



What, who and how to regulate? Best practice licensing frameworks in Asia and globally

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Outline of WPC' s presentation

1. Fundamentals of licensing
2. Types of licensing frameworks
3. Principles of licensing
4. Licensing and convergence
5. Transitioning to a new licensing framework
6. Conclusions

1. Fundamentals of licensing

2. Types of licensing frameworks

3. Principles of licensing

4. Licensing and convergence

5. Transitioning to a new licensing framework

Fundamentals of licensing

Licensing in telecommunications markets

Licensing is one of the **core elements** of any communications market's regulatory framework. Licensing is integrally tied to the structure of the communications market.

Licensing determines the **degree of competition** between operators, **revenues earned by governments** from fees, and the **conditions** under which market participants can operate and supply services in the market.

An effective, forward-looking licensing framework is essential for the successful deployment of value-maximising technologies, the promotion of effective competition between operators, and for the facilitation of investment in the communications sector.

Telecommunications is viewed as an essential public service with large positive externalities (like other network industries such as water, electricity and gas). Public policy places a strong emphasis on effective regulation.

Given that the telecommunications sector must be regulated, governments and regulators need a framework that defines ***what is regulated, who is regulated, and how they are regulated***. This is the purpose of licensing.

Fundamentals of licensing

Licensing provides a clear scope for regulation

Key regulatory questions	Potential scope of regulation	Defined scope of regulation
What to regulate?	Which services, technologies and facilities are regulated?	Those telecommunications networks or services that are offered to the public on commercial terms generally require a licence to operate or provide.
Who to regulate?	Which network and service providers are regulated?	Incorporated entities licensed under a country's telecommunications regulatory framework.
How to regulate?	Which regulations apply and how are they administered?	Those general regulations provided for in the telecommunications regulatory framework or within an individual telecommunications licence.

Fundamentals of licensing

What is a telecommunications licence?

An **official authorisation** to provide services or operate networks. Can also be a regulatory code that defines the terms and conditions under which the licensee may operate. Licenses frequently describe the rights and obligations of the provider. Licences:

- Regulate the provision of an **essential public service** through some controls to support the public interest (e.g. safety).
- Assist in **expanding network coverage** and other universal service objectives.
- Represent a key element in **shaping market structure** (e.g. number of players).
- Establish a competition framework through **fair trading conditions**.
- Generate fees as part of **revenue raising for Governments and regulators**.
- Support consumer protection efforts through mandated license conditions.
- By clearly defining rights and obligations, licenses **underpin regulatory certainty**.

1. Fundamentals of licensing

2. Types of licensing frameworks

3. Principles of licensing

4. Licensing and convergence

5. Transitioning to a new licensing framework

6. Conclusions


Types of licensing frameworks

Types of authorisation

TYPES OF AUTHORIZATION REQUIREMENT	MAIN FEATURES
Individual Authorizations	<ul style="list-style-type: none"> • issued to a single named service provider • usually a customized authorization document • often contains detailed conditions • frequently granted through some form of • competitive selection process
General Authorizations (Class licenses)	<ul style="list-style-type: none"> • useful where individual authorizations are not justified, and where significant regulatory objectives can be achieved by establishing general conditions • normally set out basic rights and obligations, and regulatory provisions of general application to the class of services authorized • normally issued without a competitive selection process; all qualified entities are usually authorized to provide service or operate facilities
Open Entry	<ul style="list-style-type: none"> • no authorization process or qualification • no requirements, beyond rules generally applicable to the ICT sector • registration requirements or other rules of general application are sometimes imposed by regulation



Types of licensing frameworks

	Authorising body	Individual licensing	Separate licensing of infrastructure
Australia	Regulator	✓	✓
Cambodia	Ministry	✓	✗
European Union	Regulator	✗	✗
Hong Kong	Regulator	✓	✓
India	Department	✓	✓
Indonesia	Department	✓	✓
Lao PDR	Ministry	✓	✗
Malaysia	Regulator/Ministry	✓	✓
Singapore	Regulator	✓	✓
Sri Lanka	Regulator	✓	✗
New Zealand	Regulator	✗	✗
 Thailand	Regulator	✓	✗

Types of licensing frameworks



Thailand's licensing framework

Act on Organisation to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services 2010 established the National Broadcasting and Telecommunications Commission (NBTC).

Section 27(6) provides NBTC with the power “*to license and regulate the operations of...telecommunications services...and prescribe licensing criteria and procedures, conditions, or licensing fees.*”

Telecommunications Business Act 2001 requires that any entity carrying out a telecommunications service must hold a valid telecommunication licence. There are three categories of telecommunications licences that can be awarded by the NBTC:

- **Type 1 licence:** For operators who do not own their own network infrastructure.
- **Type 2 licence:** For operators with or without their own network infrastructure but who target only a segment or segments of the telecommunications market.
- **Type 3 licence:** For operators with their own network infrastructure who provide services to the general public.

Foreign ownership of a Type 2 or 3 licensee is capped at 49%, however there are no restrictions on the proportion of directors who must be Thai or on the nationality of a person authorised to sign contracts on behalf of the licensee.

Types of licensing frameworks

Thailand's licence fees

Licence fees are set as a percentage of the licensee's revenue, rather than a flat licence fee. Fees for each of the three licence types are based on an incremental scale as a percentage of the operator's total revenue.

Total company revenue (million baht)	Licence fee (% revenue)
0 - 100	0.25
100 - 500	0.50
500 - 1,000	1.0
> 1,000	1.5

There are licence permission fees of 5,000 baht for Type 1 licensees and Type 2 licensees who do not possess network infrastructure, and 10,000 baht for Type 2 licensees who do own infrastructure and Type 3 licensees. In addition, Type 3 licensees are subject to a 10,000 baht licence renewal fee.

1. Fundamentals of licensing
2. Types of licensing frameworks
3. Principles of licensing
4. Licensing and convergence
5. Transitioning to a new licensing framework
6. Conclusions

Principles of licensing



Best practice for licensing processes

WTO General Agreement on Trade in Services (GATS) and Annex on Telecommunications provide trade rules that are applicable to telecommunications regulation and licensing. The Reference Paper provides additional requirements that are legally binding for countries that commit to them:

*Where a telecommunications license is required, the following **shall be made publicly available**:*

- *All the licensing criteria and the period of time normally required to reach a decision concerning an application for a license; and*
- *The terms and conditions of all individual licenses.*

The reasons for the denial of a license will be made known to the applicant on request.

*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.*

Principles of licensing

Principles for effective telecommunications licensing

Licensing regimes must ensure they facilitate rather than restrict growth in services. Must provide businesses with flexibility and certainty required to invest in new and existing operations. Five key principles to effective licensing are therefore:

- **Service and technology neutrality:** Regulators increasingly allow licensees to offer a range of services using the most efficient technology and infrastructure.
- **Simplicity:** Move towards a consolidated licensing framework that requires operators to hold a minimum number of licences and to be subject to a minimum number of different licensing processes.
- **Flexibility:** Operators should have the ability to respond to changes in the market quickly with a minimum regulatory friction.
- **Certainty:** Licensees should be subject to clear and consistent licence conditions. Where there is provision for discretion in setting or modifying licence terms, regulators and ministers should ensure adequate consultation smooth transition.
- **Avoidance of discrimination between types of licensees:** Governments should treat licensees on a consistent basis and ensure a level regulatory playing field.

Principles of licensing

Licensing categories and service definitions

The establishment of licensing categories and service definitions is central to the development of regulatory regime. This is because it dictates ‘who to regulate’ and ‘what to regulate’. Ideally any definitions used to identify a class of industry participants or activities will cover the following features:

- The **definitions should be clear and concise**: industry participants, regulatory agencies and policy makers should all be able to make unambiguous and quick assessments about the class or classes of service provider to which industry participants belong.
- The **definitions should be stable** so that technological and market changes should not create uncertainty about how the commercial strategies of industry participants will be affected.
- The definitions should be relevant and **clearly linked to legislative provisions and other policy arrangements** that serve national objectives.
- The definitions must be clear now and into the future and **based on the constant underlying features of the industry** and not on variable technology and market structure dynamics.

Principles of licensing

Typical licence conditions

TABLE OF CONTENTS

PART I: THE LICENCE

1. Period of Licence
2. Payment of Licence Fee
3. Licence is not Transferable
4. Description of Systems and Services

PART II: BASIC OBLIGATIONS OF PUBLIC TELECOMMUNICATION LICENSEE

5. Provision of Domestic Services
6. Provision of International Services
7. Provision of Emergency Call Services
8. Public Maritime Emergency Services
9. Co-operation with Civil/Public Bodies
10. Provision of Directory Enquiry Services
11. Provision of Integrated Directories
12. Integrated Directory and Directory Enquiry Services
13. Public Payphones

PART III: TECHNICAL OBLIGATIONS

14. Use of Telecommunication Equipment in the Systems
15. Operation of Radiocommunication Stations
16. Use of Radio Frequencies
17. Assignment of Numbers

PART IV: ACCESS AND INTERCONNECTION OBLIGATIONS

18. Requirements to Provide Access
19. Connection to Other Systems
20. Arrangements for Connection to Systems

**LICENCE TO PROVIDE
FACILITIES-BASED OPERATIONS
GRANTED BY THE INFO-COMMUNICATIONS DEVELOPMENT
AUTHORITY OF SINGAPORE TO
SINGAPORE TELECOMMUNICATIONS LTD
UNDER SECTION 5 OF THE
TELECOMMUNICATIONS ACT 1999**

21. Changes to Systems
22. Infrastructure Sharing and Deployment

PART V: SERVICE OBLIGATIONS

23. Price Control/Tariffing Arrangements/Quality of Service Standards
24. Publication of Charges, Terms and Conditions and Other Information
25. Confidentiality of Subscriber Information

PART VI: OTHER OBLIGATIONS

26. Codes of Practice
27. Number Portability
28. Accounting Separation
29. Restriction on Undue Preference and Undue Discrimination
30. Restriction Against Anti-Competitive Arrangements
31. Restriction on Exclusive Arrangement for International Services
32. Contracts with Third Parties to Operate or Provide Licensed Systems or Services
33. Ownership, Shareholding and Management Arrangements
34. Direction by IDA
35. Dispute Resolution
36. Provision of Information to IDA
37. Participation in Emergency Activities
38. International Obligations

PART VII: SUSPENSION, VARIATION AND TERMINATION

39. Penalty Framework for Breach of Licence Conditions
40. Variation of Terms of Licence
41. Suspension /Cancellation
42. Termination of Licence

1. Fundamentals of licensing
2. Types of licensing frameworks
3. Principles of licensing
4. Licensing and convergence
5. Transitioning to a new licensing framework
6. Conclusions

Licensing and convergence

What is convergence?

From a licensing perspective, there is no universally accepted definition of convergence. The term has variously been used to describe recent technological developments, merger and acquisition strategies and new service and application types. However, major global institutions have attempted to **define convergence for the purpose of legislative and regulatory reform**:



“The ability of different network platforms to carry essentially similar types of services and applications.” **European Union**



“The coming together of previously technologically and commercially distinct markets such as broadcasting, print publishing, cable television, fixed wire voice telephony and cellular mobile and fixed wireless access.” **ITU**



“The processes by which communications networks and services, which were previously considered separate, are being transformed such that: different networks and services carry a similar range of voice, audio-visual and data transmission services, different consumer appliances receive a similar range of services and new services are being created.” **OECD**

Licensing and convergence

Convergence trends

Trend in licensing practices reflects developments in telecommunications market, especially rapid growth in data and internet services. Licensing types and categories tend to reflect the value chain of telecommunications services.

Value chain consists broadly of network infrastructure, followed by content delivery and other applications, and value-added services.

Key challenge for licensing frameworks is rise of internet services (*'over the top'* or OTT services). Includes applications such as Skype, WhatsApp, Viber, LINE, etc. Are extra-territorial and often don't need physical infrastructure to operate in a jurisdiction.

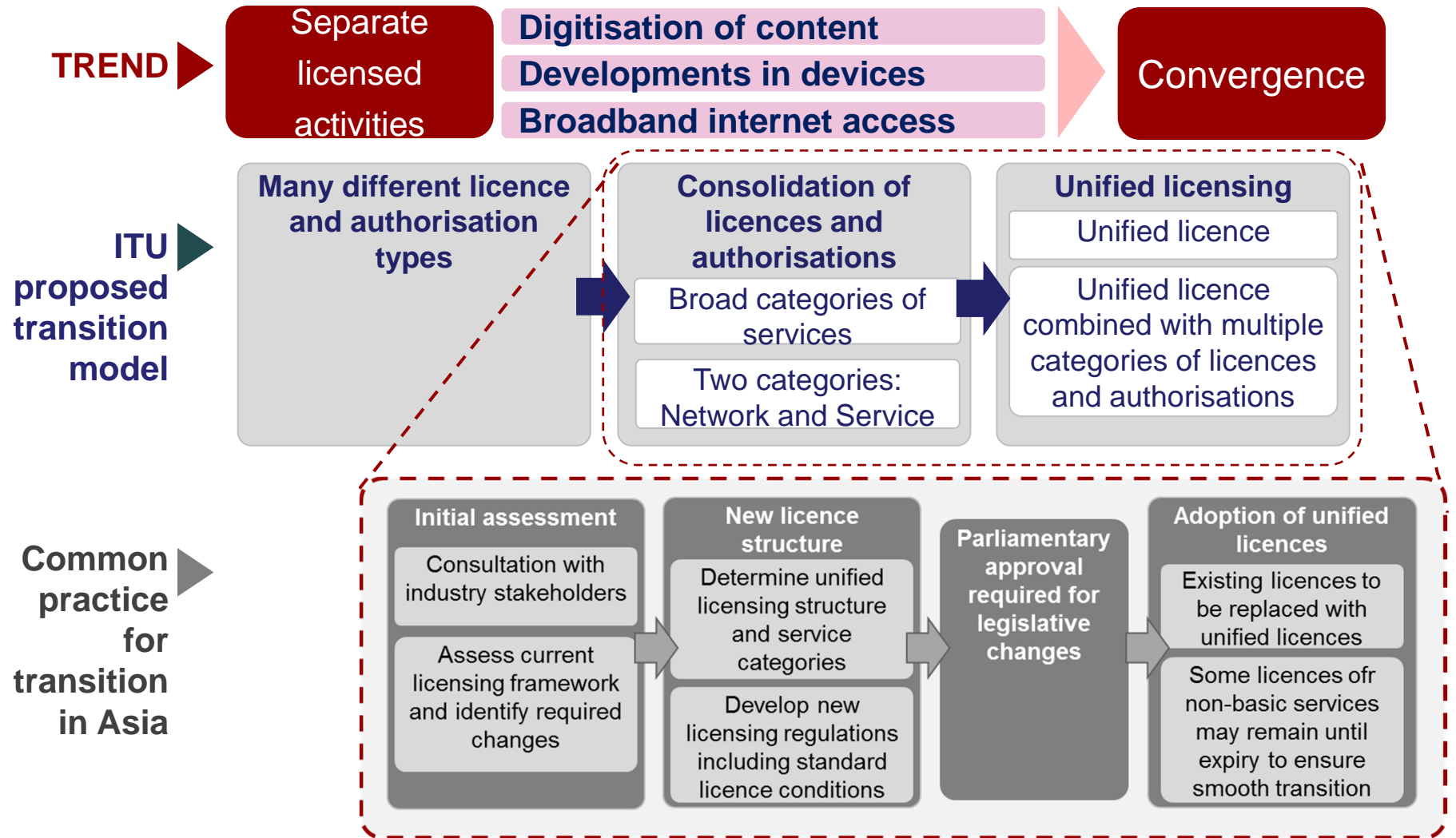
Trend towards unified licensing

Convergence in the telecommunications sector has meant countries have begun to re-evaluate how regulatory layers are defined, including how best to structure licence categories.

A unified license combines licensing for both the provision of services and the operation of network facilities. A unified licensing regime should provide a simplified licensing procedure, allowing service providers to use any technology, ensuring greater flexibility and an efficient use of resources.

Licensing and convergence

Other Asian countries are transitioning to unified licensing, based on consultation, in line with the trend toward convergence



Licensing and convergence

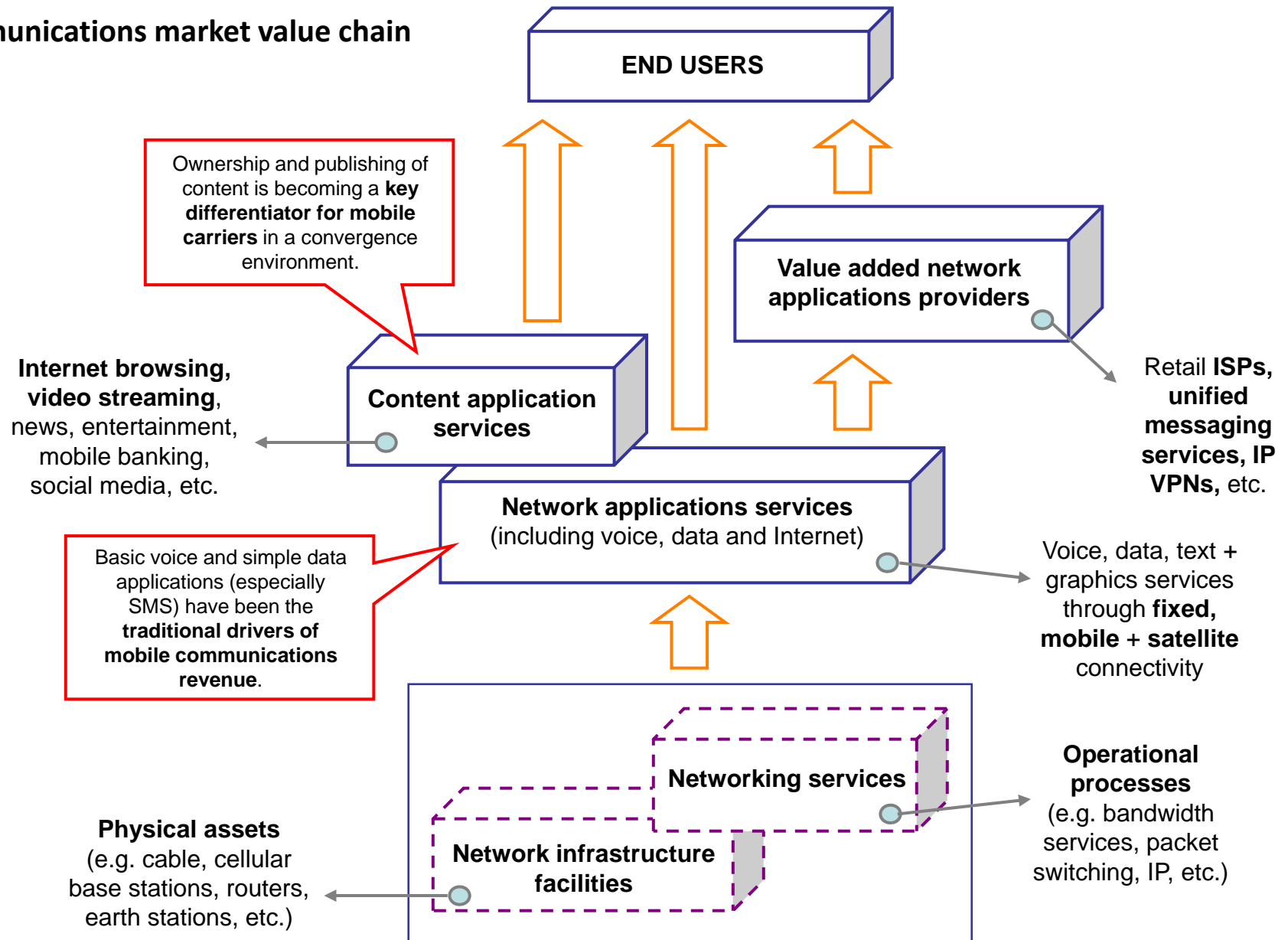
Benefits of unified licensing

A unified licensing framework removes arbitrary and artificial distinctions between different services, promotes sector competition and facilitates sector convergence. The benefits of unified licensing include:

- Simplified licensing structure that reduces the regulatory burden and provides flexibility for operators.
- Technology neutrality, allowing operators to adopt best-use technologies that maximize economic value.
- Facilitation of competition, both through greater ease of market entry and through the introduction of new technology.
- Reduction of legal disputes on scope of license and breach of licence conditions.
- Allows operators to take advantage of an evolving market, which is often characterized by rapid technological or market developments.
- Allows for customization based on the country's unique circumstances.

Licensing and convergence

Communications market value chain



Licensing and convergence

Implications of convergence

Future framework must separate licensing of services from underlying network and use a technology neutral approach. Convergence is leading to:

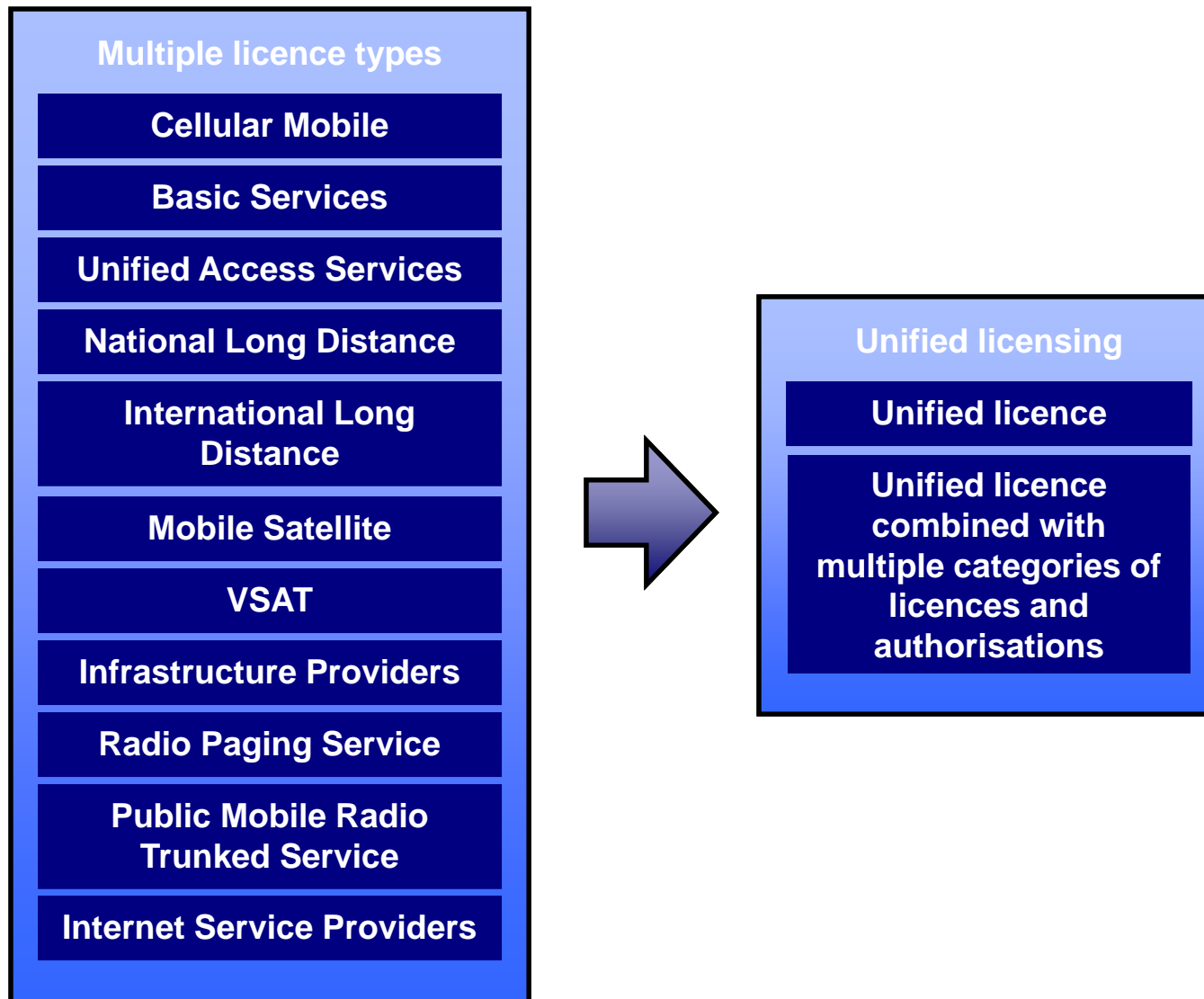
- Market and industry restructuring where all transmission networks are **treated in an equivalent manner** (driven by trends such as fixed-mobile substitution).
- **Revision of service definitions** and licence categories and conditions (characterised by a shift to class licensing and general authorisations).
- Erosion of regulatory, cost and technical **barriers to entry**, helping to facilitate the introduction of cross platform network competition.
- Shift to **‘soft law’ measures** (such as industry codes of practice and alternative dispute resolution) rather than explicit license conditions.
- **Blurring of traditional regulatory distinctions** and jurisdictional boundaries, but recognising the fundamental regulatory separation of ‘carriage’ from ‘content’.
- Move towards a **single value chain** based on digitisation and networking which will encourage operators to explore new service areas such as content publishing.

Licensing and convergence

	Past	Future	Market pressures
Delivery	Segmented modes of service delivery	Integrated modes of service delivery	<ul style="list-style-type: none"> Fluid market boundaries and customer segments Increasingly diverse, hybrid solutions for connectivity
	Analogue, dedicated channel, circuit switched	Digital, synchronous channel, packet switched	<ul style="list-style-type: none"> Shift from time-based to flat rate (e.g. VoIP) charging Shift to commodity based pricing (e.g. int. bandwidth)
	Vertically integrated, end-to-end delivery	Highly segmented, specialised delivery	<ul style="list-style-type: none"> Multi-carrier markets have become the norm Continuing growth of niche market opportunities and vendors
Regulation	Distribution networks as a natural monopoly	Customer access is fully contestable	<ul style="list-style-type: none"> Substantially lower barrier to market entry Alternative access technologies (e.g. cable, fixed wireless)
	Key regulatory focus on interconnection	Key regulatory focus on access and interworking	<ul style="list-style-type: none"> Calls for a flexible regulatory environment General competition principles apply to sector management
Business model	Investment dominated by physical plant	Investment dominated by software and systems	<ul style="list-style-type: none"> Increased focus on wholesale markets and competition Facilities sharing as a viable strategy for 3G/4G
	Key regulatory focus on interconnection	Key regulatory focus on access and interworking	<ul style="list-style-type: none"> Calls for an adaptive and flexible regulatory environment General competition principles apply to sector management
	Business markets drive innovation and rollout	Consumer markets drive new applications	<ul style="list-style-type: none"> Changing economics of network investment Emphasis on retail distribution and service applications
	Discrete national and international markets	Interdependent national and international markets	<ul style="list-style-type: none"> Communications industry globalised and trade exposed Alignment of national regulations with global realities
	Stable comparative advantage	Dynamic comparative advantage	<ul style="list-style-type: none"> Skills and IP are key sources of competitive advantage Increasing propensity and velocity of customer churn

Licensing and convergence

India's transition to unified licensing



1. Fundamentals of licensing
2. Types of licensing frameworks
3. Principles of licensing
4. Licensing and convergence
5. Transitioning to a new licensing framework
6. Conclusions

Transitioning to a new licensing framework

Key transition issues

According to the ITU, some of the key regulatory transition issues include *inter alia*:

- Deciding **which licensing model** to adopt;
- Deciding whether framework overhaul should be **all-at-once or phased**.
- Deciding which **who will be responsible** for licensing or other authorizations.
- **Mapping** existing service/ technology specific licences to new licence categories.
- Deciding **which services** should continue to be licensed.
- Ensuring a **level playing field** between existing and new operators.
- Determining **whether existing licensees require compensation** for move to new licensing regime.
- **Revising universal access/service regulations** including any modifications to network rollout, coverage or investment requirements and contributions to universal access funds as needed.
- **Reviewing and updating regulations** affecting quality of service, interconnection, spectrum, numbering and other sector-specific issues.
- Developing a regulatory framework that **incorporates technological developments** and anticipates continued technical and market evolution.
- Developing the **enforcement capacity** to resolve disputes and impose sanctions.

Transitioning to a new licensing framework

Principles for transitioning to a new licensing framework

There are a number of principles that should be followed when transitioning to a new licensing framework. Transitional arrangements should:

- **Facilitate entry** into convergence markets (including ability to offer content services).
- **Ensure consistency** with company, competition and other relevant legislation/regulation.
- Ensure conditions leave licensees **no worse off** than under old licences;
- **Avoid imposition of asymmetrical regulation** on licensees that reduce ability to compete or hamper investment.
- **Allow licensees to restructure** to meet challenges posed by market and technology convergence.
- **Minimise licence fees** as well as **administration and compliance costs**.
- Enable **easy and efficient license migration** by:
 - **having a clear licence map** and transitional measures; and
 - being as **consistent across license/serves types** as practically possible.

1. Fundamentals of licensing
2. Types of licensing frameworks
3. Principles of licensing
4. Licensing and convergence
5. Transitioning to a new licensing framework

6. Conclusions

Conclusions

- A License is an **official authorisation** to provide telecommunications services in a given country or region;
- The **purpose of licensing** is to define **what is regulated, who is regulated and how they are regulated**;
- **Individual Licenses, Class Licenses and Free Entry** are the three general licensing frameworks;
- **Best practices** licensing will:
 - Effectively **address convergence**;
 - Be **technology neutral**;
 - Be as **simple** and **transparent** as possible;
 - Promote **certainty** and **flexibility**;
 - Allow for a **transition to unified licensing** (if not already present); and
 - **Not discriminate** between services or service providers; and
- The **transition from old to new** licensing regimes should be as **structured, simple, and cost-effective** as possible.

Thank you

**I am happy to answer any
questions**