



Final Sector
Assessment Report

The Ministry
of Industry
and Commerce

Compliance with Trade Commitments
and the Implementation
of Regulatory Best Practice
in the Telecommunications Sector

FINAL 22 September 2015



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Final Sector Assessment Report to the Ministry of Industry and Commerce

Compliance with Trade Commitments and the Implementation of
Regulatory Best Practice in the Telecommunications Sector

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Final Sector Assessment Report

1. EXECUTIVE SUMMARY

Lao PDR has made significant progress with its reform program over recent years across the whole of its economy. This process has included ever-deeper economic integration with the Southeast Asian market as a whole and with the rest of the world. Lao PDR has taken key steps to further its economic ties and encourage investment and development domestically, including full integration with ASEAN and accession to the World Trade Organisation ('WTO').

This Report focuses on a key sector in the reform process, namely telecommunications, and the steps necessary for Lao PDR to achieve full compliance with its WTO commitments. This includes a full analysis of legislative and regulatory gaps in compliance, and recommendations on key actions that the Lao PDR Government must take to satisfy its obligations and provide confidence to market operators and investors. By becoming a fully compliant member of the WTO community, Lao PDR will ensure the future growth of its telecommunications sector in a way that is fair, equitable and efficient.

1.1 Importance of telecommunications and ICT services in Lao PDR

Telecommunications is a vital industry for Lao PDR, providing important economic and social benefits. Aside from its direct contribution to the economy, telecommunications allows Laotians to stay connected and is considered an essential facilitator of economic growth in other sectors. The academic literature suggests that economic growth is promoted by improved telecommunications performance, and it is likely that for the global value chains that are driving regional economic growth, telecommunications is a key input. The casual chain from telecommunications maturity to improved growth is illustrated in [Exhibit 1](#).

Exhibit 1: Communications is driving economic development

Around the world developed countries are achieving rapid growth in telecommunications maturity and performance via wireless rather than fixed line networks. This 'leapfrogging effect' of wireless networks is widely acknowledged. While there are significant opportunities available to Lao PDR, the evidence suggests that Lao PDR's telecommunications performance in terms of service penetration rates and performance characteristics needs to be improved relative to its regional trading partners. The WTO process provides an opportunity for Lao PDR to develop effective regulatory structures that will lay the groundwork for improved services and performance countrywide.

1.2 Findings of this Report

This Final Sector Assessment Report identifies key gaps in Lao PDR's current law and regulations that prevent it from achieving full WTO compliance in the telecommunications sector. There are also other areas of the sector that, while Lao PDR is to be likely compliant, can be improved in order to provide greater certainty for operators and other market participants, and reinforce the Government's commitment to the reform process.

Lao PDR has in place most of the primary legislation necessary to ensure WTO compliance and regulatory best practice. The next step is to implement key secondary legislation – in the form of regulations or other instruments to give effect to the required measures – that will provide a comprehensive regulatory framework for the sector.

Exhibit 2 below provides a basic summary of the areas in which Lao PDR is currently compliant, and those areas that require further action. This Report covers the six core areas of telecommunications regulation detailed in the WPC’s General Agreement on Trade in Services (‘GATS’) Reference Paper, namely:

- Competition;
- Interconnection;
- Universal service;
- Licensing;
- Allocation of scarce resources; and
- Independent regulator.

Exhibit 2: Priority areas and compliance status with WTO commitments

	Primary legislation	Secondary legislation
Independent regulator	●	●
Competition	●	●
Interconnection	●	●
Universal service	●	●
Licensing	●	●
Allocation of scarce resources		
Spectrum management	●	●
Numbering & addressing	●	●

● Compliant
 ● Can be improved
 ● Not compliant

The two main priorities for the Lao PDR Government are the establishment of the Lao PDR Telecommunications Regulatory Authority (‘TRA’) as the sector regulator, and the implementation of a licensing framework to allow the authorisation of telecommunication operators. The issue of the independent regulator is key. The Government’s decision to proceed with the establishment of an independent regulator will determine the timeframe and action plan for compliance measures.

As [Exhibit 2](#) shows, in most areas the primary legislation is already in place or well advanced to ensure the Government has the capacity to enable the required secondary legislation. In particular, the Government will need to provide, either in the Law or through a separate Decree, for the establishment of the TRA. It will also need to develop a more detailed licensing framework through separate licensing regulations.

Progress has been made in a number of key areas, including in particular the *Decree on Radio Frequency*, which was issued in 2014, and the current development of the Law on Competition and Decree on Competition, which is planned for issue in 2015/16. As [Exhibit 3](#) below shows, there are a number of areas in which further action can be taken to improve the regulatory environment. While the establishment of the TRA and the licensing regulations are the first priority, additional measures such as the implementation of interconnection regulations and a universal service regime should be strongly considered by the Government in order to bring the sector in line with international best practice.

Exhibit 3: Priority areas and required action

	Current legislation & regulation	Required action	Priority	
Independent regulator	• No framework for establishment of independent regulator	Establish independent regulator through Telecommunications Law or separate Decree	●	Immediate priority Recommended for best practice
		Implement regulation on operation of regulator through decree or separate regulations	●	
Competition	• Law on Telecommunications (2011)	Implement Law on Competition	●	
	• Decree on Trade Competition (2004)	Ensure consistency between general competition law & sector law/regulations	●	
	• Law on Competition (proposed) • Decision on Telecommunication Competition (2015)	Consider regulations for MVNOs and domestic roaming	●	
Interconnection	• Law on Telecommunications (2011)	Implement regulation for interconnection, including dispute resolution mechanisms	●	
	• Access and interconnection regulation (proposed)	Independent regulator to publish reference interconnection offer, transparent pricing	●	
Universal service	• Law on Telecommunications (2011)	Implement regulation for universal service obligation, including USO levy and fund	●	
	• Universal service regulations (proposed)	Implement transparent corporate governance and administrative provisions	●	
Licensing	• Law on Telecommunications (2011)	Implement regulation for licensing of telecommunications operators	●	
		Ensure all operators licenced in accordance with Law and regulations	●	
Allocation of scarce resources		Implement regulations on radio frequency licensing and management	●	

2. INTRODUCTION

2.1 Project background

The Government of Lao PDR has been focused on the development of new communications sector legislation and an effective regulatory framework that meets the country's plans for sector expansion. These efforts have formed part of Lao PDR's broader reforms and re-entry into the world economy. A key aspect of Lao PDR's reform strategy involves further economic integration with markets throughout the Asia Pacific region and globally, and in particular the further facilitation of trade and investment.

The Second Trade Development Facility ('TDF-2') was established in 2012 to assist in the undertaking of these reforms. The objective of the Second Trade Development Facility Project for Lao PDR is to support the implementation of government's trade and integration priorities outlined in the 2012 Diagnostic Trade Integration Study, or DTIS roadmap, and in particular to contribute to improved competitiveness and diversification, focusing outside the natural resource sectors.

TDF-2 is a multi donor program financed by Australia, the European Union, Germany, Ireland and the World Bank focusing on improving trade and private sector development in Lao PDR. The development objective of TDF-2, which is implemented by the Ministry of Industry and Commerce ('MoIC'), is to support the implementation of the government's trade and integration priorities outlined in the 2012 DTIS Roadmap, and in particular to contribute to improved competitiveness and diversification, focusing outside the natural resource sectors.

In the telecommunications sector, there have been a number of key developments, including the enacting of the country's new *Telecommunications Law*, passed by the National Assembly in December 2011, as well as the draft of corresponding Implementing Rules and Regulations ('IRR') with assistance from the International Telecommunications Union ('ITU'). There has also been significant discussion surrounding future sector reform, including the possibility of establishing an independent sector regulator and a shift towards a unified telecommunications licensing framework.

Key to implementing the Government's reform process in the telecommunications sector will be understanding best practice regulation regionally and globally, while ensuring Lao PDR remains compliant with its trade obligations. Ultimately, the Government must ensure it is acting in the interests of the sector and consumers while remaining committed to the broader objective of enhancing trade integration.

2.2 Government's strategic direction for economic integration

Strategic direction of the government for socio-economic development until 2015 is set out in the Government's 7th National Socio-Economic Development Plan 2011-2015.¹ The Plan does not specifically provide direction for the professional services sector as such. However, for the Services Sector, the Plan aims to achieve an annual growth rate of 6.5%, and for it to increase its share of GDP to 38%. The Plan also reiterates Government's commitment to joining the WTO. Other key areas of focus in the Plan relevant to trade and development are:

- Achieving at least an annual growth rate of 8% of GDP;
- Creating favourable conditions for graduating the country from LDC status by 2020;

¹ Ministry of Planning & Investment (2011)

- Ensuring continuous increase of quantity and quality of education;
- Developing human resources in a variety of fields, including engineers, managers, executives and others;
- Reaching economic targets set by the AEC by 2015; and
- Promoting SMEs, and the use of new technologies in order to raise productivity and efficiency.

As a small land-locked country, economic integration regionally as well as internationally can be vitally important for Lao PDR's economic development and graduation from its least-developed country status. Mindful of this importance, the Lao PDR Government, beginning with the adoption of the New Economic Mechanism in 1986, has placed high priority to economic integration and trade development as principal means to socio-economic development and poverty reduction. Key steps taken so far include the WTO accession process, progressive implementation of the AFTA-CEPT scheme, and the initiatives under the Integrated Framework to mainstream trade into national development strategies.

2.3 Telecommunications sector liberalisation under WTO accession and ASEAN integration

Lao PDR successfully acceded to the WTO on 2 February 2013. The accession process began in 1998 with the establishment of the Lao People's Democratic Republic Working Party, some 15 years prior. The Memorandum on the Foreign Trade Regime was circulated in March 2001. Bilateral market access negotiations are underway on the basis of revised offers on goods and services and multilateral work is proceeding on the basis of a Draft Working Party Report, circulated in February 2012. The Working Party held its seventh meeting in June 2011 to continue the examination of Lao PDR's foreign trade regime. The General Council formally approved the Accession Package of Lao PDR on 26 October 2012.²

As a part of accession requirements, Lao PDR has committed to the liberalisation of the telecommunications sector, including all services and facilities, in accordance with the GATS obligations. The achievement of this requires consideration of the current status of telecommunications services in the country in order to identify shortfalls in compliance. This is the main task of this Report.

Services liberalisation under ASEAN Framework Agreement on Services ('AFAS') has progressed through five rounds of negotiations resulting in seven packages of commitments – each package progressively identifying the services sectors to be liberalised. Commitments under the 8th package have just been completed in 2012. In 2007, ASEAN leaders pledged, as per AEC Blueprint of 2007³, to transform ASEAN into an economic community by 2020, and towards that end to substantially remove all restrictions on trade in services for agreed sub-sectors by 2015, and the remaining sub-sectors by 2020. Under this accord, and in the context of AFAS, Lao PDR has undertaken some progressive liberalisation of services.

² www.wto.org/english/thewto_e/acc_e/a1_laos_e.htm

³ ASEAN Secretariat, *Economic Community Blueprint*, Jakarta, 2008

An important development in ASEAN cooperation that is of particular relevance to professional services is the Framework Agreement on Mutual Recognition Arrangements ('MRAs').⁴ This agreement provides for member countries to adopt procedures for mutual recognition of qualifications, technical standards, and licencing requirements among member states facilitating the flow of professional services providers in the region. It is essential for member states to adopt such procedures for sectorial MRAs in order to facilitate the realization of the ASEAN Free Trade Area. These procedures are also important for WTO member states for compliance with GATS requirements, and in particular to assist Lao PDR in fulfilling its WTO obligations.

2.4 Structure of this Final Sector Assessment Report

This Final Sector Assessment Report outlines the objectives and deliverables of the project, and details the process for achieving the necessary outcomes. The first part of the process will involve an analysis of the current state of Lao PDRs' regulatory framework and international obligations, and the second part will involve recommendations for the implementation of necessary measures to ensure compliance with these obligations and to maximise the effectiveness of Lao PDRs' regulatory framework.

The structure of this Report is as follows:

- An executive summary outlining the key areas of focus for further action;
- An outline of the project's objectives and the specific tasks required;
- The project scope of work including key deliverables;
- An overview of Lao PDRs' World Trade Organisation commitments in the telecommunications sector;
- A discussion of measures necessary to ensure WTO compliance and maximise the effectiveness of Lao PDRs' regulatory framework;
- Timeline and priorities for the completion of the project; and
- Conclusions and way forward.

2.5 Project objectives

The purpose of this project is to provide the Government of Lao PDR with a clear strategy to promote the most effective regulatory measures and maximise sector value, as well as propose measures to ensure compliance with Lao PDR's international obligations. As an initial step, this will require a stocktake of Lao PDR's current trade commitments, its current regulatory framework, and its future reform path and objectives. In addition, the Government must be able to respond to existing or potential gaps in Lao PDR's regulatory framework.

The aim of this task is to support the establishment of a regulatory framework and infrastructure including an institutional setting consistent with Lao PDR's World Trade Organisation ('WTO') commitments with respect to the telecommunications sector. The objective of this project is to propose a work program to implement the six regulatory principles included in Lao PDR's commitments under the General Agreement on Trade in Services ('GATS'):

- Competitive safeguards;
- Interconnection;

⁴ ASEAN Secretariat, *ASEAN Framework Agreement on Mutual Recognition Arrangements*, 1998

- USO;
- Licensing;
- Independent regulator; and
- Allocation of scarce resources (spectrum, numbers, etc.).

The specific tasks proposed in order to achieve these objectives are to:

1. Map Lao PDRs' existing regulatory framework, particularly laws and regulatory measures affecting trade and investment in the telecommunications sector;
2. Map all existing support provided by international organizations, donors etc related to WTO regulatory matters in order to avoid duplication;
3. Identify gaps between the regulatory framework and regulatory commitments at the WTO level;
4. Identify additional regulatory measures that may compliment the commitments adopted at the WTO;
5. Propose additional measures that may accelerate the development of the telecommunications sector and other economic activities, including regulatory measures to ensure a reasonably low cost of interconnection and leased lines;
6. Benchmark telecom sector performance against relevant peer countries;
7. Propose alternate regulatory and institutional arrangements that would serve the same regulatory goals based on relevant international exemplars;
8. Propose institutional settings for an independent regulator based on international experience and Lao PDRs' regulatory context, including function, mandate and working procedures;
9. Suggest resource allocation and a program necessary to build regulatory capacity for the independent regulator; and
10. Propose guidelines and actions that need to be taken by specific government agencies and other relevant actors in order to achieve full implementation of commitments and further development of the telecommunications sector.

2.6 Project scope of work

The Scope of Work for the project is expected to include:

1. A full report addressing all aspects of the Objectives above;
2. Identification and prioritization of the most significant gaps where reform is necessary to meet Lao PDRs' telecommunications commitments;
3. Identification of complementary policies for the development of the telecoms sector;
4. Addressing knowledge gaps, including making publicly available information regarding laws and regulations affecting, and performance data for, the sector;
5. Validation of results, including workshops with stakeholders and consensus building on possible approaches to necessary reforms;
6. Providing the government with a menu of options for reform of the six topics identified on slide 4;
7. Building and implementing an action plan for reform for each of the six topics based on the identified options, including an ambitious timetable for implementation;

8. Creation of an implementation framework for the action plans to be implemented in partnership with policymakers, regulators and other stakeholders; and
9. Identification of capacity building needs and proposal of a program to address these needs and support the timely implementation of the action plans.

2.7 Key deliverables

On the basis of the recommendations outlined in the report the consultant will provide ongoing support for the implementation of the proposed action plans. The key deliverables for this project are:

1. A work program for the project;
2. Consultant's reports and related activities;
3. A brief Aide Memoire of meetings attended;
4. A final assessment report, including detailed draft action plans as agreed with designated stakeholders;
5. An agreed implementation time schedule with clear phases and expected outcomes for each of the six regulatory topics mentioned above;
6. An interim progress report on implementation of the action plans including proposed steps to ensure implementation, identification of bottlenecks and possible complimentary actions if needed;
7. Other outputs that may arise to address unexpected tasks which may arise; and
8. A final report assessing the overall success of implementation of the action plans.

The telecommunications sector, as an infrastructure service, requires regulations to ensure entry and competition among providers of telecommunication services, but as well access and use of the telecommunication infrastructure by users and providers of other services, which depends on this infrastructure. Regulations affecting telecommunication services are extremely complex and affect entry and operations, as well as the equipment necessary to use the infrastructure by users such as IPS, BPO industries and others.

Although regulatory frameworks may differ among countries, common principles necessary to regulate the sectors have been identified. In particular, regulatory authority functions, decision-making process, accountability, consumer protection, dispute resolution, and enforcement powers.

2.8 Future Reports

In advance on final form of the independent regulator as described elsewhere in this report, the Validated Action plan has been developed to address two remaining items of the Project Objectives in more detail, namely (7) Propose institutional settings for an independent regulator based on international experience and Lao PDRs' regulatory context, including function, mandate and working procedures and (8) Suggest resource allocation and a program necessary to build regulatory capacity for the independent regulator. Please refer to the separate but related Implementation Report.

The Validated Action Plans has also taken account of the outputs of the four working groups in the MPT looking at Licensing, Competition, Interconnect and Numbering.

3. LAO PDR'S TELECOMMUNICATIONS MARKET

3.1 Sector development in Lao PDR

One of the priorities for Lao PDR is the establishment of effective Implementing Rules and Regulations ('IRR') and to put in place the necessary regulatory provisions to give effect to the *Telecommunications Law*. This is to be done in accordance with regulatory best practice within the ASEAN and broader Asian region, with due consideration given to the needs and requirements of Lao PDR. This will produce a regulatory framework conducive to growth within the sector, enhance competition between network operators, and improve the range and affordability of services within Lao PDR's telecommunications market.

Lao PDR has the potential to experience significant sector growth in coming years, however the level of growth will depend to a large degree on the right regulatory approach, along with transparent and consistent reform across all aspects of the telecommunications sector. The Government of Lao PDR is keen to ensure that the Telecommunications Law and associated IRR are clear to all stakeholders, including clear English translations that reflect the full meaning and intent of the provisions. This will assist in the establishment of transparent rules and make the rights and obligations of market participants, including foreign investors, certain.

Exhibit 4 below outlines Lao PDR's current standing in the ASEAN group of countries with regard to ICT development. Lao PDR is currently ranked 123 out of 157 countries with an Index score of 2.10, making it one of the lowest ranked countries in the region and below the developing country average of 3.44. Importantly, while Lao PDR's IDI score has increased the scores of other countries have risen more quickly. However, there is potential for rapid development, with the right regulatory structures leading to a more efficient sector, greater market certainty, and the facilitation of sector investment, including from foreign sources.

Exhibit 4: ICT Development Index rankings for ASEAN countries

Country	IDI			Rankin (out of 153 countries)		
	2012	2011	2010	2012	2011	2010
Brunei Darussalam	5.06	4.93	4.85	58	56	52
Cambodia	2.30	2.05	1.88	120	121	119
Indonesia	3.43	3.14	3.01	97	97	97
LAO PDR	2.10	1.99	1.84	123	122	120
Malaysia	5.04	4.81	4.63	59	57	57
Myanmar	1.74	1.70	1.65	134	132	129
Philippines	3.34	3.14	3.04	98	98	94
Singapore	7.65	7.55	7.47	15	14	10
Thailand	3.54	3.42	3.29	95	94	89
Viet Nam	3.80	3.65	3.41	88	86	86
World (average)	4.35					
Developed countries (average)	6.78					
Developing countries (average)	3.44					

Source: ITU, *Measuring the Information Society, 2013*

One of the key contributing factors to Lao PDR's low IDI rank is the affordability of ICT services, with Lao PDR ranked 144 out of 161 countries for the ICT price basket, which represents an average of the fixed telephone, mobile cellular and fixed broadband sub-baskets (see Exhibit 5). This makes Lao PDR one of the most expensive markets in the world in terms of ICT affordability, highlighting the need for further liberalisation and the removal of restrictive practices to encourage greater investment and innovation, including from overseas.

Exhibit 5: ICT price sub-baskets (% GNI per capita)

	Rank	IPB	Fixed-telephone	Mobile-cellular	Fixed-broadband	GNI per capita (USD)
Brunei Darussalam	26	1.0	0.4	0.7	1.8	31,800
Cambodia	130	24.3	12.6	12.1	48.0	750
Indonesia	104	5.5	2.2	3.9	10.4	2,500
LAO PDR	144	37.4	5.2	7.0	111.0	1,050
Malaysia	51	1.8	0.8	1.4	3.2	7,760
Philippines	113	9.0	8.4	5.9	12.9	2,060
Singapore	3	0.4	0.2	0.2	0.8	40,070
Thailand	78	3.4	1.7	2.5	5.8	4,150
Viet Nam	106	6.0	2.3	4.9	10.8	1,160

Source: ITU, *Measuring the Information Society*, 2012

Exhibit 6: Post-paid mobile broadband prices

	Rank	Handset-based prices		Rank	Computer-based prices		GNI per capita (USD)
		% GNI	USD		% GNI	USD	
Bangladesh	109	12.6	8.1	106	12.6	8.1	770
Brunei Darussalam	22	0.9	23.8	19	0.9	23.8	31,800
China	96	5.9	24.1	118	44.0	181.1	4,940
India	74	2.9	3.4	81	4.6	5.4	1,410
Indonesia	63	2.3	5.7	69	2.8	6.8	2,940
LAO PDR	92	5.1	4.8	93	6.4	6.1	1,130
Malaysia	80	3.2	22.2	61	2.2	7.1	8,420
Pakistan	-	-	-	112	26.1	24.3	1,120
Philippines	98	6.3	11.5	105	12.5	23.1	2,210
Sri Lanka	20	0.8	1.8	43	1.5	3.3	2,580
Viet Nam	-	-	-	116	40.9	43.0	1,260

Source: ITU, *Measuring the Information Society*, 2013

Exhibit 7: Access indicators

	Fixed-telephone subscriptions per 100 population	Mobile subscriptions per 100 population	International Internet bandwidth Bit/s per Internet user	Percentage of households with computer	Percentage of households with Internet access
Brunei Darussalam	17.2	113.8	39,861	86.9	72.4
Cambodia	4.0	132.0	13,982	5.4	3.9
Indonesia	15.5	115.2	17,209	15.1	6.5
LAO PDR	1.8	101.9	1,752	8.7	5.1
Malaysia	15.7	140.9	16,378	66.9	64.7
Myanmar	1.1	11.2	10,213	2.3	1.8
Philippines	4.1	106.8	14,303	16.9	18.9
Singapore	37.8	153.4	391,106	87.7	87.7
Thailand	9.1	120.3	24,998	26.9	18.4
Viet Nam	11.4	149.4	13,518	17.5	15.6

Source: ITU, *Measuring the Information Society*, 2013

3.2 Characteristics of Lao PDR's telecommunications sector

The telecommunications market in Lao PDR consists of three major fixed and mobile operators – ETL, Lao Telecom and Star Telecom (Unitel). Both ETL and Star Telecom are fully owned and majority owned respectively by the Lao PDR Government. There are also two smaller providers – Vimpelcom, which supplies mobile services and, and Planet Online, which supplies wireless Internet services. LANIC is international Internet gateway provider affiliated with the MPT. A summary of Lao PDR's operators is provided in [Exhibit 8](#) below.

Exhibit 8: Summary of operators in Lao PDR

Operator/ISP	Technology/service	Ownership
ETL	<ul style="list-style-type: none"> □ PSTN □ 2.5G (GSM 900/1800, GPRS) □ 3G (WCDMA 2.1 GHz) □ ISP (dial up, ADSL, HIL, VPN) 	100% Lao PDR Government
LANIC (Lao National Internet Center)	<ul style="list-style-type: none"> □ International Internet Gateway 	Affiliate of MPT
Lao Telecom	<ul style="list-style-type: none"> □ PSTN □ 2.5G (GSM 900/1800, GPRS) □ 3G (WCDMA) launched July 2008 □ LTE launched 2015 □ ISP (dial up, ADSL, IP Star) 	51% Lao Telecom 49% Shin Corporation (Thailand), reverts to Lao PDR Government in 2021
Planet Online	<ul style="list-style-type: none"> □ Broadband wireless Internet (700 MHz ISP) 	100% private
Star Telecom	<ul style="list-style-type: none"> □ PSTN □ 2.5G (GSM 900/1800, GPRS) □ 3G (WCDMA) □ LTE launched on 23 June 2015 □ ISP (dial up, ADSL) 	51% Lao PDR Government 49% VietTel (Viet Nam)
Vimpelcom	<ul style="list-style-type: none"> □ 2.5G (GSM 900/1800, EDGE) □ WiMAX 	22% Lao PDR Government 78% Vimpelcom

The telecommunications market in Lao PDR has been growing for a significant period of time, both in terms of operator revenue and investment, as [Exhibit 9](#) below shows. The Government's ICT policy, along with the new Implementing Rules and Regulations ('IRRs'), are designed to facilitate further expansion in the sector by ensuring an effective regulatory framework is in place.

Exhibit 9: Aggregate investment in Lao PDR telecommunications sector (USD)

	2006	2007	2008	2009	2010
Investment	22,720,264	51,673,726	82,437,751	123,118,578	
Revenue	878,102,354	1,105,390,051	1,369,214,608	1,769,146,716	1,665,344,429
Expenses	593,711,286	684,194,930	965,639,269	1,213,224,313	1,599,591,874
Net Profit	226,182,348	335,080,152	318,389,030	428,360,011	296,849,872

Source: Ministry of Post and Telecommunication

Sector growth has predominantly occurred in mobile, Internet and transmission services, as [Exhibit 10](#) below shows. While investment in fixed services continues to grow, it represents a declining proportion of total sector investment. It is anticipated that the telecommunications sector will continue to experience similar growth into the future, with operators continuing to expand network capacity and coverage.

Exhibit 10: Aggregate component operator investment (USD)

	2006	2007	2008	2009
Fixed	97,896	60,174	800,000	1,174,464
Public phone	0	0	0	0
Post-paid (GSM)	15,167,991	16,597,846	35,565,181	24,170,937
Pre-paid (GSM)	0	0	14,613,864	19,420,995
WiMAX (broadband)	0	0	486,795	0
Internet	255,908	150,000	1,210,555	3,204,000
Fixed wireless (CDMA)	17,760	0	758,928	50,000
Transmission	4,004,209	2,123,706	11,872,428	11,902,171
Miscellaneous	3,177,000	32,742,000	17,130,000	63,196,011
Total investment	22,720,764	51,673,726	82,437,751	123,118,578

Source: Ministry of Post and Telecommunication

The International Telecommunications Union ('ITU') has more broadly identified four main areas that are key to an effective regulatory framework in Lao PDR. These are outlined in [Exhibit 11](#) below.

Exhibit 11: Development and Implementation of Lao PDR's ICT policy

Implementation	Details
Priority action	<input type="checkbox"/> Implementation of Telecommunications Law, including IRR <input type="checkbox"/> Licensing framework <input type="checkbox"/> Implementation of Radio Frequency Law including IRR <input type="checkbox"/> Security Law
Key legislation	<input type="checkbox"/> Radio Frequency Regulation (currently before Assembly) <input type="checkbox"/> IT Regulation (Internet, Information Cyber Law, content, etc.) <input type="checkbox"/> Security <input type="checkbox"/> Standardisation
Human resource development	<input type="checkbox"/> Improvement of ICT curriculum covering current and next generation technology <input type="checkbox"/> Training delivered through Institute of Posts and Telecommunications ('IPT') <input type="checkbox"/> Improvement of training lab

4. LAO PDR'S WORLD TRADE ORGANISATION COMMITMENTS

The trade rules that apply under the WTO framework for telecommunications services include the framework articles of the GATS. In addition, the GATS also contains an *Annex on telecommunications*. This provides guarantees for reasonable access to and use of public telecommunications, in a given market, by suppliers of all services benefiting from commitments scheduled by the member concerned.

Another key element — the Reference Paper - is a set of regulatory principles that is legally binding for those WTO governments which have committed to it by appending the document, in whole or in part, to their schedules of commitments.

4.1 GATS compliance obligations⁵

The purpose of GATS is to facilitate liberalisation of trade in services. Two types of obligations exist under GATS: (i) general obligations that apply to all members and all service sectors covered under GATS regardless of whether or not specific commitments have been made; and (ii) sector-specific commitments regarding *market access* and *national treatment* for sectors and activities that members agree to open to international trade.

Under the general obligations, there are two main principles: (i) WTO member countries must afford each other most favoured nation (MFN) treatment (i.e. prohibition on discrimination that requires countries to afford “treatment no less favourable than that accorded to like services and service suppliers of any other country”); and (ii) countries must ensure transparency of local regulations (e.g., countries should publish measures of general application, and allow a period of public comment prior to their issuance).

Sector-specific commitments are made regarding *market access*, *national treatment* and *additional commitments*. Members make commitments on *market access* and *national treatment* with respect to four modes of supply:

1. Cross border supply (supply of a service from one country to another where no movement of the supplier to the recipient country is involved (e.g. a person in country A buying a product from country B through an ecommerce means such as eBay);
2. Consumption abroad (e.g. a national of country A traveling to country B and consuming services in country B as in the case of a tourist or a person shopping overseas);
3. Commercial presence (i.e. supplier of a service from country A traveling to or setting up a physical presence in country B in order to provide the service in country B as in the case of a foreign supermarket chain such as Big C setting up a branch in country B); and
4. Presence of natural persons (i.e. supplier of a service from, say country A to country B, having an individual or an employee in country B who is not a national of country B in order to supply the service such as a foreign shopkeeper operating in country B).

⁵ Some parts of this Section are reproduced from *ITC Regulation Toolkit*: available at: www.ictregulationtoolkit.org/en/Section.1651.html

These commitments are made in a schedule, referred to as the Schedule of Specific Commitments, and "...where such commitments are undertaken, each Schedule shall specify:

- (a) terms, limitations on market access;
- (b) conditions and qualifications on national treatment;
- (c) undertakings relating to additional commitments;
- (d) where appropriate the timeframe for implementation of such commitments; and
- (e) the date of entry into force of such commitments."⁶

Any measures inconsistent with *market access* and/or *national treatment* shall also be stated under *market access* column. These schedules form part of the WTO legal documents.

4.2 Special treatment available to Lao PDR as a Least Developed Country⁷

As a Least Developed Country ('LDC'), Lao PDR is eligible to receive special treatment under GATS in negotiating for specific commitments. GATS Article IV, paragraph 3 states:

- (3) *Special priority shall be given to the least-developed country Members in the implementation of paragraphs 1 and 2. Particular account shall be taken of the serious difficulty of the least-developed countries in accepting negotiated specific commitments in view of their special economic situation and their development, trade and financial needs.*

Likewise, paragraphs 1 and 2 referred to are the first two paragraphs of the same Article state:

- (1) *The increasing participation of developing country Members in world trade shall be facilitated through negotiated specific commitments...relating to: (a) the strengthening of their domestic services capacity and its efficiency and competitiveness, inter alia through access to technology on a commercial basis; (b) the improvement of their access to distribution channels and information networks; and (c) the liberalization of market access in sectors and modes of supply of export interest to them.*
- (2) *Developed country Members, and to the extent possible other Members, shall establish contact points within two years from the date of entry into force of the WTO Agreement to facilitate the access of developing country Members' service suppliers to information, related to their respective markets, concerning: (a) commercial and technical aspects of the supply of services; (b) registration, recognition and obtaining of professional qualifications; and (c) the availability of services technology.*

The WTO General Council Decision on Accession of LDCs provides the following guidelines⁸:

- (a) automatic recourse to "special and differential" rules in the WTO Agreements;
- (b) restraint by Members in seeking goods and services market access commitments;
- (c) account taken of the commitments of existing WTO LDC Members;
- (d) recourse to transitional arrangements foreseen in WTO Agreements from the date of accession accompanied by action plans for compliance supported by technical assistance and capacity building measures; and

⁶ WTO, *General Agreement on Trade in Services*, Article XX.

⁷ Note this section 4.2 and section 4.3 are based on Dahanayake: *Possible Impacts of the World Trade Organisation: Accession on Distribution Services in Lao PDR*, 2014

⁸ WTO, Guidelines for Accession of Least Developed Countries, Annex 4, 2003 (available at www.wto.org/english/thewto_e/acc_e/cbt_course_e/annex4_e.doc)

(e) optional participation in plurilateral agreements.

Furthermore, GATS Article XIX provides for the process of negotiation of specific commitments to proceed with “...*due respect for national policy objectives and the level of development of individual Members...*” and “...*appropriate flexibility for developing country Members for opening fewer sectors...*”.

Under these guidelines, therefore, WTO Members are obliged to take into account the serious difficulties of Lao PDR in undertaking negotiated commitments in view of its special economic situation and its development, trade and financial needs. Lao PDR, on its part, in making liberalisation commitments:

- Can be flexible;
- Need not offer full national treatment to foreign service providers, which means, if necessary, nationals can be treated differently (by inscribing it in the schedule of commitments); and
- Can offer to open up fewer sectors or part of a sector, and on a suitable timeframe (e.g. can offer to open up at a future date).

GATS rules (Articles XIV and XIV) also provide for the adoption of such domestic regulations as may be necessary for proper functioning of the trade sector, such as those relating to protection of human or plant health, and culture and security interests, etc. Thus, Lao PDR could use the flexibilities available under these guidelines for accession process as a tool for economic development by drawing out an action plan for progressive implementation of WTO rules.

4.3 Horizontal commitments

Along with its commitments relating to the telecommunications sector, Lao PDR is also bound by horizontal commitments that apply across all sectors. Lao PDR must ensure there are no limitations on market access or national treatment across the four modes of supply and across all sectors, except for the exceptions agreed with the WTO. These important exceptions are:

- Service provider must be incorporated in Lao PDR to establish commercial presence;
- Unbound by obligations on presence of natural persons, except for measures affecting the temporary entry and stay of some natural persons (business visitors and intra-corporate transferees), which shall not exceed 20% of a business’s total staff;
- Unbound by obligations on presence of natural persons for all measures relating to social insurance schemes (including unemployment and pension benefits);
- Non-Lao PDR natural and juridical persons may not own land but may own premises and lease land for up to 75 years;
- Unbound by limitations on national treatment with respect to subsidies, investment incentives and other state support measures;
- Foreign investors must provide adequate training opportunities to Lao PDR nationals; and
- Tax measures may result in a difference in treatment in favour of Lao PDR services and providers.

A full summary of Lao PDR’s horizontal commitments are provided in [Exhibit 12](#) below.

Exhibit 12: Lao PDR’s current WTO commitments for all sectors

Sector	Limitations on market access	Limitations on national treatment	Additional commitments
Modes of supply: (1) Cross border supply; (2) Consumption abroad; (3) Commercial presence; (4) Presence of natural persons			
Land ownership		(3), (4) Non-Lao PDR natural and juridical persons are not allowed to own land but may own premises and lease land up to 75 years.	
Subsidies and investment incentives		(1), (2), (3), (4) Unbound with respect to subsidies, investment incentives and other state support measures, eligibility for which may be limited to particular regions, categories of persons, or enterprises.	
Commercial presence	(3) To establish a commercial presence, a services provider must be incorporated in specific legal form in accordance with laws and regulations of Lao PDR.	(3) Foreign investors shall provide adequate training opportunities to Lao PDR nationals. (3) Tax measures, generally pertaining to small and medium enterprises, may result in a difference of treatment in favour of Lao PDR services and service suppliers.	
Movement of natural persons providing services	(4) Unbound, except for measures affecting the temporary entry and stay of natural persons who qualify under one of the following categories, and in all cases, the total number of foreign natural persons in the following categories shall not exceed 20% of the total staff: A. <u>Business visitors</u> : Natural persons who: <input type="checkbox"/> Enter Lao PDR to be engaged in activities related to representing a services supplier for the purpose of negotiating for the sale of the services of that supplier; <input type="checkbox"/> Stay in Lao PDR without receiving remuneration from sources within Lao PDR; and <input type="checkbox"/> Do not engage in making direct sales to the general public or supplying services. The temporary stay of business visitors is subject to a maximum duration of stay of 90 days. B. <u>Intra-Corporate Transferees</u> : Natural persons who have been employed by a	(4) Unbound, except for measures concerning the categories of natural persons referred to in the market access column. Unbound for all measures relating to social insurance schemes including <i>inter alia</i> unemployment and pension benefits.	

Sector	Limitations on market access	Limitations on national treatment	Additional commitments
	<p>juridical person of another Member outside Lao PDR for a period of not less than 1 year immediately preceding the request for transfer to Lao PDR, who seek temporary entry to provide services through commercial establishment of that juridical person in Lao PDR, who cannot be substituted by Lao PDR nationals, and who fall within one of the following categories:</p> <p>(a) <u>Executives</u>: Natural persons within an organization who primarily direct the management of the organization, exercise wide latitude in decision-making, and receive only general supervision or direction from higher-level executives, the board of directors, or shareholders of the business. Executives would not directly perform tasks related to the actual supply of a service or services of the organization; and</p> <p>(b) <u>Managers</u>: Natural persons who possess knowledge at an advanced level of expertise or proprietary knowledge of a juridical entity's products, services, research, equipment, techniques, or management, and who primarily direct the organization or a department of the organization; supervise and control the work of other supervisory, professional or managerial employees; have the authority to hire and fire or recommend hiring, firing or other personnel actions; and exercise discretionary authority over day-to-day operations. They do not include first-line supervisors, unless the employees supervised are professionals[1], nor do they include employees who primarily perform tasks necessary for the supply of the service.</p> <p>(c) <u>Specialists</u>: Natural persons within an organization who possess knowledge at an advanced level of continued expertise and who possess proprietary knowledge of the organization's services, research equipment, techniques, or management and where there are shortages of Lao PDR nationals with requisite skills.</p> <p>For the natural persons in the categories defined under intra-corporate transferees, temporary residency and work permit will be issued for 1 year which may be renewed every 6 months for up to 3 years as long as conditions</p>		

Sector	Limitations on market access	Limitations on national treatment	Additional commitments
	indicated for each category are satisfied.		

4.4 Sector-specific commitments

Lao PDR's sector-specific commitments provide no further exceptions to the market access and national treatment obligations for consumption abroad or the presence of natural persons. However, it provides further exceptions for cross-border supply and commercial presence:

- **Cross-border supply:** For wire-, terrestrial-, and satellite-based services, these services must be offered through commercial arrangements with an entity established in Lao PDR and licensed to provide international telecommunication services.
- **Commercial presence:** A commercial presence for basic services can only be established through acquisition of existing operators and foreign equity participation limited to 49% for 5 years after the date of accession. Thereafter, commercial presence for new investments will be allowed with foreign equity participation limited to 60%.

A full summary of Lao PDR's sector-specific commitments are provided in [Exhibit 13](#) below.

Exhibit 13: Lao PDR's current WTO commitments in the telecommunications sector

Sector	Limitations on market access	Limitations on national treatment	Additional commitments
Modes of supply: (1) Cross border supply; (2) Consumption abroad; (3) Commercial presence; (4) Presence of natural persons			
The following services (a-o) can be supplied only on a facilities basis, and for public use services: Basic telecommunication services: (a) Voice telephone services (b) Packet-switched data transmission (c) Circuit-switched data transmission (d) Telex services (e) Telegraph services (f) Facsimile services (g) Private leased circuit services (o) Other: □ Terrestrial-based mobile phone services	(1) Wire-based services, Terrestrial-based mobile services and Satellite-based services: Service must be offered through commercial arrangements with an entity established in Lao PDR and licensed to provide international telecommunication services. (2) None. (3) Only through acquisition of existing operators and foreign equity participation limited to 49% for 5 years after the date of accession. Thereafter, commercial presence for new investments will be allowed with foreign equity participation limited to 60%. (4) Unbound, except as indicated in the horizontal section.	(1) Wire-based services, Terrestrial-based mobile services and Satellite-based services: Service must be offered through commercial arrangements with an entity established in Lao PDR and licensed to provide international telecommunication services. (2) None. (3) None as phased-in in the market access column. (4) Unbound, except as indicated in the horizontal section.	Lao PDR undertakes the obligations in the Reference Paper attached hereto within 2 years of accession.

Sector	Limitations on market access	Limitations on national treatment	Additional commitments
Value-added telecommunication services: (h) Electronic-mail (i) Voicemail (j) Online information and data base retrieval (k) Electronic data interchange (EDI) (l) Enhanced/value-added facsimile services, including store and forward, store and retrieve (m) Code and protocol conversion (n) On-line information and/or data processing (including transaction processing)	(1) None. (2) None. (3) None. (4) Unbound, except as indicated in the horizontal section.	(1) None. (2) None. (3) None. (4) Unbound, except as indicated in the horizontal section.	N/A

4.5 Sector commitments in other ASEAN countries

A total of 108 WTO members have made commitments to facilitate trade in telecommunications services. This includes the establishment of new telecoms companies, foreign direct investment in existing companies and cross-border transmission of telecoms services. Out of this total, 99 members have committed to extend competition in basic telecommunications (e.g. fixed and mobile telephony, real-time data transmission, and the sale of leased-circuit capacity). In addition, 82 WTO members have committed to the regulatory principles spelled out in the Reference Paper, a blueprint for sector reform that largely reflects “best practice” in telecoms regulation.⁹

The table in [Exhibit 14](#) below summarised the key commitments and limitations on market access and national treatment agreed to by the WTO and other ASEAN countries. As new members, Cambodia and Vietnam have also committed to the Reference Paper, although other members have also attached the Reference Paper to their Schedule of Specific Commitments (including Brunei and Singapore), while others have adopted the Reference Paper principles conditionally or in part (including Malaysia and Thailand).

⁹ www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_e.htm

Exhibit 14: Summary of WTO commitments made by ASEAN countries with respect to telecommunications services

Country	Year of accession	Foreign ownership and market access	Other exceptions or commitments	Reference Paper included?
Brunei Darussalam	1994	<ul style="list-style-type: none"> <input type="checkbox"/> Exclusivity arrangements for JTB (government department) and DSTCom (expired 2010). 	<ul style="list-style-type: none"> <input type="checkbox"/> Unbound, except as indicated in horizontal section. 	Yes
Cambodia	2003	<ul style="list-style-type: none"> <input type="checkbox"/> For services a-g: requirement for local shareholding of at least 49%. 	<ul style="list-style-type: none"> <input type="checkbox"/> Unbound, except as indicated in horizontal section. <input type="checkbox"/> Commitment to technology neutrality for mobile services. 	Yes
Indonesia		<ul style="list-style-type: none"> <input type="checkbox"/> Exclusivity arrangements for PT Telkom (expired 2011). <input type="checkbox"/> Exceptions for public switched, circuit switched and mobile and packet switched services. <input type="checkbox"/> Joint venture, joint operation or contract management required. <input type="checkbox"/> Foreign equity participation limited to 35%. <input type="checkbox"/> Natural persons for management and technical expertise for joint venture limited to 20. 	<ul style="list-style-type: none"> <input type="checkbox"/> Higher paid-up capital required for foreign suppliers for electronic mail, electronic mail box, voice mail and computer time sharing, videotex, file transfer, home telemetering, entertainment and management information services (expires 2020). 	No
Malaysia		<ul style="list-style-type: none"> <input type="checkbox"/> For basic telecommunications services: services must be provided through acquisition of shares in existing licensed operators. <input type="checkbox"/> For data and transmission and mobile data services: Only through acquisition of shares in existing VAS operator or through locally incorporated joint venture with local operator. <input type="checkbox"/> Foreign shareholding must not exceed 30%. 	<ul style="list-style-type: none"> <input type="checkbox"/> Unbound, except as indicated in horizontal section. 	For inter-connection and competition
Myanmar	1995	N/A	N/A	N/A
Philippines		<ul style="list-style-type: none"> <input type="checkbox"/> For services a-g (including mobile telephone services): market access subject to franchise from Congress of the Philippines and certification from National Telecommunications Commission. <input type="checkbox"/> Foreign equity permitted up to 40%. <input type="checkbox"/> Resale of private leased lines or call back, dial back or similar schemes not permitted. 	<ul style="list-style-type: none"> <input type="checkbox"/> For services a-g: Number of non-Filipino citizens on board of directors must be proportionate to aggregate share of foreign capital. <input type="checkbox"/> All executives and managers must be citizens of the Philippines. 	No

Country	Year of accession	Foreign ownership and market access	Other exceptions or commitments	Reference Paper included?
Singapore		<ul style="list-style-type: none"> <input type="checkbox"/> For basic (facilities based) and mobile services: market access subject to arrangements with licensed operators. <input type="checkbox"/> Cumulative total of 73.99% foreign shareholding, based on 49% direct investment and 24.99% indirect investment. <input type="checkbox"/> For VAN services: foreign companies required to set up local branch registered under local law or grant power of attorney to local agent. 	N/A	Yes
Thailand		<ul style="list-style-type: none"> <input type="checkbox"/> For voice, telex, telegraph and facsimile services: traffic must be routed through gateway in Thailand operated by licensed supplier. <input type="checkbox"/> For domestic leased circuits, data base access, one-line information and data processing, videotex and teleconference services: service providers must use public telecommunication network. <input type="checkbox"/> Must be Thai registered company with foreign equity not exceeding 40% and number of foreign shareholders not exceeding 40%. <input type="checkbox"/> Such company permitted under build-transfer-operate arrangement. <input type="checkbox"/> Selection of service providers based on open tender. 	<ul style="list-style-type: none"> <input type="checkbox"/> No limitations for other services as long as foreign equity participation does not exceed 49%. 	Yes (subject to passage of necessary legislation from 2006)
Vietnam	2007	<ul style="list-style-type: none"> <input type="checkbox"/> For services a-g: wire-based, mobile terrestrial and satellite-based services must be provided through commercial arrangements with domestic licensee. <input type="checkbox"/> Joint ventures with domestic licensees permitted. Foreign capital must not exceed 65% for non-facilities-based services, or 49% of facilities-based services. <input type="checkbox"/> No access for multinational users of satellite-earth stations. 	<ul style="list-style-type: none"> <input type="checkbox"/> Foreign suppliers permitted to own submarine cable transmission capacity for consortium links of which Vietnam is a member and to provide capacity to international facilities-based service providers, and VPN and IXP service suppliers licensed in Vietnam. 	Yes

4.6 Reference Paper commitments

As part of its joining of the WTO, Lao PDR has made an additional commitment to the Reference Paper on telecommunications services. The Reference Paper provides additional principles for the regulation of the telecommunications sector along with the horizontal and sector-specific commitments under the GATS framework.

Like other new WTO members, Lao PDR is bound by the reference paper, but has been given a transition period to February 2015. The reference paper covers the six core regulatory areas:

1. Competitive safeguards;
2. Interconnection;
3. Universal service;
4. Public availability of licensing criteria;
5. Independent regulators; and
6. Allocation and use of scarce resources.

The Reference Paper provides a set of principles covering the six regulatory areas listed in the previous slide. This includes principles that may not be essential for the technical fulfilment of the general market access and national treatment obligations. However, these principles will help to facilitate compliance with Lao PDR's horizontal and Schedule C commitments. They will also help to ensure confidence in the government's commitment and encourage sector development and investment.

The Reference Paper was produced by the Negotiating Group on Basic Telecommunications of the WTO in 1996 to serve as the baseline for regulatory standards in the telecommunications sector. These commitments were not mandatory for founding WTO members. However, new members including Lao PDR are effectively required to commit to them.

4.7 ITU requested and implemented actions

Along with its WTO commitments, Lao PDR worked with the ITU to implement continuing reform and key action items, including the Implementing Rules and Regulations for the Law on Telecommunications 2011. The ITU has had previous experience in assisting Lao PDR and the MPT in the development of ICT policy and sector legislation, outlined in [Exhibit 13](#) below.

Exhibit 13: Co-operation between Lao PDR and the ITU

The ITU has assisted Lao PDR on a number of projects, including most recently the implementation of Implementing Rules and Regulations for the Law on Telecommunications 2011. It has also been involved in the development of the country's draft Radiocommunications Law, which involved the drafting of provisions relating to spectrum management, and specifically the obligations and responsibilities of the Minister and MPT, planning and allocation of radio frequency spectrum, spectrum and apparatus licensing, interference, standards and certification, and safety.

The ITU has also provided assistance to Lao PDR on ICT development, including the July 2012 ITU Workshop on Bridging the Standardisation Gap. The goals of this workshop were to provide concrete advice and best practices to developing countries on global standards development and building national standards readiness. The standardization gap refers to disparities in the ability of developing countries, relative to developed ones, to access, implement, contribute to and influence international ICT standards, specifically ITU Recommendations.

There are a number of recent ITU actions that have been implemented and planned for Lao PDR. These are summarised below in [Exhibit 15](#).

Exhibit 15: Summary of ITU activity with respect to Lao PDR

Requested Actions for 2014	ITU Actions in 2013	Other Recent Implemented Actions
<ul style="list-style-type: none"> □ Capacity Building of CERTs in Asia-Pacific Region (planned); □ Structure Review and institutional strengthening of Ministry of Posts and Telecommunication (planned); □ Capacity building on ICT Indicators and Statistics (planned); and □ Assistance on IPV6 (confirmed). 	<ul style="list-style-type: none"> □ Update of the National Frequency Allocation Table (NFAT) (implemented); □ Cybersecurity Forum and Cyberdrill (9-11 December 2013); and □ Drafting of Implementing Rules and Regulations for the Telecommunications Law (implemented). 	<ul style="list-style-type: none"> □ Assistance in developing a roadmap on transition from analogue to digital terrestrial television broadcasting; □ National Broadband Policy: Lao PDR; □ Drafting of the Radiocommunications Law (now a Ministerial Issuance); □ Dispatch of Korean IT Volunteers; □ CIRT Country Preparedness Assessment (the Report was used as basis in establishing the new LaoCERT); □ Assessment of Spectrum Management Regime; and □ Drafting on Lao PDR's National ICT Law (2009).

These ITU actions are not contradictory to and do not overlap with the scope of work of this project or the actions that will be required to ensure full compliance with Laos' WTO commitments. Each of the ITU actions will be complementary or related to this project, for example the institutional strengthening of the MPT, which may provide extra capacity for the implementation of the project's recommended measures.

4.8 Gap analysis

The following sections will address Lao PDR's obligations with respect to its horizontal, Schedule C and Reference Paper commitments in six core regulatory areas. These areas correspond to the six principles contained in the Reference Paper.

5. COMPETITION

5.1 Legislative and regulatory provisions relating to competition

Article 4 of the *Law on Telecommunication* states that part of Lao PDR's policy on telecommunications is the promotion of competition in the sector. The second paragraph of Article 4 states:

"The State promotes fair competition among telecommunication service providers in the provision and operations of telecommunication networks and services and in compliance with the Commercial Competition Regulations of Lao PDR PDR."

Anti-competitive behaviour is prohibited under the Law, specifically under Article 36, which prohibits collusion and abuse of market position, and prevents providers from adjusting rates and tariffs without prior ministerial approval. Article 36 states:

"Telecommunications network and service providers are prohibited from: ...

- 4. Colluding with other telecommunication network and service providers in ways that obstruct fair competition; ...*
- 6. Unduly using advantages of its own telecommunication network, market share or infrastructure to block, limit, obstruct or create difficulties to the operation of other telecommunication network and service providers; ...*
- 9. Increasing or decreasing service rates and tariffs without approval from the Ministry of Post and Telecommunication, and distributing telephone numbers free of charge; ..."*

Article 36 (9) relating to tariff approval is not directly related to competition, although the Ministry may take into account the state of competition in the market when approving changes in tariffs.

The *Decree on Trade Competition* was enacted in 2004 and establishes the Trade Competition Commission as Lao PDR's competition and consumer protection authority. The Decree prohibits certain forms of anti-competitive arrangements, including collusion and cartel behaviour, as well as monopolies over goods and services and mergers and acquisitions resulting in a substantial reduction in competition.

The Government of Lao PDR has proposed new competition laws that will apply to all commercial activity in Lao PDR which are still being finalised. This will provide generic competition rules for all industries, including telecommunications and related services. The Government is also considering introducing sector-specific competition regulations for the telecommunications sector. This poses an institutional question related to Lao PDR's commitment to establish an independent regulatory body. If Lao PDR moves to an independent sector regulator, it may decide to grant it authority to enforce competition provisions within the telecommunications sector, or grant this authority to a broader competition body (e.g. the Trade Competition Commission).

In either case the Government should ensure that any sector specific provisions relating to competition issues do not conflict with the general law, and that key aspects of the general law as they may apply to licensed telecommunications operators is reflected in any competition regulations issued in accordance with the *Telecommunications Law*.

In January 2015 the Ministry of Post and Telecommunication implemented the *Decision on Telecommunication Competition*, which includes provisions that prohibit various forms of unfair competition and anti-competitive conduct in the telecommunications sector. The Decision defines three forms of anti-competitive conduct, namely:

- Collusion;
- Market domination; and
- Monopoly.

Collusion covers any act involving interaction between service providers with an aim to fix the price of telecommunications services, limit sale and distribution, reduce production or the quantity of goods and services sold, reduce investment in technology, skills or networks, or other engage in any concerted action that involves unfair trade practices.

Market domination refers to any action by a firm that involves the use of a dominant market position to reduce prices, limit production or the quantity of goods and services sold, or engage in action that limits a competitor's market access or forces a competitor to leave the market. Monopoly refers to the existence of a single telecommunications provider in a particular market.

The Decision also defines five forms of unfair competition, namely:

- Misleading information;
- Breach of confidential information of a telecommunications business;
- Limitation or obstruction of a telecommunications service provider;
- Exaggeration in advertising; and
- Unfair promotions.

5.2 Compliance with market access and national treatment with respect to competition

Exhibit 16: Compliance with Horizontal Commitments and Schedule C

Mode of supply	Horizontal Commitments and Schedule C
Cross-border supply	No restriction on cross-border supply
Consumption abroad	No restriction on consumption abroad
Commercial presence	No restriction on commercial presence
Presence of natural persons	No restriction on presence of natural persons

5.3 Compliance with Reference Paper with respect to competition

The Reference Paper states that member governments must ensure appropriate measures are in place to prevent anti-competitive practices. Although “anti-competitive practice” is loosely defined, the principle states this includes anti-competitive cross-subsidisation, anti-competitive use of information from competitors, and not making information available essential information to other suppliers. The Reference Paper with respect to competitive safeguards states:

“Appropriate measures shall be maintained for the purpose of preventing suppliers who, alone or together, are a major supplier from engaging in or continuing anti-competitive practices.

The anti-competitive practices referred to above shall include in particular:

- (a) *engaging in anti-competitive cross-subsidization;*
- (b) *using information obtained from competitors with anti-competitive results; and*
- (c) *not making available to other services suppliers on a timely basis technical information about essential facilities and commercially relevant information which are necessary for them to provide services.”*

Exhibit 17: Compliance with Reference Paper

Principle	Decree on Trade Competition
Anti-competitive cross-subsidization	<ul style="list-style-type: none"> <input type="checkbox"/> No specific provisions dealing with cross-subsidization. <input type="checkbox"/> However, Article 10 states, “It is prohibited for a business entity to act or behave so as to cause losses directly or indirectly, by such conduct as dumping, limiting or intervening with intent to eliminate other business entities.” <input type="checkbox"/> Anti-competitive cross-subsidization may be considered by the Commission or Government to be an intervention that aims to eliminate other business entities.
Anti-competitive use of information obtained from competitors	<ul style="list-style-type: none"> <input type="checkbox"/> No specific provisions dealing with anti-competitive use of information obtained from competitors. <input type="checkbox"/> Article 11 (Collusion and Arrangements) prohibits collusive arrangements, which would include any arrangements involving the use of information voluntarily supplied by a competitor that results in an anti-competitive outcome. <input type="checkbox"/> However, there are no provisions dealing with information obtained involuntarily from a competitor that is used in an anti-competitive manner.
Making available of technical information about essential facilities and commercially relevant information necessary to provide services	<ul style="list-style-type: none"> <input type="checkbox"/> No specific provisions dealing with the making available of essential information. <input type="checkbox"/> Availability of information for the purpose of network interconnection is covered in the <i>Law on Telecommunications</i> and in the draft <i>Regulation on Telecommunications Access and Interconnection</i>. Article 19 of the Law states: “Interconnecting parties shall provide all necessary information on network interconnection and shall disclose their interconnection agreements with the Ministry of Posts and Telecommunications.”
Appropriate measures	<ul style="list-style-type: none"> <input type="checkbox"/> Article 14 of the Decree on Trade Competition deals with measures against business entities that commit offences under the Decree. This includes notice to change and rectify behaviour, temporary suspension of activity, and compensation to any business entities that have incurred losses as a result of the offence.

5.4 Necessary measures to ensure compliance for competition

Needed for full compliance:

- Government should consider any other information or data collection requirements other than those needed for network access and interconnection (for example, the collection of market share, pricing and information needed for competition regulation).

Needed for best practice:

- Government should enact general competition law and/or sector-specific competition regulations

6. INTERCONNECTION

6.1 Legislative and regulatory provisions relating to interconnection

Part IV of the *Law on Telecommunications* deals with network interconnection and the sharing of telecommunications infrastructure. Section 19 of the Law states that network providers have the right to interconnect their networks with the networks of other providers.

Section 19 of the Law states:

“Telecommunication network and service providers have the right to interconnect their networks with the telecommunication networks of others. They are also obliged to allow interconnection with their own networks on the same terms and conditions.”

While the Law states that network providers have the right to interconnect their networks, it provides no explicit requirement for them to do so. This requirement is provided in the draft *Regulation on Telecommunications Access and Interconnection 2013*, which states that every licensee has an obligation to provide interconnection on non-discriminatory terms. Regulation 4 (1) states:

Every licensee:

- (a) has a duty to provide access to and interconnection with other licensees' telecommunications networks and telecommunications services, on such terms and conditions as may be mutually agreed by the licensees;*
- (b) shall not, with respect to its telecommunications networks and telecommunications services, refuse, obstruct or in any way impede, other than for reasonable technical grounds stated in writing, another licensee from seeking access to and interconnecting with the licensee's telecommunications networks and telecommunications services; and*
- (c) shall provide for the transmission and routing of the telecommunications services of other licensees, at any technically feasible point, as may be specified by the Ministry.*

The draft Regulation covers cost-based charging for interconnection, the process for negotiating and establishing interconnection agreements, the content of agreements, lodgement and public availability of agreements, and technical considerations.

6.2 Compliance with market access and national treatment with respect to interconnection

Both the *Law on Telecommunications* and the draft *Regulation on Telecommunications Access and Interconnection* apply with respect to all licenced network providers, regardless of whether the operator is partly or majority owned by foreign interests. However, regulations with respect to international services and international gateways have not yet been developed.

The requirement for licensed operators to provide transmission and routing for other operators only applies if the access or interconnection seeker is a licensed provider under Lao PDR law. This means there is no requirement for licensed operators to provide foreign operators with access to or interconnection with their networks, which could potentially restrict cross-border connectivity.

For wire-based, terrestrial-based mobile and satellite-based services, Schedule C provides limitations for market access and national treatment, requiring services to be offered through commercial arrangements with an entity established in Lao PDR and licensed to provide international telecommunication services. However, for other services, including fixed-line services, Lao PDR must ensure that domestic operators provide access and interconnection to foreign operators.

Exhibit 18: Compliance with Horizontal Commitments and Schedule C

Mode of supply	Horizontal Commitments and Schedule C
Cross-border supply	No restriction on cross-border supply.
Consumption abroad	Possible restriction on the consumption of terminating services on foreign networks.
Commercial presence	No restriction on commercial presence.
Presence of natural persons	No restriction on presence of natural persons.

6.3 Compliance with Reference Paper with respect to interconnection

Exhibit 19: Compliance with principles set out in Reference Paper

Principle	Reference Paper	Regulations
Interconnection to be ensured	<i>“Interconnection with a major supplier will be ensured at any technically feasible point in the network.”</i>	<ul style="list-style-type: none"> <input type="checkbox"/> Interconnection ensured under Regulation 4 of the draft <i>Regulation on Telecommunications Access and Interconnection 2013</i>. <input type="checkbox"/> Applies to all licensees, which includes major suppliers as defined in the Reference Paper. <input type="checkbox"/> Interconnection to be provided “at any technically feasible point”.
Non-discriminatory terms	Interconnection must be provided <i>“under non-discriminatory terms, conditions (including technical standards and specifications) and rates and of a quality no less favourable than that provided for its own like services”</i> .	<ul style="list-style-type: none"> <input type="checkbox"/> Regulation 5 provides that interconnection must be provided “on an equitable and non-discriminatory basis” and “of at least the same or more favourable technical standard and quality” as that provided on the provider’s own network. <input type="checkbox"/> Regulation 5 does not explicitly state that the term “non-discriminatory” refers to interconnection rates and conditions. <input type="checkbox"/> Regulation 6 (6) states calculation of interconnection charges shall be “based on the principles of transparency, fairness and non-discrimination”.
Cost-oriented rates	Interconnection must be provided <i>“in a timely fashion, on terms, conditions (including technical standards and specifications) and cost-oriented rates that are transparent, reasonable, having regard to economic feasibility, and sufficiently unbundled so that the supplier need not pay for network components or facilities that it does not require for the service to be provided.”</i>	<ul style="list-style-type: none"> <input type="checkbox"/> Regulation 6 provides for the calculation of interconnection charges based on the cost of providing interconnection. <input type="checkbox"/> Regulation 7 (2) states that an access agreement must be concluded and executed “within 3 months from the date of the access request”. <input type="checkbox"/> Charges “shall not exceed the stand-alone cost of providing the service and shall not be lower than the long-run average incremental cost of providing the service”. <input type="checkbox"/> Charges must not have the effect of reducing competition. <input type="checkbox"/> No methodology is provided by the draft regulations or Ministry, although licensees must use “an established cost methodology” where feasible. <input type="checkbox"/> Regulation does not explicitly state that

Principle	Reference Paper	Regulations
		interconnection services must be “sufficiently unbundled” although this may be covered under the principle of non-discrimination.
Additional interconnection points	Interconnection must be provided “ <i>upon request, at points in addition to the network termination points offered to the majority of users, subject to charges that reflect the cost of construction of necessary additional facilities.</i> ”	<input type="checkbox"/> Charges must not have the effect of reducing competition.
Public availability of procedures	“ <i>The procedures applicable for interconnection to a major supplier will be made publicly available.</i> ”	<input type="checkbox"/> The procedures for negotiating and establishing an access agreement are provided in Regulation 7 (2) of the draft <i>Regulation on Telecommunications Access and Interconnection 2013</i> .
Transparency	“ <i>It is ensured that a major supplier will make publicly available either its interconnection agreements or a reference interconnection offer.</i> ”	<input type="checkbox"/> Regulation 11 (3) states that access agreements “shall be kept on a register of access agreements which shall be maintained by the Ministry.” <input type="checkbox"/> Regulation 11 (4) states, “The public part of the register of access agreements shall be available for public scrutiny on payment of a reasonable fee as determined by the Ministry.” <input type="checkbox"/> The Regulations do not specify which parts of the register are public or how the fee is determined. <input type="checkbox"/> The Regulations do not require licensees to publish or lodge reference interconnection offers.
Independent dispute settlement	“ <i>A service supplier requesting interconnection with a major supplier will have recourse ... to an independent domestic body ... to resolve disputes regarding appropriate terms, conditions and rates for interconnection.</i> ”	<input type="checkbox"/> The draft <i>Regulation on Resolution of Disputes by Administrative Procedure</i> sets out procedures for resolution of disputes between parties. <input type="checkbox"/> Disputes are resolved by the Ministry, which may act independently in deciding individual disputes but is not an independent body.

6.4 Necessary measures to ensure compliance for interconnection

Needed for full compliance:

- Regulations must be made publicly available
- Independent dispute resolution (independent regulator)
- Licensing
- Regulations for international gateways and international services

Needed for best practice:

Regulation and/or the imposition of:

- Unbundling
- Reference interconnection Offers
- Cost based pricing methodology
- Full public access to interconnection agreements

7. UNIVERSAL SERVICE

7.1 Legislative and regulatory provisions relating to universal service

Part VII of the *Law on Telecommunications* deals with the Telecommunication Development Fund, which is used for providing universal service funding in Lao PDR's telecommunications sector. Article 30 establishes the fund and states that it is to be used to "expand, advance, modernise and develop telecommunication networks to cover all rural and remote areas throughout Lao PDR in a sustainable manner."

Article 31 of the Law states that the sources of capital for the fund shall be from government consolidated revenue, grants from other governments or international organisations, contributions from network operators, and income generated from telecommunication activities and charges for the use of telecommunication resources (including spectrum resources).

Provisions for the organisation and operation of the fund are set out in the draft *Regulation on Universal Service and the Telecommunication Development Fund 2013*. The fund is administered by both the Ministry of the Department of Finance and the Ministry of Posts and Telecommunications. While funds may be raised from other sources, Regulation 4 states that telecommunications operators must contribute a proportion of their annual gross revenue. Funds are disbursed based on a competitive tender process for Specified Development Projects, with eligible projects determined by the Ministry of Finance on the recommendation of the Ministry of Posts and Telecommunications.

7.2 Compliance with market access and national treatment with respect to universal service

Exhibit 20: Compliance with Horizontal Commitments and Schedule C

Mode of supply	Horizontal Commitments and Schedule C
Cross-border supply	No restrictions on cross-border supply
Consumption abroad	No restrictions on consumption abroad
Commercial presence	No restrictions on commercial presence
Presence of natural persons	No restrictions on presence of natural persons

7.3 Compliance with Reference Paper with respect to universal service

The Reference Paper states that member governments may define their own kind of universal service obligation so long as the administration of universal funds is transparent and non-discriminatory, and disbursed on a competitively-neutral basis. The Reference Paper with respect to universal service states:

"Any Member has the right to define the kind of universal service obligation it wishes to maintain. Such obligations will not be regarded as anti-competitive per se, provided they are administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary for the kind of universal service defined by the Member."

Under the draft Regulation, Lao PDR's Telecommunications Development Fund is administered directly by the Ministry rather than an independent body, which may give rise to issues of transparency and potential discrimination. However, independence is not a specific principle contained in the Reference Paper, and Ministerial management of the Fund is compliant so long as the rules governing the management of funds, including the selection of eligible projects, are objectively transparent and non-discriminatory.

Exhibit 21 below summarises the effectiveness of Lao PDR's draft universal service regulations with respect to compliance with the Reference Paper.

Exhibit 21: Compliance with principles set out in Reference Paper

Principle	Regulations
Transparency	<ul style="list-style-type: none"> <input type="checkbox"/> Regulation 3 states Ministry of Finance must prepare an annual report on the operation of the fund for submission to government, however it does not state that it be made publicly available. <input type="checkbox"/> Regulation 4 of the <i>Regulation on Universal Service and the Telecommunication Development Fund</i> defines the proportion of revenue to be contributed by operators but does not define how funds are raised from other sources. <input type="checkbox"/> Regulation 6 does not bind the Ministry to any specific criteria for the selection of Specified Development Projects. <input type="checkbox"/> Regulations may require administrative provisions for the payment of the universal service levy and the disbursement of funding over the life of the universal service project.
Non-discrimination	<ul style="list-style-type: none"> <input type="checkbox"/> Regulation 7 (4) states that eligibility is not restricted by any terms other than those contained in a Telecommunications Licence. Ministry evaluates bids to determine which represents the lowest total cost to the Telecommunications Development Fund required to meet the goals of the project.
Competitive neutrality	<ul style="list-style-type: none"> <input type="checkbox"/> Disbursement of funding is based on a competitive bidding process as per Regulation 7 and Regulation 8.
Non-burdensome rules	<ul style="list-style-type: none"> <input type="checkbox"/> Regulation 7 states that a licensee may submit a bid for a Specified Development Project within 60 days of the project's notification.

7.4 Necessary measures to ensure compliance for universal service

Needed for full compliance:

- Criteria for selection of Specified Development Project selection
- Requirement for Ministry to issue report justifying Specified Development Project selection
- Annual report and regular updates on fund operation to be made public

Needed for best practice:

- Administrative provisions for payment of universal service levy and disbursement of funds

8. LICENSING

8.1 Legislative and regulatory provisions relating to licensing

Part V of the *Law on Telecommunications* provides for four different telecommunications licences and their periods of validity. Any provider of a telecommunications service, including public providers of a telecommunications network or service, as well as providers of a private telecommunications network, must hold a relevant telecommunications licence in accordance with the Law.

Article 22 provides for the four different types of telecommunications licences:

“There shall be four types of telecommunication licenses in Lao PDR:

1. *Type I: Telecommunication networks and service provider;*
2. *Type II: Telecommunication service provider without having their own networks, internet service provider, internet domain name registrar, internet access provider and value – added services;*
3. *Type III: Consulting service, installation, repair services; export, import, manufacturing and distribution of telecommunication equipment; and*
4. *Type IV: Private telecommunication networks.”*

Article 23 provides for the validity of each licence type:

“The validity of each type of license shall be as follows:

1. *Type I is valid for 15 years;*
2. *Type II is valid for 10 years;*
3. *Type III is valid for 5 years; and*
4. *Type IV is valid for 3 years.*

Licensee(s) of each type shall pay the Ministry of Posts and Telecommunications an annual license fee, the amount of which will be in separate regulation on license fees to be promulgated by the Ministry of Posts and Telecommunications. Licensees may apply for the extension of the validity of their license, to the Ministry of Post and Telecommunications, six months before the expiry date of the license.” Chapter 2 of the Law requires any telecommunications business operation to be registered and authorised by the Ministry of Posts and Telecommunications or the Provincial Posts and Telecommunications. Article 24 states:

“Any domestic or foreign individual, legal entity or organization wishing to establish an enterprise for telecommunication business operations in the country shall apply for registration with the concerned organization as defined in the Law on Investment Promotion, the Law on Enterprise, this Law and other relevant laws of Lao PDR.

Telecommunication business operations that require authorization from the Ministry of Posts and Telecommunications are:

- Telecommunication network and service provider;*
- Telecommunication service provider without having their own networks (License type II); and*
- Private telecommunication networks (License type IV).*

Telecommunication business operations that require authorization from the Provincial Post and Telecommunication are:

- *Service Provider, Internet Domain Name Registrar, Internet Access Provider and Value-added Services (License type II); and*
- *Consulting services, installation and repair services; export, import, manufacturing and supply of telecommunication equipment (License type III).*

The Ministry of Posts and Telecommunications shall disseminate the terms, conditions and procedures for the application for a telecommunication license by a telecommunication enterprise. In the case of the rejection of an application, the detailed reason(s) for rejection should be provided to the applicant.”

It is unclear from the Law whether the granting of a licence constitutes authorisation by the Ministry or whether authorisation must be obtained through other means. It may be possible to assume that authorisation is provided by the Ministry through the granting of a licence, although this may need to be clarified in the legislation. It should be noted that currently no public provider of telecommunications services holds a valid licence from the Ministry.

This has created confusion as to whether these businesses are authorised or whether they need to obtain a relevant licence in order to legally provide a telecommunications service. As a matter of priority the Government should introduce regulations pertaining to the licensing of telecommunications businesses that provide greater detail and clarification for operators, and ensure that all operators requiring a licence under the Law obtain the relevant licence.

8.2 Compliance with market access and national treatment with respect to licensing

Schedule C outlines the basic and value-added services that can be provided in Lao PDR on a facilities basis and for public use services. It also provides two limitations on Lao PDR's general obligations in terms of market access and national treatment relating to cross-border supply and commercial presence. These are:

- **Cross-border supply:** For wire-, terrestrial-, and satellite-based services, these services must be offered through commercial arrangements with an entity established in Lao PDR and licensed to provide international telecommunication services.
- **Commercial presence:** A commercial presence for basic services can only be established through acquisition of existing operators and foreign equity participation limited to 49% for five years after the date of accession. Thereafter, commercial presence for new investments will be allowed with foreign equity participation limited to 60%.

Exhibit 22: Compliance with Horizontal Commitments and Schedule C

Mode of supply	Horizontal Commitments and Schedule C
Cross-border supply	No restrictions on cross-border supply.
Consumption abroad	No restrictions on consumption abroad.
Commercial presence	No restrictions on commercial presence.
Presence of natural persons	No restrictions on presence of natural persons.

Although there is nothing the Law that is trade restrictive according to Lao PDR's horizontal or Schedule C commitments, the Government of Lao PDR should take immediate steps to ensure that licensing regulations are in place to ensure that foreign-owned operators have a clear understanding of their rights and obligations. In particular, licensing regulations must address pro forma licensing conditions for foreign operators, including:

- The restriction on foreign equity of 60% of a telecommunications business;
- The limitation on cross-border supply for wire-based, terrestrial-based, mobile and satellite services;
- The obligation of foreign-owned operators to provide adequate training opportunities to Lao PDR nationals, which is provided as a limitation under Lao PDR’s horizontal commitments;
- Eligibility for universal service funding and other support measures.

Currently, the Ministry makes decisions regarding the authorisation of businesses to provide telecommunications services. While the provisions of the Law are not prejudicial against foreign-owned operators, the Ministry has the power to reject applications for authorisation by foreign-owned entities. Although the Law requires the Ministry to provide detailed reasons for rejecting an application, there are no criteria against which to objectively measure the eligibility of any application. This is related to the Reference Paper’s requirement for licensing criteria to be made public (discussed below).

8.3 Compliance with Reference Paper with respect to licensing

The Reference Paper states that licensing criteria, including terms and conditions of individual licences, must be made publicly available. The Reference Paper states:

“Where a licence is required, the following will be made publicly available:

- (a) *all the licensing criteria and the period of time normally required to reach a decision concerning an application for a licence; and*
- (b) *the terms and conditions of individual licences. The reasons for the denial of a licence will be made known to the applicant upon request.”*

Exhibit 23: Compliance with Reference Paper

Mode of supply	Horizontal Commitments and Schedule C
Public availability of licensing criteria	<ul style="list-style-type: none"> □ The Law states, “The Ministry of Posts and Telecommunications shall disseminate the terms, conditions and procedures for the application for a telecommunication license by a telecommunication enterprise.” □ However, no such terms, conditions or procedures have been made publicly available by the Ministry. □ Secondary regulations are required to provide clear criteria for eligibility for application and the basis on which licences are granted or refused.
Terms and conditions of individual licences	<ul style="list-style-type: none"> □ The Law provides for the different types of licences and their periods of validity. □ Secondary regulations are required to provide clear terms and conditions for licensees.

8.4 Necessary measures to ensure compliance for licensing

Needed for full compliance

- Develop licensing regulations, including licensing criteria, terms and conditions for operators

Needed for best practice:

- Develop pro forma licences, including for foreign-owned operators

The Government must implement a comprehensive licensing regulation, which specifies at least:

- The eligibility criteria for applying for and receiving a licence;
- The process for the application for and renewal of licences;
- Licence application and renewal fees;
- A set of general licence conditions;
- The rights and responsibilities of licensees, including disclosure requirements; and
- Penalties for breach of licence terms.

There will also need to be negotiation of such new licences with the current licensees and a transition to the new regime.

The licensing and/or authorisation of telecommunications facilities and services is one of the most fundamental aspects of telecommunications service regulation. Policies and regulations related to the licensing of telecommunications services determine the structure of the market, the level of competition, and various conditions of operation, including access, interconnection and universal service obligations.

The issue of licences must be administered by the TRA, and the Government must prioritise the licensing of current operators. The Government and the TRA could then consider the possibility of facilitating a new market entrant through the licensing system.







The Government will need to assess the current status of licensing to ensure the integrity of the licensing system and compliance with licence terms (see [Exhibit 24](#)). It is currently unclear which operators have been granted licences under the previous 2001 Law or whether the terms of these licences are being enforced. The Government may need to negotiate with operators and providers in order to bring all activities and businesses requiring a licence under the ambit of the 2011 Law.

Exhibit 24: Current licence types specified under the *Law on Telecommunications*

	Services licensed by MPT	Services licensed by Provincial Post and Telecommunication	Licence duration
Type I	Telecommunications network and service providers	No	15 years
Type II (A & B)	(A) Telecommunications service without their own networks	(B) Service providers, Internet domain name registrars, Internet access providers and value-added services	10 years
Type III	No	Consulting services, installation, repair services, export, import, manufacturing and distribution of telecommunication equipment	5 years
Type IV	Own or operate private telecommunications network	No	3 years

In the case of joint ventures involving private and public parties (i.e. Vimpelcom and Star Telecom), Government will need to assess the structure of the joint venture, including key documents (heads of agreement, memoranda and articles of association, etc.) necessary for the establishment and operation of the joint venture (see [Exhibit 25](#) below).

Exhibit 25: Required licence types for current operators in Lao PDR (although technology neutral licences are recommended)

	Services	Ownership	Licence required
	PSTN 2.5G (GSM 900/1800, GPRS) 3G (WCDMA 2.1 GHz) ISP (dial up, ADSL, HIL, VPN)	100% Lao Government	Type I
	International Internet Gateway	Affiliate of MPT (if corporatised)	Type II (B)
	PSTN 2.5G (GSM 900/1800, GPRS) 3G (WCDMA) ISP (dial up, ADSL, IP Star)	51% Lao Telecom 49% Shin Corporation (Thailand), reverting to Lao government in 2021	Type I
	Broadband wireless Internet (700 MHz ISP)	100% private	Type II (A & B)
	PSTN 2.5G (GSM 900/1800, GPRS) 3G (WCDMA) ISP (dial up, ADSL)	51% Lao Government 49% VietTel (Viet Nam)	Type I
	2.5G (GSM 900/1800, EDGE) WIMAX	22% Lao Government 78% Vimpelcom	Type I

9. INDEPENDENT REGULATOR

9.1 Regulatory independence as a key priority for the sector

Currently Lao PDR does not have an independent regulatory body for the telecommunications sector. Sector regulation is undertaken by the Ministry, which is responsible for enforcing the *Law on Telecommunications* and related regulations. Regulatory independence is supported by the Government, which has considered establishing the Telecommunications Regulatory Authority ('TRA') as an independent body, similar to the structure of the VNNTA.

Regulator independence is not essential for fulfilment of the horizontal or sector-specific commitments. Even without an independent body, the Ministry can ensure that there are no restrictions of trade except for those in accordance with the negotiated limitations. However, regulator independence can help ensure confidence in the government's commitments and will help facilitate compliance. Transitioning to such structure is important (See [Appendix A](#)).

9.2 Compliance with Reference Paper with respect to regulatory independence

Regulator independence is a stand-alone commitment under the Reference Paper. The principle states:

"The regulatory body is separate from, and not accountable to, any supplier of basic telecommunications services. The decisions of and the procedures used by regulators shall be impartial with respect to all market participants."

Independence is generally taken to mean independence from government and political processes as much as from market participants. As a shareholder in two major telecommunications operators, the Lao PDR government must commit to ensuring clear separation between the provision of services and the regulation of the sector. See [Appendix B](#) in relation to Viet Nam and [Appendix C](#) for how other countries have established and organised their telecommunications regulators.

This should ideally be done through the establishment of an independent and autonomous body with responsibility for key regulatory functions. However, while the regulator should ideally be institutionally separate, the key point is that the government is not able to unduly influence regulatory processes in favour of its own interests.

9.3 Necessary measures to ensure compliance for regulatory independence

Necessary for full compliance:

- Establish an independent regulator, either as a separate organisation within the MPT or as a separate body.

10. ALLOCATION AND USE OF SCARCE RESOURCES

10.1 Legislative and regulatory provisions relating to allocation of scarce resources

Article 5 of the *Law on Telecommunications* provides for five key principles for the provision of telecommunications services. Article 5 (2) states:

“The assignment and utilization of telecommunication resources shall be done in an objective, timely and transparent manner. The national frequency allocation and assignment plans shall be made publicly available, except for radio frequencies allocated for military or security related purpose.”

According to the Law, telecommunications resources refers to “radio frequency, telephone and internet numbers, internet domain names, satellite orbital slots and telecommunications infrastructure.”

Part II of the Law covers aspects relating to telecommunications resources, including for each of the resources listed in the definition above. Article 9 of the Law provides for the management of radio frequency spectrum, including the allocation and assignments of use for telecommunications service providers. Article 9 states:

“The management, administration, allocation, assignment and revocation of all radio frequencies in Lao PDR shall be under the responsibility of the State through the Ministry of Posts and Telecommunications. Individuals, legal entities or organizations wishing to apply for the use of radio frequencies shall, after complying with legal and technical requirements, be granted a concession from the government.

The right of a concessionaire to transfer or share the radio frequencies assigned to them, with or to another party, shall require approval from the government through the Ministry of Posts and Telecommunications. The use of radio frequency in the country for fixed and mobile radio stations in fixed locations, cars, boats, or aircraft registered in Lao PDR and/or other countries, when in Lao territory, shall comply with national and international laws, agreements and treaties of which Lao PDR is a party.”

While that the Ministry is responsible for all aspects of spectrum management, including the assignment of frequency rights it is yet to develop a spectrum plan and National Frequency Allocation table but this is likely to be the subject of possible future assistance from the ITU.

Regarding the management of telephone and Internet addresses, Article 12 states:

“Telephone and Internet numbers means numbers, letters or symbols indicating telecommunication networks, Internet networks, and end users terminal equipment for communications. Internet Domain Name means the name or abbreviation that is assigned specifically for individual, legal entity or organisation. The Ministry of Post and Telecommunications shall develop the numbering plan, administer, allocate, assign and revoke the telephone numbers, internet numbers and internet domain names.”

Regarding the management of satellite orbital slots, Article 14 states:

“The satellite orbital slot is a location where a satellite is placed and circulates along an orbit in space and is important for telecommunications, meteorology, natural resource surveying and other applications. The Government promotes the efficient use of satellite orbital slots to be applied and registered with the International Telecommunication Union (ITU) and fully coordinated by the Government. The regulations on the use of satellite orbital slots is defined in a separate regulation.”

The *Decision on Numbering* was implemented on 8 January 2015 to provide for Lao's numbering framework in accordance with the *Law on Telecommunications*. The Decision determines the principles, regulation and measures for the management of numbers in an efficient and effective manner. The Law and the Decision gives the Ministry of Post and Telecommunication the responsibility for allocating and approving numbers. Telecommunication service providers wishing to provide numbering services must apply to the Ministry for approval.

Individuals or organisations wishing to use a general telephone number must register with a numbering service provider. For the allocation of special numbers, individuals or organisations must apply to the Ministry for approval. Special numbers, consisting of four digits, are allocated to emergency services, government bodies, charitable organisations and disaster prevention organisations. The Decision also provides for reserve numbers, and sets out the rights and obligations of telecommunication service providers and users. While reference is made to the National Numbering Plan, the Plan itself has yet to be developed, and is required for full compliance with the Reference Paper.

Article 5 of the Decision places responsibility for the management of Lao's numbering regulation with the Ministry, which approves and issues numbers and monitors compliance with the Decision's rules in accordance with the *Law on Telecommunications*. However, if Lao PDR is to adopt an independent regulatory body, the Decision will need to be amended in order to reflect this change, with the new independent body assuming responsibility for the management of numbering resources.

10.2 Compliance with market access and national treatment with respect to allocation of scarce resources

Exhibit 26: Compliance with Horizontal Commitments and Schedule C

Mode of supply	Horizontal Commitments and Schedule C
Cross-border supply	Possible restriction on cross-border supply to a non-Lao PDR licensed entity.
Consumption abroad	No restrictions on consumption abroad but numbering and spectrum etc are national in their nature.
Commercial presence	No restrictions on commercial presence
Presence of natural persons	No restrictions on presence of natural persons

10.3 Compliance with Reference Paper with respect to allocation of scarce resources

The Reference Paper with respect to the management and use of scarce resources states:

“Any procedures for the allocation and use of scarce resources, including frequencies, numbers and rights of way, will be carried out in an objective, timely, transparent and non-discriminatory manner. The current state of allocated frequency bands will be made publicly available, but detailed identification of frequencies allocated for specific government uses is not required.”

10.4 Necessary measures to ensure compliance for allocation of scarce resources

Needed for full compliance

- Develop radio frequency regulations in accordance with the Decree
- Develop a national frequency allocation table
- Develop numbering regulations and an associated national numbering plan
-

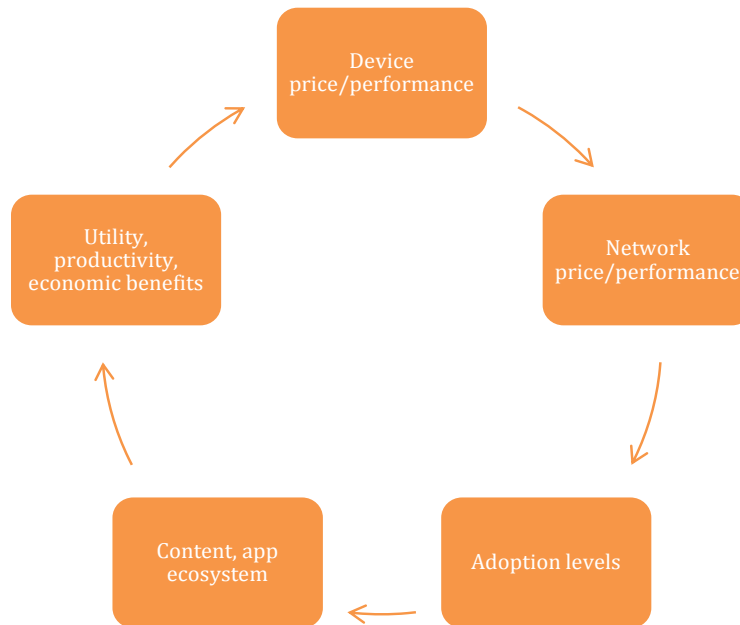
Needed for best practice:

- Develop an IMT spectrum roadmap detailed key wireless allocations out until to 2020 and beyond

In its regulatory role, government must ensure that spectrum, numbering is used as efficiently as possible and that as much competition as can be accommodated is present in communications markets.

The 'virtuous cycle' of improving telecommunications performance and service penetration is illustrated in [Exhibit 27](#).

Exhibit 27: Virtuous cycle of development in communications markets



In relation to Lao PDR's spectrum management strategy:

- All opportunities should be taken to optimise spectrum band management into the longer term, in particular, aligning spectrum licences over time to optimise how spectrum can be allocated in the future;
- Spectrum rules and conditions should be strongly technology neutral;
- If market conditions permit, new entry should be encouraged; and
- The focus of the allocation process should be to allocate spectrum to bidders who will provide the greatest economic and social utility.

11. REQUIRED MEASURES FOR COMPLIANCE AND BEST PRACTICE

For each of the six regulatory areas, improvements will be needed in order to ensure either compliance with Lao PDR's WTO commitments, the implementation of regulatory best practice, or both. The first priority for Lao PDR will be to ensure that the sector's laws and regulations bring the country into full compliance with its WTO commitments. The second priority is to maximise the effectiveness of Lao PDR's regulatory frameworks domestically. These priorities are discussed for each of the six areas below.

11.1 Developing competition legislation

Lao PDR has committed to maintain appropriate measures for preventing major suppliers from undertaking anti-competitive practices, including:

- Implementing anti-competitive cross-subsidies;
- Using information obtained from competitors with anti-competitive results; and
- Withholding technical and commercially relevant information from competitors that would be necessary for them to provide services.

Lao PDR's Law on Telecommunications prohibits collusion between service providers, as well as the use of confidential information to obstruct competition and harm competitors. Similarly, the Decree on Trade Competition prohibits monopolies, mergers and acquisitions that substantially reduce or limit competition, and collusion between businesses. In addition to these provisions, Lao PDR will introduce the Decree on Competition and the Law on Competition, which form the basis of Lao PDRs' competition framework.

In implementing the general competition provisions, the Government should ensure that any sector specific provisions relating to competition issues do not conflict with the general law, and that key aspects of the general law as they may apply to operators is reflected in the Telecommunications Law and other associated regulations. This may require amendments to the existing law and regulations.

11.1.1 MVNOs

In order to facilitate greater competition, the Government could also consider additional measures such as the adoption of domestic roaming provisions and separate regulations dealing with MVNOs and similar issues. From a public perspective, MVNOs can be seen as desirable because they offer an expanded range of retail providers for customers, and they promote the development of innovative retail and service approaches, sometimes accompanied by price differentiation.

There is no definitive regulatory best practice for MVNOs, and the right regulation will depend to a large extent on the structure of the national mobile market. In any case, the Government should focus on removing barriers to entry for MVNOs and should allow MNOs and MVNOs to negotiate commercial agreements including supply conditions. However, further intervention in the form of mandated access should only be embarked on where there is clear evidence of market failure, and additional MVNOs are seen as an effective way to bring long-term benefits to consumers.

MVNOs represent a form of resale in which a business without network assets provides mobile services by utilising the spectrum and infrastructure owned by or licensed to a mobile network operator. MVNOs seek to enter the telecommunications market at the service level – with a relatively low level of investment. MNOs, for their part, may see an MVNO as a valuable commercial partner to address specific retail market segments which their broader brand has not successfully addressed.

Incentives for MNOs to offer access to MVNOs are different to the incentives that may exist between two MNOs to share infrastructure. There are different commercial dynamics in play and MNOs need to consider both the possibility for loss of end-user revenue as well as the benefits received in the form of new access revenue from the MVNO in the overall market where MNO and MVNO are active.

MVNOs add value to the market in the following ways:

- MVNOs provide greater service choice at a retail level (i.e. price packages and services tailored to the needs of particular customer segments);
- MVNOs partner with MNOs to target specific segments within the market that would otherwise be commercially unattractive or non-viable for a typical MNO;
- MVNOs are smaller and more flexible than MNOs and are generally more willing to experiment with different product and payment models to maximise earnings; and
- MVNOs provide an additional source of competition for the host MNO to target customers of other MNOs with a wholesale proposition. This may be important in markets where there is consolidation or where MNOs are sharing portions of their network.

MVNOs have played a growing role in a number of telecommunications markets. However, they also face unique commercial challenges, and effective regulatory treatment of MVNOs must account for current and potential market pressures, including the rise of Internet communications companies and the need for MNOs and MVNOs to respond to these new forms of service-based market entry.

The MVNO model remains attractive for new players which are established in other consumer sectors with potential entrants across industries with majority non-telco based operators such as media companies, retailers and financial institutions.

There are a variety of MVNO models, ranging from “light” MVNOs who are pure resellers of mobile services to “heavy” MVNOs that operate a core network and provide complete network and customer management. Mobile virtual network operators typically have no radio access network and no rights to use spectrum. Although some advanced MVNOs will build parts of their core network, they typically rely on sharing the infrastructure provided by the host operator to offer services.

While [Exhibit 28](#) over details common approaches to MVNO issues, the ITU has recommended the issuance of a MVNO regulation in Lao PDR which would permit but not mandate MVNO in the country. These draft regulation is yet to be promulgated.

Exhibit 28: Common approaches to MVNO regulatory issues

No.	Topic	Issues	Most common practise
1	Form of regulation	Is MVNO regulation found in specific legal instruments or part of licence condition? Are MVNOs individually licensed?	Process for establishment of MVNOs set out in sector legislation (if provided for in law). Access arrangements for MVNOs may be contained in licence conditions imposed on MNOs. MVNOs are typically subject to overarching regulation in relation to consumer protection and similar.
2	Monitoring of access agreements between MNOs and MVNOs	Are access agreements monitored? Must access agreements be submitted to the regulator?	Regulators will generally monitor agreements with MVNOs which may fall within the access/interconnection regime. Agreements may be subject to general disclosure requirements and operators may need to notify regulator.
3	Approval of MNO and MVNO agreements	Is approval required by the regulator or access agreements? Do MVNOs and MNOs have flexibility to determine own commercial agreements?	Regulator usually does not have power to reject MVNOs agreements unless for public interest reasons.
4	Mandated access	Is access for MNOs and MVNOs mandated? Is access not mandated but encouraged?	MVNO access not usually mandated. Regulators typically seek to encourage MVNO partnerships with existing operators.
5	Reserve powers of regulator	Does the regulator have the power to intervene directly to modify access agreements? Does it have the power to arbitrate in a dispute?	Regulator will usually arbitrate disputes between MNOs and MVNOs. It may in some cases have the ability to modify agreements where there is a dispute or where there is a clear public interest.

11.2 Implementing interconnection and dispute resolution regulations

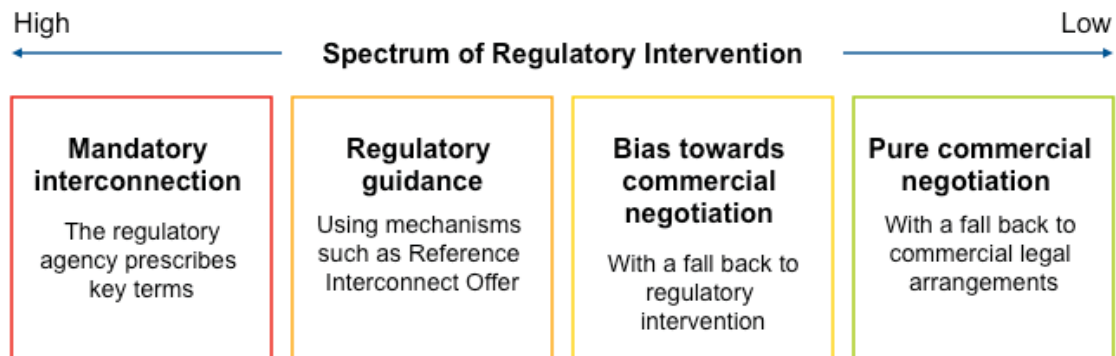
Interconnection plays critical role in promoting competition in telecommunications markets. Allows new entrants to provide telecommunications services using incumbent operator network and infrastructure. Interconnection can be thought of as all of the required commercial and technical arrangements that operators use to connect their equipment, networks and services in order to provide other operators with access to their customers. The European Commission defines interconnection as:

"The physical and logical linking of telecommunications networks used by the same or a different organization in order to allow the users of one organization to communicate with users of the same or another organization, or to access services provided by another organization. Services may be provided by the parties involved or other parties who have access to the network."

Telecommunications operators are considered to have control over access to their own networks. In effect, they have monopoly power over access to end-users on their network. This means an MNO could restrict access to its own customers by imposing unreasonable terms or very high prices to terminate calls on its network, which would limit services for consumers.

Effective and efficient interconnection arrangements need to be backed by the regulator. Rates and procedures for interconnection must be enforceable, available publicly and supported by dispute resolution mechanisms (because disputes are often inevitable). There are different degrees of regulatory intervention that can take place in the interconnection market. As [Exhibit 29](#) shows, these range from stringent intervention, which involves mandatory interconnection with prescribed terms, to pure commercial negotiation, with no intervention in the determination of terms.

Exhibit 29: Degrees of regulatory intervention in the interconnection market



Interconnection also contributes to meeting the objectives of universal service by making basic telecommunication services accessible to a larger number of users. The effectiveness of interconnection depends on the regulatory framework and how it is applied. This requires a high degree of cooperation between competing companies, and there may be an imbalance in negotiating positions that favours the incumbents over new entrants.

The regulator must ensure that there are clear and transparent processes in place to determine the costs of interconnection and to resolve disputes between operators. Dominant operators must transition to cost accounting in order to meet the requirements of regulation. Cost accounting allows operators and regulator to determine interconnection costs, which are the main source of disputes and also the principal obstruction to the entry of new operators.

Lao PDR has committed to ensure that interconnection is available on reasonable terms upon request for any operator seeking access. Specifically, interconnection must be available at any technically feasible point in a network, and must be provided:

- On non-discriminatory terms;
- In a timely fashion on transparent, reasonable and sufficiently unbundled terms; and
- Is available on request subject to charges that reflect the costs of construction of necessary facilities.

Currently, Part IV of the Law on Telecommunications provides for Interconnection to be available on equitable grounds and that charges be on a cost basis. There is nothing in the law inconsistent with Lao PDR's WTO commitments and there are no provisions of the law preventing compliance with the commitments outlined above. However, a regulation providing more specific rights and obligations for operators would be beneficial. Lao PDR has committed to ensure that:

- Procedures for interconnection are publicly available;
- Major suppliers make their interconnection agreements or a reference interconnection offer publicly available; and

- Service suppliers have recourse to an independent body to resolve disputes relating to terms, conditions and rates for interconnection.

At present the Law allows parties to refer a dispute to the Ministry for resolution if they are unable to reach a compromise. However, Lao PDR needs to establish an independent regulator with the power to administratively resolve disputes. This may involve the power to set an interconnection rate and other conditions between network operators in the event that an agreement cannot be reached.

11.3 Implementing universal service regulations

Universal service policies are a means of ensuring that all members of society have access to basic communications services, regardless of their situation. Some communications services are considered fundamental to modern life, to the extent that not having access to them would constitute a serious societal disadvantage. This is particularly problematic as those who are least able to access basic communications services are often those most likely to be disadvantaged in other ways, in particular, as a consequence of being poor, living in remote or rural areas or being subject to a disability.

The purpose of universal service regulation is to compel communications operators to take steps to address provision of services where the operation of the market itself, even though enabled by appropriate regulation, has not resulted in provision. In general, the reason for a lack of access to communications services is that it is not commercially viable or attractive to operators to provide them. Universal service regulation obliges them to do so regardless, as providing access to basic services is considered to be sufficiently important to override concerns for commercial freedom.

The starting point of policy makers should be to develop a clear Universal Service objective. Based on this the national communications regulator should develop supporting policy and regulation aimed at achieving this target. Achieving universal service in practice depends primarily on an effective national competition policy which creates the market dynamics within which customers are served. Also important is a supportive environment for infrastructure sharing which reduces the cost to serve poorer customers in rural and remote areas. Coverage obligations associated with additional sub 1-GHz spectrum may also have a role depending on frequency band.

Universal service regulation primarily involves establishing the right incentives for operators to expand their services to under-served customers and regions. It may then further require some form of mandated activity. For operators this may mean the provision of services when requested by consumers and when they are reasonably able to provide that service. These approaches typically involve an evaluation of the costs involved in extending network infrastructure and payment to ensure the operator engaged in the US activity achieves a reasonable return on investment.

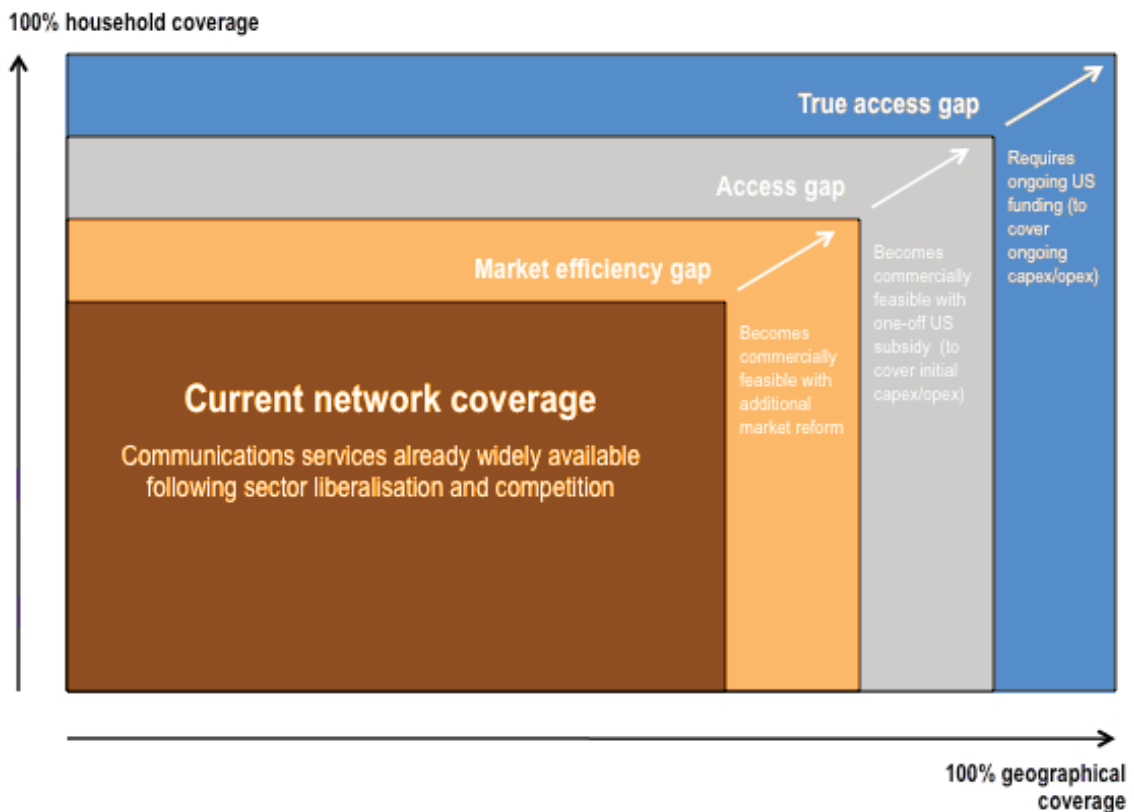
The purpose of universal service funding mechanisms is to provide a subsidy to an operator so that it may recoup the capital (and operating) expenses involved in providing a universal service and earn a sufficient return on investment. The required amount of the universal service subsidy is therefore based on some measure of the cost of providing the universal service and the required return, which is some measure of the market return.

The subsidy may be paid by the government from consolidated revenue or from customer or industry contributions. The most common approach in Asia is for operators to contribute to a USF based on their revenue, which is then allocated to operators engaged in a specific universal service activity. While the need for operator subsidies may be apparent for a given US project, the proper amount of the subsidy requires careful calculation based on a measure of the project’s cost or the use of an appropriate and transparent universal service auction.

In principle other options to increase access are also possible. For example, tax concessions or a subsidy can take a number of potential forms, including a waiver of universal service or other taxes on revenues in un- and under-served areas to address the affordability issue. Theoretically the subsidy could be any form of economic benefit, such as a regulatory concession, although the value of such concessions may be difficult to estimate and may be less transparent than purely financial subsidies.

The concept of universal service provision is depicted in [Exhibit 30](#). The ultimate aim of universal service regulation is to ensure 100% geographical coverage by funding the so-called “access gap”. This is the gap between coverage that be provided on a commercially sustainable basis and the coverage that can be provided only with one-off or continuous universal service funding.

Exhibit 30: Universal service conceptual framework – market gaps and access gaps



Under the WTO commitments, Lao PDR must ensure that regulations relating to Universal Service Obligation (‘USO’) are transparent, non-discriminatory and competitively neutral. They must not be more burdensome than is necessary to ensure the provision of services. Ideally, clear guidelines for the assessment of USO projects and the allocation of funding should be developed.

Currently, the Law requires operators to secure the availability of universal service on terms of good quality, timeliness, convenience and equality of access. There are no specific obligations beyond this. The Law appears to be WTO compliant, although WTO compliance may depend on how the USO scheme is administered in practice. Given that USO relates to improving services domestically, it is unlikely that there would be any breach of WTO commitments. There may scope to establish a more comprehensive USO scheme to ensure services are extended to underserved customers in rural and regional areas. The focus should be on providing transparent processes and avoiding administrative complexity.

Given the widespread role of mobile services and the impact of communications services on economic growth, it is important that any universal service policy framework cover mobile as well as fixed services – universal service policy should be framed in a technologically neutral way and supply of services under a universal service programme reflect the most cost effective approach.

11.4 Licensing telecommunication operators under new regulations

Licensing is one of the main areas of priority for Lao PDR. Currently there is no licensing framework in place and no telecommunications licences have been issued. Lao PDRs' WTO obligations require that the following must be made publicly available where a license is required:

- All licensing criteria and the period of time normally required to determine an application must be made publicly available;
- The terms and conditions of individual licenses must be made publicly available; and
- Reasons for denial of a license must also be made available to an applicant on request.

The Law specifies the types of license, their durations and a time frame for renewal of licenses. However, Lao PDR must implement a comprehensive licensing regulation, which specifies at least:

- The eligibility criteria for applying for and receiving a licence;
- The process for the application for and renewal of licences;
- Licence application and renewal fees;
- A set of general licence conditions;
- The rights and responsibilities of licensees, including disclosure requirements; and
- Penalties for breach of licence terms.

The licensing and/or authorisation of telecommunications facilities and services is one of the most fundamental aspects of telecommunications service regulation. Policies and regulations related to the licensing of telecommunications services determine the structure of the market, the level of competition, and various conditions of operation, including access, interconnection and universal service obligations.

Apart from defining the scope of regulation, licensing has been used by governments as a tool for market liberalisation and the facilitation of new market entry, the expansion of networks and services (e.g. through rollout commitments and universal service obligations) and the protection of consumers through special conditions for dominant firms or firms with significant market power. The issue of licences must be administered by the TRA, and the Government must prioritise the licensing of current operators. The Government and the TRA could then consider the possibility of facilitating a new market entrant through the licensing system.

The Government and regulator will need to assess the current status of licensing in Lao PDR to ensure the integrity of the licensing system and compliance with licence terms. It is currently unclear which operators have been granted licences under the previous 2001 Law or whether the terms of these licences are being enforced.

The Government and regulator may need to negotiate with operators and providers in order to bring all activities and businesses requiring a licence under the ambit of the 2011 Law. Exhibit X below shows the current operators and providers in the Lao PDR market, along with the licence type required for authorisation under the Law. Additional licence types may be required depending on the other activities undertaken by these businesses.

11.5 Establishing an independent regulator

Arguably the most important adjustment necessary for WTO compliance is the creation of the Telecommunications Regulatory Authority ('TRA'), to be given key responsibilities for the regulation and monitoring of the sector. The establishment of the TRA will also have important flow-through effects for other areas such as licensing, interconnection and allocation of scarce resources, each of which will be administered by the new body.

The Reference Paper requires that the regulatory body be separate, that it not be accountable to any supplier of basic telecommunications services, and that its decisions and procedures must be impartial to all market participants. The important elements are that the TRA remain a distinct body and that it be able to carry out its functions and responsibilities without undue influence from the Ministry or Department.

In order to establish the TRA, it will be necessary to amend the Law on Telecommunications or introduce a separate Decree. This could be achieved by either replacing references in the Law to the Ministry with the TRA, delegating the power in accordance with a decree, or by replacing Part XI, which provides for the MPT (including the Provincial and Capital Post and Telecommunication Division and the District and Municipality Post and Telecommunication Offices) as the Telecommunication Management Authority. This is a critical step for compliance, as other commitments require the existence of an independent regulator in order to be met.

The establishment of the TRA bring Lao PDR in line with regulatory best practice and with regional trends in the Asia Pacific and ASEAN as shown in Exhibit 31 below.

Exhibit 31: Summary of approaches to independent regulators in ASEAN

Market	Independent?	Comments
Brunei Darussalam	<input type="checkbox"/>	Authority for Info-communications Technology Industry (AITI) established in 2003 under the AITI Order 2001. Telecommunications Department was corporatised in 2006 with regulatory functions transferred to AITI.
Cambodia	<input type="checkbox"/>	Telecommunications Regulator of Cambodia established September 2012 by royal decree. Undertakes duties previously held by Ministry of Posts and Telecommunications.
Indonesia	<input type="checkbox"/>	Indonesian Telecommunications Regulatory Body known as BRTI established in 2003. Government sector monopoly ended in 1999.
Lao PDR	<input type="checkbox"/>	Lao Government has committed to regulator independence as part of WTO compliance measures.
Malaysia	<input type="checkbox"/>	Malaysian Communications and Multimedia Commission established in 1998 with introduction of converged regulatory model. Responsible for telecommunications, ICT and broadcasting sectors.
Myanmar	<input type="checkbox"/>	Government of Myanmar has committed to transition to an independent regulator by 2015. There is currently a World Bank consultancy proposing the way forward.
Philippines	<input type="checkbox"/>	National Telecommunications Commission established in 1979. Remains under the administrative supervision of the Department of Transportation and Communications.
Singapore	<input type="checkbox"/>	Infocomm Development Authority (IDA) established 1999 with merger of National Computer Board and Telecommunication Authority of Singapore.
Thailand	<input type="checkbox"/>	National Broadcasting and Telecommunications Commission (NBTC) established in 2001. First issued spectrum licences in 2012.
Timor Leste	<input type="checkbox"/>	National Communications Authority of Timor-Leste, formally Autoridade Nacional de Comunicações (ANC) is a statutory authority established by the Telecommunications Decree-law No. 15/2012 of 28 March 2012. The ANC is funded and being established
Vietnam	<input type="checkbox"/>	Vietnam Telecommunications Authority (VNTA) established August 2011 as a separate regulatory body within the Ministry of Information and Communication.

For example, the Government of Viet Nam recently established the Viet Nam Telecommunications Authority ('VNTA') in 2011, which is responsible for sector administration and oversight. The VNTA is a regulatory body located within the Ministry of Information and Communications ('MIC'), but importantly it is a distinct entity with a separate staffing structure and the autonomy to make decisions in key areas (see [Exhibit 32](#) and [Appendix B](#) below).

Exhibit 32: Viet Nam Telecommunications Authority

The Viet Nam Telecommunications Authority ('VNTA') was created in June 2011 as an agency within the Ministry of Information and Communications ('MIC'). Its purpose is to provide an independent regulatory function and to consult with the Government on sector policy and regulation. The VNTA is the result of the merging of two existing agencies within the MIC: the Department of Telecommunications and the Authority of Information and Communications Technology Quality Control.

The VNTA was created by *Prime Minister's Decision No. 35/2011/QĐ-TTg* and derives its power from that decree and from Article 10 of the *Law on Telecommunications 2009*, which allows the Minister to assign duties relating to the state management of telecommunications to a Specialized Management Agency.

The role of the VNTA is to ensure the fulfillment of commitments of telecommunications operators and service providers, and the regulation of telecommunications infrastructure, interconnection, tariffs, and quality of service. It also deals with the allocation of telecommunications numbers and the settlement of disputes between operators. The establishment of the VNTA was praised by the ITU as being a crucial step in ensuring the further development of the sector.¹⁰

The structure of the TRA could follow similar regional models, including the VNTA. The TRA must be a distinct entity with autonomous decision-making ability within its areas of responsibility. This will be a key step in ensuring the further development and sustainability of the telecommunications sector in Lao PDR.

It is also vital that the Ministry and the TRA eliminate any potential conflicts of interest that could possibly arise either among Ministers and Ministry staff, or among TRA directors and staff. This is especially important in light of a number of Ministry officials serving on the board of operators. Under these circumstances there may be a perception of a conflict of interest which could undermine market confidence in the Government or regulator.

Regulator independence is generally considered a key element of effective sector regulation. The rationale for regulatory independence is to ensure the non-discriminatory treatment of market players and the operation of the market according to established principles. In previous discussions while the Ministry recognises the long-term benefits of independence, the immediate focus of policy is on the implementation of an effective legislative and regulatory framework for the sector.

However, if the Ministry wishes to consider options for a possible transition to regulatory independence then such a transition can be implemented in two ways:

- **Expedited:** Regulatory independence is implemented through a single law or amendment that establishes an independent regulatory body and provides it with full powers and responsibilities for sector regulation.
- **Gradual:** Regulatory independence is implemented gradually through a multi-stage process, moving through structural and operational separation within the Ministry, to more complete legal separation over time.

Exhibit 33 summarises the options in more detail.

¹⁰ www.vnta.gov.vn/images_upload/qlcl/VietnamDG_PhamHongHai.pdf

Exhibit 33: Options for transitioning to regulatory independence

	Proposition	Advantages	Disadvantages
Option 1: Establish a new regulatory body	A new regulatory body is established that is legally separate from the Ministry. Legislation determines the scope of the body's powers and responsibilities, which may be expanded over time.	<ul style="list-style-type: none"> <input type="checkbox"/> Clearer delineation of powers and responsibilities between regulator and Ministry. <input type="checkbox"/> Clearer organisational structure and clear communication with sector stakeholders. <input type="checkbox"/> Regulator can develop more specialized people and skills for sector management. <input type="checkbox"/> Greater market confidence and certainty. 	<ul style="list-style-type: none"> <input type="checkbox"/> Extra costs and logistical issues in establishing a new body. <input type="checkbox"/> Immediate transition to a new body may result in loss of key managers, knowledge, experience, etc. <input type="checkbox"/> May make a more gradual transition difficult, possibly less time to plan optimal organisational and regulatory structures.
Option 2: Establish a separate body within the Ministry	A new body is established within the Ministry that is operationally separate and may mimic the structure of a legally independent body. This body may then be further separated over time to create a fully independent body.	<ul style="list-style-type: none"> <input type="checkbox"/> Greater control over the transition process and certainty for government and regulators <input type="checkbox"/> Greater continuity of existing processes, key managers, knowledge, experience, etc. <input type="checkbox"/> No immediate legislative reform required <input type="checkbox"/> More time to plan transition process, optimal organisational and regulatory structures 	<ul style="list-style-type: none"> <input type="checkbox"/> Possibly more time taken to achieve regulatory independence. <input type="checkbox"/> Less market confidence and certainty. <input type="checkbox"/> Potential confusion over powers and responsibilities. <input type="checkbox"/> Communication between government and stakeholders less clear.

11.6 Enhancing spectrum and numbering allocation

The allocation of scarce resources refers to the management of natural resources like radio frequency spectrum, as well as artificial resources such as numbers and domain names. Lao PDRs' WTO commitments require that:

- The procedures for allocating frequencies, numbers, rights of way and any other scarce resource be objective, timely, transparent and non-discriminatory; and
- The current state of frequency allocations will be publicly available (detailed identification of government-use channels is not required).

The Law currently provides that allocation of spectrum, numbers, and domain names is to be managed by the Ministry of Posts and Telecommunications. The Decree on Radio Frequency was issued in early 2014, which provides instruction for the management and use of spectrum, however a separate regulation is still required to bring Lao PDR in line with best practice. Provided the Ministry follows the conditions of the commitment, no further steps are needed for compliance. However, with the establishment of the TRA, the Government and the regulator must ensure that these commitments are fulfilled.

It would be desirable to implement regulations on spectrum and numbering, which should include a National Frequency Allocation Table and a National Numbering Plan, to be managed by the TRA.

APPENDIX A

TRANSITIONING TO REGULATORY INDEPENDENCE IN LAO PDR

A.1 Need for regulatory independence in Lao PDR

The Government of Lao PDR is considering moving responsibility for the regulation and monitoring of the telecommunications sector from the Ministry to an independent body. Regulator independence is generally considered a key element of effective sector regulation. The rationale for regulatory independence is to ensure the non-discriminatory treatment of market players and the operation of the market according to established principles.

In discussions with the Ministry, it was resolved that the issue of regulator independence is not an immediate priority. While the Ministry recognises the long-term benefits of independence, the immediate focus of policy is on the implementation of an effective legislative and regulatory framework for the sector. However, should a decision be made to transition to an independent regulator, this can be implemented gradually through a multi-stage process as outlined below.

Where markets have undergone a process of liberalisation, independence has been viewed as an important way of insuring that dominant operators, and especially state-owned or former state-owned entities, are not provided with any undue advantage over their competitors. The idea of independence encompasses a number of aspects, including:

- *Political independence:* The regulator must be independent of the government and be allowed a certain degree of autonomy in the development and enforcement of regulations;
- *Financial independence:* The regulator must have a guaranteed source of financing from the government that allows it to carry out its mandate effectively; and
- *Human resource independence:* The regulator must have control over the management of staff and the ability to recruit staff from a diverse range of sources.

Generally, independence is considered a safe-guard against regulations that may benefit certain operators at the expense of good regulatory outcomes that are in the sector's and the country's long-term interest. At the same time, the government needs to maintain some control over the direction of regulation, and there must necessarily be some degree of interaction and collaboration between the ministry and the regulator. Independence therefore involves checks and balances between the regulator and the government, with different markets adopting varying degrees of regulatory autonomy.

Regulator independence generally seen as an important part of market liberalisation and reform. Globally, countries have implemented reforms in communications markets that include restructuring (and often privatising) incumbent operators, introducing competition, and updating regulatory frameworks. Regulator independence provides the sector regulator with key responsibilities for managing the sector and enforcing aspects of the relevant laws and regulations. The regulator also has a number of other responsibilities, including the transmission of information to the government and the public, and monitoring of the telecommunications market.

Lao PDR's commitment to the WTO GATS and broader reforms to encourage growth and development, there is an opportunity to consider ways in which Lao PDR can transition to an independent regulatory body. A transition to an independent regulator could involve the establishment of an entirely new body, or the evolution of the relevant authorities within the

Ministry of Post and Telecommunication ('MPT'). This may depend on the particular model and the degree of autonomy.

A.2 Degrees of regulator autonomy

In terms of regulator autonomy, there are four broad models that have been adopted by various countries globally. There are:

- *Fully autonomous agency*: The regulator is fully independent from the government and may exercise full discretion over those aspects that fall within its mandate;
- *Semi-autonomous agency*: The regulator has some discretion over certain aspects, but some aspects may ultimately be subject to ministerial approval, or the minister may reserve the right to intervene;
- *Separate body within the ministry*: The body may have specialised knowledge and expertise in dealing with the sector, but is in essence controlled by the ministry; and
- *No special body*: Sector regulation is undertaken primarily by a competition and consumer authority and the courts.

There is no one-size-fits-all approach to establishing the right mix of regulator and ministerial powers. Checks and balances are required to ensure both the ministry and the regulator remain accountable. An example might be in the case of licensing, whereby the Minister has the power to award licenses, but may only do so from a short-list prepared by the regulator containing operators meeting the technical and financial requirements under the law.¹¹

The MPT may decide that a gradual transition to a fully independent regulator could be achieved by moving through stages of regulator autonomy. For example the MPT could begin by forming a separate body within the Ministry and then transitioning to a semi-autonomous body with certain powers. This would also assist in the smooth transition of staff and other resources. The MPT could then establish a fully independent body with a clear mandate for the management and supervision of the sector.

A.3 Market confidence in the regulator

Independence is a key factor in shaping the market's confidence in the regulator. Confidence is essential in order to facilitate investment and development in the sector, and the regulator must have the ability to consult widely with stakeholders. Three factors closely related to independence are competence, objectivity and transparency. These may be broadly defined as follows:

- *Competence*: The regulator must have the necessary skills, experience and knowledge in place to deal with the challenges posed by the sector.
- *Objectivity*: The regulator must be impartial and must maintain an analytical focus, with regulation based on a thorough and objective analysis of the market.
- *Transparency*: The process for making regulatory decisions, including, for instance, licensing requirements for operators and the allocation of universal service funding must be made clear to all stakeholders.

¹¹ http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2000/11/17/000094946_00110406110171/Rendered/PDF/multi_page.pdf

The regulator and the government must ensure that regulatory risks are mitigated as much as is practically possible. The regulatory framework must therefore be complemented by a robust legislative framework and a clear policy direction, which requires the regulator and the Government to work together. Although it is difficult to determine which regulatory issue has the biggest impact on market confidence, the regulatory environment has been shown to have a significant effect on investment in the sector.¹²

Where there is a lack of transparency, or where the market suspects the regulator is not acting in an objective or consistent manner, market players lose confidence in the current regulatory regime, as well as the regulator's forward guidance on potential changes to the rules. This can lead to a reduction in investment if players believe the value of their planned investments is at risk.

Countries across the region that have implemented reforms in communications have taken steps to restructure (and often privatise) incumbent operators, introduce competition in some market segments, and update regulatory frameworks. However, there are a number of issues that can result in either an inadequate degree of regulatory power or the misuse of power. This can have an effect on the regulator's reputation and credibility, with further ramifications for trust and confidence in the market. These issues include:

- **A lack of adequate autonomy or a clear mandate** to make and enforce key decisions, free of short-term political interference and influence. For example, where the regulatory agency is embedded inside the ministry it may lack a clear mandate to achieve certain objectives;
- The **strong government representation** on the boards of the regulatory agencies in some countries increases the chances of political interference or **government representation on the boards of the licensed operators**;
- **Scarcity of professional and financial resources** and limited tenure security for commissioners. In some cases regulators may face high turnover of key staff due to poor compensation and job security, and regulators typically have limited control over their funding and spending;
- **Limited capacity to actively regulate** (rather than administer) the sector and to enforce decisions. In certain markets regulators may have yet to master all the regulatory levers, such as industry structure, licensing, pricing, and effective management of universal service obligations. In some markets, an inability to build a strong, proactive regulatory authority has meant that issues tend to drag on unresolved;
- Overcoming **strong historic ties to the incumbent operator** or other operators in national ownership, especially in relation to technical matters and market reform; and
- Marginal adoption of **transparent regulatory processes** and consultation that can help increase public support and enhance investor confidence.

A.4 Organizational structures

Typically, independent regulators are responsible for the implementation of national regulatory policy, enforcing aspects of the relevant telecommunications legislation including interconnection, tariff regulation, and allocating scarce resources (spectrum and numbers).

¹² www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR09/doc/GSR09_Regulation-Investment_Dorward.pdf

The regulator will also have a number of other enabling responsibilities, including the transmission of information to the government and the public, and monitoring of the telecommunications market. The regulator operates within the legislative framework established by the Parliament or Government. Typically the ministry, as distinct from the sector regulator, will have an overriding responsibility for communications policy at a national level. The ministry will have various responsibilities conferred on it by the legislature including development of national telecommunications policy. Regulators typically take on responsibility for three core objectives:

- **Sector regulation:** The regulator is responsible for implementing and enforcing key regulations, including interconnection, licensing, infrastructure sharing and tariffing. The regulator may also have responsibility for enforcing sector competition provisions;
- **Spectrum management:** The regulator is responsible for spectrum planning, developing and enforcing equipment standards, managing interference and cross border coordination, and assigning and allocating spectrum rights; and
- **Promotion of sector development:** The regulator will generally be responsible for promoting affordability and accessibility of services, universal service regulation, access to key national infrastructure, the collection of key industry data, and the provision of advice to the government.

The power given to regulators to achieve these objectives may be broad (e.g. they may have discretion under the law to make regulations governing all aspects of the sector), or they may be narrow (e.g. they may have limited responsibility or may be able to act only with Ministerial approval).

The organisational structure of the regulator can have a significant impact on the regulator's ability to perform its duties effectively. It is vital to avoid inefficiency and confusion as a result of overlapping roles between different regulatory units. The clear separation of responsibilities between different divisions or units within the regulator is important to ensure the smooth operation of regulatory activity and the consistent application of the law and other rules and regulations.

Whereas liberalisation was previously the main driver of institutional change, convergence in technologies and services within the communications market is currently a major influence on the delineation of regulatory responsibility. In the past, responsibility may have been separated according to service or technology, increasingly it is becoming more expedient for regulators to organise themselves according to different regulatory functions, which apply across a range of platforms. Examples of this may include: licensing, spectrum and content management.

Common practice, particularly in the Asia region, is for governments to establish a specialised sector regulator with responsibility covering all aspects of communications regulation. This is more common than a single industry or competition body governing multiple sectors. Although there are potential downsides to a sector regulator (e.g. greater risk of regulatory capture, etc.) there are many advantages. Most importantly a specialised sector regulator has better knowledge and technical expertise related to its sector.

Institutional design is critical for a regulator's success. This will determine the regulator's organisational structure and management as well as its relationship with other government bodies. Different countries will have different organisational structures in place based on their own administrative practices and policy requirements. While there is no universal structure that will be suited to every market, generally organisational units will reflect key areas of responsibility. There are essentially three dimensions or layers of organisational management:

- **Regulatory dimension:** Includes the main regulatory activities and may be shared across some or all services and technologies;

- **Operational dimension:** Includes those activities necessary to manage and develop the organisation, and fulfil reporting obligations to the government; and
- **Technology and service dimension:** Includes any activity within the regulator that is focused on a particular technology or service (such as broadcasting, satellite or mobile services) that may require specialised expertise or a unique regulatory approach.

In practice, regulatory responsibility is structured according to some mixture of these categories. E.g. there may be a separate broadcasting unit within the regulator that is responsible for the licensing of broadcasters as well as content regulation, competition and other regulatory aspects related to that particular service. Alternatively the regulator may be more converged and apply content regulation across all technologies and platforms through a separate content and consumer affairs unit.

A.5 Leadership organisation

Determining the best organisational structure for a regulatory authority requires an assessment of various factors, including the country's needs and objectives, political environment, legal requirements, and available expertise in the labour market. There are essentially two models of leadership organization for regulatory authorities.

These include the collegial body (a board or commission composed of multiple members), and the single regulator (often given the title of chairperson or president). The collegial body model usually involves a board or commission made up of individuals with different areas of expertise, potentially bringing those varied perspectives to bear on each regulatory issue. These multi-member commissions or boards of directors are composed of a varying number of members (usually an odd number from three to seven to minimize tie votes) that oversee and direct all activities of the regulator.

The single individual regulator model has the potential benefit of a consistent approach to regulation and decision-making, as decision-making authority is vested in a single individual who may have a unified plan for the telecommunications sector. In contrast to the collegial body model, single regulators can make decisions much more quickly, even when constrained by due process regulations.

A.6 Staffing and agency resourcing

The government must ensure that the regulator has the resources to carry out its responsibilities and meet its required outcomes. This includes office space, furnishings, equipment, IT capability, human resource management and support services, as well as staff remuneration. The regulator should provide the government with information regarding its operational requirements, and the government in turn should ensure proper monitoring is in place to reduce waste and inefficiency.

Many factors affect the staffing design of a regulatory authority. These are, most importantly: market situation, established objectives and goals, scope of the regulator's responsibility, selected management structure, distribution of responsibilities/duties within the regulator, and available resources. In general, telecommunications regulators are composed of a diverse group of professionals that include: attorneys, economists, engineers, market analysts, accountants, and administrative support personnel. In most cases, the head of the regulatory authority is empowered by the applicable law or regulation to hire appropriate staff as deemed necessary to conduct the business of the regulatory authority subject to budgetary requirements.

APPENDIX B

STRUCTURE OF THE VIET NAM TELECOMMUNICATIONS AUTHORITY

B.1 Overview

The Viet Nam Telecommunications Authority ('VNTA') was created in June 2011 as an agency within the Ministry of Information and Communications ('MIC'). It is an agency performing consultative and regulatory functions in the field of telecommunications and was established by the merging of two existing agencies within the Ministry of Information and Communications, the Department of Telecommunications and the Authority of Information and Communications Technology Quality Control.

The VNTA was created by *Prime Minister's Decision No. 35/2011/QĐ-TTg* and derives its power from that decree and from Article 10 of the *Law on Telecommunications 2009*, which allows the Minister to assign duties relating to the state management of telecommunications to a Specialized Management Agency.

B.2 Organisational Structure¹³

The organisational structure of the VNTA consists of a Management Board, a number of Functional Units with responsibility for different agency tasks and different areas of telecommunications management (such as Licensing and Market Division) and several Member Units which perform technical duties such as device and equipment certification.

The seven member Management Board consists of a Director General and six Deputy Directors General. The current Director General is Pham Hong Hai.

There are ten Functional Units within the VNTA, these are the:

- Bureau;
- Planning and Investment Division;
- Finance and Accounting Division;
- Human Resource Division;
- Policy and Planning Division;
- Licensing and Market Division;
- Numbering Resource and Statistics Division;
- Tariff and Promotion Division;
- Quality Division; and
- Infrastructure and Connection Division.

These units form the basis of how the VNTA performs its duties in respect of regulating and overseeing the telecommunications industry in Viet Nam. The first four Units perform duties internal to the VNTA and in relation to its administration while the remaining six are directly responsible for regulatory duties.

¹³ <http://www.vnta.gov.vn/eng/introduction/Trang/default1.aspx>

In addition to the Functional Units there are six Member Units, these are the:

- Technical Service Center;
- Network and Service Development Supporting Center;
- Testing Center (in Ha Noi);
- Verification and Certification Center 1 (in Ha Noi);
- Verification and Certification Center 2 (in Ho Chi Minh City); and
- Verification and Certification Center 3 (in Da Nang City).

These units provide technical support to the VNTA and perform functions such as device testing and certification.

B.3 Relevant legislative provisions

The VNTA principally derives its power from the Prime Minister's Decision No. 35/2011/QĐ-TTg in which the VNTA is designated as an agency performing consultative and regulatory functions in the field of telecommunications nationwide.¹⁴ The *Law on Telecommunications 2009* also provides for a Specialized Management Agency to assist the Minister in managing and regulating the telecommunications industry of Viet Nam. This is specifically authorized by Article 10 of the Law.¹⁵

¹⁴ www.vnta.gov.vn/eng/news/Trang/Announcement%20of%20the%20establishment%20of%20the%20Viet%20Nam%20Telecommunications%20Authority.aspx

¹⁵ www.vnta.gov.vn/eng/legaldocuments/Lists/LegalDocuments/DispForm.aspx?ID=11

APPENDIX C

**CASE STUDIES:
STRUCTURE OF SELECTED GLOBAL REGULATORY ORGANISATIONS****C.1 Australian Communications and Media Authority (ACMA)****C.1.1 Overview**

The Australian Communications and Media Authority (ACMA) was created in 2005 with a merger between the Australian Communications Authority and the Australian Broadcasting Authority. The ACMA is a government agency responsible for the regulation of broadcasting, Internet, radiocommunications and telecommunications. It is responsible for all aspects of sector regulation except for competition, which is the responsibility of the Australian Competition and Consumer Commission (ACCC). Its stated aims are to promote self-regulation by industry participants and to protect consumers and other users where necessary. Specifically responsibilities of ACMA include inter alia:

- Promoting self-regulation and competition in the communications industry, while protecting consumers and other users;
- Fostering an environment in which electronic media respect community standards and respond to audience and user needs;
- Managing access to the radiofrequency spectrum; and
- Representing Australia's communications interests internationally.

C.1.2 ACMA's Organisational Structure

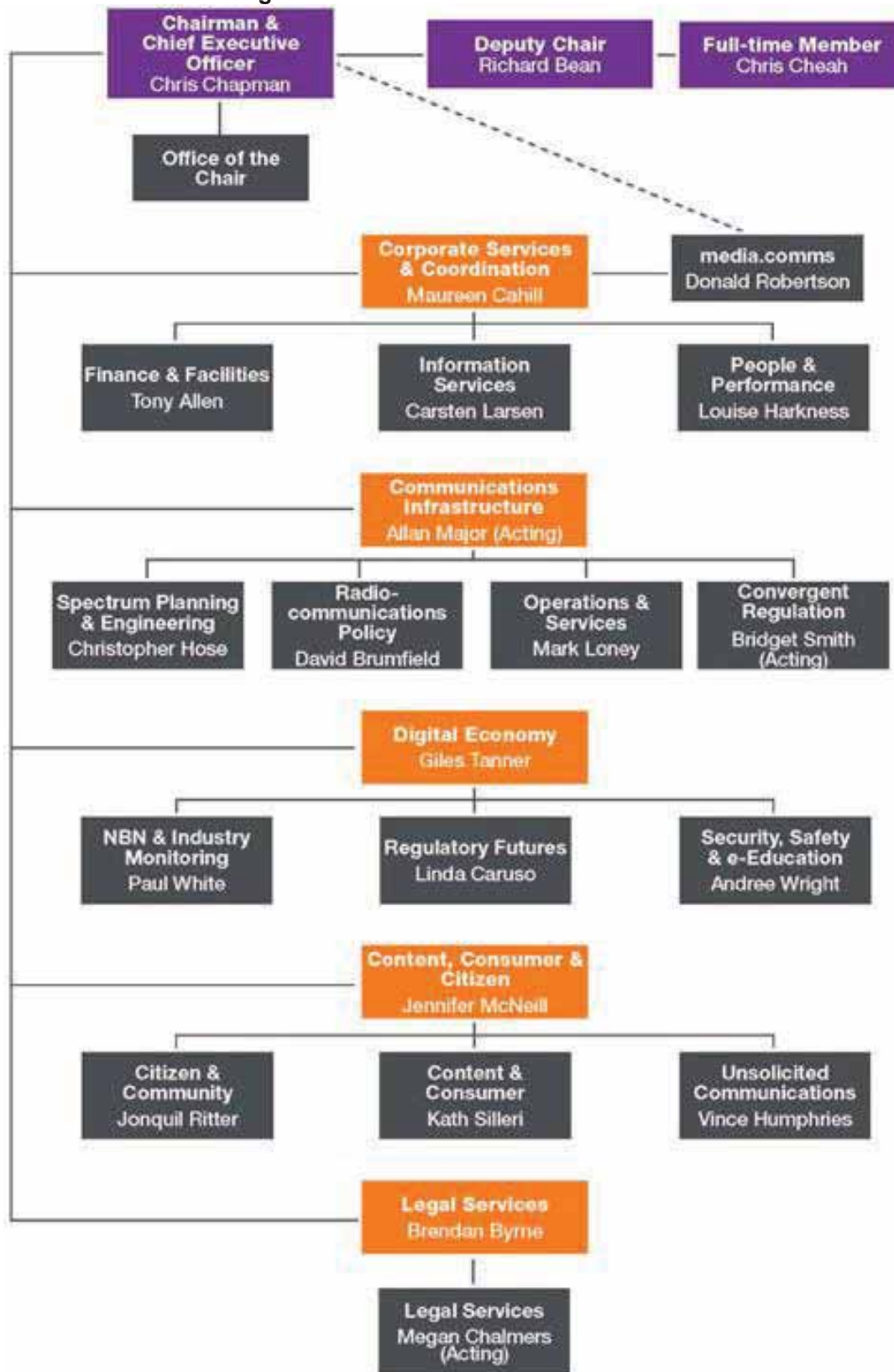
The ACMA's day-to-day activities are managed by an executive team comprising of the Chair, Deputy Chair, Full-time Member, five General Managers and 16 Executive Managers.

The General Managers are responsible for five broad areas:

- Communications Infrastructure;
- Digital Economy;
- Content, Consumer and Citizen;
- Corporate Services and Coordination; and
- Legal Services.

Structure includes operational layers (corporate and legal services), regulatory layers (infrastructure, content) and special technology layers (digital economy, including NBN, regulatory futures, security). See [Exhibit C.1](#) below.

Exhibit C.1 ACMA Organisational Structure



C.1.3 Australia's dispute resolution framework

Australia has telecommunications-specific dispute resolution measures. The ACCC is responsible for handling telecommunications related disputes that fall under its jurisdiction. These disputes are governed by the *Competition and Consumer Act 2010* and the *Telecommunications Act 1997*.

As well as considering the cases put forward by each party, the ACCC must also consider the 'public interest' criteria in reaching decisions. This aspect of the dispute resolution process is specific to the telecommunications industry.

The ACCC must also take into account a number of other matters such as the parties' business interests and the costs of providing the services. The ACCC's decisions are then binding on parties. Appeals to the Australian Competition Tribunal have been removed as this process often resulted in inefficient practices and significant delays.

C.2 Authority for Infocommunications Technology Industry (Brunei)

C.2.1 Overview

Brunei's Authority for Infocommunications Technology Industry (AITI) was established in 2003 by the *AITI Order 2001* to regulate the ICT and telecommunications sectors, manage national radio frequency spectrum, and promote the development of Brunei's ICT industry.

AITI's mission statement is:

- To provide license and regulate telecommunications and radiocommunications system and services, and manage the national radiofrequency spectrum in Brunei Darussalam;
- To promote the development and growth of the ICT industry; and
- To represent the country at international fora in order to keep pace with international changes and development.

As part of AITI's objective to develop the local ICT industry sector, several initiatives have been identified under E-Business and Market Creation Unit. These include among others promotion of RFID technology and NFC usage in Brunei Darussalam and the Market Creation program to assist local ICT businesses to market their Brunei-made ICT products.

The objectives of the E-Business and Market Creation Unit under the AITI are to encourage R&D activities by local businesses and academic institutions to enable Brunei-made RFID applications and solutions.

C.2.2 AITI's Organisational Structure

The AITI's senior leadership consists of a Chief Executive under whom there are two Deputy Chief Executives. The Deputy Chiefs are responsible for two broad areas:

- Corporate Strategy, Services and International; and
- Regulatory, Industry and Next Generation Network

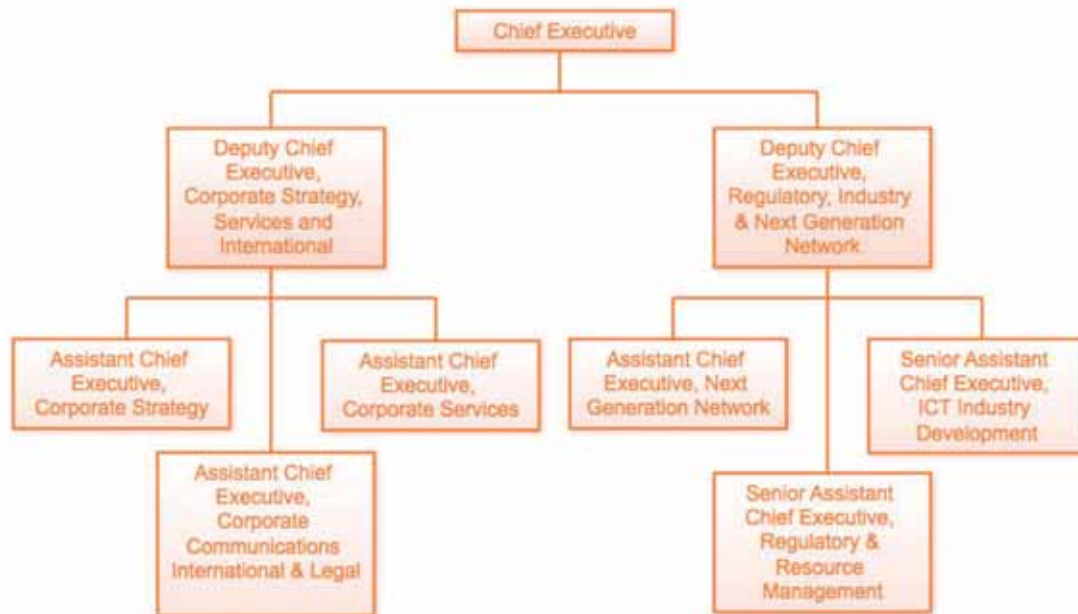
There are four Assistant chief Executives under the Deputy Chief Executives whose broad responsibility areas include:

- Corporate Strategy;

- Corporate Services;
- Next Generation Network; and
- ICT Industry Development.

The AITI also include units for Corporate Communications and Legal Services and Regulatory and Resource Management. See [Exhibit C.2](#) below.

Exhibit C.2 AITI's Organisational Structure



C.3 Myanmar's Proposed Telecommunications Commission

C.3.1 Overview

Myanmar's Ministry of Communication and Information Technology completed a public consultation in December 2013 on proposed new rules for the telecommunications sector. The consultation covered the six core areas of the WTO Reference Paper, including the need for an independent regulator.

Currently the Ministry is the relevant government department, the regulator, and the incumbent operator. Provision of telecommunications services is dominated by the state-owned Myanmar Post and Telecommunications (MPT).

Myanmar's new *Telecommunications Law*, introduced in October 2013, provides that an independent regulatory commission will be set up by 2015, with responsibility for sector regulation. In the interim, the regulator has been operationally split from the incumbent operator ahead of its formal legal separation.

Section 86 of the Law states:

"The Government shall form an independent communication commission of Myanmar headed by a suitable national level person to execute the provisions of this law in respect to telecommunication services within two years of the date this law comes into force."

C.4 Infocomm Development Authority of Singapore

C.4.1 Overview

The IDA is a statutory board of the Singapore Government formed in 1999 when the government merged the National Computer Board (NCB) and Telecommunication Authority of Singapore (TAS), as a result of a growing convergence of information technology and telephony. The IDA aims to grow Singapore into a dynamic global infocomm hub and to leverage infocomm for Singapore's economic and social development.

Section 27 of the *Telecommunications Act* authorises the IDA to issue directions to telecommunications licensees. The Act authorises the giving of directions in order to:

- Ensure the reliability of a telecommunication service provided to the public;
- Ensure the technical compatibility and/or safety of operation of any telecommunications system; and
- Ensure cooperation and coordination for the sharing of telecommunications infrastructure.

The IDA may also issue directions in relation to broadcasting in consultation with the Media Development Authority of Singapore.

C.4.2 IDA's roles and Responsibilities

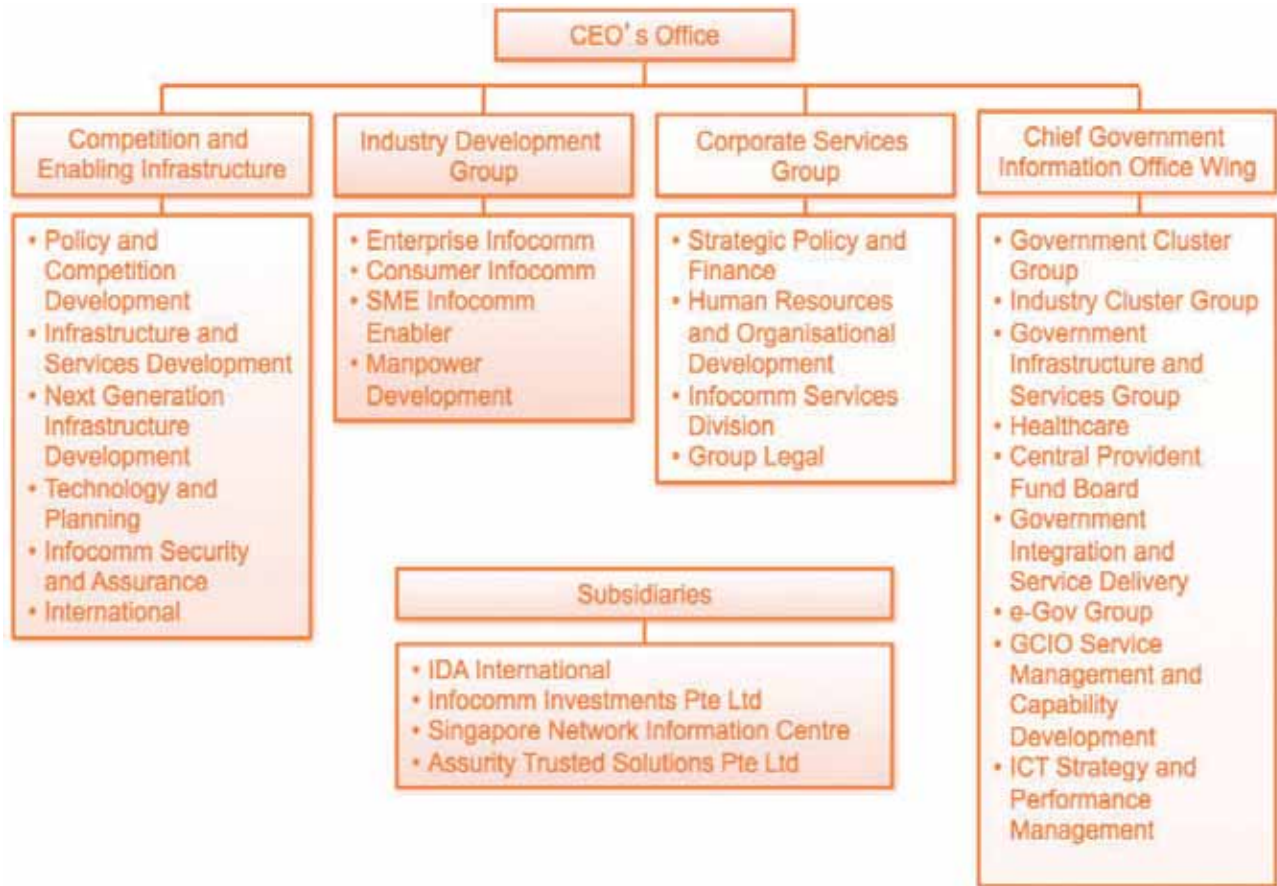
The IDA is responsible for maintaining Singapore's Frequency Allocation Chart, its Radio Spectrum Master Plan and for allocating and regulating all radio frequencies within Singapore. IDA publishes several guides and policy frameworks on its website relating to spectrum management and spectrum utilization.

There are elements of its developmental role, which have considerable merit and given the increasing important role of broadband and connectivity, ought be considered for inclusion into the mandates of regulators by other regional governments.

C.4.3 IDA's roles and Responsibilities

The IDA's structure consists of two major 'wings', two minor groups and an overseeing CEO's Office that manages the other four. The two major wings are the Competition and Enabling Infrastructure Wing and the Government Chief Information Office Wing. The two minor groups are the Corporate Services Group and the Industry Development Group. Each of the four departments has various sub-departments or clusters that deal with more specific areas of responsibility. See [Exhibit C.3](#) below.

Exhibit C.3: IDAs Structural Organization



C.4.4 Dispute Resolution in Singapore

Singapore introduced telecommunications specific dispute resolution regulations in 2000 under the *Telecommunications Competition Code* and accompanying guidelines. It emphasises the preference for disputants to resolve controversies through private negotiation and alternate means of dispute resolution. However, the IDA plays an active role in monitoring markets with limited competition.

Singapore's *Code of Practice for Competition in the Provision of Telecommunication Services 2010* was implemented to promote the efficiency and competitiveness of the telecommunications market. The Code covers required cooperation among licensees in terms of interconnection agreements, infrastructure sharing, and the behaviour of dominant licensees.

Section 11 of the Code sets out administrative procedures including requests to the IDA for conciliation and procedures for dispute resolution arising from a failure to voluntarily reach an agreement on interconnection agreement or a sharing agreement. When such failure occurs, sub-section 11.3 states that the IDA may, at its discretion, resolve disputes between licensees. For all other matters not relating to interconnection or sharing, licensees are required to resolve disputes in accordance with their respective agreements or through good-faith commercial negotiation.

C.5 National Broadcasting and Telecommunications Commission (NBTC)

C.5.1 Overview

The NBTC was established by the *Act on 'Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services (2000)'*. The NBTC was established a converged regulator with responsibility for telecommunications, broadcasting and Internet services.

The NBTC has extensive powers in relation to the management of the sector, as well as Thailand's telecommunications business licensing framework, including provisions relating to competition, access and interconnection, equipment and standards, and the setting of maximum fee and tariff rates. Thailand's Ministry of Information and Communication Technology is responsible for the policy direction of the sector, as well as oversight of the state-owned operators.

Previously the two state-owned enterprises, CAT Telecom and TOT, acted as quasi-licensing bodies, with private operators required to negotiate BTO concession agreements through the two operators. The process of greater regulatory independence is continuing in Thailand with the auction of 2.1 GHz spectrum in 2012, and the planned auctions of 1800 and 900 MHz in 2015.

C.5.2 Roles and Responsibilities of the NBTC

The broad roles and responsibilities of the NBTC include policy making and planning, establishing rules and regulations and implementing its enforcement. Specifically, it includes areas dealing with inter alia:

- Free and fair competition;
- Resource management;
- Customer protection;
- Universal service obligation;
- R&D and Standardization;
- Plurality and Diversity;
- Ethical standards; and
- Self-regulation.

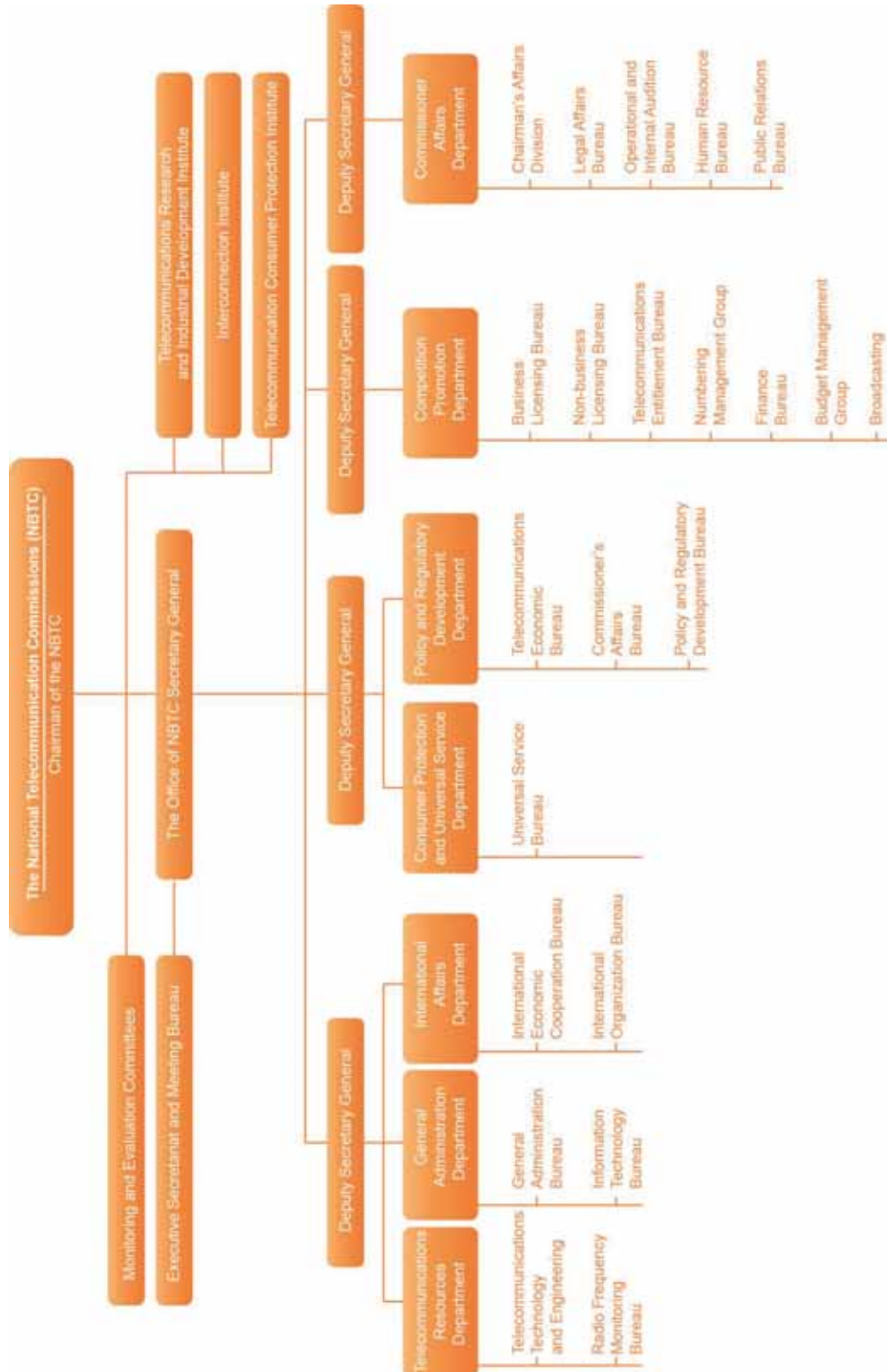
C.5.3 Organisational Structures of NBTC

The structure of the NBTC comprises of 7 departments grouped under 4 Deputy Secretary Generals, namely:

- Telecommunications Resource;
- General Administration;
- International Affairs;
- Consumer Protection and Universal Service;
- Policy and Regulatory Development;
- Competition Promotion; and
- Commissioner Affairs.

The Chairman heads the NBTC. The Deputy Secretary Generals report to the Secretary General. See [Exhibit C.4](#) below.

Exhibit C.4: Organisational structure of NBTC



C.6 Malaysian Communications and Multimedia Communications (MCMC)

C.6.1 Overview

The MCMC was established with the *Communications and Multimedia Act 1998*, with the Commission given responsibility for the regulation of telecommunications and broadcasting services. In 2001 the MCMC took over the regulatory functions of the *Postal Services Act 1991* and the *Digital Signature Act 1997*.

The MCMC's stated mission is to:

- Promote access to communications and multimedia services;
- Ensure consumers enjoy choice and a satisfactory level of services at affordable prices;
- Provide transparent regulatory processes to facilitate fair competition and efficiency in the industry;
- Ensure best use of spectrum and number resources; and
- Consult regularly with consumers and service providers and facilitating industry collaboration.

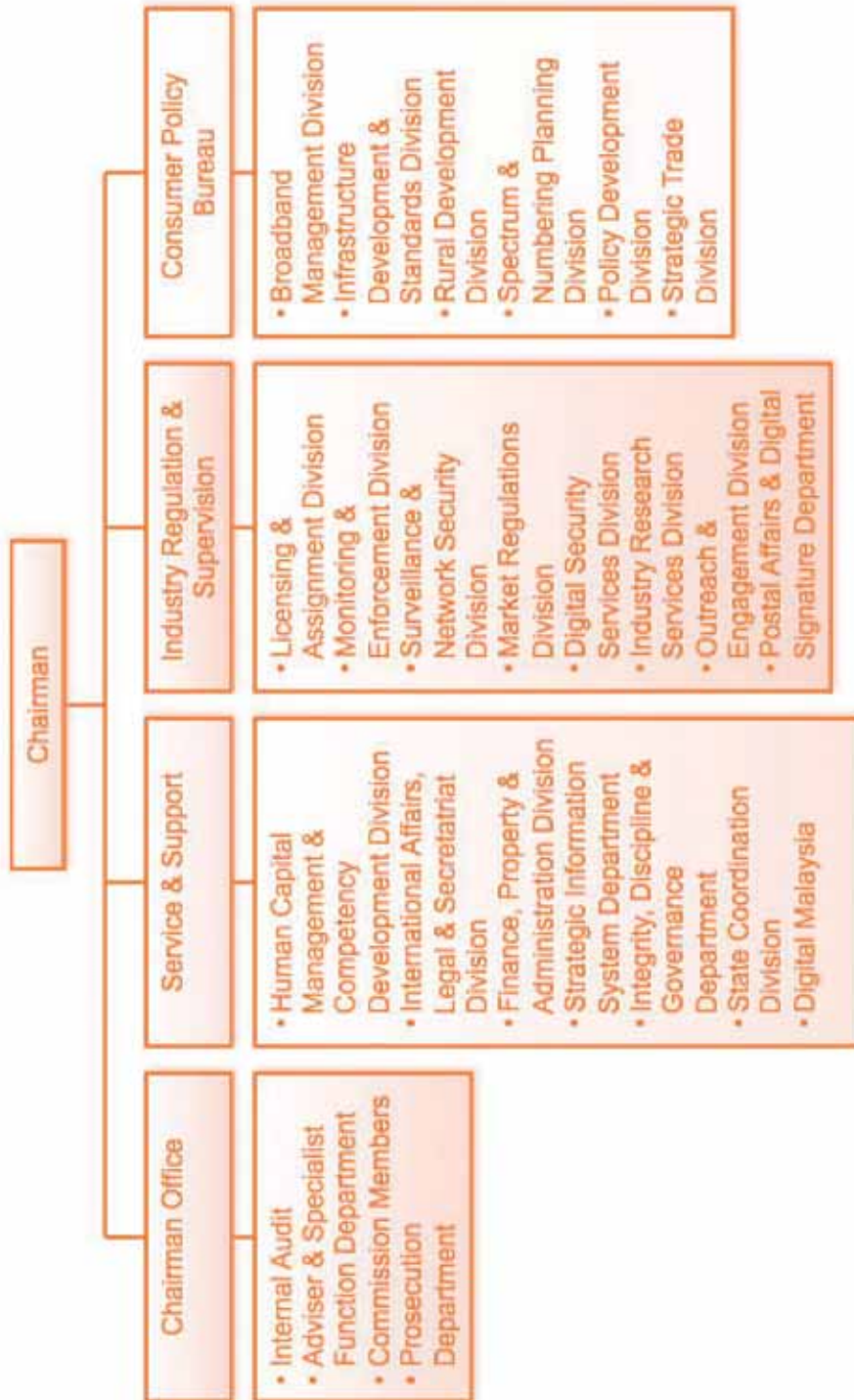
C.6.2 Roles and responsibilities of the MCMC

The MCMC's primary functions include:

- Advise the Minister on all matters concerning the national policy objectives for communications and multimedia activities;
- Implement and enforce the provisions of the communications and multimedia law;
- Regulate all matters relating to communications and multimedia activities not provided for in the communications and multimedia law;
- Consider and recommend reforms to the communications and multimedia law;
- Supervise and monitor communications and multimedia activities;
- Encourage and promote the development of the communications and multimedia industry;
- Encourage and promote self-regulation in the communications and multimedia industry;
- Promote and maintain the integrity of all persons licensed or otherwise authorised under the communications and multimedia industry;
- Render assistance in any form to, and to promote cooperation and coordination amongst, persons engaged in communications and multimedia activities; and
- Carry out any function under any written law as may be prescribed by the Minister by notification published in the Gazette.

C.6.3 Organisational Structures of the MCMC

Exhibit C.5 Organisational structure of the MCMC



C.6.4 Dispute Resolution in Malaysia

The *Communications and Multimedia Act* provides a comprehensive dispute resolution mechanism. Under Part V, parties are first encouraged to resolve disputes themselves. Alternatively, if one of the parties to the dispute registers an undertaking with the regulator, the parties may adopt the terms and conditions of the undertaking to resolve the dispute.

Failing this, the parties can then seek resolution by the regulator as long as the form of dispute is provided for by the Act or relevant subsidiary legislation. Such conditions include disputes on interference, compliance with standard access obligations or compliance with undertakings. Such measures decrease the burden on administrative processes and ensure that those claimants with a genuine need for dispute resolution have access to such services.

The MCMC holds a preliminary enquiry within 30 days of receiving a notification of a dispute from a party. After an investigative process by which parties make submissions and any counter-claims, the regulator may take up to 30 days to come to a decision. The regulator may also require the parties to come before it and/or to provide further information at any time until making a decision. The MCMC's decisions are enforceable under section 89 of the Act, and may also be enforced by the High Court.

C.7 Telecommunications Regulator of Cambodia (TRC)

C.7.1 Overview

The Telecommunications Regulator of Cambodia (“**TRC**”) was established in 2012 by the *Royal Decree on the Establishment of Telecommunication Regulator of Cambodia*; to regulate telecommunications services by the managing telecommunications market, and review relevant laws and regulations. Prior to 2012, these duties were undertaken by Ministry of Posts and Telecommunications (MPTC), as assigned by the Government of Cambodia, pursuant to the National Constitution.

The central functional objective of the TRC is to “*Stimulate a policy environment with fairness and transparency, strengthening the sector and encouraging a fair competition*”¹⁶. Under this objective, the TRC puts forward regulations, policies, standards, instructions and circulars to meet existing market needs, and further develop ICT in Cambodia.

The TRC now operates as an independent regulator, removing the ICT market from the *direct* control of government. Although, the Minister of the MPTC still has ultimate authority to determine telecommunications policy, and comment upon issues related to the telecommunications sector.

Under Ministry-approved policies, the TRC has authority to regulate—

- Spectrum management
- Licensing and fees
- Numbering
- Technical standards
- Competition
- Access and interconnection

¹⁶ See www.trc.gov.kh/about-us/vision-and-mission/

Further, the TRC also resolves disputes between licensers and licensees, telecommunication service providers and service providers, and telecommunication service providers and customers.

C.7.2 Summary of essential functions and duties of the Telecommunications Regulator of Cambodia¹⁷, under the *Royal Decree*:

The TRC *implements and executes policies and regulations*, reporting to the Minister of the MPTC about relevant issues to the sector. The essential regulatory function of the TRC is to manage spectrum resources and requirements, licenses and numbering.

The TRC *regulates and administrates service providers and enforces competition provisions*, with the following duties and responsibilities -

- To provide guidance and regulation to relevant service operators;
- To foster the development of telecommunications infrastructure, and enforce technical standards on telecommunications equipment;
- To support and encourage growth in the telecommunications market, by ensuring competition is effectively and transparently regulated;
- To protect the interests of consumers using services provided by Licensees

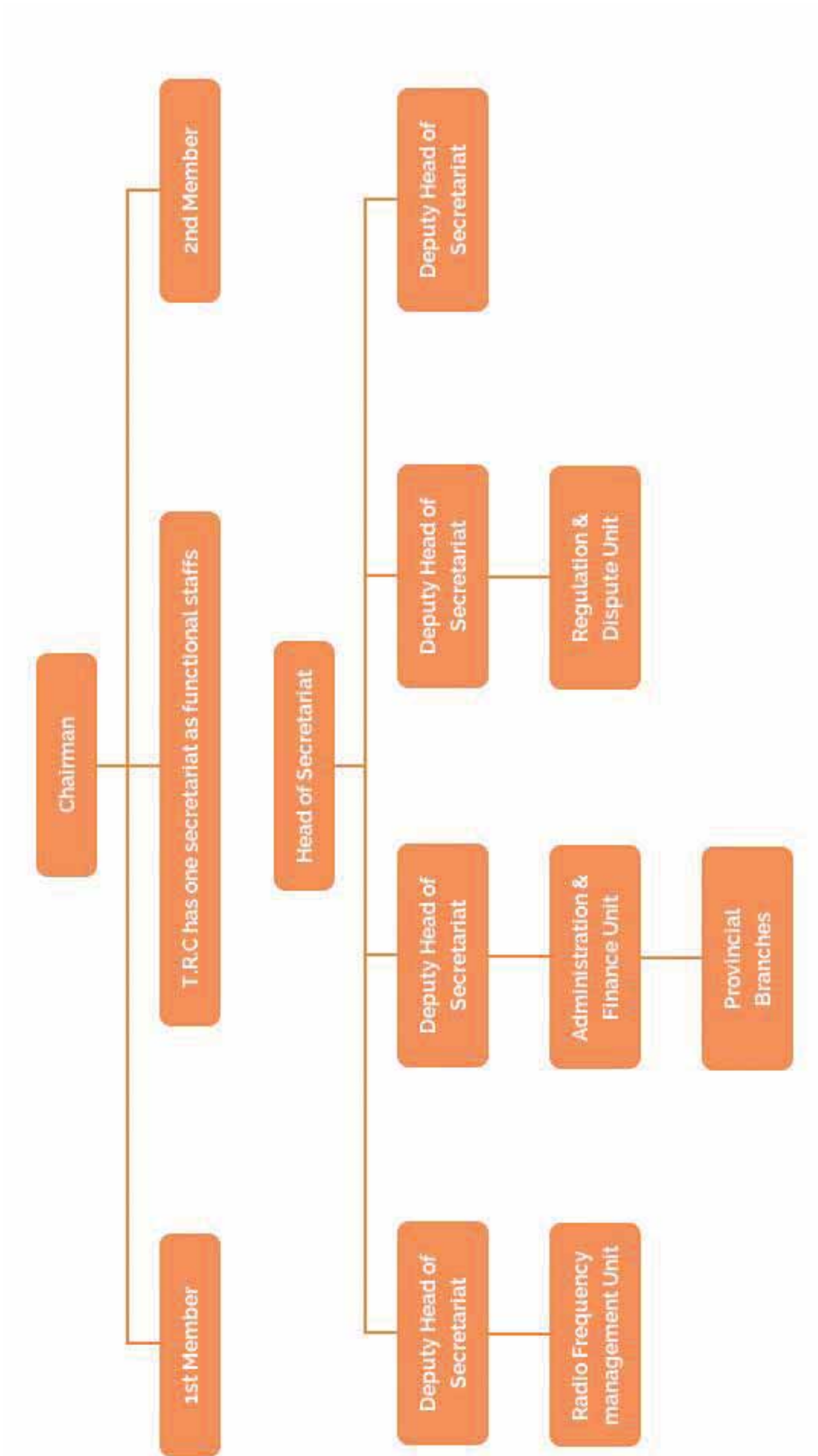
The TRC *issues and regulates licenses to ensure equal access and interconnection* – with the following duties and responsibilities -

- To administrate the networks and telecommunications services through license issuance;
- To determine license standards and requirements for a service provider license;
- To request new determinations of license fees of all kinds;

The TRC *responds to violations of telecommunications laws and regulations* – with the duty to -

- To order the temporary or permanent suspension of a service provider;
- To penalize violating service providers;
- To suspend or confiscate licenses for violating telecommunications laws or other regulations of the TRC

The TRC ensures the smooth running of its own regulatory functions by instituting and implementing procedures on staff management, its own financial budget, and other duties.

Exhibit C.6: Organisational structure of the TRC

APPENDIX D

ABBREVIATIONS

3G	3 rd generation Wideband Code Division Multiple Access (WCMDA)
4G	4 th generation of mobile telecommunications technology. Often LTE is referred to as 4G but properly only LTE-A is 4G technology.
AFAS	ASEAN Framework Agreement on Services
ASEAN	Association of South East Asian Nations
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
ICT	Information Communications Technology
IDA	Info-Communications Authority of Singapore
IRR	Implementing Rules and Regulations under the Telecommunications Act 2011
ITU	International Telecommunications Union
LDC	Least Developed Country
LTE	Long Term Evolution
LTE-A	LTE Advanced is a mobile communication standard and a major enhancement of the LTE standard
MFN	Most Favoured Nation
MNOs	Mobile Network Operators
MoIC	Ministry of Industry and Commerce
MPT	Ministry of Posts and Telecommunications
MRAs	Mutual Recognition Arrangements
MVNOs	Mobile Virtual Network Operators
PSTN	Public Switched Telecommunications Network
TDF-2	Second Trade Development Facility
TRA	Proposed Lao PDR Telecommunications Regulatory Authority
USO	Universal Services Obligations
VNTA	Viet Nam Telecommunications Authority
WiMAX	Worldwide Interoperability for Microwave Access
WTO	World Trade Organisation



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