consider transforming department websites into portals to enable easy access to all information and services being offered by that department and its attached agencies by June 2003.

In the medium- to long term, government should focus on implementing, and if needed, updating the GISP.

To help achieve the goal of e-Government, government may wish to consider the following lessons gleaned by Digital Philippines from the e-Government implementation experience of its members in the country:

1. **The importance of champions.** Champions within the various agencies of government make e-Government projects happen. These champions will have to set goals and targets for their respective agencies, determine

the types of applications they feel their constituents need (within the GISP framework) and find creative means to deploy resources behind the initiative.

The World Bank cites the work of former Customs Commissioner Guillermo L. Parayno, Jr. as one of the best case studies of the use of IT in government. Under his leadership, the Bureau developed an online system to process clearance of imports, payment of duty, and delivery of release orders for shipments to leave the docks. The online system has lessened the cost of trade for businesses, reduced opportunities for fraud, and helped the Bureau maximize revenue collection. However, when Commissioner Parayno was replaced in 1998, the online system was halted and not until the appointment of its present leadership were the BOC's ICT efforts brought back into high gear.

2. **People, not technology, are critical.** One of the key barriers to e-Government is the bureaucratic culture that is averse to risk and unwilling to change. Thus, for e-Government to become successful, it must have the full support of the civil service – the implementers in the delivery of public goods and services. This requires creating an environment and an incentive structure where the civil service will support e-Government implementation rather than oppose it.

   Aside from change management, re-tooling of the civil service is important. The bureaucracy must be competent in using the ICT systems that are going to be put in place. Government workers must be transformed into knowledge workers.

   Technology alone will not make e-Government happen. Indeed, technology will be no match to a hostile bureaucracy.

3. **Adequate resources must be made available**. While e-Government projects lead to cost reductions, they will take money to implement, particularly in their initial stages.

   Outsourcing can minimize costs. A number of projects will be attractive to the private sector that will assume full commercial risk for them. But, there will also be projects where the BOT scheme may not work. In these instances, government must be creative in securing funding for these projects.

4. **Start with key government frontline services.** Because change is difficult to implement and government resources are limited, it is important that e-government initiatives start with a few key government agencies. The agencies to be prioritized should be those that: a) are critical in the delivery of public services; b) help increase investments, and c) improve revenue streams.

   It is also important that the agencies prioritized for e-Government implementation be able to demonstrate quickly the benefits of ICT in terms of reducing cost, enhancing service and improving transparency. Thus, it is important that clear targets are set and deadlines for e-Government implementation strictly observed. For instance, government must decree by a specific date, say, end of 2002, that 80% of all BOC transactions be done through its computerized system.

5. **Make the public aware of available e-Government services.** Raising popular awareness of existing e-Government projects would increase the public's use of these new services, and also increase demand for them and other similar services. Promoting existing e-Government projects would also serve as a public recognition of the good work done by the agencies.

Appendix I
UN-ASPA Five Stages of E-Government

STAGE	UN-ASPA Stage Description	Specific Characteristics / Features to look for
Stage One	**Emerging Web Presence** • Sites serve as a public information source • Static information on the government is provided • FAQs may be found • Contact information is provided	❑ Telephone Numbers ❑ Postal Address ❑ Email Address ❑ Services Offered ❑ Mandate, Org Structure, FAQs, Related RAs
Stage Two	**Enhanced Web Presence** • Access to specific information that is regularly updated • A central government homepage may act as a portal to other departmental sites • Useful documents may be downloaded or ordered online • Search features, e-mail and areas for comments are accessible	❑ Updated in the past 1.5 months ❑ Forms are available (html, word; sometimes zip, pdf) ❑ Search function / Site Map ❑ Message Board / Feedback Form ❑ Newsletters or Publications / Purchase Information
Stage Three	**Interactive Web Presence** • A national government website frequently acts as a portal • Users can search specialized databases • Forms can be downloaded and/or submitted online • Secure sites and passwords begin to emerge	❑ Downloadable Forms (pdf, zip) ❑ Specialized Databases ❑ On-line Forms Submission ❑ Interactive Elements e.g. Chatroom / Forum / Discussion Board ❑ User Log-in and Password (internal use or public)
Stage Four	**Transactional Web Presence** • Users will be able to conduct complete and secure transactions online • The government website will allow users to customize a portal in order to directly access services based on specific needs and priorities • Sites will be ultimately secure	❑ Public User Log-in and password (NOT exclusive for internal use) ❑ Secure[1] ❑ On-Line Payment ❑ Confirmation of request (e-mail confirmation / acknowledgement receipt) ❑ Display of Security and Privacy Policy
Stage Five	**Fully Integrated Web Presence** • Country provides all services and links through a single central portal • No defined demarcation between various agencies and departments • All transactional services offered by government will be available online	❑ All Department Information and Services may be accessed through the Department Portal ❑ Cohesive interface covering all attached agencies, concerned agencies and all services ❑ Frontline Services are fully-transactional online ❑ User may Customize his Department Portal page ❑ Search Engine Encompasses attached websites

Revised: 29 April 2001

[1] Secure = padlock or solid key security icon appears at the bottom of browser; URL starts with https instead of http
Reference: Secure Sockets Layer http://www.webopedia.com/TERM/S/SSL.html

APPENDIX II
LIST OF GOVERNMENT WEBSITES VISITED

Updated as of 2 April 2002

Executive Branch – Lead Agencies		
Office Name	**URL**	**Stage**
Office of the President	www.op.gov.ph	2
Office of the Vice President	www.ovp.gov.ph	NA*
Office of the Press Secretary	www.news.ops.gov.ph	1
Department of Agrarian Reform	www.dar.gov.ph	NA
Department of Agriculture	www.da.gov.ph	2
Department of Budget and Management	www.dbm.gov.ph	3
Department of Education	www.deped.gov.ph	2
Department of Energy	www.doe.gov.ph	3
Department of Environment and Natural Resources	www.denr.gov.ph	2
Department of Finance	www.dof.gov.ph	2
Department of Foreign Affairs	www.dfa.gov.ph	2
Department of Health	www.doh.gov.ph	3
Department of Interior and Local Government	www.dilg.gov.ph	2
Department of Justice	www.asti.dost.gov.ph/doj	1
Department of Labor and Employment	www.dole.gov.ph	3
Department of National Defense	www.dnd.gov.ph	NA
Department of Public Works and Highways	www.dpwh.gov.ph	1
Department of Science and Technology	www.dost.gov.ph	3
Department of Social Welfare and Development	www.dswd.gov.ph	2
Department of Tourism	www.tourism.gov.ph	2
Department of Trade and Industry	www.dti.gov.ph	3
Department of Transportation and Communication	www.oksnaoks.dotc.gov.ph	2
National Economic and Development Authority	www.neda.gov.ph	3

*NA = Not Available at time of visit

Executive Branch – Attached Agencies		
Office Name	**URL**	**Stage**
Office of the President		
Commission on Higher Education	www.info.com.ph/~chedco/	2
Information Technology and E-Commerce Council	www.i-philippines.ph	3
Metro Manila Development Authority	www.mmda.gov.ph	2
National Commission on Culture and Arts	www.ncca.gov.ph	3
National Commission on the Role of Filipino Women	www.ncrfw.gov.ph	2
National Security Council	www.nsc.gov.ph	NA
National Youth Commission	www.nyc.gov.ph	NA
Presidential Commission on Educational Reform	www.pcer_ph.tripod.com/index.htm	2
Office of the Press Secretary		
Philippine Information Agency	www.pia.ops.gov.ph	2
Philippine News Agency	www.pna.ops.gov.ph	1
Radio Television Malacañang	www.rtvm.ops.gov.ph	1
Department of Agrarian Reform		
Land Registration Authority	www.lra.gov.ph	NA

Office Name	URL	Stage
Department of Agriculture		
Agricultural Training Institute	www.da.gov.ph/agencies/bureaus/ati/ati4.htm	1
Bureau of Agricultural Research	www.bar.gov.ph	3
Bureau of Agricultural Statistics	www.bas.gov.ph	2
Bureau of Animal Industry	www.da.gov.ph/agencies/bureaus/bai/bai.htm	1
Bureau of Fisheries and Aquatic Resources	www.da.gov.ph/agencies/bureaus/bfar/bfar.htm	1
Bureau of Plant Industry	www.da.gov.ph/agencies/bureaus/bpi/bpi.htm	1
Bureau of Postharvest Research and Extension	www.bphre.com	1
Bureau of Soils & Water Management	www.bswm.gov.ph	2
Fertilizer and Pesticide Authority	www.fadinap.org/philippines	1
Philippine Rice Research Institute	www.philrice.gov.ph	2
Department of Budget and Management		
Procurement Service	www.procurementservice.org	3
Department of Education		
Bureau of Nonformal Education	www.fapenet.org/bnfe	1
Dept. of Environment & Natural Resources		
Environmental Management Bureau	www.psdn.org.ph/emb	2
Mines and Geosciences Bureau	www.mines-denr.ph	2
National Mapping and Resource Information Authority	www.psdn.org.ph/namria	3
Protected Areas and Wildlife Bureau	www.psdn.org.ph/pawb	2
Department of Finance		
Bureau of Customs	www.customs.gov.ph/boc	2
Bureau of Internal Review	www.bir.gov.ph	3
Securities and Exchange Commission	www.sec.gov.ph	2
Department of Health		
Bureau of Food and Drugs	www.doh.gov.ph/BFAD/index.htm	2
Department of Justice		
Bureau of Immigration	www.immigration.gov.ph	2
National Bureau of Investigation	www.nbi.gov.ph	NA
Office of the Solicitor General	www.usdoj.gov.ph/osg/	NA
Department of Labor and Employment		
Bureau of Labor and Employment Statistics	www.manila-online.net/bles	2
Bureau of Labor Relations	www.info.com.ph/~phblrnet	2
Bureau of Local Employment	www.ble.dole.gov.ph	1
Bureau of Rural Workers	www.info.com.ph/~brwrpid	1
Information and Publication Service	www.info.com.ph/~doleips/	1
National Conciliation and Mediation Board	www.ncmb.dole.gov.ph/	2
National Wages And Productivity Commission	www.nwpc.dole.gov.ph	2
Occupational Safety and Health Center	www.oshc.dole.gov.ph/	2
Overseas Workers Welfare Administration	www.mydestiny.net/~owwa	2
Philippine Overseas Employment Administration	www.poea.org.ph	2
Technical Education & Skills Development Authority	www.tesda.org	2

Office Name	URL	Stage
Dept. of Transportation & Communications		
Air Transportation Office	www.dotcmain.gov.ph/html/web/ato.htm	1
Civil Aeronautics Board	www.dotcmain.gov.ph/html/web/cab.htm	1
Land Transportation Franchising & Regulatory Board	www.dotcmain.gov.ph/html/web/ltfrb.htm	NA
Land Transportation Office	www.dotcmain.gov.ph/html/web/lto.htm	NA
MARINA	www.marina.gov.ph	3
National Telecommunications Commission	www.ntc.gov.ph	2
Philippine National Railways	www.dotcmain.gov.ph/html/web/pnr.htm	1
National Economic & Development Authority		
Commission on Population	www.cvis.net.ph/popcom	1
National Statistical Coordination Board	www.nscb.gov.ph	3
National Statistics Office	www.census.gov.ph	3
Philippine Institute for Development Studies	www.pids.gov.ph	3
Statistical Research and Training Center	www.srtc.gov.ph	2
Tariff Commission	www.tarcm.gov.ph	3

Government Owned and Controlled Corporations		
Bases Conversion Development Authority	www.bcda.gov.ph	2
Employees' Compensation Commission	www.ecc.org.ph	2
Government Service Insurance System	www.gsis.gov.ph	3
Light Rail Transit Authority	www.dotcmain.gov.ph/html/web/lrta.htm	NA
Local Water Utilities Administration	www.lwua.gov.ph	1
Metro Rail Transit Corporation	www.dotcmain.gov.ph/html/web/mrtc.htm	NA
National Food Authority	www.nfa.gov.ph	2
National Labor Relations Commission	www.nlrc.dole.gov.ph/	1
National Power Corporation	www.info.com.ph/~npc/	1
Philippine Health Insurance Corporation	www.philhealth.gov.ph	2
Philippine Ports Authority	www.ppa.gov.ph	2
Public Estates Authority	www.pea.gov.ph	2
Social Security System	www.sss.gov.ph	2
Subic Bay Metropolitan Authority	www.sbma.com	2
Technology and Livelihood Resource Center	www.tlrc.gov.ph	2

Legislature		
Senate	www.senate.gov.ph	2
House of Representatives	www.congress.gov.ph	3

Judiciary		
Supreme Court	www.supremecourt.gov.ph	2

Constitutional Offices		
Bangko Sentral ng Pilipinas	www.bsp.gov.ph	3
Career Executive Service Board	www.cesboard.gov.ph	3
Civil Service Commission	www.csc.gov.ph	2
Commission on Audit	www.coa.gov.ph	3
Commission on Elections	www.comelec.gov.ph	1

Endnotes

[1]"RP Listed among worsening Bureaucracies," Philippine Daily Inquirer 25 February 2002, p. 1.

[2]http://unpan1.un.org/intradoc/groups/public/documents/un/unpan000198.pdf.

[3] Mahar Mangahas, "Update on Surveys Concerning Corruption," A Report Submitted to the World Bank/Manila Office, April 2001

[4] World Bank e-Government Website <http://www1.worldbank.org/publicsector/egov/>

[5] Speech by Dr. Richard Hu, Singapore Minister for Finance, at the CPA Australia 7th Asian Regional Conference (Mandarin Hotel, 17 August 2001).

[6] Wayne Usry, Arthur Andersen Business Consulting <http://www.dfwinfo.com/Internet/presentations/AAndersen/index.html>

[7] UNDP, Accenture and the Markle Foundation, "Creating a Development Dynamic: Final Report of the Digital Opportunity Initiative", July 2001.

[8] http://www.ncc.gov.ph/ncc.asp?a=1

[9] World Economic Forum and Center for International Development at Harvard University, "The Global Information Technology Report 2001-2002: Readiness for the Networked World (GITR)," (Oxford University Press, 2002), p. 10.

[10] Ibid, p. 13.

[11] At present, the OP website <www.gov.ph/op> can be found within the gov.ph portal. According to the web developers of the Government Portal, the content of the OP website will be transferred to the URL <www.op.gov.ph>.

[12] When the websites were not available, the study team made efforts to look for alternative URLs of the agencies. Using the search engine Google <www.google.com>, the name of the agency was used to search for an agency website. The 15 agencies listed above did not turn up any official agency websites.

[13] List of GOCCs according to COA as of 4 Mar 2002 <http://www.coa.gov.ph/COA_htm/2000_AAR/GOCCs/GOCCs.asp>

[14] Lisa Snell and Adrian Moore, "e-Government" (November/December 1999). <http://www.heartland.org/ia/novdec99/privatization.htm>

[15] Abigail L. Ho, "Teleserve to tap foreign clients," Inquirer News Service, 20 November 2001. <http://www.inq7.net/inf/2001/nov/21/text/inf_3-1-p.htm>

[16] <http://www.bir.gov.ph/efps/efps_faqs.html>

[17] Philippine Government Online: Government Information System Plan (Manila: ITECC, July 2000).

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Simes, Jennifer B. "BFAR develops national fisheries info system," Computerworld Philippines, January 14, 2002.
<http://www.itnetcentral.com/article.asp?id=7563>

Social Weather Stations
http://www.sws.org.ph/

World Bank – e-Government Website
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