



Consultative Draft
Market Liberalization Policy for the
Telecommunications Sector

Ministry of Science & Technology
IT & T Division

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1. Introduction

Economic Landscape:

Located in South Asia, Pakistan is one of the major regional economies and among the 10 most populous countries in the world with a population base of 135 million. The country is nearly four times the size of United Kingdom, and has India, Afghanistan, Iran and China as its neighbours. The economy of Pakistan is primarily driven by agriculture, which accounts for the largest share of GDP, contributing about 25% to the economy. Pakistan is one of the world's largest producers of raw cotton, which serves as the input to drive the textile industry - the mainstay of industrial activity in Pakistan. Other significant agriculture products are wheat, rice and sugarcane. The other key economic drivers are industrial and manufacturing sectors, mining & quarrying, construction, energy, oil & gas and electricity. The services sector has also been playing an important role in the overall economic activity. Pakistan's GDP per head is about US \$ 430. The Government is making all out efforts to revitalize the economy and demonstrate its commitment to business friendliness through internationally acknowledged fiscal policies, good governance & transparency in managing Government affairs.

In line with Government's objective to de-regulate and liberalize various sectors of the economy, it is considering the following policy for market liberalization for the telecommunications sector (the "Policy") in the territory of Pakistan.

The Policy applies to the fixed line telecommunications sector, which opens to competition on 1st January 2003. At that time, the exclusive right of the Pakistan Telecommunications Company Limited ("PTCL") to provide basic telephone service (local, long distance and leased line service) will expire.

2. Telecommunication Sectors of Pakistan in 2002

Pakistan has made steady progress in expanding telecommunication networks and services in recent years. Key features of the present telecommunication infrastructure in Pakistan are:

Fixed Line Telecommunications:

Pakistan Telecommunications Company Limited (“PTCL”)

1. PTCL is the incumbent service provider for provision of fixed line telecommunications. Established as public limited company in 1996, PTCL is 88% owned by the Government of Pakistan. It has shown impressive growth in the past 5 years and manages a well-developed domestic telecommunication infrastructure of 4.5 million access lines, nationwide backbone and international communication links.
2. PTCL has installed more than 1 million new telephone lines since 1996. Teledensity (defined as the number of telephone lines as a percentage of population), at 2.45% (2001), has increased by 6% per year.
3. The telecommunications network is almost entirely digital.
4. As a result of tariff rebalancing program initiated by the Government in 1997, the prices of long distance and international calls have been significantly reduced in recent years.

National Telecommunication Corporation (NTC)

1. National Telecommunication Corporation was formed in 1996 in order to meet telecommunication requirements of Government and Defense Forces. It has a nationwide presence with a network of 72000 customer access lines and nationwide fiber optic backbone infrastructure.

Special Communication Organization (SCO)

1. The Government of Pakistan created Special Communication Organization in 1976 and gave the challenging task of installing and maintaining the telecommunication facilities in the entire Azad Jammu and Kashmir and Northern Areas. SCO operates a network of 60,000 lines in its designated territory.

Cellular Mobile Telephony

1. Cellular usage is growing strongly after the introduction of calling party pays (CPP) regime in the year 2000. Currently, four operators (2 GSM, 1 D-AMPS, 1 AMPS) provide service to over 1 million cellular subscribers all over the country. The number of subscribers has more than doubled in the past one year.

Role of Other Private Sector Operators

2. Private sector operators have played a very important role in developing the value added services market in Pakistan. The key achievement is installation of about a hundred thousand payphones and public call offices in addition to operations of host of value added services, premium rate calling systems, pre-paid calling cards and so forth. Some private sector operators have pre-emptively positioned themselves in the market to capitalize on the de-regulation initiative through deployment of fiber optic and Wireless Local Loop (WLL) infrastructure in various parts of the country.

Internet

1. More than 70 active Internet service providers provide Internet access, which is accessible in more than 840 cities and towns.
3. Low Internet access charges have encouraged Internet use and acceptance by the Pakistani public. Internet services are accessible at a cost of unit local call without discrimination of distance in most parts of the country.
4. Low-priced data communication services are available to companies in the information and communications technology sector in order to encourage these companies to establish and grow in Pakistan.

Regulatory Perspective

1. Efforts to develop a fully competitive market in telecom sector were initiated in the early 90's. An industry regulator, Pakistan Telecommunication Authority (PTA) was established in 1995 to regulate the telecom industry. PTA is a fully functional organization and has played a key role in developing private sector role in telecommunication services. It has also developed a complete framework for regulating the telecom sector through addressing issues such as Interconnect, Licensing, Tariff regulation, Co-Location, QOS and others.
2. Frequency Allocation Board is an independent organization entrusted with the responsibility of allocating and assigning frequency spectrum to Government, telecom system / service providers broadcasting operators and private users of wireless systems. It operates within the provision of Telecom Act 1996 and the guidelines/ recommendations laid down by ITU.

Despite this progress, more needs to be done. Teledensity is still low for a country at Pakistan's income level. The growth in teledensity has lagged in comparison to other countries in the region. Demand for lines, both fixed and mobile, exceeds available supply. Rates for international long distance calls, although dropping, are still relatively high. Customers for fixed line services do not experience the benefits of competing operators, each striving to provide the most appropriate services at the best price. In order to give a boost to the telecommunication infrastructure deployment and to create competitive environment, market liberalization policy is essential. The policy principles are described below.

3. Policy Objectives

The Policy is designed to achieve the following objectives:

1. Promote infrastructure development, especially infrastructure that will increase both tele-density and spread of telecommunication services in all market segments (including voice and data, business and residential) to ultimate customers at competitive and affordable prices.
2. Increase service choice for all consumers.
3. Increase private investment in the telecommunications sector by local and foreign investors / entrepreneurs.
4. Enhance long-run benefits to the Government's financial position by expanding the taxable revenue base
5. Accelerate expansion of telecommunication infrastructure to extend telecommunications service to un-served and under-served areas.
6. De-regulate and liberalize the telecommunication sector while adopting international best practices, through a well defined regulatory regime.
7. Continuity of IT and Internet promotion policy.

4. Number and Type of Fixed Line Telecommunication Service Licenses

There will be two types of licenses for fixed line operators:

8. Local loop (“LL”) fixed telecommunications
9. Long-distance and international (“LDI”) fixed telecommunications

There will be no limit on the number of licenses to market entrants who meet the licensing criteria for which minimum experience will be specified. Any qualified person / company that requests a license, and meets the licensing requirements, will receive one. A company can hold either or both types of licenses.

Existing operators of telecommunications services in Pakistan would be permitted to retain their current licenses or O&M agreements with PTCL. They will also be permitted to opt for a new local and/or long distance license if they qualify. If an existing operator of telecommunications services does not opt for one of the new licenses, it will not lose any of the rights previously acquired (such as interconnection or radio spectrum), and its current license(s) and agreements with other operators will continue to be respected.

4.1 Obligations of the new licensees for Fixed Line Telecommunications

4.1.1 LDI Licences

In addition to the obligations imposed by the Pakistan Telecommunication (Reorganization) Act, 1996 (“Telecom Act”) and the rules / regulations made thereunder; LDI licensees will have the following specific obligations:

1. Start roll out by building atleast 1 point of interconnection in each PTCL region within 1 year and roll-out a predefined level of network infrastructure within 3 years.

Until that time, the operator will be permitted to lease infrastructure from PTCL. The operator will provide a performance bond in respect of infrastructure performance obligations, which will be set against measurable roll-out targets.

2 Provide incoming and outgoing interconnection services, both for voice and IP data traffic, to all other licensed operators who request it, as well as overseas operators. 10. To encourage new entrants, reasonably low one-time license fee may be applied. Subsequently, operators will pay to PTA a fixed annual fee to reasonably cover the operational costs of regulation.

4.1.2 LL Licences

In addition to the obligations imposed by the Telecom Act, and the Rules / Regulations made there under, LL licensees will have the following specific obligations:

11. Start operations with minimum of 2 points of Interconnect in the areas where they operate (“Points of Interconnect” are premises at which other licensed operators can send to or receive from the LL licensee voice or data traffic originated by or destined for the LL licensee’s customers); and rise over time to 2 per PTCL transit area serving the licensee’s area.

12. Accept incoming traffic, both voice and data, at acceptable technical and quality standards as laid down by PTA. In the event that another operator considers that an LL licensee’s termination prices are inappropriate, the PTA has the power to resolve the dispute and impose cost-based prices.

13. Provide directory services, provide access to emergency services, provide operator assistance, and create standard contract terms for customers, which contain the right to cancel, a complaints procedure, and minimum notice of tariff modifications.

Both types of licensees will be required to provide regular reports to the PTA on quality and network implementation. Both types of licensees are free to negotiate their own interconnect prices, until such time as they enjoy significant market power (“SMP”) as determined by the PTA. (Under Rule (17), an operator with 25% market share is presumed to possess SMP.) Unless the PTA determines otherwise, they can obtain symmetrical

termination rates with PTCL.

Both types of licensees will be penalised for failing to meet license obligations, or failing to make use of radio spectrum that is allocated to them. In addition, the licensees may be obliged to provide services as may be mandated to achieve above defined policy objectives.

4.2 Access Promotion Contribution

At present, incoming international traffic generates a financial premium over the cost of conveying and terminating the traffic into Pakistan. Although historically, this premium has been large, it has been steadily reducing in line with global trends.

The Government believes that, as long as the premium continues to exist, a reasonable portion of the same should be used to promote Infrastructure expansion. An Access Promotion Contribution (“APC”) regime may be introduced for an interim period of time to promote local loop roll-out for accelerating tele-density growth and wider service coverage in the country. APC would be governed through a formula to be specified separately by the PTA and APC would be available to LL operators consistent with their achievement of rollout to be specified in the licences. APC would be driven through revenues (presently facing decreasing trends) generated out of bilateral settlement rates. The APC rates derived from the formula would be reviewed and notified by PTA at least once every six months. PTA would also regulate the international traffic termination agreements of LDI operators with foreign operators.

APC will also be available to cellular operators commensurate with their commitment to revised license condition requiring accelerated roll-out and improved quality of service. The additional payment received under APC regime will be utilized for extending access of cellular infrastructure to rural / under-served areas. Mechanism to enforce APC related rollout plan shall be specifically enforced and monitored by PTA.

4.3 Rights of the licensees

Licensees will have reasonable right to claim the rights of way they need to construct a national network. Entities (for example, those in the power, gas, water and rail transport sectors) with suitable land holdings will be encouraged to provide access to rights of way and the Government will facilitate reasonably in acquiring the same.

The Government proposes to enact changes to the Telecom Act to clarify that LL and LDI operators have a reasonable right to claim right of way to install their network facilities. LDI licensees will have the right to non-geographic numbering ranges, and will also be allocated short codes for operator service. They will also be issued a four digit Access Code of the type "xxxx", to allow Indirect Access (call-by-call carrier selection) by incumbent's customers.

Before 31 Dec 2003, incumbent(s) would upgrade local switch software to allow the automatic insertion of the Access Code before the numbers dialled by customers of LDI licensees (carrier pre-selection).

LDI licensees will have the right to obtain IRUs (from SEA-ME-WE or other such consortia), and the right to install earth stations. They will have the right to co-locate in PTCL's international exchange buildings, and backhaul to and from them using their own fibre and/or own radio spectrum. Licensees will have the right to access existing landing points, and to participate in future landing points for new cables. Access by licensees to PTCL's satellite earth stations will be on commercially negotiated terms between PTCL and the licensee.

LL licensees will have the right to geographic and non-geographic numbers, as well as short codes (for example, for operator service).

LL licensees will, however, be exempted from the requirement to offer Indirect Access (carrier selection) to their subscribers, until such time as they enjoy significant market power as determined by the PTA.

Neither type of licensee will be subject to price regulation (except with regard to inappropriate interconnection prices or terms), unless it has significant market power as determined by the PTA.

There will be no obligation on licensees to open ducts, poles or other such facilities to competitors until they enjoy significant market power.

4.4 Radio spectrum

The policy on radio spectrum would be based on the intent that Pakistan follows ITU specified radio frequency bands specific for the purpose of operations of WLL, point to point microwave and backbone services in the bands such as 3.5GHz, 10 GHz, and 26-40GHz among others. Details of current frequency allocations would be available in PTA's data room. LDI licensees will be entitled to radio spectrum for point-to-point / and backbone links, within the parameters of their licences. LL licensees will be entitled to radio spectrum for WLL systems, and also spectrum for point-to-point links. Radio spectrum that is currently unoccupied and available for use by entrants will be made available through a transparent allocation procedure.

4.5 Interconnection Pricing

Both types of Licensees will have the right to interconnection, leased lines and co-location facilities from the incumbents. Pricing of the incumbent services will be determined in accordance with the Rules already notified.

However, pending the development by incumbent of cost accounts that are approved by the PTA, incumbent's interconnection prices shall be based on international benchmarks. Initial interconnection would come into effect on 1st January 2003, while LRIC based target benchmark interconnection prices would come into effect by 2006.

Both types of licensees will have the right to co-locate in PTCL local and transit exchange buildings, and to connect their own fibre and own radio links to PTCL buildings.

4.6 Obligations of Operators:

4.6.1 With Significant Market Power

The Government believes that the success of market liberalization depends on the development of a fair, competitive and non-discriminatory environment for all operators. In this regard, incumbents (and SMP Operators that may emerge) shall be prohibited from cross subsidization, price manipulation, interference with competitive market dynamics or engaging in anti-competitive conduct. The PTA shall have the responsibility of promptly investigating allegations of anti-competitive conduct and imposing remedies when such anti-competitive conduct is found.

At present, incumbent's licence contains prohibitions against anti-competitive conduct. These prohibitions shall be updated, incorporated in the Rules and made applicable to incumbents and all other operators that are determined by the PTA to possess SMP.

4.6.2 Without Significant Market Power

Government would encourage new operators to develop their infrastructure. However, during the process, Non - SMP operators would have obligations in relation to roll-out, Quality of Services, Customer service, Interconnection and other relevant obligations, the details of which will be spelled out in the context of detailed policy document.

4.7 Additional Obligations on PTCL

In order to facilitate market liberalization, PTCL, within a stipulated time frame, is obliged to:

14. Prepare two transit switches in each region for interconnection
15. Enable subscriber lines on all digital local switches to perform Indirect Access (callby- call carrier selection)
16. Enable all subscriber lines to perform Indirect Access

17. Enable all subscriber lines to perform carrier pre-selection With regard to the provision of cost accounting information and its separation, PTCL must present cost accounts to the PTA within a prescribed time frame.

These cost accounts will follow the principles of transparency, orientation, and allocation based on activities and related cost drivers. They shall be sufficiently detailed to allow the clear identification of (a) activities related to interconnection - covering both interconnection services provided internally and interconnection services provided to others; and (b) other activities, so as to identify all elements of cost and revenue. Details of the basis of their

calculation and the allocation methods used shall be provided, including an itemized breakdown of fixed asset and structural costs. Sufficient records must be kept to allow an independent audit of these cost accounts. Specific schedule of PTCL obligations will be detailed in the main text of the policy.

PTA will issue a Reference Interconnection Offer (RIO) to be used as the default interconnection offer for interconnection with PTCL. Incumbent's can implement amendments to the interim RIO, subject to the prior approval of PTA.

5. Universal Service

The Government has designed the market liberalization policy to maximize the commercial availability and coverage of telecommunications networks and services in Pakistan. The Government recognizes, however, that even with market liberalization, and under strictly commercial considerations, there may exist certain populations or geographic areas that may remain un-served or relatively underserved. The Government's universal service policy is designed to ensure that these designated populations and geographic areas receive adequate service in a sustainable manner as resources permit.

The PTA is required under section 4(e) of the Telecom Act to "promote the availability of a wide range of high quality, efficient, effective and competitive telecommunications services throughout Pakistan". In furtherance of this broad policy objective, the Government intends to amend the Telecom Act and the Rules, as appropriate, to establish a universal service scheme.

The main financing mechanism to promote universal service in Pakistan will be the Universal Service Fund (“USF”), under policy guidelines of MoST. The precise form and working of the USF will be determined by MoST in consultation with PTA. There would be further consultations with Government departments, the public, operators and other stakeholders in USF policy finalization.

The USF will be used to finance the expansion of basic services (including access to the Internet), both on an individual and a community basis. Under policy guidance from MOST, there will be a determination about the level and type of services to be financed by the USF, the designated populations or geographic areas eligible to receive subsidized services from the USF, and the level of available financing and actual subsidies. Disbursement of USF funds shall be made through a transparent, non-discriminatory and competitive process.

The USF will be predominantly financed by revenues collected from all telecommunications licensees through a universal service fund charge (the “USF Charge”). The USF may also receive matching contributions from the Government, and also funding from international or bilateral development agencies.

The USF Charge shall be payable by all operators licensed to provide telecommunications services (including, but not limited to, incumbents, cellular operators, etc.). The USF Charge will be based on a fixed percentage of net telecommunications turnover, defined as turnover from telecommunications services net of interconnection and other PTA-approved inter-operator payments. The level of USF charge shall be set by the PTA with reference to international benchmarks and to avoiding the imposition of undue financial burdens on the telecommunications

Sector To the greatest extent possible, USF funds will be employed to facilitate new investment in market-oriented,

sustainable operations, which will not require continuing public subsidy. The USF will be used exclusively to finance new universal service projects and will, as a maximum, finance up to an operator’s net cost of providing the defined

service. The net cost of universal service shall be determined by the PTA and should take due account of corresponding costs and revenues.

Network expansion obligations and other similar obligations that are imposed on operators, including PTCL, pursuant to licence conditions shall not be eligible for funding by the USF. Relevant operators will continue to fulfill any / all obligations of roll-out as part of their licence conditions and the same may be reasonably re-defined in incumbent's licences where required. The current IT support and Internet access promotion policy will remain unchanged for next 5 years.

Detail policy may be notified separately.

6. Regulatory Framework Changes

Pakistan has substantially modernized its regulatory framework in recent years, and already possesses an institutional structure and legal framework that is suitable for implementing market liberalization. Pakistan intends to continue to maintain its already filed international commitments, specially in relation to trade in telecommunication services.

The Telecom Act and Rules / regulations made thereunder are being suitably amended to meet the new requirements resulting from adoption of the market opening policy. It would inter-alia enable design and implementation of a Universal Service scheme, clarify the reasonable right of operators to use public roads for network build-out and incorporate suitable amendments to address dispute resolution issues.

Changes to the Act, Rules and Regulations shall be made to facilitate market liberalization. Most notably, the prohibitions against anti-competitive conduct by SMP operators shall be inserted in the Rules and corresponding provisions in incumbent's licence shall be removed.

7. Grant Of Licenses

The process of licensing LL and LDI operators shall begin upon approval of this policy. Thereafter, MoST and the PTA shall co-operate in preparing the requisite applications, draft licences, information packages and other necessary measures to facilitate the licensing process. Issuance of licences can commence as soon as possible.

8. The Role of Mobile Cellular Operators in Fixed Market Liberalization

The Government recognizes that mobile cellular operators have an important role to play in expanding access to telecommunications networks in Pakistan. There is evidence that some customers in Pakistan already rely on mobile cellular phones as an alternative to fixed line telephones. Moreover, the experiences in other developing countries show that mobile cellular technology can be cost effectively employed as an access technology. The Government intends to avail the opportunity to fully exploit cellular mobile services for a wider coverage of demographic areas through an open process for development of cellular mobile sector which may also include

Access Promotion Contribution for faster roll-out consistent with infrastructure expansion targets to be specified in the respective licences. The existing cellular operators would have the option to qualify for APC, which would be contingent upon roll-out and other obligations contained in the detailed policy to be provided separately. They may opt to and consent to suitably improve their license to qualify for Access Promotion Contribution. However the current licensees may continue their services under current licenses, tariff and interconnection terms without access to new Interconnect / APC regime.

The Policy implementation applies to the fixed line telecommunications sector, which opens to competition on 1 January 2003. However, certain of the policy measures are relevant to mobile cellular operators and will encourage the expansion of wireless networks, both for mobile and fixed services:

- They will have access to interconnect charges at the same rates as for fixed line operators.

Mobile cellular operators will be permitted to apply for a LL and/or LDI licence

- They may be permitted to participate in USF scheme

The Government will shortly begin the process of deciding the policy for subdivision, cleaning and allocating the 1800-2000 MHz spectrum band. The policy review will consider the extent to which these bands can be used to foster the increased availability of fixed wireless services using cellular technology and for the adoption of new technologies, such as 3G mobile communications in the 1.9-2.2 GHz bands.

9. Financial & Fiscal Regime

A section detailing existing fiscal & taxation regime for telecom sector will be provided separately.