

ICT Development in Lao PDR

ITU-ITTLLDC Seminar 2023

Ulaanbaatar, Mongolia

26 - 28 September 2023

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Contents



- 1. About LAOS**
- 2. Overview**
- 3. Spectrum Policy and Management**
- 4. 5G Implementation**

About LAOS

Lao People's Democratic Republic or Lao PDR



LAO PDR is a landlocked country in Southeast Asia. At the heart of the Indochinese Peninsula, Lao PDR is bordered by Myanmar and China to the northwest, Vietnam to the east, Cambodia to the southeast, and Thailand to the west and southwest.



236,800 Km²
Land Area



7.58M
Population



Laotian
Official Language



UTC+7
Timezone



VIENTIANE
Capital



17 Provinces
Province

Overview



The Ministry of Technology and Communications (MTC)



Ministry of Post and Communications



Ministry of Science and Technology

The MTC functions as a Policy Maker and Regulator in charge of Post, Telecommunications, and ICT-related development under the Prime Minister's Decree No. 625/PM, dated 20 Oct 2021.

Overview Cont...

Mobile Operators and Satellite Operator



TPLUS Digital



ETL Company Ltd



Star Telecom



Best Telecom



Mobile Network Coverage, Transmission and Satellite Network



96%

BTS: 5,170



3G: 83%

BTS: 8,066



4G: 75%

BTS: 8,433



5G: Trial

LTC & Unitel



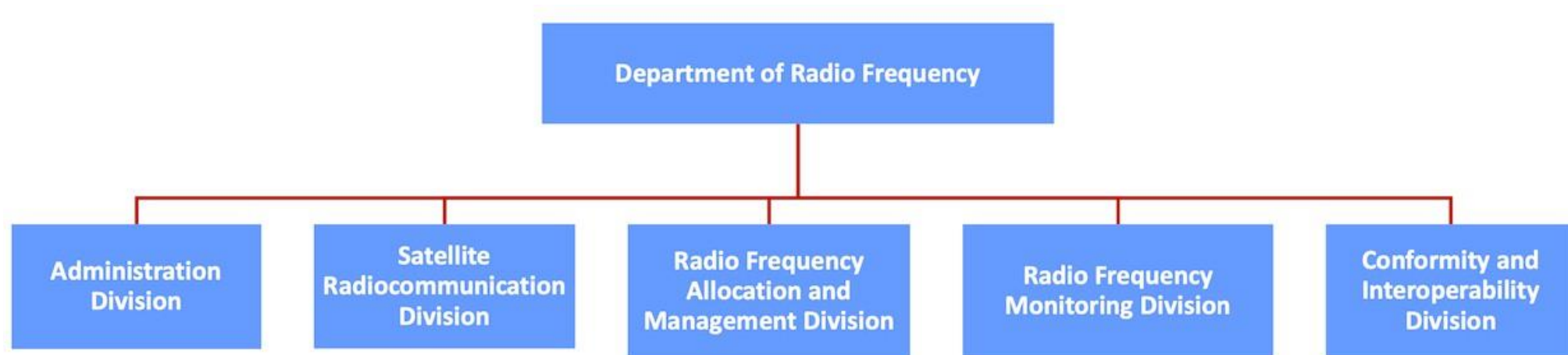
Optical Fiber:
95,837 Km



LAOSAT-1 (128.5E), 14 C-band and 8 Ku-band
Services: Satellite Transponder, Satellite TV (DTH),
Government: Education, Network Backhaul

Spectrum Policy and Management

Department of Radio Frequency (DRF)



- Ministerial Decisions on Structure and Responsibilities of Department of Radio Frequency No. 188/MTC dated 02/02/2022.
- Department of Radio Frequency have 05 division that Conformity and Interoperability Division is the new division.

➤ Conformity and Interoperability Division

Main Tasks

- Test ICT equipment
- Certify Testing Results of ICT equipment
- Issue labels for certified equipment
- Perform Inspection

Spectrum Policy and Management

New Division of DRF



Conformity and Interoperability Assessment Division:

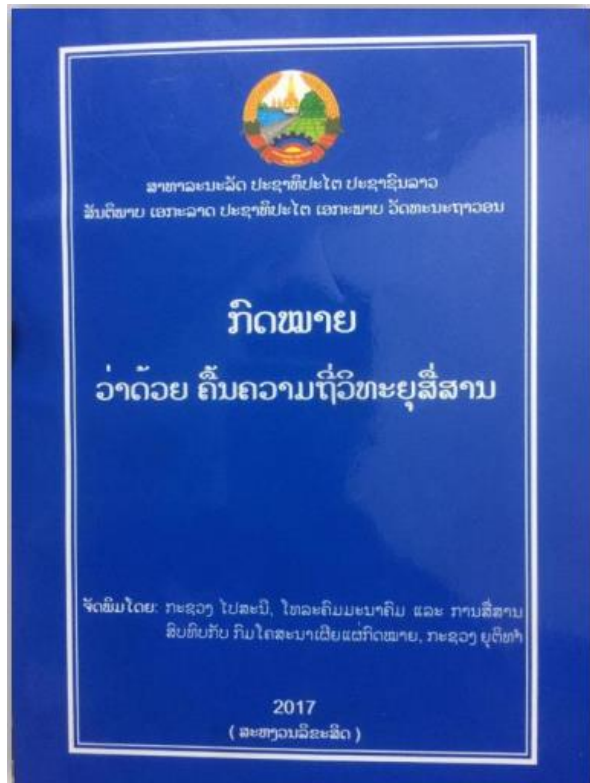
- Cooperate with private sector
- Training: ITU experts, ARFM of Vietnam
- Testing Radio, Telecommunication and ICT equipment
- Certification to equipment that meet the technical regulations on RF, EMC, EMF, SAR, Connection, and Electric Safety
- Labeling
- Importation license
- Developing regulations
- etc.



Standard label

Spectrum Policy and Management

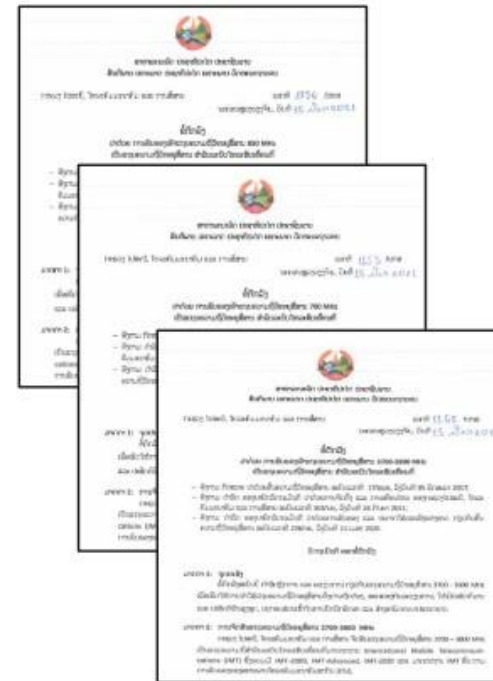
Regulations on Radio Frequency



Radio Frequency Law



NFAT



Minister's Decision

Re-Farming Band for IMT

700 MHz
900 MHz
1800 MHz
2300 MHz
2600 MHz

New Band for IMT

850 MHz
3400 -3600 MHz
3700-3800 MHz
4900 MHz

Spectrum Policy and Management

Licensed Spectrum bands

At present, Lao PDR grants licenses Frequency band with neutral technologies as follows

- 850 MHz FDD (LTE)
- 900 MHz FDD (UMTS, GSM and GSM-R)
- 1800 MHz FDD (GSM and LTE)
- 2100 MHz FDD (LTE, UMTS and WCDMA)
- 2300 MHz TDD (TD-LTE)
- 2600 MHz FDD (LTE)



Totally 595 MHz of Bandwidth (3 MNOs)

Spectrum Policy and Management

Band Plan for IMT Licensing

❑ Ministerial decisions for future IMT were established as follows

- ⇒ 700 MHz FDD
- ⇒ 2600 MHz TDD
- ⇒ 3.4-3.6 GHz TDD
- ⇒ 3.7-3.8 GHz TDD
- ⇒ 4900 MHz TDD

Totally 620 MHz (4 MNOs)

❑ Considering Bands:

- ➔ 1.5 GHz FDD
- ➔ Ext 2.1 GHz FDD
- ➔ 24 GHz TDD



Spectrum Policy and Management

Spectrum planning and implementation for WIFI 6E/7

Lao PDR released unlicensed Frequency band for WAS/ RLAN

- | | | |
|-------------------|-----------|---------|
| • 2400 - 2500 MHz | Bandwidth | 100 MHz |
| • 5725 - 5825 MHz | Bandwidth | 100 MHz |

Band plan for WAS/ RLAN

- | | | |
|--------------------------|------------------|----------------|
| • 5925 - 6425 MHz | Bandwidth | 500 MHz |
|--------------------------|------------------|----------------|

Spectrum Policy and Management

Cross border frequency coordination

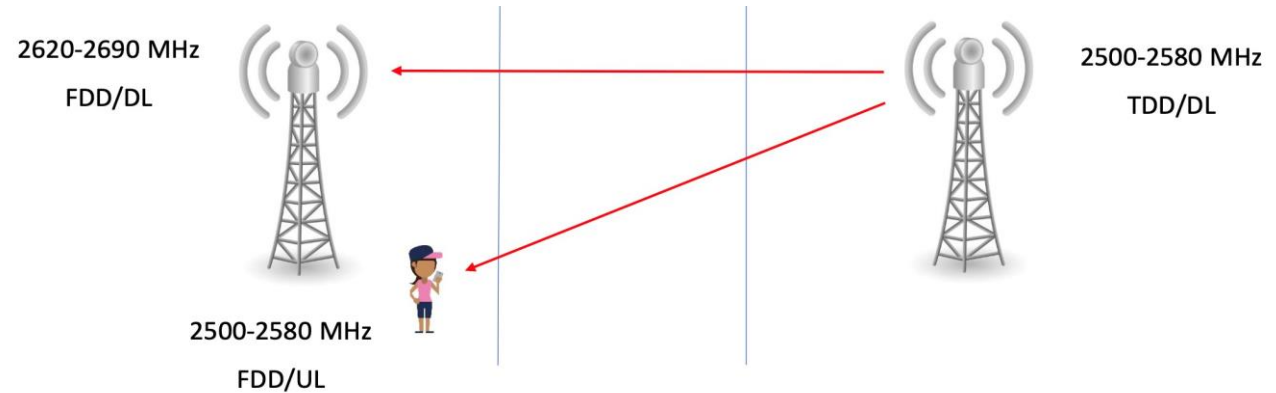


Border coordination:

- Thailand
- Vietnam
- Cambodia

Border coordination plan:

- China
- Myanmar



Spectrum Policy and Management

Radio Frequency Monitoring



Fixed Station



Mobiles



Remote station

Rohde & Schwarz
Equipment's



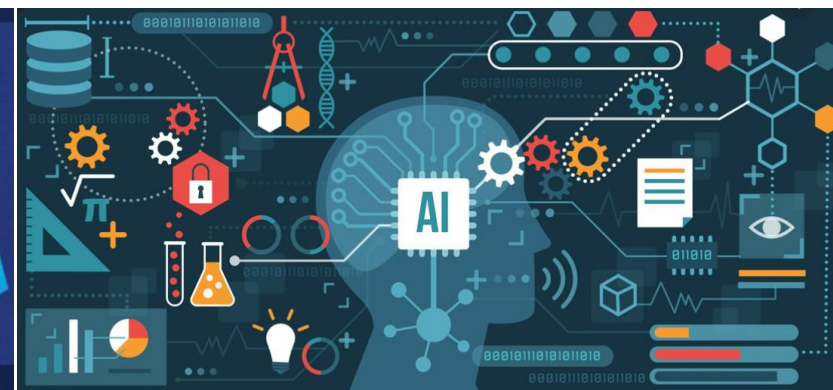
Portable

Fixed Station Plans→ One for the north and one for the south

5G Implementation



- Announcement: 2019
- Frequency: C-band and 700MHz
- Trial: C-band, 200MHz, for 1 year, in Vientiane
- Trial: 700MHz, for 4 months
- Launch in 2024





Thank you

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