

# ICT in Lao PDR

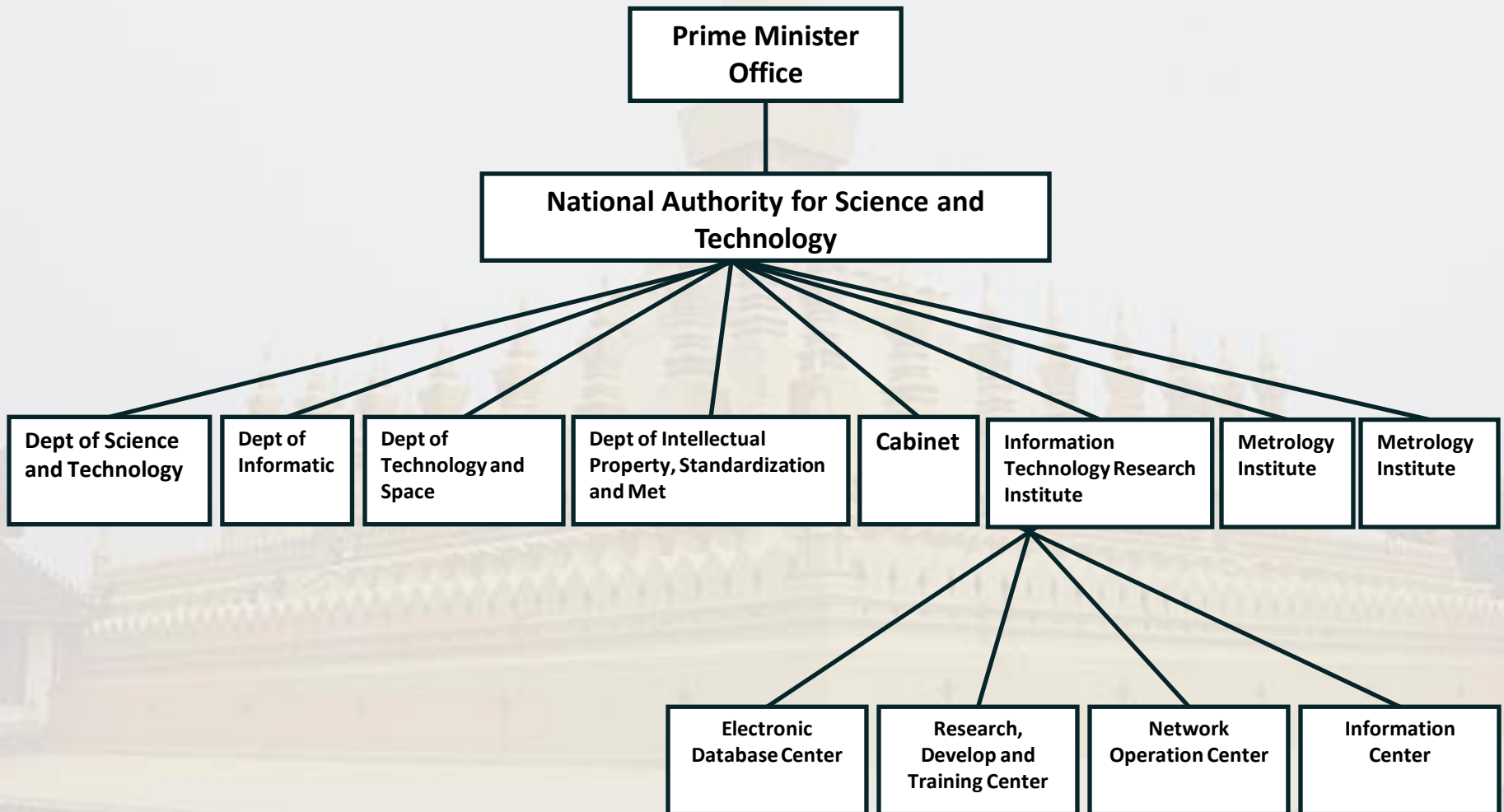


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# Outline

- **Overview of National Authority for Science and Technology (NAST).**
- **E-Government Project**
- **Status of ICT in Laos**
- **National ICT Policy**
- **ICT issues**
- **Future Plan**

# Overview of National Authority for Science and Technology (NAST)

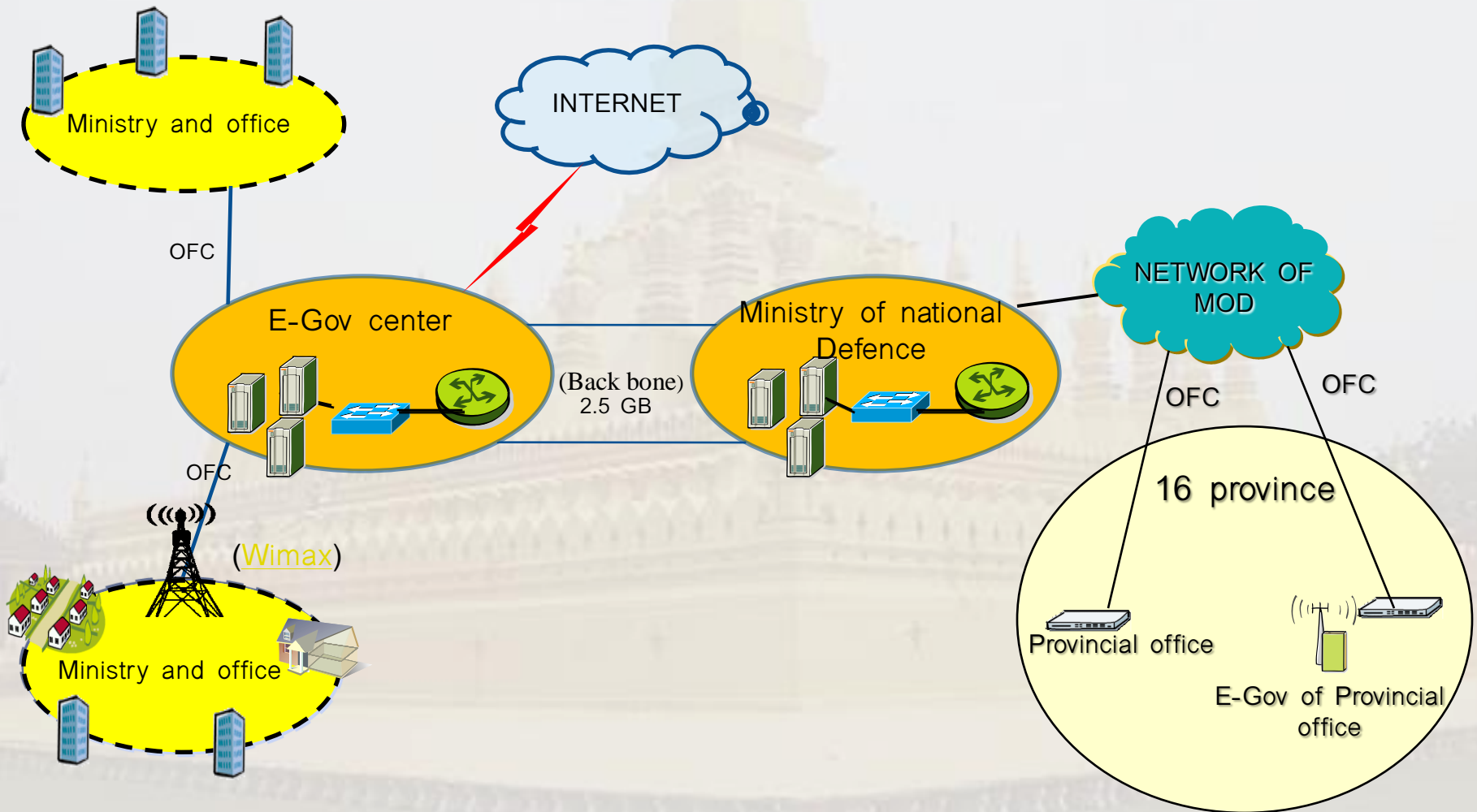


# Overview of National Authority for Science and Technology (NAST) Cont.

## Research and Development:

- ❖ In December 2007, the Government has established the Information Technology Research Institute (ITRI) under the NAST with the objective to carry the ICT research, development, training, promotion and services.
- ❖ PAN-Localization Project supported by International Development Research Center (IDRC) for research on following:
  - ❖ Lao Font and Lao Keyboard driver base on UNICODE
  - ❖ Lao Syllabification, Lao Line breaking utility
  - ❖ Lao Collation, Lao shorting
  - ❖ Converter from ASCII – Unicode
  - ❖ Lao OCR and Lao TTS
- ❖ CISCAI Project by ASEAN Foundation

# E-Government Project



# E-Government Project (Cont')

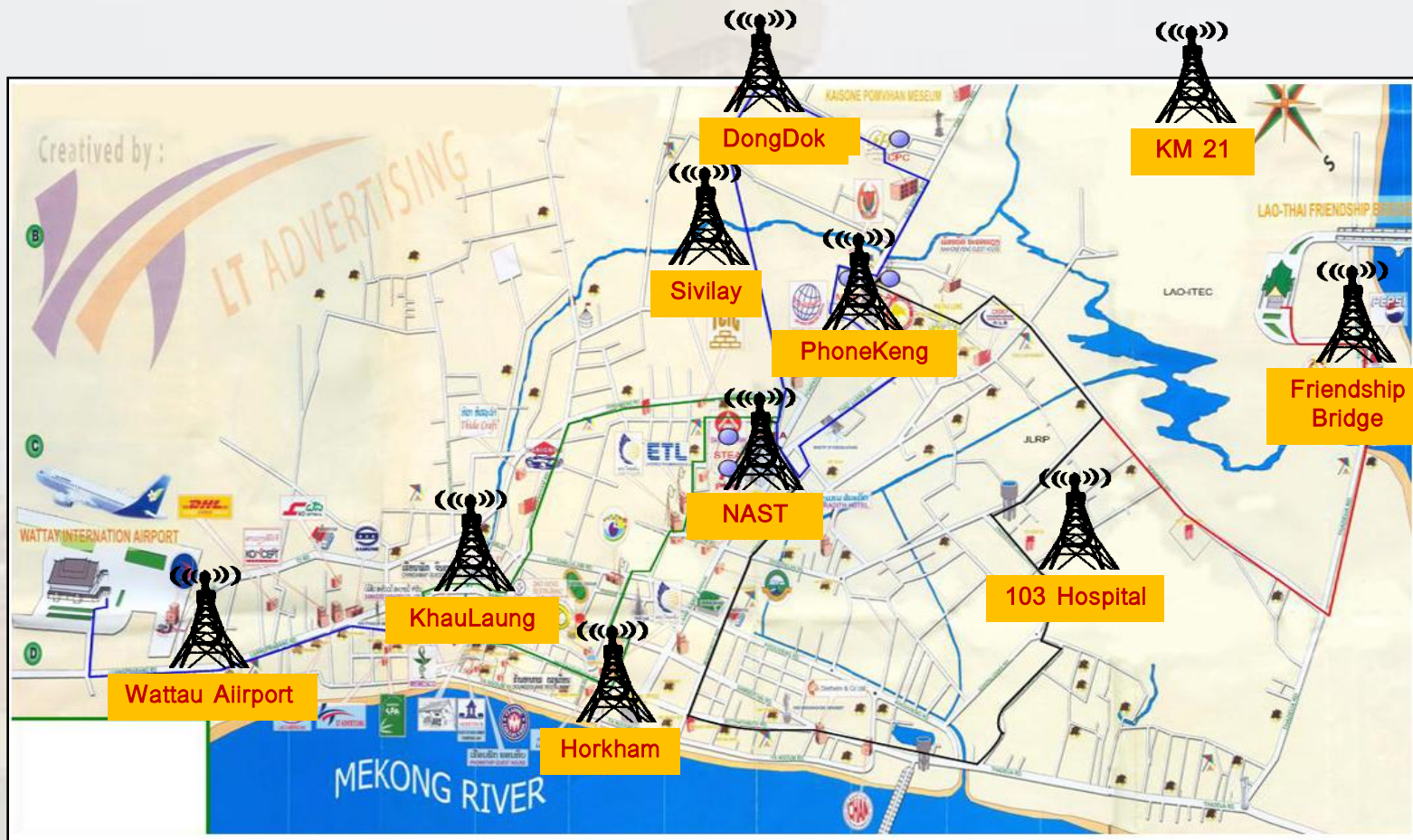
## 3 Fiber Optic Rings:





# E-Government Project (Cont')

## 10 Wimax Base Stations in Vientiane



# Status of ICT in Laos

TV. Density:	13,7%
Computer ownership per 100 inhabitants:	0.88
Telephone lines per 100 inhabitants:	1.62
Cell phone subscribers per 100 inhabitants:	12.8
Internet users per 100 inhabitants:	0.35
Internet hosts per 10,000 inhabitants:	0.021
Internet cafes per 10,000 inhabitants:	0.53
Number of website in Lao Languages:	30
Number of Website in English:	250
National transmission backbone:	
– Via Microvave :	34 Mbps
– Via Optic Fiber :	2.3 Gbps
International bandwidth:	310 Mbps



# Status of ICT in Laos (Cont')

## ○ Telecom Infrastructure

- 5 Telecom operators: LTC, ETL, LAT, TIGO and Lao Sky
- Telephone (Fix line + Mobile) : 1,597,276 customers (28 unit /100 habitants., by plan 3 unit/ 100 habitants. increase 7.6%
- PSTN subscribers: 145,792 (2006) - 145,857 (2007)
- GSM subscribers: 776,236 (2006) - 1,401,419 (2007)
- CDMA subscriber increased from 14,152 (2006) - 50,000 (2007 )
- Fiber optic 4,469 km hold country

# Status of ICT in Laos (Cont')

- Internet

- ISP License: 12 which of 4 are mainly:
  - Lao Telecom (LTC)
    - 1283 dial subscribers
    - 2820 ADSL subscribers
    - 198 Internet satellite subscribers (IPSTAR)
    - 33 lease lines
  - Enterprise Telecom of Laos (ETL)
    - 20,000 subscribers access via GPRS with 56 Kbps
  - MILLICOM (TIGO)
    - Around 50,000 subscribers via EDGE with 120 Kbps
  - Planet ISP
    - Around 2000 subscribers with wireless hotspot

# National ICT Policy

Vision 2020:

- Advance beyond the status of Least Developed Country ( LDC )
- Institutional capacities.
- Bring the country into the information age
- Increased general access to ICT.
- Modern telecommunications infrastructure
- Developing necessary Human resources & Fostering Enterprises and Industries

# National ICT Policy (Cont')

9 Priority areas:

1. Infrastructure and Access
2. Enterprise and Industry
3. Research and Development
4. Applications
5. Human Resource Development
6. Legal Framework
7. Awareness
8. Poverty Alleviation
9. Standardization and Localization

# ICT Issues

Various independent activities were taken by responsible Agencies, Particular Developers and Group of users, but there is a lack of coordination in these activities. The process of development has been slowed down because of:

- The low competence and awareness in most government organization and local developers.
- The poor communications with international standard bodies and global IT companies.
- The low interest of local developers to adopt the International standards.



# Future Plan

- Setting up policies and strategies, which all sectors must coordinate and work jointly to solve the problem.
- Create the Institutional capacity (establish the laboratory) to sustainable the research activity regarding to the Lao language Information processing. Also encourage the University to include the subject of Localization Technology into the curriculum.
- Improving the competence of national body to formulate, implement and maintain the standards.
- Linking national bodies to International standard organizations, Unicode and other major global IT companies.
- Creating a new national standard that will enhance the Internal standard

# Future Plan (Cont')

- Encouraging Global IT companies, especially Microsoft, to support and include the new standard into their new release applications.
- Encouraging the public to adapt to the new standard by promoting utilization: such as conducting national seminars, training courses, free distribution of standard package, and enforcing all government systems to be used, including the Internet.
- Carrying out a research to enhance Lao Information processing and to incorporate the international standard and code set into keyboard mapping, Input output method, internal processing, sorting system, Lao dictionary, machine translation and Lao language information interchange.



**THANK YOU**