INFORMATIZATION STATUS IN MYANMAR

Digital Opportunity Forum, 2005

Background

Myanmar, a republic in South-East Asia, bounded on the north by Tibet Autonomous Region of China; on the east by China, Laos, and Thailand; on the south by the Andaman Sea and the Bay of Bengal; and on the west by the Bay of Bengal, Bangladesh, and India. It is officially known as the Union of Myanmar.

The population of Myanmar in 2003-04 is about 54 Millions. The overall population density was 64 persons per sq. km (166 per sq. mi.), one of the lowest in the Far East. The population is more than 75 percent rural; most of the rural areas are actually agricultural villages. 85% are Theravada Buddhists, followed by Christians 6.2%, Muslims 4.8%, Spirit Worshippers and Animists 2.5% and Hindus 1.5%. The people have preserved the traditions of close family ties, respect for the elders, reverence for Buddhism and simple native dress. Myanmars are contented and cheerful even in the face of adversities and known for their simple hospitality and friendliness.

ICT Infrastructure

The ICT infrastructure is the means of basic telecommunications services as well as the essential prerequisite for e-Commerce, e-Government and e-Learning. In other words, without an adequate ICT infrastructure, the whole ICT sector will not be able to achieve their goals. As the ICT infrastructure requires high-tech equipments and personnel, its impact on economic development is also very critical.

National backbone has fiber link between major Cities. Cross border fiber links are connecting India and Myanmar, China and Myanmar and Thailand and Myanmar. International links are Sea-Me-We (3) Cable and Satellite. Last Mile Links are Dedicated Link, Wireless Broad Band Access, ADSL and MPT Satellite Terminal.

Myanmar's Tele-Infrastructure can be divided into access networks, switching, transmission and international connectivity. The access network of Myanmar is in a relatively weak condition compared with those of other ASEAN countries. Teledensity is under 1% including mobile telephony and the number of Internet users is negligible. At this point, the telephone supply does not meet the increasing demand.

There are two ISP in Myanmar. (MPT and MTP) Internet subscribers are about (10,000) ten thousand. User connectivity has Dial-up, ADSL and Broadband. Mostly subscribers are government and military officials in previous. But, now widely used by Citizen. Public Access Centers / Cyber cafés are about (350) three hundred and fifty in Yangon, Mandalay and other towns. Because of thse PACs, ordinary people are now starting to use internet and email. Satellite is main international connectivity. Country domain name is dot mm. Currently we have very low in telephone lines and very expensive in fees.

Population, Households & Telephone Lines (Oct, 04) Population	Household	PSTN			Mobile	
		Installed Lines	Connected Lines	Installed Lines	Connected Lines	
53,490,000	8,488,546	347,000	298,902	101,950	83,475	

ICT Institutions

There are institutions in Myanmar ICT development. Myanmar Computer Science Development Council is established in 1996. Myanmar Computer Federation (MCF) is established in 1998. MCPA, MCIA and MCEA are subordinated by MCF.

To reduce the digital divide between the urban and rural areas of Myanmar and to get better communication of citizens by using IT technologies, MCF is carrying out a project of opening Public access centers (PAC) throughout the whole country.

To get ICT awareness, MCF also performs seminars and workshops professionals and ICT industry. MCF also performs ICT Caravan to rural areas for the basic ICT awareness and knowledge creation for the local people and students.

MCF also develop schlorship programs for human resource development with KADO (Korea), CICC, AOTS (Japan), ITEC (India), etc. It has also signed MOU with Japan for conducting cross certification exam ITPEC (Previously known as JITEC). We conducted examination since January 2003.

Localization and development of Unicode

Myanmar Natural Language Processing Project (NLP) was started on 27 October 2003 at the incubation center, MCF, Yangon, Myanmar. The Project Plan is (1) Basic Myanmar Language Support Development, (2) Development of Word-breaking Support, (3) OS Interface Development, (4) Office Interface Development.

Myanmar Character code set was included in ISO 10646 in 1998. Myanmar Language processing was first discussed in the repertoire in Unicode 3, in 1998. Further discussion in Unicode 4 was published in 2003. Apart from NLP, there also have Myanmar unicode fonts from various developers. We are still trying for Microsoft to add Myanmar language in the future versions of Windows OS.

ICT Industry

Local businesses have started using computer software systems since early 1990s. There is a market for business application softwares such as accounting, point of sales, inventory management, Billing systems for private hospitals and clinics. Some software houses are also doing outsourcing jobs.

Since copyright law for IT has not enforce yet, most of the software systems such as MS Windows, offic applications are pirated copies. Alghough, this gives our people the chance to learn and use modern software applications, local software developers a great difficulty in protecting their IP rights.
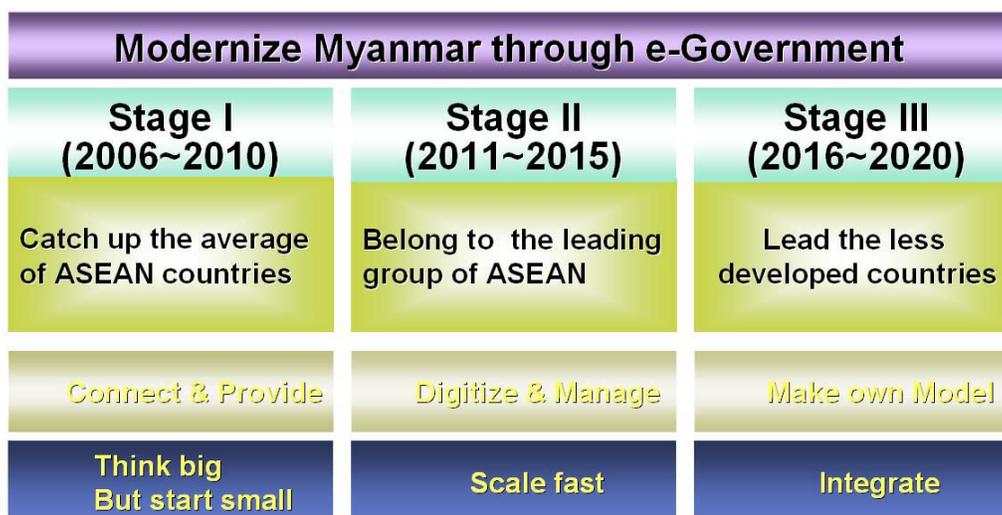
ICT Legal Frame Work

Three major pillars of Myanmar ICT laws are (1) the Computer Science Development Law, 1996, (2) the Electronic Transactions Law, 2004, and (3) the Wide Area Network Order.

A harmonized model for ICT laws consists of 3 parts: (i) telecommunications law, (ii) informatization promotion law and (iii) ICT industry promotion law. There is absence of informatization promotion law as the 1st tier law. Until now, the Myanmar ICT legal framework has been developed not by a systematic blueprint but by temporary needs. Individual laws or ordinances have been made by urgent needs when it was made or modified.

Computer Science Development Law serves as the stopgap measure for the ICT industry promotion law. However, it focuses mainly on business license, inspection, prohibition, formation and duties of computer science development council, computer associations, and computer federation. But, ICT industry promotion function is very weak.

eGovernment

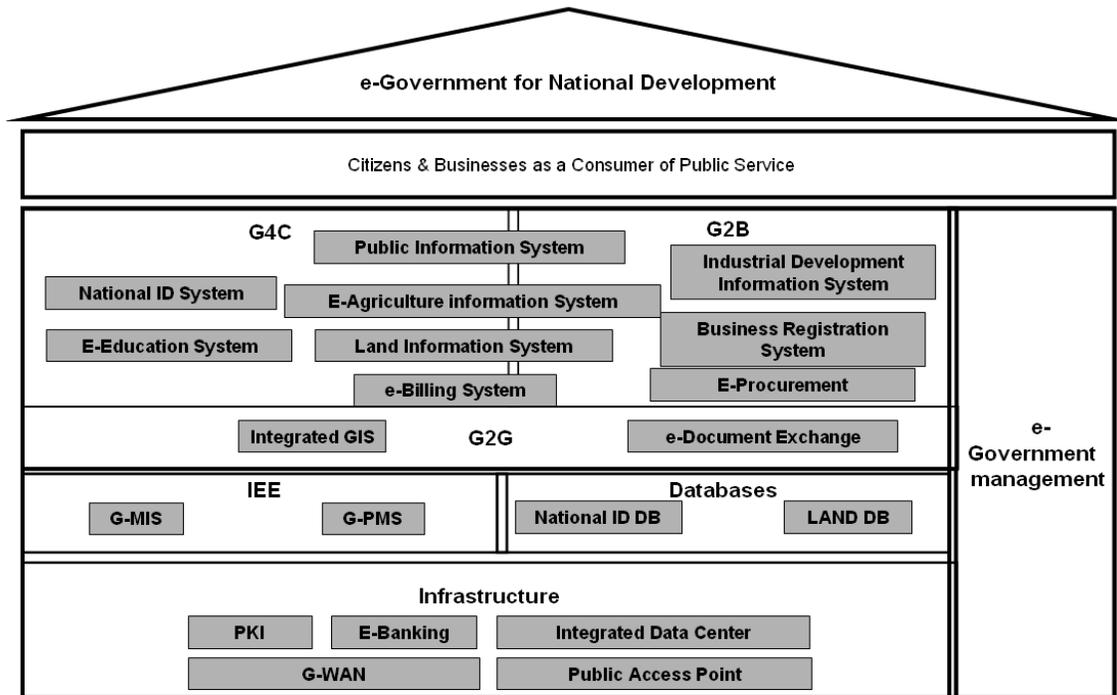| Modernize Myanmar through e-Government		
Stage I (2006~2010)	**Stage II (2011~2015)**	**Stage III (2016~2020)**
Catch up the average of ASEAN countries	Belong to the leading group of ASEAN	Lead the less developed countries
Connect & Provide	Digitize & Manage	Make own Model
Think big But start small	Scale fast	Integrate

Korea Information Strategy Development Institute (KISDI) did a government-wide survey on ICT hardware, networks, and software. We distributed about 400 questionnaires and collected 347 (87 %) from October 2004 to December 2004.

46% of government agencies have more than one information system. However, only 11% provides on-line public service.

Table : The Status of ICT Infrastructure in the Myanmar Government IT Infrastructure	PCs networked to LAN	PCs networked to WAN	Web-site	E-mail	Internet
100%	74.6%	31.6%	17.3%	84.3%	75.1%

In May 2005, the Myanmar government received a loan (about 11 billion won) from Korean Economic Development Cooperation Fund (K-EDCF). With the loan, the Myanmar government made a contract to establish a Myanmar Basic e-Government System.

e-Government for National Development

Citizens & Businesses as a Consumer of Public Service

G4C	G2B
Public Information System	Industrial Development Information System
National ID System — E-Agriculture information System	Business Registration System
E-Education System — Land Information System	E-Procurement
e-Billing System	
Integrated GIS — G2G — e-Document Exchange	e-Government management

IEE — G-MIS — G-PMS
Databases — National ID DB — LAND DB

Infrastructure
PKI — E-Banking — Integrated Data Center
G-WAN — Public Access Point

One of the ongoing projects of eGovernment is "Myanmar Basic e-Government System" carried out by Daewoo International Corporation, Korea and KCOMS Co., Ltd. Korea. The contract amount is Korea Won 11,956,355,328. The scope of work includes:

- National IT Infrastructure by fibre ring

- Supply and Install Hardware (Government Personnel Management System)

- Supply and Install Software (Database Management System and other required

Software)

Major Challenges

There are many obstacles for national informatization projects. The first is unstable situations. This has slowed down the progress of our national ICT development projects a lot preventing the potential foreign investments and slowed down international cooperatins and support.

Rigid policies and unwillingness for libralization is also one of the greatest barries for the development of ICT in Myanmar. General economy is also in a state of decling. It make more negative effect to the ICT sector.

Another factor is lack of skilled personnel. Even though we have 2 universities and 14 colleges of Computer Studies, private training setor and schlorship programs, we still need quilified ICT personnel. There is a severe mismatch between demand and supply of ICT workers. Brain-drain effect is also threatening the local ICT companies, i.e. Migration of talented ICT workers to other countries (such as Singapore).

Other mentioned obstacles include poor communications infrastructure and Insufficient budget, the rise of fuel price and electricity problems, and finally the lack of awareness and willingness of the high positions.

Conclusion

The creation of Digital Opportunities within all sectors as a long term approach with international Cooperation and efforts is very important for Myanmar now. Although with many difficulties and barriers, Myanmar still has a great opportunity.

As the capital of Myanmar becomes NayPyiDaw and Yangon is still the business city, we have a great chance of utilizing the ICT and eGovernment application so as to support the efficient and effective daily transactions and management.

The development of Yadanarbon Cyber City is underway. It is located in PyiOoLwin, upper Myanmar, near Mandalay. It will become the heart of IT businesses and it has good potential for getting foreign direct investment. It will hopefully be open 2008.

Myanmar is the only country neighboring with two ICT Super Power countries, India and China. So we can enjoy the benefit of spillover effect of these two countries development because of the strategic location. Forward-looking preparations are underway and also exhibits relative readiness in skills and human resources. The private sector also has the technology, resource and creativity to turn Myanmar into a reality.

In future Myanmar, the impact of the ICT Master Plan and Action Plan projects and initiations will develop ICT infrastructure, will increase efficiency in e-government, and digital divide will be narrower.