BANGALDESH
TELECOMMUNICATIONS REGULATORY COMMISSION

Stakeholder Consultation on Unified Licensing

Prepared by David Butcher and Associates for the BTRC of Bangladesh

September 2009

Table of Contents

List of Acronyms and Abbreviations

BTRC	Bangladesh Telecommunications Regulatory Commission
CB	Capacity building
EC	European Community
FBO	Facilities-Based Operators Licenses
FCL	Fixed Carrier License - Hong Kong
FCRL	Fixed Carrier Restricted License - Hong Kong
GMPCS	Global Mobile Personal Communication System
GOB	Government of Bangladesh
GSM	Global System of Mobile Communications
ICT	Information Communications Technology
ICX	Interconnection Exchange
IGW	Integrated Gateway
IIG	International Internet Gateway
ILDTS	International Long Distance Telecommunications Services (policy document)
IP switching	Digital signals switched using internet protocol switching
ISPs	Internet Service Providers
MCL	Mobile Carrier License
MCRL	Mobile Carrier Restricted License
PNL	Private Network Licenses
PTO	Public Telecommunications Operator
SBO	Services-Based Operators
UASL	Universal Access Service License
UCL	Unified Carrier License
VANS	Value-Added Network Services
VSAT	Very Small Aperture Terminal

List of Figures

List of Tables

1

Bangladesh Telecommunications Sector

1. Bangladesh Telecommunications Sector

1.1 BTRC

Bangladesh Telecommunication Regulatory Commission (BTRC) is an independent Commission established under the Bangladesh Telecommunication Act, 2001 (Act no. 18 of 2001) published by the Parliament in the Bangladesh Gazette, extraordinary issue of April 16, 2001. BTRC started functioning from January 31, 2002.

In the intervening years it has pursued a vision to facilitate affordable telecommunication services of acceptable quality for all citizens of Bangladesh, regardless of their location. It has achieved substantial progress by progressive liberalization of the sector and by encouraging competition.

1.2 Unified Licensing

The BTRC is now proposing to move to a Unified License Regime (ULR). Unified licenses are growing in popularity because they leave it up to the operator to choose the appropriate technology for each specific need and to choose the most appropriate services to offer.

This discussion document is designed to identify the issues that arise in the process and to seek feedback from the stakeholders affected. It will begin by a brief summary of the situation in Bangladesh. This is followed by analysis of the arguments for and against a unified license system and a discussion of the appropriate migration path from today to the future. It concludes with a questionnaire designed to allow operators and other stakeholders to have their say on an appropriate form of a ULR.

1.3 Telecommunications in Bangladesh

The communication sector of Bangladesh has changed dramatically within the last few years. The introduction of substantial competition has seen dramatic increases in service and improvements in service quality.

In the first budget of the new government, the government allocation to the ICT sector as a whole was US$ 82 million, double the allocation of the year before and this included US$ 15 million of ICT development, US$ 30 million for the Equity and Entrepreneurship Fund for ICT promotion and US$ 20 million for and an annual development program for the science ministry.

The telecom sector in Bangladesh is rapidly emerging from a dysfunctional state monopoly to a competitive sector characterized by competitive pricing and substantially improved customers service. However, there are major distortions in the system that the BTRC believes a move to Unified Licenses will address. The following paragraphs discuss each of the components of the sector.

1.4 PSTN

The PSTN operators in Bangladesh are:

- BTCL Former BTTB
- Ranks Telecom Ltd.

- Tele Barta Ltd. - branded under the name Jubok phone.
- Jalalabad Telecom Ltd. - branded under the name Bijoy Phone.
- Onetel Communication Ltd.
- National Telecom Ltd.
- Peoples Telecom Ltd.
- Westec Ltd.
- Dhaka Telephone Co. Ltd.
- Integrated Services Limited (ISL) - branded under the name Sheba Phone
- S.A Telecom System Ltd.
- Banglaphone Ltd.

The number of PSTN subscribers in Bangladesh as of February 2009 was 1.372 million[1]. The market in Bangladesh is divided into 5 Zones. Some PSTN companies operate over several zones, others are confined to a single zone. All are in bad shape financially as their licenses in many cases load them with large social obligations, while at the same time restricting their rights to compete in the most profitable segments of the market.

There is enormous potential in offering broadband using ADSL technology over existing wires, but the companies are in such poor shape they are unable to take advantage of this opportunity. With imminent competition from wireless – fixed –mobile technologies such aa WIMAX companies predict their own demise in the near future unless change to regulatory restrictions come very soon.

1.5 Mobile Phone Operators

There are 6 mobile phone operators in Bangladesh. These are:

- Grameenphone Ltd.(GP)
- TMIB(Aktel)
- Sheba Telecom Ltd.(Banglalink)
- PBTL(Citycell)
- Teletalk Bangladesh Ltd.(Teletalk)
- Warid Telecom Int.(Warid Telecom (Bangladesh))

The number of mobile phone subscribers in Bangladesh as of February 2009 was 45.21 million. The mobile operators have a track record of successful expansion across the country and are the most profitable part of the sector. However, they too find the existing regulatory structure difficult to operate under and welcome the opportunity for more flexibility and efficiency.

1.6 Long Distance Operators

Long Distance Operator (as per ILDTS Policy 2007) 6 licenses were issued by BTRC in 3 categories (IGW, ICX & IIG) through an open auction in February 2008. The incumbent BTTB got the same licenses too. The following is the list of all operators:

[1] BTRC

International Gateway (IGW) operators

- Bangla Trac Communications Limited (www.banglatraccommunications.com)
- Mir Telecom (www.mirtelecom-bd.net)
- Novotel Limited
- BTCL

Interconnection Exchange (ICX) operators:

- Getco Telcom
- M&H
- BTCL

International Internet Gateway (IIG) Operator

- Mango Teleservices Limited (www.mango.com.bd)
- BTCL

1.7 Radio Operators

Radio broadcast stations include AM 12, FM 12, shortwave 2 and it is estimated that there are more than 20 million radio receivers in operation in Bangladesh.

The government owned Betar-Radio Bangladesh operates from Dhaka and other local districts. Currently, the private FM radio channels are very popular. They are trying to attract young people by broadcasting music and news. The operating private radio channels include:

- Radio Today FM
- Radio Foorti FM
- Radio Amar FM
- Radio Metrowave
- ABC Radio Bangladesh

These stations all have limited coverage. They are largely broadcasting in Dhaka and its surrounding areas. While part of the telecommunications sector their concerns are currently not the principal focus of the consultation.

1.8 Television

There are a large number of television stations in Bangladesh and the number of private satellite channels is growing. The first private channel in Bangladesh was ATN Bangla. Other Channels on the air are ETV, ntv, Banglavision, Desh TV, RTV, Channel One and Channel I.

1.9 Internet

The first connectivity of internet was only in 1996. Though It was somewhat late, over the past few years the growth is rapid. The high internet tariff is reported to impede the growth of this sector. Recently the government is decided to reduce the tariff 50 percent.

Internet Service Providers (ISPs): As of 2005 more than 180 Internet Service Providers are operating in the country. ISP's are regulated by the BTRC.

The number of internet users in Bangladesh as of March 2009 is over 600,000 compared to 100,000 in 2000.

1.10 Broadband Internet Access

Though broadband internet access is available, charges are higher for high speed connection than in other south Asian countries, though this is rapidly changing.

Broadband internet and e-commerce in Bangladesh is slowly progressing. WiMAX service is now available from some internet service providers.

1.11 International

There are 6 satellite earth stations serving Bangladesh.

The submarine cable to which Bangladesh is attached is SEA-ME-WE 4 or South-East Asia - Middle East - Western Europe 4. The landing site is Cox's Bazar, Bangladesh.

1.12 Summary

The ICT sector in Bangladesh is expanding fast. It has proven to be a laboratory for the development benefits of modern communications. When the first mobile phones were introduced into the country the availability of cheap electronic communication to the principal cities of Dhaka and Chittagong meant that farmers and owners of rural businesses were no longer forced to accept intelligence from the buyers of their major crops. This resulted in a resetting of bargaining power and in some areas resulted in increasing rural incomes by more than 20 percent.

In a wider sense Bangladesh shows a phenomenon that remains poorly understood in the rest of the World. For poor people in developing countries, ICT communications through mobile phones and the internet dramatically cut the cost of communications. The alternative to the first mobile phone conversation was a journey to the next street, village, province or even overseas to communicate with a relative, friend or business partner. For the prices of a 10 Taka call, business can be done that would otherwise cost hundreds of Taka to carry out.

However, it is clear that the practice of issuing technology based licenses is now proving to be a significant impediment to the sector's development. The following sections demonstrate how reforms proposed using ULRs can give a further impetus to development.

2

Origins and Objectives of ULR

2. Origins and Objectives of ULR

2.1 Origins

2.1.1 Economics of Telecoms

The first telecommunications services began when individuals and groups of enthusiasts took private initiatives to offer services to friends and neighbors. Eventually, when the power of telecommunications became obvious, in most of the world, including Bangladesh, telecommunications became a **state monopoly**.

State monopolies were justified by the view that operators could only create nationwide networks and subsidize services in **expensive to serve regions** and to **low income people** if there was a single operator, **protected from competition**. In some places, only the government could raise the funds required to roll out networks.

Where costs are minimized by supplying services from one firm, economists call this a market characterized by **natural monopoly**, or **cost sub-additivity.** Monopolies usually produce fewer goods and services at higher prices than several competing firms, so many countries have laws restricting monopolies.

Governments passed laws to mandate telecommunications monopolies in the belief that telecommunications could only be a monopoly and accepting monopolistic loss of quality as the price of creating a network.

2.1.2 Regulation

When governments realized that telecommunications is potentially a competitive business, they used the mechanism of licensing, to regulate entry by new operators.

Issuing a license is an example of competitive selection of the parties with the **right to operate in a market**. This is in contrast to competition **for a market** (e.g. competition to hold a monopoly). Both systems seek to protect one or more companies by restricting competition.

From the 1980s, competition in telecommunications has proven to be not only possible, but beneficial. The benefits sought from competition are **efficient investment** and **competitive price/quality discovery.** Efficient investment minimizes the cost to society of providing for essential infrastructure. Competitive price discovery encourages technical progress and innovation at the lowest possible price. Regulators realized that liberalization would allow the sector to obtain these benefits by competition among multiple operators.

As each technology arrived, regulators introduced new categories of licenses. Technology based licensing created both economic and technical incentives for the license holder to dominate the market.

2.1.3 Regulating Against Incentives

Coming from a background of state monopolies, some privatized companies have continued to behave as monopolies. New entrant operators often complain that incumbents are **misusing their dominant positions** to discriminate against new rivals.

The incentives facing incumbents are to **block competition** and continue to monopolies. Blocking means delaying, preventing or overcharging competitors for access to **essential infrastructure**.

To overcome blocking and similar disputes regulators deployed **behavioral regulation**: legal sanctions designed to modify behavior against the strong economic companies have to monopolies the market.

New entrants to the telecommunications sector will always reluctant to depend on rival's facilities because of suspicions that (1) they will be allocated inferior quality lines, (2) the non-affiliated company will be overcharged relative to the in house users and (3) their rival will use confidential information to poach their best customers.

Despite behavioral regulation, around the World legal and regulatory battles continue over interconnection, abuse of dominant market positions and access to essential facilities. There is a conflict between behaving competitively on the one hand and following behavioral rules on the other.

It has proven hard for regulators to obtain both efficient investment and competition at the same time. Usually countries experience one or the other. Increasingly, regulators are looking for other solutions that will bring telecommunications closer to other sectors regulated primarily by competition.

2.2 Authorizations

The trend in telecommunications is now towards competition as the basic regulator of the many firms active in the sector. This change in emphasis has led to a change in the generally accepted terminology.

Instead of issuing licenses for specific technologies, regulators now focus on generic **authorizations** to engage in the telecoms business. Unified authorizations remove barriers to operators selecting the most appropriate technology and the service requested by their customers. Removing barriers to using new technologies facilitates competition.

The name authorization suggests a less prescriptive permission than a license. However, fundamental economic driver of change in the way governments regulate telecommunications is the growth of competition and the drive to reduce costs.

For example, if operators share infrastructure, costs for all participants in the sector can be reduced (just as all competing road transport operators use the same road system). Sharing significantly reduces the capital and operating expenditures of operators.

Provided terms and conditions of entry to a competitive business are identical for all uses (just as they are for roads) there is a much high probability that investment in infrastructure can be optimized.

2.3 Authorization Objectives

Effective management of the sector needs clear management objectives. When considering new licensing arrangements, governments and regulators need to decide what their objectives are. Table 2-1 lists some possible objectives.

Table 2-1: Objectives of Licensing

Objectives of Licensing	Elaboration
Allocation of Scarce Resources	Some resources required for telecommunication services are finite in nature (for example, spectrum, numbering or rights of way) and governments need to allocate these resources among providers in a fair, efficient and transparent manner. Licensing is the most common regulatory means to allocate these resources. Spectrum licensing is a characteristic of every jurisdiction (except Somalia).
Expansion of Networks and Services	Most governments view telecommunications as an essential public service. They are placing reliance on markets to deliver these services. However, there will always be some barriers to markets delivering long term least-cost services to consumers. Most regulators impose some obligations to ensure that such services are available to the public at affordable rates. Regulators also employ licensing to attract operators to roll out services in underserved areas (e.g. South Africa and India).
Establishing a Property right	In some jurisdictions, property rights are uncertain and there is always the danger of official seizure of private property in order to achieve some social policy objective. The presence of a licensing regime creates an added layer of comfort for the private investor that their investment is safe, because it has an official document identifying the owner of the property and setting out the rights entailed in using it.
Privatization or commercialization	Previously state-owned incumbents received licenses when they privatized. Governments lose a measure of control over incumbents during privatization. Licenses are a way to clarify for all stakeholders including consumers, competitors and the government itself - what the privatized incumbent can and cannot do. At the same time, the license specifies rights and obligations of incumbent operators and gives the new investors some certainty about the business in which they are investing.
Regulatory Certainty	Licensing comprises only one element of the regulatory framework. Other rules that govern operator behavior are included in telecommunication laws, sector policies, regulations, decrees, orders, decisions, guidelines, directions and other documents of general application. By clearly defining the rights and obligations of the operator and the regulator, a license can significantly increase confidence in the regulatory regime.
Establishing a Competitive Framework	In countries without competition laws, licenses usually include conditions to establish a level playing field for competition. They also limit the scope for incumbent providers to abuse their dominant positions in telecommunication markets. Such conditions described as anti-competitive safeguards or fair trading conditions. These typically include prohibitions against anticompetitive practices, such as cross-subsidization, predatory pricing, excessive pricing and discrimination.
Consumer Protection	Consumer protection provisions are often included in telecommunication licenses, alongside other terms and conditions related to the provision of services and facilities. These conditions relate to matters such as price regulation, quality-of-service standards, and mandatory services that must be offered to consumers. These include, for example, directory services, operator assistance and emergency services
Regulatory Market Structure	An important aspect of regulation is to ensure all operators face efficient terms for entry and exit of the market. Inefficient entry should not be encouraged. The license may have role in determining what should be the ideal or optimal structure of the telecommunication market to ensure the best long term sustainable price for end users. For example, interconnection ensures any to any connectivity to the benefit of all customers. Mandatory sharing of essential facilities encourages efficient investment by firms.
Generating Government Revenue	There is no reason in principle for telecommunications businesses to pay taxes other than normal company taxes. Many governments feel obliged to collect additional taxes to replace the income lost when the telecommunications monopoly separated from the national budget. The structure of such levies should distort commercial decision making as little as possible.

Objectives of Licensing	Elaboration
	Revenues can be levied at different points throughout the licensing process, including from application fees, from one-time license fees when licenses are awarded, and from recurring annual license fees. It is important that a clear conceptual framework is ensures rational and sensible charges levies and taxes is developed for the collection and application of funds from the sector. In general the more inelastic the demand for the services (e.g. use of essential infrastructure) the less distortionary the revenue collection.

ITU

In jurisdictions such as Europe, it may not be possible to identify sufficient objectives to sustain a traditional licensing regime:

- virtually the whole sector is privatized,
- there are no concerns over property rights,
- networks are well established,
- competition is strong and
- other laws cover competition issues, consumer protection and government revenue collection,

The principal remaining reason for requiring authorizations may be to monitor the use of spectrum and to record details of firms active in the sector for coordination purposes. In most cases, Spectrum is dealt with separately. In Europe and elsewhere licensing of technologies and services has been abolished. In some countries, companies do not even need to register with the authorities.

However, for developing countries, such as Bangladesh, in the immediate future authorizations will remain part of the scene. The purpose of this consultation is to identify what authorizations should look like.

2.4 Content of Authorization

Four trends in licensing service providers that have become increasingly important in light of the regulatory issues raised by technological innovation, convergence and NGN[2]. These four trends are neutrality: simplification, flexibility and reduction of administration.

2.4.1 Neutrality

Neutral authorizations do not designate a single, specific service that the licensee can offer, nor do they prescribe the technological infrastructure that must be used to deliver the service. Authorizations permit the licensee to offer any of a range of services, using any technological infrastructure that is capable of delivering the desired services. Neutrality in licensing allows simplification of the authorization regime.

2.4.2 Simplification

Simplification involves the consolidation of different types of service-specific authorizations into a broad, generic category of authorizations or even the unification of all authorizations into a single, unified authorization.

[2] See ITU Toolkit, Licensing for Convergence and Next Generation Networks, http:// www.ictregulationtoolkit.org/en/Section.3316.html

Instead of requiring service providers to hold separate authorizations for every kind of service they offer (each subject to a unique licensing process, different terms and conditions and separate fees and reporting obligations), simplification consolidates the many authorizations that service providers are required to hold into a few or even a single authorization.

Neutral and simplified authorization frameworks allow regulators to respond to innovation in a sector in which the range of services continues to expand and where multiple services can be delivered using a single, IP-based platform.

Simplified, service and technology neutral authorization frameworks accommodate convergence and the blurring of traditional market boundaries in the Information Communications Technology (ICT) sector. They also ensure that after the transition, all service providers gain equal treatment and are not subject to any competitive disadvantages by virtue of the service provided or technology used to deliver the service.

2.4.3 Flexibility

Many regulators have responded to the sector's dynamism by adding greater flexibility to the authorization regime, for example, enabling service providers to offer multiple services ("from the carrier pigeon to the satellite").

This is an important step in allowing operators themselves to determine the best technology to use to deliver a specific service. This drive for flexibility has allowed more sympathy to proposals to share infrastructure and to similar flexibility, allowing licensees to trade and farm spectrum.

2.4.4 Administrative Burden

Many regulators have adopted measures designed to reduce the administrative and formal requirements necessary to enter the market. Advertising of criteria for licensing avoids futile applications. Abolishing licensing is an extreme response. Removing barriers to shared facilities is another.

NGNs are a driver for administrative simplification. An important characteristic of the NGN environment is the separation of the provision of services and applications and the operation of the underlying network. NGNs will increase competition in the service and applications layers of the network since service providers will not have to own and operate network infrastructure to enter the market.

The reduction of the administrative burden associated with licensing supports the development of competition in NGNs by making it easier for a provider of a new service to enter the market by simply obtaining transmission capacity from an existing operator, particularly one that specializes in network operation.

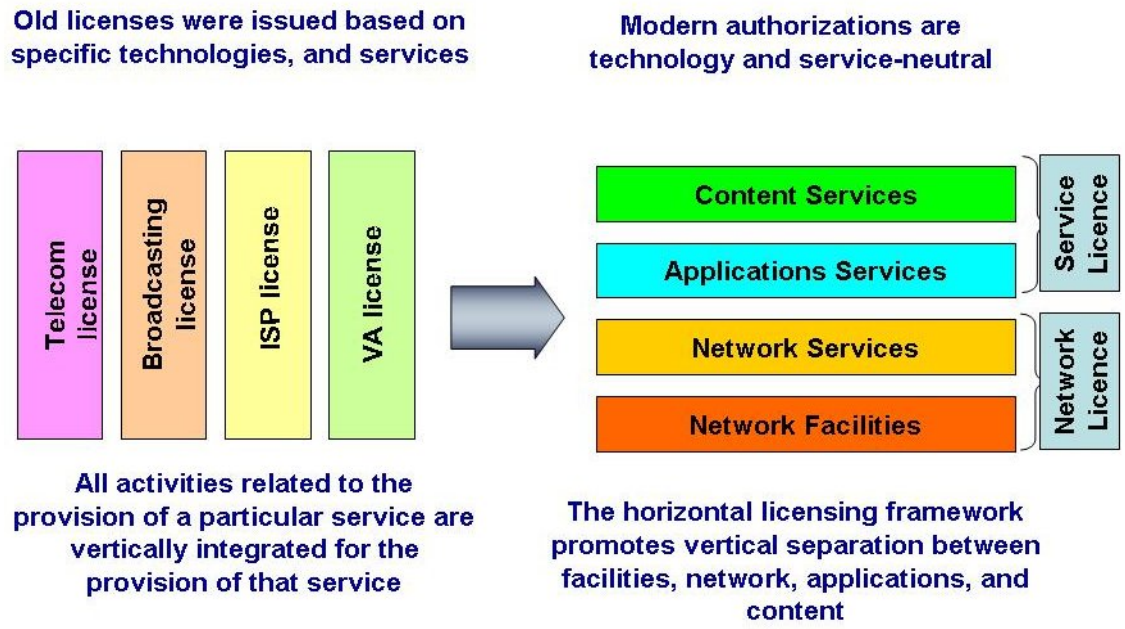
2.5 Technological Convergence

Technology based ICT regulations and licenses were adequate for traditional circuit-switched communications. Regulatory regimes focused on the specific technology used and licenses were largely specific to a particular service and/or technology.

The response to the need for better forms of regulation has been the move from vertical (technology based) to horizontal (services based) licenses. Instead of regulating a particular technology from origination to termination, regulation may apply to ownership of facilities, operation of facilities, services provided or even content.

Figure 2-1 shows the effect on the structure of licensing of moving to technology neutral licensing. Countries that have used this specific pattern include Tanzania and Malaysia.

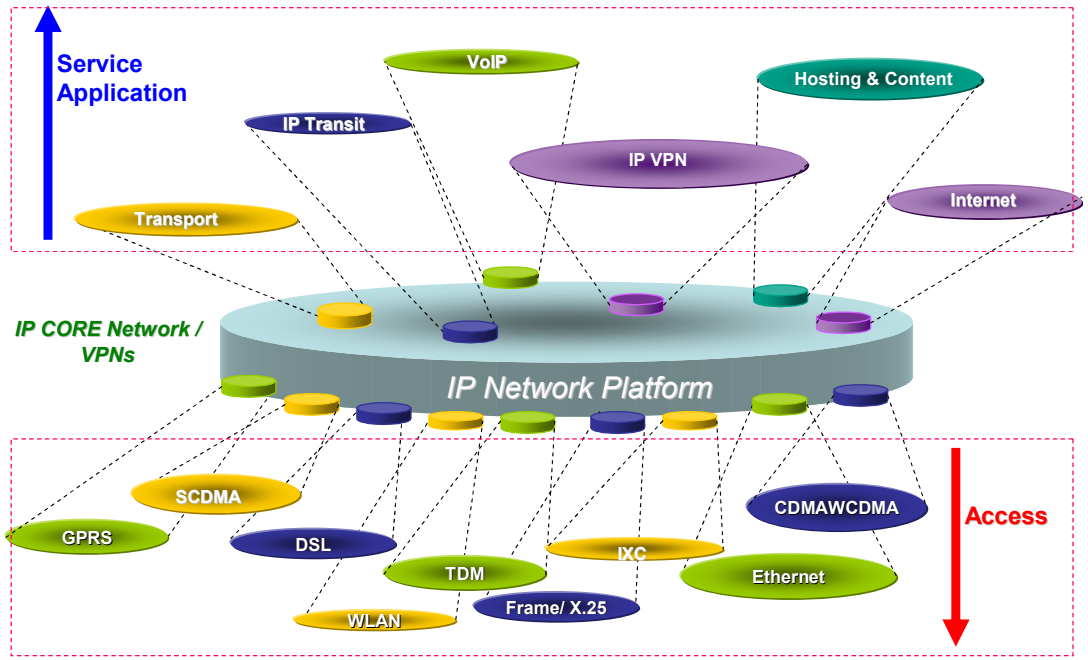
Figure 2-1: Moving to Technology Neutral Licensing



With technology moving away from circuit switched communications, licenses for a single technology no longer have a useful purpose. Technologies are converging towards a common digital delivery platform.

Broadcast voice services and digital fiber networks based on internet protocol (IP) switching can now all use a digital delivery platform. These platforms are called Next Generation Networks (NGNs). Figure 2-2 shows how NGNs will offer a common platform for various access technologies to offer a range of service applications.

Figure 2-2: IP Switching and Digital Platform



2.5.1 Convergence and Authorizations

The word 'convergence' refers to moving together or the joining of things. Convergence has become a popular concept in ICT policy debates. The main reason is that ICT technologies have gradually permitted the offering of previously different types of services over the same networks.

Multiple offering is particularly true of IP-based networks, which can provide data, voice and video services. These services were previously offered over separate circuit-switched voice telephone networks, packet switched data networks such as the Internet and broadband video networks such as cable television and satellite networks.

In general, convergence-based authorization policies promote equal treatment of services or technologies previously licensed or regulated in different ways. Regulatory convergence' is also more technologically and competitively neutral – and therefore involving less regulatory intervention or behavioral regulation in communications markets.

2.5.2 Lifting Restrictions on Licensees

The dynamic nature of the ICT sector and the significant investments that operators must make to transition to a converged, NGN environment has prompted regulators to ease the restrictions previously placed on licensees. Spectrum refarming, mentioned already, is one.

An important area where regulators have lifted restrictions on licensees relates to infrastructure sharing. In early licenses sharing was banned to encourage an early roll out of infrastructure. In fact it often slowed the entry of competition.

Some regulators approached infrastructure sharing with caution citing the need to encourage competition and avoid monopolization[3]. In the case of the United Kingdom British Telecom lobbied successfully to ban sharing in the deregulation bill. This hampered the development of competition for more than 20 years. Most jurisdictions, including significantly the European Union, now recognize the potential benefits of managed infrastructure sharing.

Other regulators have push for arm's length separation of backbone networks, wholesale services and retail services. In the United Kingdom (and New Zealand), the internal separation of British Telecom into Infrastructure and services businesses is designed to reduced the need for regulation and enhance competition.

Important benefits include a reduction of the capital and operating expenditures of operators. Reducing costs helps to lower access costs for end users. It allows service providers without infrastructure, to shop around for the most cost effective infrastructure solution.

Infrastructure sharing also responds to operators incurring high costs as they upgrade existing infrastructure and build new infrastructure in preparation for the transition to NGN. In Bangladesh sharing is also seen as a way to de-clutter the urban landscape.

Infrastructure that has been opened to sharing includes non-replicable resources such as towers, ducts, and rights of way. Some Regulators authorize market players who only provide passive network elements and who do not compete for end-users.

[3] In Hong Kong PCCW the former incumbent operator, has for a long time marketed its network services to competitors. Originally a defensive strategy to give it more time to invest in fibre, this practice has survived the entry of competitors with fibre based infrastructure.

2.6 Unified Licensing

As regulators respond to convergence in the ICT sector and seek to facilitate the transition to NGN, they have integrated neutrality, consolidation, and flexibility into authorization Unified and Multi-Service regimes.

The tool to achieve integration is **unified authorization** and **multi-service authorizations** (also referred to as global licenses). These forms of authorizations allow licensees to provide any of a range of services using any infrastructure and technology capable of delivering the desired services, under the umbrella of a single, consolidated authorization.

Some unified authorization regimes, consolidate all categories of authorizations into a single, service and technology neutral authorization. Thus, a single authorization authorizes service providers and operators to provide all services, whether at the core or access level, using any technology available.

Argentina introduced a unified authorization framework in 2000. The Argentinean unified authorization (licencia ùnica) permits licensees to provide any and all telecommunications services to the public[4]. It does not distinguish between facilities-based service providers and resellers, nor does it distinguish between fixed and mobile services, wire line and wireless services, or local, national, and international services. Spectrum rights and numbering resources are allocated separately from the unified authorization.

Another example of a unified authorization is the "electronic communications" authorization issued by EU members pursuant to the EU *Authorization Directive*. Electronic communications authorizations allow licensees to provide all forms of electronic communications networks and services, including voice, data, and even content-based services. Again licensees must obtain specific authorization in a different process to use the radio frequency spectrum to deliver services.

2.6.1 Multi-Service

In a multi-service authorization regime, the diverse service-specific authorizations are consolidated into a few different categories of authorizations. A multi-service authorization authorizes service providers to offer any of the designated services that fall within the relevant authorization category, using any type of communications infrastructure and technology capable of delivering the services in question. Thus, like unified authorizations, multi-service authorizations are technology-neutral. They focus on the service not the technology.

Multi-service authorizations are also largely service-neutral, although the different categories of authorizations within these regimes are often based on broad distinctions between services. For example, a multi-service authorization regime may include authorizations for network operators, public telecommunications services (including fixed and mobile voice services), and value-added services (for example, Internet access services).

2.6.2 Facilities and Services

Malaysia operates a form of Unified License. As shown in Figure 2-1, it has four licenses, although a single operator may hold all four. As the "Network License" and "Service License" labels suggest, in some jurisdictions these four can be reduced to two, a network license (authorizing the operation of any type of facility), and the service license (authorizing the operation of any form of service).

[4] See http://www.ictregulationtoolkit.org/en/Section.3323.html

The recent internal split of (BT) (in lieu of oppressive regulation) and similar moves in Mongolia, Cambodia, Australia and New Zealand, stem from the same idea: where infrastructure and services are bundled in the same organization there is an incentive to monopolize and restrict services to those that are most profitable.

If they are in different organizations, or operationally separate parts of the same organization, the incentive for infrastructure operators is to maximize traffic and extend their network. For service operators the incentive is to maximize service quality. Separation is based on the assumption that the changed incentives are greater than the internal costs of negotiations between the autonomous parts of the same organization.

These benefits are sought by operating infrastructure at arm's length from services. If this analysis is accepted, thought needs to be given as to how ULs can be framed to capture the benefits of these changed incentives.

2.7 Benefits of Unified Licensing

UL offers benefits that regulators are seeking from moving to more flexible forms of licensing. By increasing technology and service neutrality, companies can employ the most cost effective technologies for any particular service, without exceeding the scope of their license. This saves costs, delays and improves services to the final user.

Simplification, like neutrality is designed to reduce the administrative overheads of licensing and to maximize the benefits to the final user of the service. By reducing the complexity of the licensing process there is also scope for more firms to enter the market. More firms in the market means more choice and stronger competition for the final consumer's spend.

Flexibility is related to both neutrality and simplification. It means that there is no regulatory involvement in what should be simple technical and commercial decisions. It increases the chance for the final user to obtain better service, more choice and more competition.

With neutrality, simplification and flexibility there is will be a smaller administrative burden, with lower costs for the regulator and lower or contained levies for companies to pay for licenses and annual fees.

The additional benefits of UL authorizations include the groundwork it creates for technology convergence and investment in NGNs. Both convergence and NGNs have the effect of simplifying access to telecommunications by consumers. It similar to the difference between the complex sign on routines for accessing the internet by dialing a dedicated provider on the one hand and logging into broadband internet for a small fee on the other.

2.8 Regulatory Implications of ULs

Regulation of tradition Plain old telecommunications was based on three assumptions:

- telecommunications is all about voice calls,
- it is a natural monopoly and
- the company you subscribe to will deliver your voice call.

The presence of broadband internet has overturned all three assumptions. Digital data is more significant that switched voice calls. Competition is possible and often the originating company has no idea who will deliver the call. Unified Licensing is a way of dealing with this new reality. However, it in turn raises a number of issues that need to be addressed. The consultation questionnaire in Section 6 below will create an opportunity for operators to express their opinions on these. The next section analyses the options for authorization structures and leads the discussion towards some answers.

3

Migration Principles and Practices

3. Migration to ULR Principles and Practices

3.1 Introduction

Transparency, efficiency, and regulatory certainty are all enhanced when all service providers are subject to the same authorization regime. Implementing a unified or a multi-service authorization regime is a significant undertaking for any Regulator. Considerable resources will be necessary to ensure that the new licensing regime is well designed and to ensure a successful transition from the old, service-specific authorization regime. Moreover, given the importance of licensing to the ICT sector, decisions about implementing a unified or a multi-service licensing regime must be carefully considered.

Requiring existing licensees to migrate to the new, converged authorization framework may trigger legal challenges and allegations of unfairness. Accordingly, it is often prudent to give existing licensees the option to migrate to the new authorization regime immediately or to continue to offer services under their existing authorizations until their terms expire. Indeed, many countries provide existing licensees with this option, as the experiences of countries such as Tanzania, Botswana, and India illustrate.

The question of how to transition existing licensees to a new, converged licensing framework becomes particularly important if the terms and conditions attached to existing authorizations are more favorable than those attached to the converged authorizations. In such a case, issues of fairness may arise if existing licensees are forced to transition to the new authorization regime. However, the failure to transition existing licensees may create competitive advantages for such licensees that ultimately distort competition and discourage new players from entering the market. Conversely, existing licensees may be subject to a competitive disadvantage if the Regulatory reform never occurs in a vacuum.

When new forms of authorization are introduced in Bangladesh, there will be service providers that hold authorizations issued under the old licensing framework. The BTRC must consider how to manage the interests of these service providers.

This document will present a possible migration strategy and recommendations based on industry best practice which will be tailored to suit the Regulatory, Market and Business Environment of Bangladesh. Firstly, a number of examples will illustrate some of the problems with migration.

3.2 Structure of Authorizations

The following sections show that while every regulator in every jurisdiction operates in a slightly different way, to meet local needs and legacies, new authorizations essentially fall into three different groups:

- **unified authorizations** where all operators, regardless of infrastructure or services are treated in exactly the same way and receive virtually an identical authorization,
- **multiple category authorizations** are created to recognize that very small service providers are treated differently to very large (including issuing individual licenses for former monopolies), and
- **infrastructure and services authorizations** respectively are issued separately but the holder of the authorization may or may not be able to hold both forms of authorization.

In addition, some individual authorizations are issued case by case. They are essentially a subset of the multiple authorization category, but in some cases apply only to infrastructure. Confronting these options regulators have approached them in many different ways.

3.3 Experience of other Regulators

3.3.1 Hong Kong China

Respondents to three consultations in Hong Kong showed general support for migration of the existing fixed and mobile carrier licenses to the Unified Carrier License (UCL) on a gradual and voluntary basis. To facilitate migration to the new unified licensing regime, the Hong Kong Telecommunications Authority (HKTA) said it would not issue Fixed Carrier Licenses (FCL) Fixed Carrier Restricted License (FCRL) Mobile Carrier License (MCL) and Mobile Carrier Restricted License (MCRL) to new entrants or to existing licensees whose licenses expire and needed replacement by new licenses. Instead, the UCL were issued for new applications and replacement of the existing carrier licenses upon their expiry.

The existing holders of FCL, FCRL, MCL and MCRL licenses had the choice to convert their existing licenses to the UCL covering the existing scope of service or an expanded scope of service. If the existing license holders choose not to convert their licenses to the UCL, they should be entitled to continue to operate under their existing licenses for their remaining terms. The existing FCL, FCRL, MCL or MCRL holders were not be forced to surrender their existing licenses while their licenses remained valid, and the conversion to UCL was implemented on a voluntary basis only.

The HKTA sought to streamline the administration process as UCL could cover different fixed and mobile telecommunications services and stated it would be desirable for the UCL to have a unified validity period irrespective of the types of services to be covered.

The HKTA therefore proposed and the sector accepted that a new UCL issued to an applicant should have a validity period of 15 years for all types of services which may be authorized under the license.

Furthermore, in view of the rapid developments in the telecommunications technologies and market, the form of the UCL may no longer meet the sector's needs after a period of time. There may be a need to update the license conditions or licensing regime. The HKTA therefore proposed that in future when a UCL expires, the licensee should have expectation that license conditions will be updated to meet the needs of the prevailing regulatory environment.

Conversion to the UCL

Concerning the setting of the validity period of the UCL granted in such case, the TA proposed the arrangement for a number of scenarios given in the first consultation paper, and it is repeated below.

Scenario 1: where an existing licensee proposes no change in scope of Service

Where an existing licensee surrenders its carrier license to the Authority in return for a UCL under which the scope of service is identical to its existing carrier license, this would not be treated as a new license application or a license renewal. In this circumstance, the TA proposed that the validity period of the converted UCL would be the same as the remaining term of the existing license.

Scenario 2: where an existing licensee proposes change in scope of service and submits proposals on new services only

If an existing licensee applies to convert its existing carrier license to UCL and submits proposal for provision of new services only (i.e. services not related to its existing services), granting a UCL with a full validity period of 15 years would virtually extend the operation of the existing services beyond the original validity period of the existing carrier license.

This would contradict the Spectrum Policy Framework, which requires a variation or withdrawal of spectrum to have a minimum notice period of not less than three years before the date of variation or withdrawal. The extension would in effect give an extension to existing service without going through a proper exercise.

The HKTA proposed that the validity period of the converted UCL covering both the existing services and the proposed new services would also be same as the remaining term of the existing carrier license.

Scenario 3: where an existing licensee proposed changes in scope of service and submits proposals for both existing services and new services

Where an existing licensee wishes to convert its carrier license to a UCL and submits proposals for an expanded scope of services covering both the existing and new services, the licensee is effectively proposing to relinquish its existing carrier license and apply for a new carrier license.

In these circumstances and provided that the Authority is satisfied that the application in respect of both the existing and new services meet with the licensing criteria, the Authority has proposed that a UCL may be granted with a validity period of 15 years.

Analysis of the Arrangement

The HKTA considered that the conversion should be flexible and simple to administer. It considered Scenario 1 an appropriate and acceptable arrangement for existing carrier licensees to migrate their existing licenses to UCLs. The process largely preserved the rights and obligations of applicants within the remaining terms of their existing licenses if they should choose to convert their licenses to UCLs.

A degree of subjective judgment is involved in judging whether a proposal really pertains to brand new services. Consideration was given to other scenarios such as where a company holding more than one carrier licenses covering both fixed and mobile services wish to apply to convert the licenses to a single UCL.

After considering the different possible scenarios, the HKTA proposed that for conversion of existing carrier licenses to UCLs, the period of validity for the UCL should be set as follows:

(a) For conversion of an existing carrier license without any change in scope of service, a UCL should be granted with the validity period same as the remaining term of the original carrier license, and

(b) For all other cases, the HKTA processed all valid applications as if a new UCL is the replacement of the existing carrier license(s) with validity of 15 years.

(c) The period of validity of the UCL granted for conversion of an existing carrier license does not extend the period for which any spectrum assigned to the licensee.

These rules apply irrespective of whether the UCL has the validity period same as the remaining term of the original license or the UCL has a validity period of 15 years. It means that the spectrum rights transferred to the UCL may be shorter than the validity period of the UCL while a UCL holder acquiring new spectrum rights may have new spectrum rights

valid longer than that of the UCL. In this case, the spectrum right holder would apply for a new license issued by the HKTA for using the spectrum when his UCL expires.

In summary, the ULR issued was based on service categories (multiple category authorizations).
The migration strategy for existing licensees was purely on a voluntary basis but new entrants would be licensed under the new regime.

3.3.2 Singapore

The Licensing regime in Singapore features two broad categories of authorizations: Facilities-Based Operators (FBO) Licenses and Services-Based Operators (SBO) Licenses. FBO Licenses apply to the deployment and/or operation of any form of telecommunications network, systems or facilities used by any person to provide telecommunications and/or broadcasting services to third parties. Third parties include other licensed telecommunications operators, business customers, or the general public. All FBO Licenses are individual authorizations.

SBO Licenses must be held by operators who intend to lease telecommunications network elements (e.g., transmission capacity and switching services) from FBO licensees in order to provide their own telecommunications services or to resell services obtained from FBO licensees to any third person. SBO Licenses are further sub-divided into the SBO (Individual) License category and the SBO (Class) License category. The distinction between these two sub-categories relates to the scope of the operations and the nature of the services offered.

The licensing framework is formulated on a hierarchical basis with Facilities-Based Operators (FBO) being at the higher hierarchical level. Thus, licensees who are licensed as FBO would be able to offer the services that Services-Based Operators (SBO) can offer, but not vice versa. Also, the intention is that an entity should be issued a single license for all the networks/services it intends to operate/offer. Hence, if a SBO decides to build its own network after building up its market share, it can apply to be licensed as a FBO. The FBO license will then replace its SBO license.

Singapore falls into the third category. There are separate infrastructure and service authorizations, but all FBO Licenses are individual authorizations.

Migration of existing licensees into the new regulatory framework was on a voluntary basis but new entrants gain licenses as FBO or SBOs.

3.3.3 Malaysia

The Communications and Multimedia Act 1998 (CMA) establishes a framework for regulatory intervention to promote Malaysia's national policy objectives for the communications and multimedia industry and seeks to provide a generic set of regulatory provisions based on generic definitions of market and service activities and services. Malaysia is the only jurisdiction that aims to evolve a converged environment where ultimately regulation will be largely self regulation.

The licensing provisions of the CMA allow flexibility with respect to licensing structures as the licensing requirements vary over time with the evolution of the communications and multimedia industry. As the industry evolves towards convergence, licenses under the CMA are formulated to be both technology and service neutral. The licensing regime allows a licensee to undertake activities that are market specific. This creates opportunities for expansion into the industry and provides for a more effective utilization of network infrastructure.

Malaysia has moved from a system of 31 different types of service-specific authorizations to four different multi-service authorizations. The four categories of authorizations are: Network Facility Provider (NFP) Licenses, Network Service Provider (NSP) Licenses, Application Service Provider (ASP) Licenses, and Content Application Service Provider (CASP) Licenses. Under the CMA, there are four categories of licensable activities:

Network Facilities Providers - are the owners of network facilities such as satellite earth stations, broadband fiber optic cables, telecommunications lines and exchanges, radio communications transmission equipment, mobile communications base stations and broadcasting transmission towers and equipment. They are the fundamental building block of the convergence model upon which network, applications and content services are provided.

Network Service Providers who provide the basic connectivity and bandwidth to support a variety of applications. Network services enable connectivity or transport between different networks. A network service provider is typically also the owner of the network facilities. However, a connectivity service may be provided by a person using network facilities owned by another.

Applications Service Providers who provide particular functions such as voice services, data services, content-based services and electronic commerce. Applications services are essentially the functions or capabilities, which are delivered to end-users.

Content Applications Service Providers who are special subset of applications service providers including traditional broadcast services and newer services such as online publishing and information services. Within the activity categories, there are two types of licenses:

(a) Individual licenses which allow close monitoring and control of activities; and

(b) Class license, which is a "light-handed' form of regulation which is designed to promote industry growth and development by removing unnecessary regulatory barriers.

Standard license conditions apply to both individual and class license and these conditions are set out in the Schedule to the CMA.

Malaysia falls into the third, infrastructure and services authorizations group, it aims to have two simple categories of license, but like Singapore issues individual licenses to infrastructure owners to allow monitoring of infrastructure development.
Malaysia Implemented Migration on a voluntary basis, but with a time limit.

3.3.4 Botswana

Botswana's multi-service licensing regime features three categories of authorizations:

(a) Public Telecommunications Operator (PTO) Licenses,

(b) Value-Added Network Services (VANS) Licenses, and

(c) Private Network Licenses.

PTO Licenses authorize licensees to provide the full range of public telecommunications services, including (but not limited to) local, long distance, and international voice services and network services using any available technology. VANS Licenses authorize licensees to provide all forms of value-added telecommunications services such as Internet and data services.

Under the authorization framework, VoIP falls within the scope of the VANS License. Private Network Licenses apply to the operation of private networks, which refers to networks that the licensee maintains for its internal own use and that does not interconnect with any public network.

Existing licensees who opted to apply for a new multi-service license were granted a new authorization with a full term. Licensees that opted not to apply for a new authorization were advised that they would continue to operate under their existing authorization until their current authorization expired.

Botswana largely follows the pattern of infrastructure and services authorizations, infrastructure licenses (PTO) and services (VANS) respectively. Private network licenses are individual.

Migration for all existing Licenses was voluntary together with negotiation and incentives

3.3.5 Tanzania

Tanzania's Converged Licensing Framework (CLF) features four categories of authorizations:

(a) Network Facility license,

(b) Network Service License,

(c) Application Service License, and

(d) Content Service License.

The Network Facility License authorizes licensees to operate and to maintain public electronic communications networks with various technologies (e.g., CDMA, GSM, WCDMA, WLL, and ASDL). Services provided pursuant to a Network Service License include fixed lines services bandwidth services, mobile service, and broadcasting distribution services.

The Tanzanian Application Service License authorizes a licensee to provide electronic communications services to end users. Licensees may establish and operate their own private facilities or they may procure and resell services from licensed facility and/or network service providers. Services that fall within the scope of an Application Service License include Internet, virtual mobile services, payphone services, and fixed and mobile services.

Content Service Licenses are similar to Application Service Licenses except that the licensee is responsible for the provision of content services such as satellite broadcasting, broadcasting terrestrial free to air TV, terrestrial radio broadcasting, subscription television, and other broadcasting services.

Operators that elected to migrate to the CLF were issued new licenses. License terms began as of the date of issuance. They were not off-set to account for the years that the operator had held its previous license.

Tanzania largely follows the infrastructure and services authorization pattern with the Malaysian distinctions between content services and others services and between network facilities and operations.

Migration of existing Licensees done on a voluntary basis with incentives

3.3.6 Uganda

There are three categories of authorizations in the Ugandan multi-service licensing framework:

(a) Public Service Provider (PSP) License,
(b) Public Infrastructure Provider (PIP) License, and
(c) General License.

There are two sub-categories of PSP Licenses:

(a) Public Voice and
(b) Data Provider Licenses

These two allow the licensee to offer telephony and data services of any kind using any technology. However, licensees must use the capacity or infrastructure of a PIP Licensee. If a licensee wishes to offer services over its own infrastructure, it must acquire a PIP License.

Examples of services that may be provided pursuant to a Public Voice and Data Provider License include: fixed voice services; mobile services, and Internet Access services, including VoIP. The second PSP License sub-category is Capacity Resale License. Capacity Resale Licensees are authorized to resell leased telecommunications services or capacity. Services that fall within the scope of Capacity Resale Service Licenses include calling cards (international, local and re-branded cards) and capacity resale to Public Voice and Data Provider Licensees.

PIP Licenses authorize licensees to establish, operate, and maintain infrastructure for the provision of communications services to the public and/or to offer infrastructure commercially for use by PSP Licensees. If a PIP Licensee uses its infrastructure to provide communications services to the public, it must also hold a PSP License. PIP licensees that wish to use spectrum resources or other essential resources and access facilities, including international gateways, numbering resources, and VSAT services, must apply for a separate authorization.

General Licenses apply to public pay communications networks such as payphone kiosks, fax bureau services, internet cafés, and cyber cafés. Licensees may provide payphone services using VoIP technology. However, licensees are not permitted to provide any prepaid services to the public (e.g., calling cards) unless they obtain the appropriate authorization from the Ugandan regulator.

Uganda also issues authorizations for essential resources and facilities. These authorizations apply to the use of spectrum, numbering resources, international gateways, and VSAT.

Uganda follows the pattern of infrastructure and services authorizations respectively, but also has categories for Voice and Data. The reason for this distinction is not clear.

General licenses cover activities that in many jurisdictions are license exempt. Migration was not an issue as few new rights or obligations were created.

3.3.7 Trinidad and Tobago

Trinidad and Tobago's authorization regime features five types of authorizations, which are referred to as "concessions":

Type 1: Network-Only Concession – authorizes a concessionaire to own or operate a public telecommunications network, but without the provision of public telecommunications or broadcasting services. This is a network-based concession

Type 2: Network-Service Concession – authorizes a concessionaire to own or operate a public telecommunications network in addition to providing public telecommunications services over that network. This is a network-based concession.

Type 3: Virtual Network-Service Concession – authorizes a concessionaire to provide public telecommunications services without a related authorization to own and/or operate a physical public telecommunications network, in a manner that is transparent to the end user.

Type 3 concessions are thus designed for resellers. A Type 3 concession is necessary in cases where an entity has the capability of providing multiple services (e.g., data, image, voice, and video) over a single transmission medium that has been leased. However, a Type 5 Concession is necessary to provide broadcasting services over a telecommunications network. Type 3 concessions are service-based.

Type 4: Telecommunications Service Concession – authorizes a concessionaire to provide a specific public telecommunications service without requiring an authorization to own and/or operate a telecommunications network. This is a service-based concession.

Type 5: Broadcasting Service Concession – authorizes the provision of a broadcasting service without a requirement to hold an authorization to operate a telecommunications network. Type 5 concessions are service-based.

Trinidad and Tobago follows the pattern of distinguishing between network and services authorizations, albeit with some additional refinements for broadcasting, and Virtual Network Operators (VNO)s.

Migration was not a major issue.

3.3.8 South Africa

Chapter 15 of the *Electronic Communications Act, 2005* (ECA) sets out the general framework for the transition to South Africa's new technology- and service-neutral multi-service authorization regime. The features of the transition include mandatory migration to the new authorization regime. The migration occurs through a conversion of existing licenses to one or more licenses that comply with the ECA.

The Independent Communications Authority of South Africa (ICASA) aimed to convert all existing licenses by granting new licenses that comply with the ECA within 24 months of the adoption of the ECA. (The schedule for conversion has been extended into 2009.)

The new licenses must be granted on "no less favorable terms" than the existing licenses. However, as part of the conversion process, the ICASA may grant rights and impose obligations on a licensee to ensure that existing licenses comply with the ECA.

All existing licenses issued under the *Telecommunications Act* (one of the predecessors to the ECA) remain valid until converted to a new license by the ICASA. Existing licenses remain subject to all terms and conditions that are not inconsistent with the ECA until these licenses are converted and re-issued under the ECA.

All licenses converted pursuant to the ECA retain their original term of validity unless otherwise specified by the ICASA.

The changed licenses will comprise either Electronic Communications Network Services (Individual, Class or exempt), Electronic Communications Services Licenses (Individual, Class or Exempt) or Broadcasting Services Licenses (Individual, Commercial or Public, Class) and Special Event (Low Power or Community).

Once an existing license is converted and re-issued, the new license is governed by the terms of the ECA and the existing license is considered to have been surrendered and is of no force or effect.

The ICASA is not permitted to grant or to include in the terms of a converted license any monopoly or exclusionary rights in any network or services contemplated in the ECA or related legislation. Existing monopoly and exclusionary rights are null and void, subject to the proviso that radio frequency spectrum that is assigned to a license holder is not considered to be a monopoly or to constitute exclusionary rights.

South Africa uses the familiar categories: infrastructure and services authorizations. It also makes provision for broadcasting in the same framework and special events.

Migration of all existing licenses to the new licensing regime had to be completed within 24 months, but flexibility was shown.

3.3.9 Nigeria

In February 2005, the Telecommunications Commission issued a notice on the introduction of a unified licensing regime in Nigeria. It stated that:

- The market shall be opened up by adopting a unified licensing regime which shall allow existing fixed, wireless and mobile licensees to provide both services subject to geographical/regional limitations contained in their license,

- For the post exclusivity period all wireless licenses shall not be segmented in terms of mobile and fixed service categories. Once a licensee is allocated spectrum it shall be free to offer voice, data or multimedia services as they deem fit.

- All active wireless licenses issued prior to the expiration of the exclusivity period were amended accordingly.

The Unified Access License is valid for 10 years with an option to renew. The license includes authorization to offer:

1. Fixed Telephony,
2. Mobile,
3. International Gateway,
4. ISP,
5. VAS,
6. Payphone and National Long Distance
7. National Carrier License and other existing licenses remain unchanged.

In the new framework unified license operations will be open to competition.
Frequency Spectrum issues will be dealt with separately.

Nigeria has gone as far as any one towards a single authorization to provide services. There is no distinction made between facilities and services, but the

authorization is confined to services because national carrier licenses remain unchanged.

No Migration issues have been reported.

3.3.10 Kenya

Under the new license regime, the Regulator licenses operators and service providers under three broad market segments:

- network facilities providers,
- application service providers and
- content service providers.

The modified licenses will retain the original terms to give operators time to transfer to the new regime. Network facility providers own communication infrastructure based on either satellite, terrestrial, mobile or fixed lines. There are three tiers of providers under this category:

- fixed line network operators;
- data carrier network operators; and
- network facilities providers, including local loop providers, international gateway operators and companies providing fiber optic cable landing facilities.

Application service provider licensees provide all forms of services to end users of facilities providers' network services. This category includes ISPs and other value-added service operators.

Content service provider licensees provide information and data processing services and include premium rate and credit card validation service providers.

National Carrier Licenses and other existing Licenses will remain unchanged. In the new framework license operations will be open to competition.

Kenya is an example of categories of licenses, particularly the distinctions made between the various types of network and the distinction between services and content.

No significant migration issues reported in a very flexible timeframe.

3.3.11 India

TRAI itself sought to introduce a two step Unified Licensing Regime. The first was the Universal Access Service License (UASL). After concluding its consultation process TRAI moved to the second phase of complete unified licensing (URL) to include the majority of services.

Existing UASLs need not pay any additional amount for migrating to the unified service license provided they do not require international long distance (ILD) or national long distance rights (NLD).

Migration to the UASLs is optional for 5 years, after which it would be mandatory.

In the case of the Universal Licensing Regime (ULR), service specific licenses are available for two years, after which they will not be available and only a Unified license will be issued.

If any new entrant wants a Unified License with ILD and NLD rights of Rs 1.07 Billion, plus registration charges for access and spectrum charges for mobile access. It is only after 5 years that Unified Licenses will be available for a nominal fee of Rs 3 Million.

- All new service providers will be licensed under the new ULR.
- Spectrum Trading is not permitted at this point in time

There will be 3 categories of license

1. Unified Licenses where all public networks including switched networks, for any media or technology, capable of offering voice and data.
2. Class licenses where all services do not have both way connectivity with the Public Network. These exclude satellite services, Radio Paging and PMRTS.
3. Licensing through Authorization where the category will cover the services for the provision of passive infrastructure and bandwidth services to service providers, radio paging, PMRTS, Internet services, but not Internet Telephony in general.

The Indian regime is unique in distinguishing between two way and one way communications. For this reason it is an example of a category based system.

Timing of migration to the Unified Licensing Regime is voluntary, but has to be completed within 2 years.

3.4 Guidelines and Best Practice

From the examples highlighted above there are a number of lessons that can be drawn in respect of moving to a ULR system:

- BTRC should have an ongoing engagement with industry stakeholders in discussions about the new authorization regime.

  The large majority of Administrations have conducted consultation processes on the proposed unified or multi-service authorization regime prior to implementing any changes. In some countries, the consultation process has gone through a number of phases in most cases three.

- once the detail of the proposed unified or multi-service authorization regime has been finalized, ongoing meetings with existing licensees and other industry stakeholders to explain the new regime are essential.

  The status of existing licensees and their options with respect to the new authorization framework should be carefully explained to them. It is also helpful to develop materials for existing licensees (as well as other stakeholders) that explain the nature of the new authorization framework and that provides guidelines for applying for authorizations.

- flexibility in the terms of the time-frame for implementing the new unified or multi-service authorization regime is required and BTRC should negotiate in order to persuade existing licensees to migrate to the Unified Licensing Regime.

  In many countries, existing licensees are given a period of time in which they may apply for a unified or multi-service authorization under the new licensing framework. After this period of time expires, if a licensee has not yet applied for a new authorization, the licensee is deemed to have elected to continue its operations under its existing authorization for the duration of the term of that authorization. While it is important to set deadlines, the experience of several regulators suggests that flexibility with respect to such deadlines is important.

Three regulatory authorities initially set a 12 month period for existing licensees to migrate to a new Converged Licensing Framework (CLF). However, at the end of this 12 month period, several communications operators had not yet migrated to the new regime since they were not sure about which authorization category was most appropriate for them. Under the circumstances, a six month grace period for such operators to complete the migration process is not unreasonable. .

- most authorities used incentive regulation to encourage existing licensees to migrate to the new unified or multi-service authorization regime.

  Several regulators waived application fees and initial licenses fees for existing licensees that chose to migrate to the ULR.

- existing licensees should be migrated to the new authorization regime on the same or more favorable terms and conditions as those featured in the new authorization regime.

- another option is to provide existing licensees with the option of migrating to the new unified or multi-service authorization regime, but do not mandate such a migration.

4

Questions to Be Addressed

4. Questions to be Addressed

4.1 Framework of a Unified Authorization Regime

The previous section has identified both economic and technological factors that are encouraging countries to move from technology based authorizations towards a URL regime based on neutrality towards both technology and services.

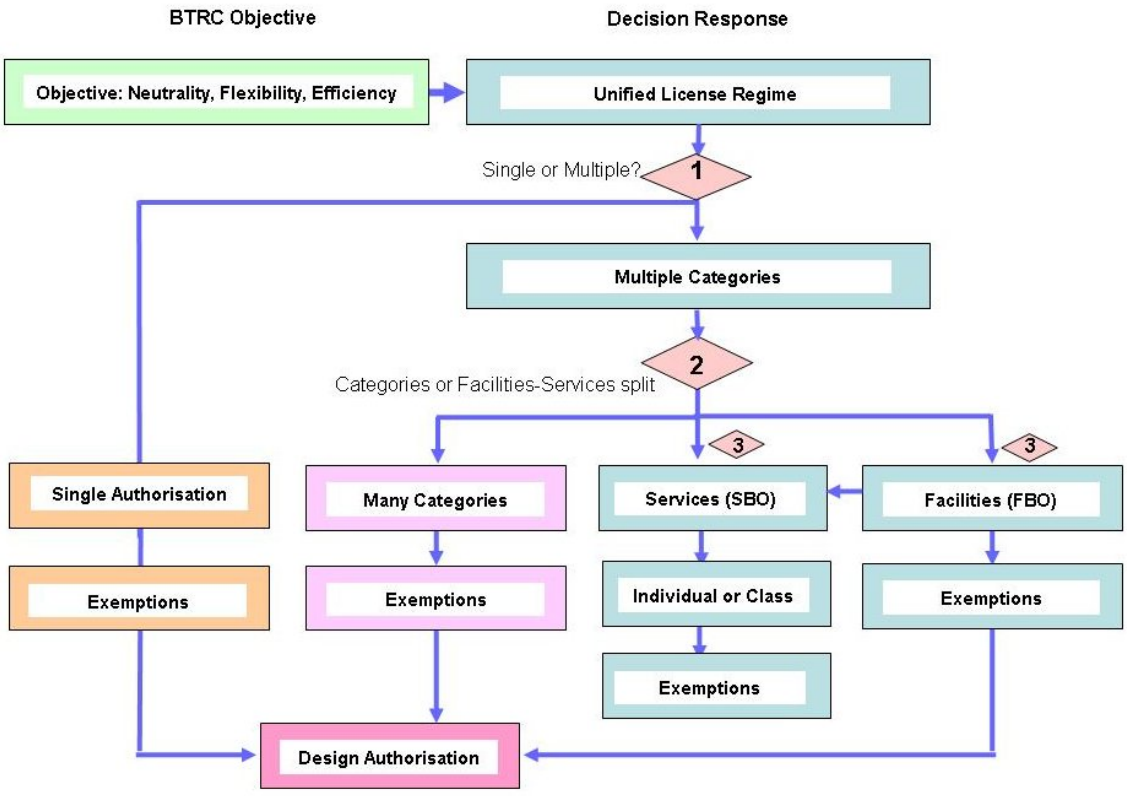
The section also analyses the benefits and some of the drawbacks of such regimes. It identifies a large number of possible benefits of change. The only downside of change identified is that some companies may perceive that they will lose advantages they gain from their current authorization or will face additional competition.

In moving to a new regime there are a number of structural issues that must be resolved as well as a large number of matters of detail. Each country that has moved towards a ULR has adopted a slightly different approach and each country needs to take account of its own institutions and practices when making such a step.

4.2 Structural Issues

Figure 4-1 shows the decision for the designer of a ULR. The objective is clear, Neutrality (for both technology and services), Flexibility in adapting to new technologies and services, and efficiency in investment in the sector.

Figure 4-1: Decision Tree - ULR



4.3 Single or Multiple Authorization

The decision box (1) in Figure 4-1 highlights the choice between a single authorization for all facilities and all services (everything from an ISP to an international gateway) as a single document.

The advantage of a single authorization is that everyone is treated exactly the same and a very successful ISP can aspire to being the owner of a mobile network and its own gateway, depending solely upon its commercial success.

A possible disadvantage is that is opens the door to opportunistic entry and large numbers of entrants (e.g. for gateways) that may undermine the finances of the largest operators, discouraging investment. Cambodia, which has had a virtually open door to new entrants is finding its 3 million subscriber market crowded and significant players are planning to exit or scale back investment. By contrast this has not caused a problem in Europe where this is a single authorization regime.

If the decision is made to go for a single authorization, the draft will need to be prepared in to cover all eventualities. Effectively, this will make it compulsory to have an authorization document with minimal stipulations and generalized provisions.

By contrast if the decision is to make the document more prescriptive, while still meeting the objectives of Neutrality, Flexibility, and Efficiency in investment in the sector, there are two basic options. These options are highlight in Box 2. We have not found a case of a single authorization for all services, other than those jurisdictions where effectively there is no licensing regime as such, only a very general authorization/registration process.

The Issue to be resolved:

"Should Bangladesh have a single authorization regime or should it have several categories?"

4.4 Categories or Facilities Services Split

If the decision is made to have several categories of general authorization the next decision to take is highlighted in box 2 of Figure 4-1.

On the one had it will be possible to have a single authorization with a series of categories (similar to Nigeria) where many types of services (including the services offered by specialist facility owners) are categorized and write authorizations that are technology and largely service neutral for each category. There is also the Indian example of a distinction between the category with two way communications as opposed to one direction communications.

The advantage of this approach is that it allows the BTRC to be more prescriptive in the obligations that authorization holders must comply with, while preserving as much neutrality and flexibility as possible. It will not be necessary to obtain a new authorization to move to a new technology, although it may be necessary if the company wishes to offer a new service.

The disadvantage is that it may take the system not far from where it began. The only added flexibility will be the move away from authorizations of technologies towards licensing major aspects of the market.

In the Nigerian regime the authorization specifies a range of services that may be offered. In India the distinction is made between one and two way communications. The reason for this distinction is not clear and the benefits are hard to identify.

"Should Bangladesh have a ULR based on categories based on a range of different services offered, or should it be based on authorizing infrastructure and services respectively?"

4.5 Infrastructure and Services

Boxes 3, show the effect of licensing infrastructure and services separately. Malaysia and Singapore both have systems that authorize infrastructure and services under appropriate forms of unified authorization. As noted above, when many of the other systems are analyzed, they are not far from the explicit distinction drawn in Malaysia and Singapore.

Singapore has a hierarchy, where the holder of a facilities authorization (FBO) may hold a service authorization (SBO), but the reverse does not apply. Malaysia does not. In Malaysia an operator may hold either or both kinds of license. The respective licenses contain conditions that are appropriate for facilities and services respectively. These are set out in paragraph 3.3.3 above.

The advantage of the Malaysian system is that it allows for the different business represented by networks and services to operate under appropriate regulatory conditions, with irrelevant material excluded. For example the regulator could require the first two categories to be operated on an open access basis to all holders of service authorizations.

Similarly, the regulator can require separate accounting for use of infrastructure and provision of services so that interconnection and abuse of a dominant position disputes can be resolved more easily.

"Should Bangladesh have a ULR with a hierarchy of authorizations like Singapore or should it follow the Malaysian pattern of simply authorizing infrastructure and services respectively?"

To some stakeholders these issues may seem a bit inconsequential, however, they can have major implications for respective businesses, the level of competition and the extent to which the sector can self manage.

4.6 Individual Authorizations

What is clear from the above is that there are three core issues in designing authorizations: infrastructure authorizations, some cases one, some cases two, service authorizations, sometimes open sometimes restricted and others. In some jurisdictions the "others" category refers to private networks[5]. In other cases they are called general authorizations. In other cases they are Individual Licenses.

The usual motivation for an individual license is where there are such specific circumstances that any form of unified, generic or standard authorization is inappropriate (such as a transmitter or receiver license) or alternatively, where the individual enterprise is so significant to the system that the regulator feels the need for additional regulatory interventions in its business.

Hong Kong and Tanzania both use individual licenses to recognize the importance of the former incumbent to the whole system and effectively the facilities licenses in Malaysia and Singapore are individual licenses too.

[5] See Botwana above and Section 3 below

5

Plan for Transition

5. Plan for Migration

5.1 Introduction

The objective of this section is to define a process for the collection and analyze of the data required to transition existing licenses to a ULR together with a strategy for conversion and implementation. The proposed process consists of 3 phases:

- Phase 1 will be the information capture phase and this will include a comprehensive review of the existing licenses together with any documents which impact the current licensing process.
- Phase 2 will be provide a "gap analysis" for each license and will document the changes required to transition to the new licensing regime.
- Phase 3 will give an implementation schedule with timescales for the existing licenses.

Phases 2 and 3 can only be initiated after the first round of the consultation process when the feedback from the first stakeholder presentation can be incorporated. It must be emphasized that this consultation is designed to provide a standard universal license text. It is the next assignment that will assist BTRC manage through the process of transition.

5.2 Phase 1: Information Capture

It is proposed to review the following licenses and complete a Pro Forma for each one, which will provide the necessary information for the analysis in phase 2.

The items in the Pro Forma are focused on the those items which will have the most impact on the transition to the new Unified Licensing Regime in terms of financial impact and possible obstacles to the migration to the new regime.

A sample draft format for the Pro Forma is given overleaf and includes the following licenses.

International Gateway (IGW) Services License (4)
Interconnection Exchange (ICX) Services License (3)
International Internet Gateway (IIG) Services License (2)
Broadband Wireless Access (BWA) License (2)
Cellular Mobile Telecom Operator License (6)
PSTN Operator License (3), National (1), Zonal (1) and Rural (1)
Nationwide Telecommunication Transmission Network Service Provider (NTTN) License (1)
Nationwide Optical Fiber Telecommunications Transmission Network (1)
Radio Trunking and Paging (1)
Internet Service Provider (ISP) (10), 3 nationwide, 3 Central Zone, 4 Zonal
Internet Service Provider (ISP) (3), Category A(1), B(1) and C(1)
VSAT User (1), VSAT Provider (1) and VSAT Provider with Hub (1)
Call Centre License (1), Hosted Call Centre (1), Hosted Call Centre Service Provider (1)
Total 42 Licenses
Duration: Elapsed time 6 days

DRAFT PRO FORMA 1

Category of License	
Scope of License	
Duration of License	
Date of License	
Fees and Charges (including Radio Spectrum)	
Network roll out Obligation	
Security Deposit	
Sharing of Facilities	
Tariffs and Pricing	
Revenue sharing with the Commission	
Reduction of Performance Bank Guarantee	
Any special license conditions that would have financial implications on the transitioning process	

5.3 Phase 2: Analysis

After the First Stakeholders Workshop, a formal "gap analysis" will be performed for each category of license and the changes required to migrate to a Unified Licensing Regime will be documented according to the following rating scale:

- the license as it exists meets the criteria to transition to a Unified Licensing Regime (ULR) and requires no change,
- the License needs some modification but will minor adjustments could be migrated to a ULR, and
- The license has major problems with the transition to the ULR:
    - The timescales are not acceptable and the fee structure proposed does not even preserve the status quo, it does not constitute a level playing field etc.
    - BTRC will need to undertake negotiations with the licensee.
    - Some incentives may have to be offered in order to migrate to the new regime.

The analysis phase would be very much dependent on the results of the first stakeholder workshop and subsequent consultation. The question of voluntary migration as opposed to mandatory migration is a choice which will have major ramifications.

A report will be issued for each category of license which will give the status quo and those changes required to transition to a ULR. The commission may be required to negotiate with those licensees in rating scale 2 above before an implementation plan can be produced.
Duration: 8 elapsed days

5.4 Phase 3 Implementation plan

Based on international best practice even with voluntary migration to a ULR, it has taken some regulators up to twelve months to implement. Issues that need to be addressed include:

- immediate cessation of any licensing activity that would result in a new license that has to migrate to a ULR, except for emergencies,
- formal Notification of licensees that changes are about to occur,
- confirmation that the licensee has received the notice,
- indication from the licensee of a willingness to migrate, with or without significant issues,
- preliminary indication of assent or a wish to engage in negotiations,
- scheduling process of documentation, formal offer and acceptance, negotiations, scheduling of awarding of contracts.
- registration and issuance of the license certificate,
- follow up and clarifications.

A draft implementation plan will be prepared before the end of October.
Duration: 6 elapsed days

This consultation process ends with the development of the Implementation Plan. If the Plan is accepted by the BTRC, it will be over to the BTRC to manage this process with or without the assistance of Consultants.

Operators and other stakeholders are welcome to offer submissions on the appropriate implementation plan as well as any other aspects of the Consultation.

By filling in the questionnaire in the next section your valuable input will inform the process of study and preparation for the implementation plan.

4

Questionnaire

6. Questionnaire for Stakeholders

6.1 Who are you?

Please fill in responses to the following questions to guide the BTRC in preparing unified licenses.

6.1.1 Company

Company Name:			
Company Address:			
Nature of Business:			
Licenses Held:	Technology	Duration	Expiry
1			
2			
3			
4			
5			
6			
How many Licenses in Total:			
Mobile Number of Contact:			
Contact Details			

6.2 Objectives of Authorizations

In section 2 on page 2-3 we listed nine possible objectives of a licensing regime. If 9 is the most important and 1 the least important, on a scale of 1 to 9 can you put a number in the box on the right that ranks them according to their importance?

allocation of scarce resources	
expansion of networks and services	
establishing a property right	
privatization or commercialization	
regulatory certainty	
establishing a competitive framework	
consumer protection	
regulatory market structure	
generating government revenue	

6.3 ULR Regime

6.3.1 Scope of ULR:

(1)	A UL regime offers the possibility of greater simplicity, flexibility and efficiency? Are there any simplifications of operator authorization principles or process that you would like to see included in a ULR regime?

6.3.2 Benefits:

(2)	From the perspective of your organization do you believe that there will be benefits for (a) your business and (b) the nation, from the movement to a system with technology neutrality and more administrative flexibility.
(a)	
(b)	
(3)	If you foresee problems for your organization, could you please list the three most important problems?
3.1	
3.2	
3.3	

6.3.3 Unified or Categories:

(1)	Should BRTC adopt a single unified authorization or would you prefer to see several categories (or classes) of multi-service authorizations?
(2)	Are there any categories of authorization that you would like to see in the new regime that are not covered at present?
(3)	Are there any technologies or services not currently exempt from authorization that should be exempt from authorization in a ULR?

6.3.4 Infrastructure and Services:

In many countries regulators are seeking to improve the incentives for both efficient investment and competition by putting infrastructure and services at arm's length, by either full institutional separation (Mongolia), organizational separation (United Kingdom) or internal separation (Telstra - Australia).

(1)	Would it be helpful to your business if there were separate licensing of facilities based operators (FBOS) and service based operators (SBOS)?
(2)	Should VSAT and GMPCS services be part of ULR or they should be handled separately?
(3)	Should Infrastructure sharing amongst different providers and service areas be permitted, encouraged or be mandatory?
(4)	Can you identify conditions stipulated in licenses that could encourage the shared use of infrastructure without making it mandatory?

6.3.5 Coverage - Unserved Area Licenses:

Bangladesh has five areas served by fixed line companies. These companies are subject to major restrictions on the lines of business they can enter.

(1)	Can you identify any benefits from the current licensing rules that apply to fixed line operators?
(2)	Can you identify current license terms that cause problems for providing services in the geographic areas outside Dhaka?
(3)	If ULRs remove any geographical restrictions on fixed line operators, would such removals cause any problems for your business?

6.4 Transparency

Considering a ULR regime, is there a need for enhanced transparency in relation to the process for the allocation and in the final selection of authorized operators, i.e. where a new authorization is issued, should the following should be made publicly available:

(a) (b) (c)	all licensing criteria and the period of time normally required to reach a decision concerning an application for an authorization, and the terms and conditions of individual authorizations (if the differ from standard authorizations). the reasons for the denial of an authorization made known to the applicant upon request.
(a)	
(b)	
(c)	

6.5 Market Structure and Competition

6.5.1 Interconnection:

Currently, a new entrant to the sector not only has to provide either mobile (or fixed line) infrastructure, they invariably need to interconnect with competitors in order to ensure any to any connectivity in the system.

(1)	Has your company experienced problems in securing interconnection with competitors or access to essential facilities?
(2)	If the answer is yes can you outline the nature of the problems you have experienced?
(3)	Would it facilitate interconnection in Bangladesh if infrastructure operators and services providers were in businesses groups operated at arm's length?
(4)	Are there network connectivity rules that apply to you at present and if so what changes would you like to see?
(5)	Should the carrier pre-selection or call-by-call selection of all types of calls, other than local calls be implemented by a ULR?

6.5.2 ACCESS:

Currently, a new entrant to the sector not only has to provide either mobile (or fixed line) infrastructure, they invariably need access to the infrastructure of competitors.

(1)	Is your company generally an access seeking or an access provider?

(2)	Do you have major access problem under the existing licensing system?

(3)	If the answer is yes can you outline the nature of the problems you have?

(4)	What changes to access rules would you like to see in a ULR?

6.5.3 Connectivity

(1)	Should direct interconnectivity be permitted between companies and service areas?

(2)	Should inter-circle connectivity be permitted to access providers (POTS, Cellular etc)?

(3)	Should inter-zone connectivity be permitted to access providers (POTS, Cellular etc)?

6.5.4 National Calls

(1)	If the proposed ULR allows services to be offered throughout the country, should operators be required to offer long-distance services?

(2)	Is there a need to redefine long distance traffic for the purposes of interconnection under a ULR?

6.5.5 Reselling

(1)	A principle of ULR is increased flexibility. Reselling is a form of commercial flexibility. Should reselling be permitted?
(2)	Do you have any concerns about reselling available based on commercial agreements under a general service provision authorization?

6.5.6 Dominant Position

(1)	Would you like to see dominant operators subjected to additional regulatory scrutiny by virtue of the fact that they are a dominant service provider?
(2)	If your answer is yes, in your view will existing general provisions in the law be sufficient for the BTRC to take action on cases presented before it.
(3)	Which companies do you regard as dominant operators at present?

6.6 Terms and Conditions

6.6.1 Criteria for Authorizations

Terms and conditions apply to a range of issues, length of authorization, length of new authorization, fees applying to authorization.

(1)	Should the total number of unified or multi-service authorizations issued be limited, or should the market determine the total number?

(2)	If there are to be limitations, what process should be used to decide how many will be issued?

(3)	If there are to be limitations, what process should be used to decide how many will be issued?

(4)	What do you regard as the most important criteria to be applied to new applicants for licenses?

6.6.2 Universal Service

In the past many operators have been subjected to roll out obligations.

(1)	How should universal service obligations (USO) apply to operators with identical authorizations but very different businesses?

(2)	Do you take any advantage of existing government policy to provide support to USO?

6.6.3 Roll Out Obligations

In the past many operators have been subjected to roll out obligations. In a ULR era using NGN technology, with many operators not owning infrastructure, how will roll out obligations apply?

(1)	Is you business subjected to any roll out obligations?

(2)	If competition does not result in adequate network roll out, do you have any suggestions as to how BTRC can encourage roll out to un-served areas of the country?

6.6.4 Service Quality

(1)	One of the main justifications for licensing is the need to maintain service quality. Should a ULR authorization contain service quality benchmarks or standards?
(2)	How should the BTRC monitor service quality and ensure ongoing service quality improvements?

6.6.5 Mergers and Acquisitions

(1)	Should the ULR authorization contain any provision to allow BTRC or any other government body to monitor and take action in the event of a merger or acquisition that could be harmful to competition?

6.6.6 Redundant Provisions

The move to a ULR allows reconsideration of many assumptions that have underpinned the traditional licensing regime, however, with the passage of time and developments of technology, not all of these are relevant any more

(1)	Are there any provisions of the existing licensing system that are redundant and need not be carried over into the new regime?

6.7 Scarce Resources

The two scarcest resources in telecommunications are numbers and spectrum. The issue that must be determined in moving to a ULR is should

6.7.1 Spectrum

The move to a ULR allows reconsideration of many assumptions that have underpinned the traditional licensing regime, however, with the passage of time and developments of technology, not all of these are relevant any more

(1)	should access to spectrum precede the award of an authorization or should the two issues be dealt with together?

6.7.2 Numbering

The move to a ULR allows reconsideration of many assumptions that have underpinned the traditional licensing regime, however, with the passage of time and developments of technology,

(1)	should numbering plans be charged for separately or should that be part of the licensing process?

6.8 New Technologies

6.8.1 Non-resident Providers:

Many service providers now offers services at a distance (by the use of the internet) or by leasing surplus capacity at a great discount. It is very difficult to identify some of them, let alone authorize their operations. Is it worth trying?

(1)	Should the BTRC authorize service providers without physical presence in the country,
(2)	Should the ULR contain any provisions designed to regulate internet telephony?

6.8.2 Mobile Virtual Network Operators:

Mobile virtual network operators obtain the use of capacity on existing lines owned by other companies and offer service in competition with existing providers.

(1)	Should there be roll out obligations in all authorizations (expansion of network obligation) or should late comers be allowed to operate virtual networks?
(2)	Will unified licenses allow MVNOs into the market, and if so should they be authorized by the BTRC?
(3)	If they MVNOs are using infrastructure belonging to another company will they require an authorization at all?

6.8.3 Number Portability and Electronic Numbering:

Number portability increases the degree of churn in a market. Flexibility is a major benefit of the ULR. However, some companies may be concerned that portability will undermine their business. ENUM was developed as a solution to network elements finding services on the Internet using only a telephone number and how telephones, which have an input mechanism limited to twelve keys on a keypad, can be used to access Internet services. ENUM at its most basic is the convergence of PSTN and IP networks; it is the mapping of a telephone number from the public switched telephone network to Internet functionalities.

(1)	How to operate a number portability and electronic numbering system (ENUM) in ULR environment. What relevant provisions would you like to see in the ULR system?
(2)	Should the Numbering Plan implementation be separate from the ULR?
(4)	given the desirability of a single number system for the whole system, what if any changes will be required to facilitate this with ULRs?

6.9 Security and Consumer Protection

6.9.1 Access to Emergency Services

Access to emergency numbers is vital. For internet based calls they may not be accessible because there is no need to be located in the same country. ULRs should not create the same problems, except where there are problems already. However, if ULR should result in additional non-domestic providers these problems may increase

(1)	What provisions should be included in the ULR with respect to emergency service concerns?

6.9.2 Security

(2)	Should ULR's include any reference to national security situations?

6.10 Tariffs

6.10.1 Competition and Tariffs

A fundamental purpose of increasing the simplicity, flexibility and efficiency of the authorization regime is to make competition the principal regulator of the sector. This raises the question, does the BTRC need any tariff setting power outside emergency provisions or arising out of a regulatory decision on abuse of a dominant position in an anti-competitive fashion.

(1)	Is there any need for tariff oversight or regulation by the BTRC?

6.11 Government Revenue and License Fees

The Telecommunications sector has traditionally been a cash cow for the government of Bangladesh.

6.11.1 Fee Structure

(1)	Did you have to pay a fee to purchase your license?

(2)	Do you pay an annual fee as well?

(3)	Are there any other regulatory charges you have to pay, please list them?

1.

2.

3.

(4)	Would it be preferable to have a charge of issuing an ULR authorization, an annual fee or should there be a mixture of both?

(5)	Should fees and charge be dependent on the number and type of services being proposed to be provided by the service provider or simply be a fee for the possession of the authorization?

6.11.2 Fee Base

(1)	What is an appropriate fee level in a ULR Regime, coverage, size of business, date of entry to the sector or some other base?

(2)	How should fees if any be decided? Should there be room for industry consultation?

6.11.3 Government Revenue Requirements

Governments around the world sometimes levy the telecommunications sector a revenue share to take account of the revenue lost when the former telecom utility was privatized.

(1)	Is there a revenue share requirement in your existing license?
(2)	How is the revenue share calculated?
(3)	If you did not have to pay the government revenue share, would you use the additional revenue to expand you network, offer new services, or to improve cash flows?
(4)	Should any government levy be cumulative charges for existing services and service area and reduced to a nominal value say after a period of 3-5 years?
(5)	If yes, what should be the level/basis of calculating this nominal fee and what should be the time period after which the Registration Charges reduces to nominal fee?

6.12 Broadcasting and Content Regulation

6.12.1 Broadcasting Convergence:

The technological convergence there is now little if any justification for licensing in different ways the virtually identical infrastructure used similar technologies.

(1)	Should the regulation of broadcast content being merged with the regulation of telecommunications.

6.12.2 Broadcasting Content:

The licensing of broadcasting is often associated with censorship, political and to promote community standards of tolerance and understanding of different viewpoints. However, there are other aspects of content licensing, for example monopolization of major sporting events, such as the Soccer World Cup and major cricket matches.

(1)	Is content licensing a matter that should be covered by the ULR?
(2)	If you answer is yes, please state your concern or your suggestion?

6.13 Transition

Transitioning from the existing regime to a ULR regime is a complex task. The BTRC needs to obtain industry feedback on how the process can be speeded up and simplified. Please feel free to comment on these issues as you see fit. Take more space where necessary.

6.13.1 Procedure to Issue Licenses

(1)	What simplifications to the current procedure for granting a licenses would you like to see in the ULR, based upon the authorization model?
(2)	Should we consider implementation of Unified Licensing framework through a multi stage process or a single stage process? What are the pros and cons of each suggestion? If the process is to be completed in phases, what should be the milestones and time frames for each step?

6.13.2 Optional or Mandatory

(1)	Should migration to Unified Licensing Regime be optional or compulsory?
(2)	Can you identify any special problem in the migration from service specific license to ULR, including surrender of any infrastructure license?
(3)	Should the choice of service area be left to the operator or should choice be limited to the existing licensed service areas?

6.13.3 Bank Guarantees:

(1)	Should a Bank Guarantees of fee for be required in advance for parties seeking to take up a URL?
(2)	Should the Bank Guarantees PBG & FBG) be same for all the services in the ULR or should the existing framework of Bank Guarantees be continued in the new licensing Regime
(3)	What should be the level of Bank Guarantees for ULR authorizations and niche service providers, if such categories are considered?

6.14 Other Issues

6.14.1 Similar Treatment

Subject to any predefined rules, ULR implies that authorized operators should be subject to the same rules and treatment (i.e. should operate on a "level playing field"). Operators entering the market as it matures should not be subject to more onerous rules (or more generous) than those that apply to earlier in time licensees.

(1)	Should the principle of a level playing field apply between existing operators and new entrants to the market
(2)	Should this principle be subject to the exception that applies in most markets with introduced competition, licensees who meet significant market power (SMP) or market dominance tests may be subject to more onerous rules, particularly in relation to access and interconnection.

In addition to the issues mentioned above, comments of stakeholders are invited on any other related matter that should be considered while finalizing Unified Licensing Regime.

7

Conclusion

7. Conclusion

This document has set out many of the reasons why the BTRC is proposing to move to a Unified License Regime.

We have shown many examples of Unified Licenses in place and working satisfactorily. We have also explained the reasons why they are growing in popularity. Essentially, the make sense because they leave it up to the operator to choose the appropriate technology for each specific need and to choose the most appropriate services to offer.

This discussion document has tried to identify the issues that arise in the process and to seek feedback from the stakeholders affected.

It has also laid out the framework for a migration path from the current situation to the new. The BTRC hopes that you will attend the workshop in the BTRC Office in Dhaka on the 27 September and give us your written comments framed along the lines of section 6 above

Thank you for your participation in this important task.