

Myanmar

Country Profile	
Acronym	(MCRC)
Twitter	https://web.facebook.com/ptdofficialpage
Ministry	Ministry of Posts and Telecommunications
Website	https://www.motc.gov.mm
Contact	motc-portal@e-motc.gov.mm

Brief About Myanmar

The Republic of the Union of Myanmar, commonly shortened to Myanmar.

Geography

- The total land area of 676,577 square kilometre
- International borders of 5858 Kilometer with Bangladesh, India, China, Thailand and Laos
- total coastal line length 2832kilometer
- 2090 kilometre (north to south)and 925 kilometres (east to west)

Topography

- 50% of mountains and forests (northern and eastern)

Population

- Over 51.49 million Population
- 135 ethnic groups
- Seven states and seven Regions
- 70% of the population lived in rural areas and occupied in agriculture sectors

Natural Resources

- Rice, minerals, teak, hardwood forest, onshore and offshore oil fields, and precious stones such as rubies, jade sapphires, and pearls with the highest quality

Telecommunications Sector Reform

Policy Reform

- The Myanmar Telegraph Act 1885, The Myanmar Wireless Telegraph Act 1934 -> Telecommunications Law 2013
- Telecommunication Service License (Chapter III of Telecommunication Law) -> Anyone who is willing to provide telecommunications facilities and/or telecommunication services shall apply for permission and license

Key Objectives of Licensing Regime

- Promote competition and liberalization of the telecom sector in Myanmar
- Ensure transparency in market entrance
- Establish technology-and-service neutral approach to licensing
- Ensure non-discriminatory treatment of similarly situated licensees

Laws and Regulations

Sr. No	Name	Issued Date
1.	Telecommunication Law	8-10-2013
2.	Licensing Rules	14-10-2014
3.	Interconnection Rules	6-1-2015
4.	Competition Rules	9-6-2015
5.	Numbering Rules	3-12-2015
6.	Spectrum Rules	7-3-2015

Licensing Framework Multi-service licensing framework ° to simplify licensing

Processes ° encourage entry and expansion of services and ° increase End-User access to Telecommunications Networks and Telecommunications Services.

License Type NFS (I) NS AS NFS (C)

Maximum of two Telecommunications Service Licenses NFS (C) + NS OR AS

Licensing Category

NFS license (not exhaustive)

- Terrestrial fixed-line and radio transmission
- Submarine cable facilities
- Satellite earth station facilities
- Mobile base station facilities and passive infrastructure to deploy networks

NS license (not exhaustive)

- Wireline connectivity services
- Terrestrial wireless connectivity services
- Satellite uplink/downlink connectivity services
- International and domestic network transport and switching services
- International gateway services

AS license (not exhaustive)

- Public payphone services
- Public switched data services
- Audio text hosting services provided on an opt-in basis
- Directory services
- Internet service provider services
- Messaging services and Value-added services

NFS(C) (not exhaustive)

- Towers, masts, ducts
- Trenches and poles
- Dark fibre

Type of License and Licensees

Sr.	Type of License	Number of Licensees		
1.	Nationwide Telecommunications License	2	2	4
2.	Network Facilities Service (Individual) License (NFS-I)	35	11	46
3.	Network Facilities Service (Class) License (NFS-C)	25	16	41
4.	Application Service License (AS)	17	4	21
5.	Network Service License (NS)	9	6	15
	Total	88	39	127

National Policy

Myanmar Telecommunications Masterplan

The Myanmar Telecommunications Masterplan includes several references to universal service and the USF. Key connectivity targets for 2020 are as follows:

- 1) Over 90% of Myanmar population covered by a telecommunications network;
- 2) Over 85% of Myanmar population covered by a network that provides internet access;
- 3) Over 50% of Myanmar population with access to a high-speed internet connection.

Telecom Policy and ICT Policy

Telecom Policy

- To increase the deployment of national IT infrastructure
- To provide a financially viable telecommunications sector conducive to sustainable investment in telecommunications infrastructure
- To improve the efficiency and effectiveness of telecommunications service delivery to end-users
- To provide telecommunication services at the affordable price
- To fulfil universal services obligation to the people of Myanmar

ICT Policy

- To promote cooperation for ICT development
- To enhance competitiveness of the ICT sectors
- To promote cooperation to reduce digital divide
- To promote cooperation between State and private sectors
- To increase the availability of information technologies to all the citizens of our country

E-Government Master Plan (2016-2020)

- MCIT has started the preparation of Myanmar e-Governance Master Plan with the support of ADB and Infosys Ltd in 2014
- Revised in 2016
- Implement by MOTC with the cooperation of the international Consultants from IDA and KPMG in 2016

Guidelines for the implementation of e-Government

- Intended to extend utility based on existing resources. (e.g., e-Government network will be built on existing fibre network along the

railway and road)

- To ensure that G2G, G2B and G2C services should meet the utility needs of citizens and businesses

Assessment of ICT and e-Government Policies

- Computer Science Development Law (1996)
- Electronic Transaction Law (2004), Amended (2014);
- The Telecommunications law (2013)

Economic Policy for ICT

- One of the National Objectives in August 2016
- To establish
 - Data ID Card System,
 - Digital Government Strategy and
 - e-Government system

DEDC Master Plan - 7 Key Sectors

1. Education and Learning
2. Healthcare and Welfare sector
3. Financial Services sector
4. Agriculture sector
5. Manufacturing sector
6. Tourism, Hospitality and Retail sector
7. Government services

Note: Digital Economy Development Committee (DEDC)

Operator Licensing

LICENSE PROCESSING TIMELINE

License Type	Applied for or Applied by	Ministry Approval	Union Government Approval	Processing Timeline
NFS (I)	Int'l Gateway Or Foreign person	Yes	Yes	90 days
	Otherwise	Yes	No	60 days
NS	Foreign person	Yes	Yes	90 days
	Otherwise	Yes	No	60 days
NFS (C)	Foreign person	Yes	Yes	60 days
	Otherwise	Yes	No	30 days
AS	Foreign person	Yes	Yes	60 days
	Otherwise	Yes	No	30 days

Technical and Administrative Requirements

TELECOMS REGULATION

The Posts and Telecommunications Department (“Telecommunications Department”) under the Ministry of Transport and Communications (“MOTC”) is the telecommunications regulator in Myanmar.

The responsibilities of the Telecommunications Department include:-

- the issuance and renewal of service provider licences;
- regulation of the frequency spectrum and numbering plans;
- ensuring consumer protection;
- inspection and supervision of service providers;
- initiating administrative actions against service providers.

As part of sector reforms, the MOTC is authorised to establish the following bodies:-

National Telecommunications Advisory Committee

- Make recommendations on technical standards, consumer protection and strategic development of the telecommunications sector in Myanmar,
- To hear administrative appeals against the MOTC’s decisions.

Licensing Fees



Licensing fees According to Licensing Rule Schedule A

TYPE OF PAYMENT	TYPE OF LICENSE				
	Telecom Service License				Telecom Equipment License**
	NFS (I) License	NFS (C) License	NS License	AS License	
Application / Registration Fee	MMK 10,000,000	MMK 2,500,000	MMK 5,000,000	MMK 2,500,000	MMK 5,000
Initial Fee	MMK 50,000,000	MMK 12,500,000	MMK 25,000,000	MMK 10,000,000	None
Annual Regulatory Fee	2% of relevant revenues	0.5% of relevant revenues	1% of relevant revenues	0.5% of relevant revenues	None
Fee to provide additional services	MMK 50,000,000	MMK 1,250,000	MMK 2,500,000	MMK 1,250,000	N/A
Renewal Fee	MMK 50,000,000	MMK 12,500,000	MMK 25,000,000	MMK 10,000,000	None
Other Fee	To be determined by the Ministry				
Penalties for non-payment of fees	For any fees failure to pay within 30 days, penalties (i.e. <i>principal due amount due + interest***</i>) will be charged.				

**** Telecom Equipment License** is required to apply in order to possess and use such equipment as 1) Satellite equipment (eg. satellite telephones) 2) Radar equipment and devices, and 3) HF radio equipment.

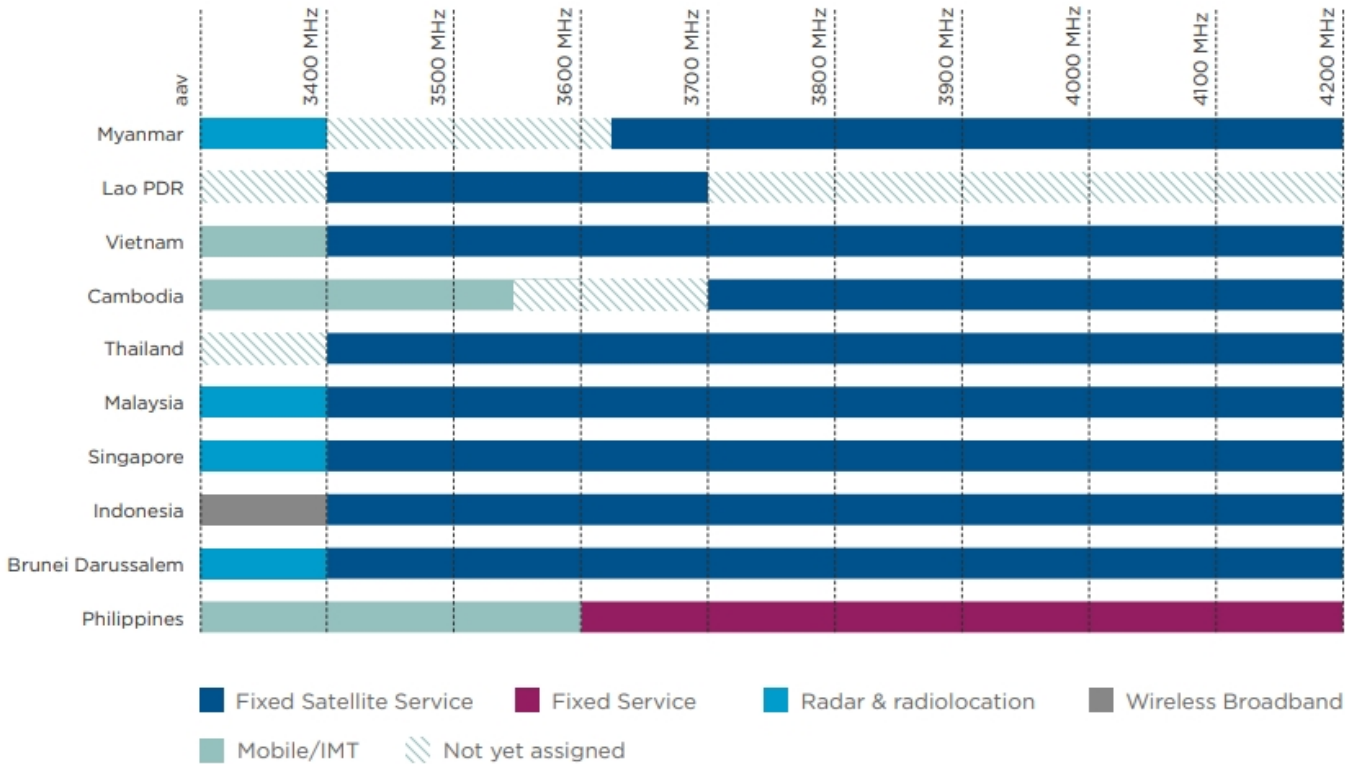
***** Interest Rate** is the rate to be specified by the Ministry based on the then-prevailing commercial lending rate in the Republic of the Union of Myanmar

Access to Spectrum

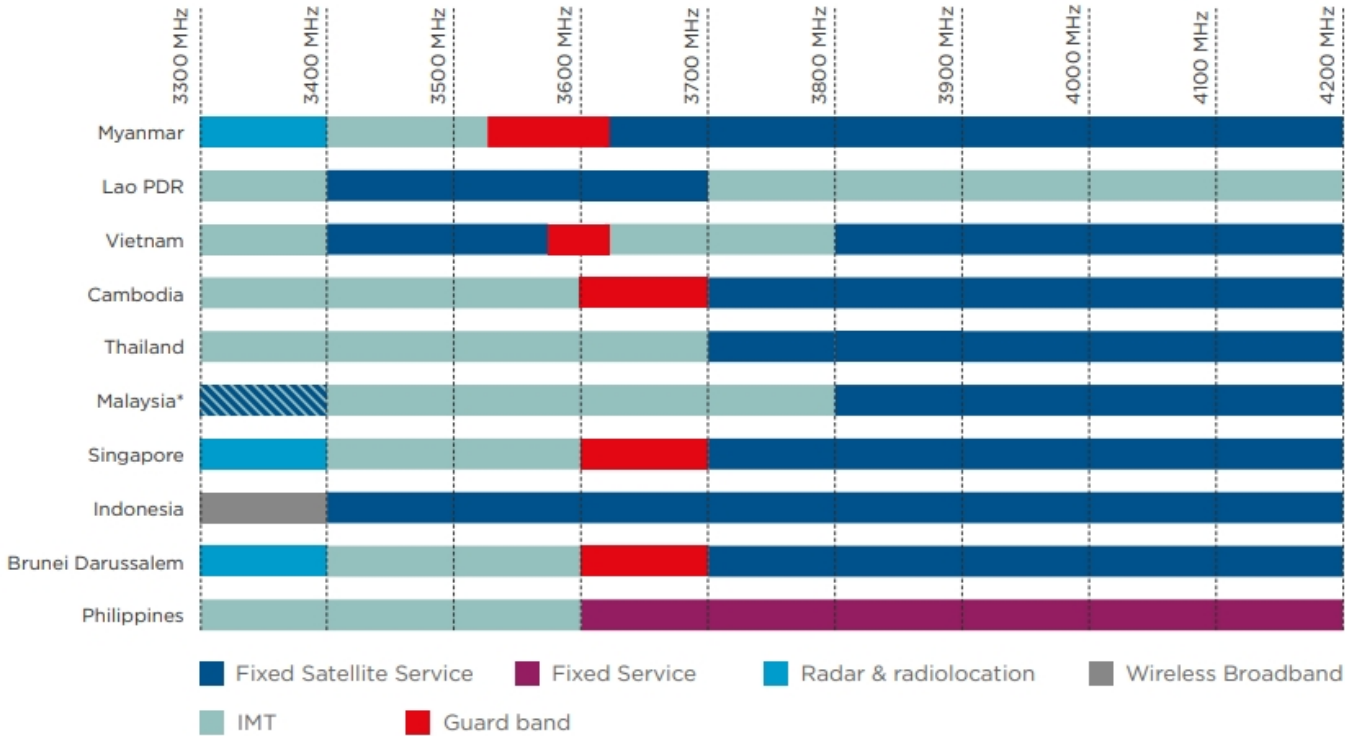
All the guide for application and procedure and fees are here:

https://ptd.gov.mm/ServicesDetail.aspx?id=18&__ncforminfo=QFFd0cALmJsGx4tqx5i3TOkiPHsyPePku zER8TGyqpu5xZ5VSI7bhOPhJZLQpK755_bjivWgt6UL8dMKfC5frA==

Current status of 3.3 – 4.2 GHz in ASEAN countries (as of July 2019)



Current or planned spectrum allocations for 5G (as of July 2019)



9.3. Myanmar Commercial Assignable Spectrum Bands

Below we highlight commercial spectrum bands for future assignments.

Table 2: Commercial Spectrum bands

Technology	Frequency MHz (UL/DL)	Band
CDMA800 / TDMA 800/ GSM 800	824 – 849 / 869 – 894	A
GSM900	890 – 915/ 935 - 960	B
EGSM 900	880 – 915/ 925 - 960	B2
GSM1800	1710 – 1785/ 1805 -1880	C
CDMA 1900 / GSM1900	1850-1910/ 1930-1990	D
UMTS (WCDMA)/ CDMA 2000	1920 – 1980/ 2110 -2170	E
CDMA450	450-460/ 460-470	F
PDC800	893 – 898 / 838 - 843 940 – 948 / 810 – 818 925 – 940 / 870 – 885	G
UMTS(WCDMA)1500/CDMA1500	1427.9-1452.9 / 1475.9 - 1500.9	H
UMTS (WCDMA) 800/ CDMA 800	815-845 / 860 - 890	I
CDMA800	887 – 889 / 832 - 834 898 - 901 / 843 - 846 915 – 925 / 860 – 870	J
UMTS (WCDMA)1500/CDMA1500	1427.9 - 1452.9 / 1475.9 - 1500.9	K
UMTS(WCDMA)1700/CDMA1700	1749.9 - 1784.9 / 1844.9 - 1879.9	L
PHS	1884.5 - 1919.6 (TDD)	M
TDD mobile communication systems	2 010 – 2 025 (TDD)	N
BWA systems (WiMAX, Next Generation PHS)	2 545 – 2 625 (TDD)	O

Source:Ministry/PTD spectrum plans.

Spectrum Fees

according to Spectrum Rule (7 March 2016)



TYPE OF PAYMENT	Spectrum Fee	All type of spectrum licenses ¹
	Initial Fee	Fixed fee ²
	Spectrum Management Fee	Vary (Some are fixed fee and others are variable fee. For variable fee, calculation depends on specific type of service). Calculation³: Spectrum Usage Fee = (Bandwidth x Price/MHz x Frequency Constant) + Minimum Charge)
	Renewal Fee	1% of the Licensee's average annual Relevant Revenue for the three previous calendar years multiplied by the number of years that the License is to be extended.
	Other Fee	To be determined by the Ministry
	Penalties for non-payment of fee	For any fees failure to pay within 30 days, penalties (i.e. <i>principal amount due + interest⁴</i>) will be charged.

¹ **Type of spectrum licenses:** According to Spectrum Rule, 7 March 2016, there are different types of spectrum license: 1) public land mobile spectrum license, 2) maritime station license, 3) aircraft station license, 4) satellite spectrum license, 5) private network spectrum license, 6) fixed spectrum licenses, 7) broadcasting spectrum licenses, 8) amateur spectrum licenses, 9) government spectrum use licenses, 10) other radio communication services, and 11) special temporary licenses.

² **Initial fee:** For licenses awarded according to non-market-based method, the Ministry determines the fee. For licenses awarded according to market-based method, initial fees will be those submitted by the winning bidder(s) in the auction

³ **Calculation for spectrum management fee:** The same calculation is used for the public land mobile spectrum licenses, satellite spectrum licenses and fixed spectrum licenses.

⁴ **Interest Rate** is the rate to be specified by the Ministry based on the then-prevailing commercial lending rate in the Republic of the Union of Myanmar.

Technical and Administrative Requirements

Licensed

Access Networks

Operator	800MHz	900MHz	1800MHz	2100MHz	2600MHz	3500MHz
XYZcom	None	2×10	2×15	2×10	None	None

PtP Networks

License-Exempt

Access Networks

Frequency	Power Limit	Transmit Power
2.4GHz		
2400 - 2483.5 MHz	2.4EIRP	
5GHz		
5150-5250 MHz	5.1EIRP	
5250-5350 MHz	5.2EIRP	
5470-5725 MHz	5.4EIRP	
5725-5800 MHz	5.8EIRP	

PtP Networks

Frequency	Power Limit	Transmit Power
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5GHz		
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5250-5350 MHz	5.2EIRP	
5470-5725 MHz	5.4EIRP	
5725-5800 MHz	5.8EIRP	

Secondary Use

Access Networks

PtP Networks

Spectrum Fees / Costs

Spectrum Fees according to Spectrum Rule (7 March 2016)



TYPE OF PAYMENT	Spectrum Fee	All type of spectrum licenses ¹
	Initial Fee	Fixed fee ²
	Spectrum Management Fee	Vary (Some are fixed fee and others are variable fee. For variable fee, calculation depends on specific type of service). Calculation³: Spectrum Usage Fee = (Bandwidth x Price/MHz x Frequency Constant) + Minimum Charge)
	Renewal Fee	1% of the Licensee's average annual Relevant Revenue for the three previous calendar years multiplied by the number of years that the License is to be extended.
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⁴ **Interest Rate** is the rate to be specified by the Ministry based on the then-prevailing commercial lending rate in the Republic of the Union of Myanmar.

Application

All telecom and communication license application process and fees

<https://www.ptd.gov.mm/Services.aspx>

Licensing and Inspection Division

https://www.ptd.gov.mm/Organization.aspx?id=6&__ncforminfo=6BQavN68SiGx6FG6xW3KjCj_DvM77

6qdD8UThT6Dnz-2exE8nTe3G58PyITHAL1iMHyTx2fiiCv18TJXExIFQ7YNLmUyoc2Y

Auction

All of telecommunication related tender call are here

https://www.ptd.gov.mm/Announcement.aspx?id=2&__ncforminfo=i7C4b9XQ2ZJHJAaaVLiZ6yAW3y0hQCHR6R7XD9qufUEZ2okGRZ_fCfMeWmhKUBEnt90g8FEfgFyvMCRA1PoUwLdOj-PwoB2t

License holder list

https://www.ptd.gov.mm/Uploads/License/Attach/12020/78536142212020_Website%20New%20%20Licence.pdf

Tower list

https://www.ptd.gov.mm/Uploads/License/Attach/122019/9655593122019_Co.,Ltd%20Tower%20Update.pdf

List of the optical fiber path

[https://www.ptd.gov.mm/Uploads/License/Attach/112019/25121419112019_BACKBONE%20FIBER%20UPDATE%20\(9-2019\)%20.pdf](https://www.ptd.gov.mm/Uploads/License/Attach/112019/25121419112019_BACKBONE%20FIBER%20UPDATE%20(9-2019)%20.pdf)

Microwave Band Plan (31 Jan 2019 Update)

[https://www.ptd.gov.mm/Uploads/License/Attach/22019/821915622019_Micro%20Band%20Plan%20Update\(31.1.2019\)English.pdf](https://www.ptd.gov.mm/Uploads/License/Attach/22019/821915622019_Micro%20Band%20Plan%20Update(31.1.2019)English.pdf)

Public Land Mobile Spectrum (31 Jan 2019 Update)

[https://www.ptd.gov.mm/Uploads/License/Attach/22019/1681015622019_Band%20plan%20Update%20\(31.1.19\)%20English.pdf](https://www.ptd.gov.mm/Uploads/License/Attach/22019/1681015622019_Band%20plan%20Update%20(31.1.19)%20English.pdf)

List of FM Station and their license

[https://www.ptd.gov.mm/Uploads/License/Attach/52019/5761315752019_FM%20\(Enhlish\).pdf](https://www.ptd.gov.mm/Uploads/License/Attach/52019/5761315752019_FM%20(Enhlish).pdf)

Toll-Free Number list

https://www.ptd.gov.mm/Uploads/License/Attach/22019/3428161422019_Allocated%20Tollfree%20Number%20Data.pdf

Mobile numbering list

https://www.ptd.gov.mm/Uploads/License/Attach/12020/4517141412020_Allocated%20Mobile%20Number%20Data%20.pdf

Backhaul

Telecommunications Infrastructure (August, 2017)

Indicator	Statistic / Description
Telecom Operator	4 (2 from domestic, 2 from International)
National Fiber Backbone	549,55.23 Kilometer
International Submarine Cable	SEA-ME-WE-3, SEA-ME-WE-5, AAE1 (Ongoing Project)

Cross-border Fiber	China - Myanmar, India-Myanmar, Lao-Myanmar, Thailand - Myanmar(4 Links)
International Bandwidth	324.10 Gbps
International Gateway	5
Tower Over	18,000 towers
Number of Telephone	Fixed Phone - 0.52 million, Mobile Phone - 55.61 million, Total - 56.13 million
Telephone density	108.56 %
Internet Users	46.39 Million
Internet Penetration	89.73%

Gender

Universal Service

What is Universal Service?

* a policy goal to ensure that all people in a country have access and are able to use telecommunications services. * in particular for people living in rural and remote parts of the country and poorer households.

Specific objectives of USF

Collect funds ⇒ Design programs & projects ⇒ Finance those projects / disburse ⇒ Monitor implementation ⇒ Evaluate impact ⇒ Consult stakeholders throughout ⇒ Publish results ⇒ Publish results

Scope of Universal Service

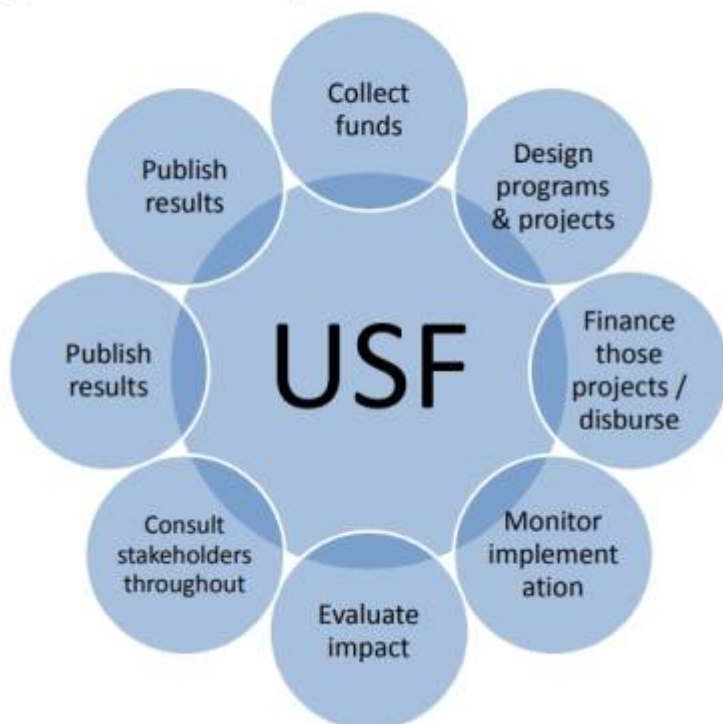
Issue	Basic meaning	Specification
Availability	All inhabitants have service available	Coverage of inhabited geographic territory · Region /area · Locality size (e.g., towns, villages, settlements with varying number of inhabitants)
Accessibility	All inhabitants can access the service	Gender · Race, tribe, religion · Ability /disability
Affordability	All inhabitants can afford to pay	· Access device (e.g., mobile phone) · Cost of calls & services · Minimum “basket” below a certain national limit (e.g., 3% of family income)
Ability	All inhabitants have the telecom services	With increasing focus on the broadband Internet, user capabilities become important · Awareness of services and their benefits · Ability to use computers & devices · Ability to navigate the Internet & use ICT services



Universal Service Strategy Outcomes

- Increasing & accelerating Voice and Internet broadband provision.
- More people have access to services & applications, as well as the capacity to use them.
- Creating opportunities for both economic & social growth.

Specific objectives of USF



Program 1 Infrastructure Roll-out: Voice & Broadband

Voice

- Operators will reach at least 94% by Q1, 2019
- Target: within 5 years 99% of the population to be covered by mobile signal
- Service for an additional 3.2 million people

Broadband Internet

- Target: 95% of the population will have broadband Internet within 5 years
- Total estimated subsidy cost USD 25.4 million



Program 2 ICT Capacity Building: Enabling the Digital Future

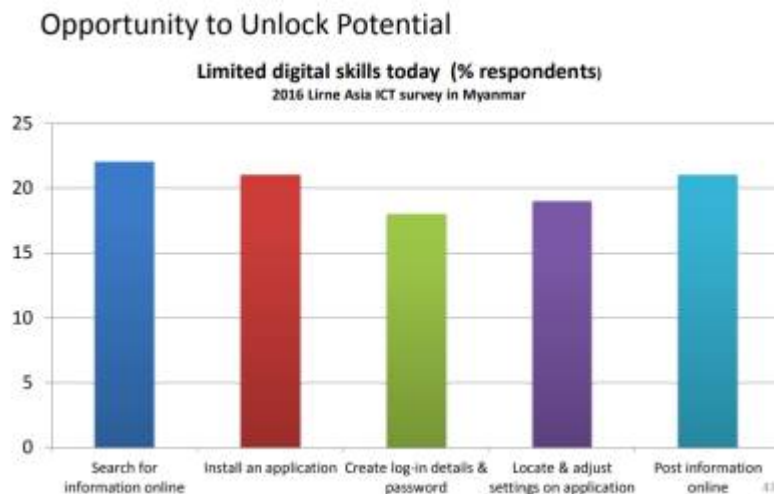
Target

- Increase capacity of population to use the Internet for their socio-economic benefit and Myanmar development
- Many links between increased ICT capacity and economic growth and social development

Two Sub-Programs

- Broadband Internet connectivity for various learning & other institutions
- Digital literacy project with eligible local organizations

Program 3 Special Programs



Purpose

- integrate other aspects of universal service which won't fit in Program 1&2
- Explore new approaches to be used later in mainstream program

Types of Special Projects

- ICT content, service or application for development for rural users/ lower income groups
- Improved access/ usability for persons with disabilities
- Small pilot for broadband connectivity (e.g., rural hospitals)
- Any other pilot or research projects

Proposed Pilot

- Funding to translate special software to assist persons with disabilities to use
- ICT - RFP process

USF Progress

- Universal Service Strategy (Final)
- Guideline for USF
- Public Consultation
- Implementing Pilot Project
- Implementing Universal Service Strategy

Legislation	Date
Interconnection and Access Rules	6 January 2015
Telecoms Competition Rules	9 June 2015
The Numbering Rules	3 December 2015
The Spectrum Rules	7 March 2016
Technical Specifications for Short Range Device	17 July 2016
Guidelines on the Provision of International Gateway Services	8 September 2016
Telecommunications Numbering Plan	31 January 2017
The Technical Specification and Quality of Service for International Gateway Service	5 April 2017
Draft Myanmar Communications Regulatory Commission Law (MCRC Law)	15 May 2017
The Law Amending the Telecommunication Law	18 August 2017

Other laws and regulations related to Telecom sector in Myanmar

Year	Law and Regulation
October, 1885	Myanmar Telegraph Act (India Act XIII) ¹
January, 1934	Myanmar Wireless Telegraph Act (India Act XVII) ²
March, 1989	State-owned Economic Enterprises Law ³
October, 1993	Amendment of Myanmar Wireless Telegraph Act ⁴
September, 1996	Computer Science Development Law ⁵
April, 2004	Electronic Transactions Law ⁶
January, 2011	Myanmar Special Economic Zone Law ⁷
October, 2013	Telecommunications Law ⁸
December, 2013	Licensing rules ⁹ , Interconnection and access rules ¹⁰ , Spectrum rules ¹¹ , Numbering rules ¹² and Competition rules ¹³

Resources / References

- <http://www.mcpt.gov.mm/mcpt/myanmar-telegraph-act.htm>
- <http://www.mcpt.gov.mm/mcpt/myanmar-wireless-telegraphy-act.htm>
- <http://www.mcpt.gov.mm/mcpt/miscellaneous.htm>
- <http://www.mcpt.gov.mm/mcpt/amendment.htm>
- <http://www.mcpt.gov.mm/mcpt/myanmar-computer-science-development-law.htm>
- <http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan041197.pdf>
- <http://www.mcpt.gov.mm/mcpt/miscellaneous.html>
- <http://www.mcit.gov.mm/content/telecommunications-law.html>
- <https://www.motc.gov.mm/sites/default/files/1%20-%20MCIT%20-%20Final%20Licensing%20Rules%20-%2020122013%20CLEAN.pdf>
- <https://www.motc.gov.mm/sites/default/files/3%20-%20MCIT%20-%20Annex%20B%20-%20Proposed%20Interconnection%20Rules%20-%202011113.pdf>
- <https://www.motc.gov.mm/sites/default/files/3%20-%20MCIT%20-%20Final%20Spectrum%20Rules%20-%2020122213%20CLEAN-1.pdf>

12.

<https://www.motc.gov.mm/sites/default/files/4-%20MCIT%20-%20Final%20Numbering%20Rules%20-%2020122213%20CLEAN-1.pdf>

13.

<https://www.motc.gov.mm/sites/default/files/5%20-%20MCIT%20-%20Final%20Competition%20Rules%20-%2020122213%20CLEAN.pdf>

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Last update: **2023/06/18 14:59**

