



# ICT & e-Government in Laos

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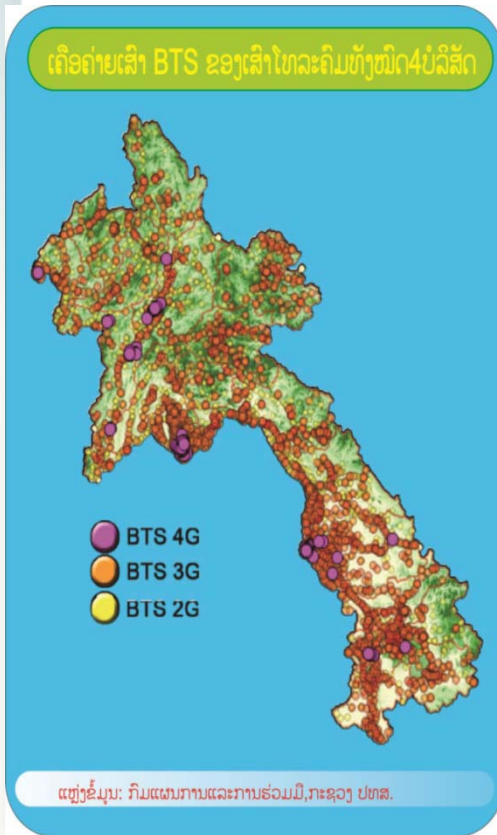
# Outline

- ICT Development
- Constrain and Barrier for Development
- Policy and Regulation
- Activities to Support Policy Implementation
- E-Government Master Plan
- E-Government Center





# Infrastructure



	Unit	2013	2014	2015	2016
FSC	Place	95	255	259	182
MSC	Place	12	12	12	12
BSC	Place	32	38	44	40
BTS	Site	7,154	6,527	6,776	6,776
OFC	KM	51,106	60,813	67,351	70,948
Internet bandwidth	Mbps	1,550	2,800	37,690	62,608
Coverage (10,473)	Village	6,749	7,559	7,663	7,766
	2G			90,1%	91%
	3G			61,2%	65%
	4G			1,5%	13%

# Utilization

User	2013	2014	2015	2016	%
Fix line Users	721,318	920,756	962,497	1,268,597	15%
•PSTN		64,426	60,457	57,167	
•CDMA		856,330	902,040		
Mobile Users	4,481,395	4,336,184	3,704,769	3,958,510	57%
Internet User	1,907,593	2,036,471	2,642,693	2,628,400	41%
Fixe line	13,231	16,891	24,551	28,414	1%
ADSL	12,022	15,923	14,285	11,721	
Dial Up	110	87	87	87	
Lease line	1099	881	1,441	1324	
FTTH			8,825	14,974	
Mobile	1,894,362	2,018,803	2,618,142	2,599,986	40%
Wireless	-	1,582	1,973	2,352	
Wimax	-	-	431	424	
HSPA	125,382	119,846	680,835	1,256,691	
3G	1,768,980	1,897,375	1,936,876		

# Industry

Company	2015	2016
Telecom Operator	5	5
ISP	8	8
Internet Café	421	454
ICT Company	398	398
Digital Content	4	26
ICT Consulting	3	10
ICT Education	3	3
ICT security	1	1
ICT factory	1	1
Software development	17	30
ICT reseller shop	234	170
ICT Installation	99	391





e-Government Center of Lao PDR

# ICT Development Index

**2010:**

IDI Value : 1,92

IDI Rank: 135

**2015:**

IDI Value : 2.45

IDI Rank : 144

**2016:**

IDI Value: 2.45

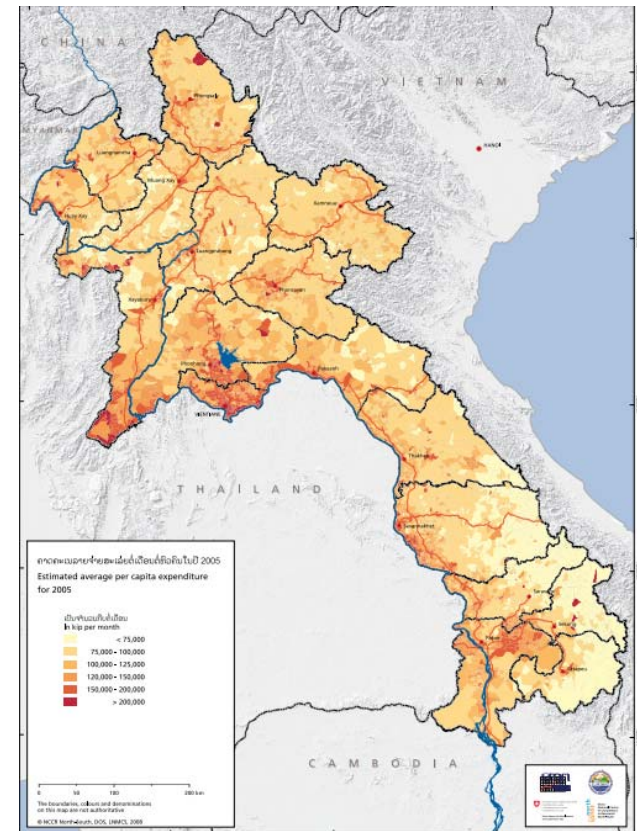
IDI Rank : 144

**Laos did a good job  
but other country did it better.**



# Affordability Barrier

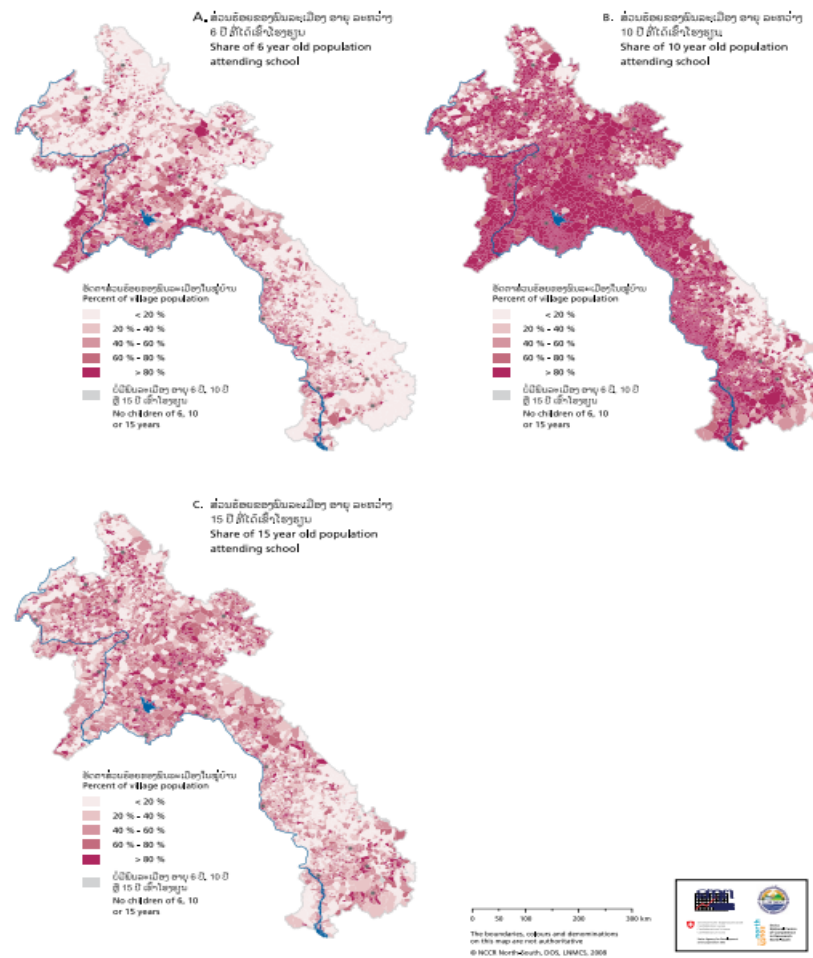
- High Price:
  - International bandwidth: 100 USD/Mbps
  - Fix line Internet= 30 USD/Mb/Month
  - Mobile Internet: 0.04USD per 1 MB.
  - 0.10 USD/minute for prepaid
  - 0.04 USD/minute of post paid.
  - 30% tax on ICT equipment
- People Expense
  - 27% of average households income
  - Low people purchase power (11% of total householders)



# Consumer Barrier

- Literacy: 73%
- ICT literacy: 20%
- English literacy: 30%

ການເຂົ້າໂຮງຮຽນຂອງເດັກທີ່ມີອາຍຸ 6, 10 ແລະ 15 ປີ  
School attendance of 6, 10 and 15 year olds





# Local Content

- Website:
  - Website in Lao Language: 1,000
  - Only 20% of government office have website
  - 30 e-Content provider (newspaper and magazine)
- Barrier:
  - Lack of Lao language support in most of ICT system
  - Lack of content creator



# Policy and Regulation

- Draft of National ICT Policy 2015-2025
- Draft of National Broadband Plan 2012-2020
- Draft e-Government Master Plan 2013-2020
- MPT Vision 2030, Strategy 2025 and Development Plan 2020
- E-Transaction Law (2012)
- Telecommunication Law (2011)
- Decree on Online Information Management (2014)
- Law on Prevention and Combating Cyber Crime (2016)



# E-Government Development Plan

2013-2020





## The Stages of E-Government Development to 2020

### 1. Presence Stage 2013-2015

- **Focus on G2G applications** (maintain and rebuild these applications, which was established under the e-Government project phase I: 2006-2012, mainly in some government offices in Vientiane and provincial governors. Some district and village administration offices will be setting up and distribute IT equipments in phase II.

### 2. Interaction Stage 2016-2018

- **Integrate the government data into one single service.**
- **Initiate G2B service applications.**

### 3. Transaction Stage 2019-2020

- **fully computerize the administration system and e-Service especially e-Commerce by government officers.**
- **Initiate G2C service applications.**

**E-Government Development Plan 2013-2020**  
Under framework of National E-Government Action Plan + e-Government ASEAN Strategy Plan

Components

<b>End-User</b>	Central Government Officer (2000 users)	Provincial Government Officer (5000 users) & Business people (1000 users)	Nationwide Government officer (10000 users) & Lao citizen (25000 users)
<b>Regulation</b>	G2G regulation	G2B regulation	G2C regulation
<b>Data</b>	Online government publication <b>Information in standalone mode</b> (e-Portal & ministry's website )	<b>Integration government data</b> (metadata, text, graphic, multimedia & statistic database of non-spatial data )	<b>Advance Integrated government data</b> (data integration with GIS, Remote Sensing & GPS For spatial data )
<b>Application</b>	<b>G2G:</b> online document management, employee management, work permit, workflows management, inventory management	<b>G2B:</b> online registration services, customs declaration & quarantines, Online Market & online procurement	<b>G2C:</b> Online learning, Digital 3D Map, E-Citizen and Passport/ Travel Document/VISA
<b>Teleconference</b>	<b>Central Government Teleconference</b> (Hardware based 60)	<b>Provincial Government Teleconference</b> (Software based 158)	<b>Nationwide Government Teleconference</b> (Internet Telephone conference 2000)
<b>Security and Sever system</b>	<b>Initial Data Center</b> (Network & Computer security and stand alone sever farm)	<b>Advance Data Center</b> (User and data security and virtualized & integration server farm)	<b>Modern Data center</b> PKI security and government cloud computing
<b>E-Government Service Center</b>	<b>Initial e-Government service Center</b>	<b>Extension Provincial e-Government service Center (16 )</b>	<b>Expansion e-Government service Center (Kios 141)</b>
<b>Infrastructure</b>	<b>Central Government intranet</b> (100 Ministry offices in VTE and provincial governor offices 32)	<b>Provincial Government intranet</b> (700 Dept and 141 district offices)	<b>Nationwide Government intranet</b> (2000 village offices)





# Main Roles and Services of E-Government Center







# Main Roles of E-Government Center

## I. The centralization of the government computer service

- Government computer network
- Hardware and software services of government organizations
- Government security management and maintenance
- Government video conference management and service

## II. Manage and develop the administration and service software

- Centralization: the document management system, employment management system, e-library, inventory system, workflow management system.
- Specific: cooperate with related sectors such as finance, auction..

## III. Build, manage and provide the service on the centralization of government information

- Promote the government data through the national e-Portal.
- Build the government database and information integration such as: Meta data, Data mining, Mess storage data...
- Build the statistic database such as: GIS, RS, GPS,...

## IV. Build and provide the services to access the information of government, business sectors and citizen

- such as: Community Tele-center, Kios,...

## V. Training and Promotion of E-Government



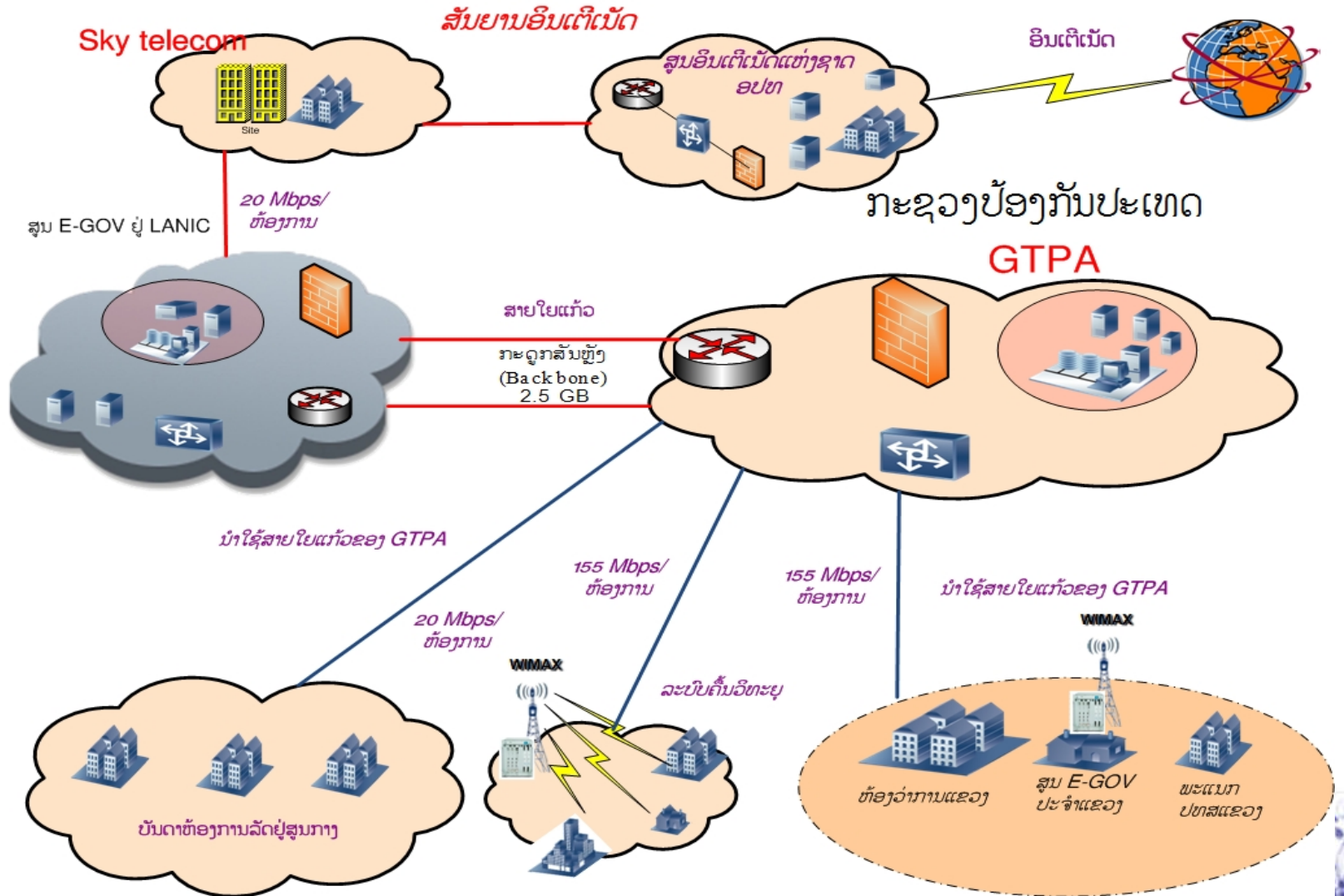


## Activities under e-Government Center

- I. **The implementation, maintenance, problem solving, research & service, promotion and training of e-Government system under the project phase I and II.**
- II. **The e-Government system integration with other systems** such as: e-Health (Ministry of Public Health), Lao Decide Info (Ministry of Planning and Cooperation), e-Revenue (Ministry of Finance), e-Education (Ministry of Education and Sport), with the technical consultation from E-Government Center (information infrastructure and Data Center).
- III. **The International cooperation and other countries for the development and integration of e-Government system of Lao PDR** (strategic planning, standard, system integration and information exchange).
- IV. **Cooperation with business sectors in the research, development and find out the appropriate IT equipments and software for the government** such as: provide the cheaper price of hardware and software.
- V. **Cooperation with mass organizations to promote the ICT and e-Government in the research & development of Lao PDR widely** such as: the rural telecenters.



# E-Government Infrastructure





e-Government Center of Lao PDR

# ສູນຂໍ້ມູນລະບົບບໍລິຫານລັດດ້ວຍເອເລັກໂຕຣນິກ (E-Government Data Center)



Server room : 17m x13m = 221 m<sup>2</sup> (up to 34 Racks)



Electrical Room

- Web hosting for government
- Develop website (Static and dynamic webpage)
- E-mail for government (such as: name@mpt.gov.la)
- Server hosting.
- IT engineers support for maintaining programs and integration.
- 24 hours power supply and cooling conditioning.



# Service of e-Government Center

- E-Portal
- E-Applications (e-document, e-Archive, e-Registration, e-Staff)
- Domain Name (gov.la)
  
- Computer network
- Video Conference
- E-Mail
- Web Hosting
  
- E-Service
- Consultant, assistant
- Trend of E-Government Development
- Cloud computing
- Multimedia





e-Government Center of Lao PDR

# Q & A







**THANK YOU**

