



PAKISTAN TELECOMMUNICATION AUTHORITY
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No. 15-46/10(CA)/PTA

Determination

**Relevant Markets and Significant Market Power (SMP) Operators in Pakistan,
Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)**

1. Object and Background:

Pakistan Telecommunication Authority (the "Authority") under section 4 (1) (d), section 4 (1) (m) and section 6(e) of the Pakistan Telecommunication (Re-organization) Act, 1996 (the "Act"), the Azad Jammu & Kashmir Council Adaptation of Pakistan Telecommunication (Re-organization) Act, 2005 and the Northern Areas Telecommunication (Re-organization) (Adaptation and Enforcement) Order, 2006 is mandated, *inter alia*, to: i) regulate competition in the telecom sector; ii) promote the availability of competitive telecommunication services; and iii) encourage fair competition in the telecommunication sector through out Pakistan, AJK and NA(Gilgit Baltistan-GB) respectively.

In order to regulate the matters related to competition, rule 17 (1) of the Pakistan Telecommunication Rules, 2000 (the "Rules") further provides that an operator shall be presumed to have significant market power when it has a share of more than twenty-five per cent of a particular telecommunication market. The relevant market for these purposes shall be based on sectoral revenues.

Sub-rule 2 of rule 17 of the Rules further provides that the Authority, notwithstanding sub-rule 1 of rule 17, may determine that an operator with a market share of less than twenty-five per cent of the relevant market has significant market power. It may also determine that an operator with a market share of more than twenty-five per cent of the relevant market does not have significant market power. In each case, the Authority shall take into account the operator's ability to influence market conditions, its turnover relative to the size of the relevant market, its control of the means of access to customers, its access to financial resources and its experience in providing telecommunication services and products in the relevant market.

Vide determination No.15-46/01(Tariff)/PTA dated 25th August, 2004 (the "Previous Determination") the Authority, *inter alia*, determined and declared Relevant Markets and SMP Operators as follows:

S. No.	Relevant Markets		SMP Operators
	Product / Service Markets	Geographical Markets	
1.	Local Loop Fixed Line Telecommunications	All Telecom Regions	PTCL
		AJK & NAs	SCO
2.	LDI Fixed-Line Telecommunications	Pakistan	PTCL
		AJK & NAs	SCO
3.	Leased Lines	Pakistan	PTCL
4.	Mobile Cellular Telecommunications	Pakistan	PMCL
		AJK & NAs	SCO
5.	National Interconnection	Pakistan	PTCL & PMCL

2. Need of determining Relevant Market and SMP Operators afresh:

Since the issuance of the Previous Determination, the telecommunication markets of Pakistan, Azad Jammu and Kashmir and Gilgit Baltistan (AJK/GB) have undergone a considerable change in their size, scope, diversity, needs and dynamics which require a fresh review of the relevant markets and declaration of SMP operators according to the changed situations. In view of the foregoing, the Authority conducted a fresh market review through consultation with all stakeholders to determine the relevant market and SMP operators in the telecom sector of Pakistan, AJK and GB.

3. The process of conducting market review:

The Authority issued a Consultation Paper (the "paper") on the subject on 31st July, 2009 and requested the stakeholders to furnish comments/ reply on the paper along with data, for the period covering from 1st July 2008 to 30th June, 2009, in the prescribed formats given in the paper, so that total market size and market share of individual operators could be known for identification of relevant markets. The paper proposed following products/services as well as geographic markets for the purpose of declaring as relevant markets:

S. No.	Relevant Markets	
	Product / Service Markets	Geographical Markets
Retail Level Markets:		
1.	Local Loop Fixed-line Telecommunications Market	(i) 14 Regions of Pakistan (ii) 3 Regions of AJK & GB
2.	LDI Fixed-line Telecommunications Market	(i) Pakistan (ii) AJK & GB
3.	Mobile Cellular Telecommunications Market	(i) Pakistan (ii) AJK & GB
4.	Retail Broadband Market	(i) Pakistan (ii) AJK & GB
Wholesale Level Markets:		
5.	Domestic Leased Lines Market	(i) Pakistan (ii) AJK & GB
6.	International Leased Lines Market	(i) Pakistan
7.	National Interconnection Market	(i) Pakistan (ii) AJK & GB
8.	Call Transit Services Market	(i) Pakistan (ii) AJK & GB
9.	Wholesale Broadband Access Market	(i) Pakistan (ii) AJK & GB

4. The Operators' responses to the Paper and the Authority's findings:

Criteria for Determining SMP Operators

(i) **PTCL's comments:** The division of telecom market on the basis of geographical area and product/services needs revision as a mobile operator working in Pakistan and AJK & GB does not have separate network for Pakistan and AJK & GB, although they were licensed separately. There cannot be two separate markets for mobile services unless there are clear cut boundaries for restricting access of Pakistan mobile services in AJK & GB and *vice versa*. Declaration of SMP status should be license-based instead of product/service to provide level playing field to all stakeholders.

Authority's findings: The geographic market is to be based on the area where an operator is authorized to operate under its respective license (irrespective of its actual network

deployment). The mobile operators of Pakistan are not authorized to provide services in AJK & GB based on their license for Pakistan territory. Instead, they have been given separate mobile licenses to operate in AJK & GB. Therefore, for the purpose of declaring SMP operators, geographic market has to be divided on the basis of licensed territory. The determination of SMP status on the basis of license instead of product/service, as suggested by PTCL, is neither practicable nor used by any known regulatory body. Moreover, this suggested approach might result in declaration of PTCL as SMP operator for all services that are covered under its license.

(ii) Telenor's comments: Pakistan telecom sector has matured since the SMP determination in 2004. It is therefore suggested a gradual change from sector specific regulation to one that is based on competition law. In case the Authority trusts that SMP status is inevitable in some of the market, then the status should be based on the operators' ability to influence the market conditions and thus government should accordingly, rationalize the 25% SMP determination rule. Further, it should be aligned to what is often referred to as dominance in competition law with a threshold of 40-50% market share in addition, other criteria should also be analyzed and taken into account when evaluating SMP e.g. size and economies of scale, countervailing buying power and potential regulation.

Authority's findings: Although Competition Commission of Pakistan has been established to create a business environment based on healthy competition towards improving economic efficiency, developing competitiveness. However, sector specific regulation is also necessary to safeguard and protect operators from anti-competitive practices. Regarding rationalizing 25% market share for determining SMP operator, it is pertinent to highlight that some of the operators have requested to further reduce the market share. The Rules provide the criteria for determining SMP operator which cannot be deviated at this point in time.

(iii) CMPak's comments: Determination of SMP on the basis of 25% market share is too big. Secondly, the SMP determination should be based on achievement of market share of revenue or subscribers (whichever is achieved first).

Authority's findings: The Authority is under obligation to follow the Rules in its true letter and spirit. According to the Rules, an operator shall be presumed to have significant market power when it has a share of more than twenty-five percent of a particular telecom market based on sectoral revenues. It is also pertinent to highlight that EU and many other regulatory authorities determine SMP operator in case it has a market share of forty percent. On the other hand, the Authority is determining SMP operators on 25% market share.

LDI Fixed-line Telecommunications Market

(i) Mobilink's comments: LDI operators can offer NWD and International outgoing directly to LL customers by way of calling card or carrier pre-selection. LDI operator in

fact owns the customer and therefore both the services should be considered as retail services.

Authority's findings: The Authority concurs with Mobilink's viewpoint regarding offering of NWD and IDD calls by way of calling card or carrier pre-selection. Services indicated by Mobilink have already been included as retail services and the revenues from these services will be taken into account for determining the total market size and the market share of a particular operator in LDI Fixed-line Telecommunication Market.

(ii) **Mobilink's comments:** LDI operator may also offer call carrying facility to the operators both in case of domestic and international outgoing traffic wherein LDI operator plays the role of carrier only and not the originator of the traffic. Further, revenue earned from international incoming traffic must also be considered for the purposed of determining SMP in the market.

Authority's findings: International incoming traffic has already been included in national interconnection market which has been proposed as separate relevant market for the purpose of determining SMP operator. PTA has also included revenues from call termination of all types of calls, (local, long distance and/or international from fixed and mobile networks) that terminate in the territory of Pakistan or AJK & GB, as the case maybe, in national interconnection market.

(iii) **Warid's comments:** Revenue collected only on the basis of carrier selection code should be included in this market whereas revenue from call carriages services should become part International / Domestic LDI market defined within the domain of wholesale level markets. It is suggested that LDI market should be further divided into LDI international market and LDI domestic market.

Authority's findings: In LDI fixed-line telecommunication market, revenues generated through retail services such as carrier selection and calling cards have been included. Moreover, it may be noted that call carriage service has already been included in call transit market.

(iv) **Telenor's comments:** For LDI retail market, the Authority has only taken into account the outgoing minutes whereas revenues generated from international incoming traffic have not been considered. Given that LDI main stream is generated from incoming traffic rather than outgoing traffic, it is suggested that both revenue streams should be included in the calculation.

Authority's findings: The objective of declaring SMP operator in a particular relevant market is to prevent its influence on other operators. Although revenues generated from international incoming traffic constitutes a major portion of LDI revenues but the Authority cannot exert its influence and control since LDI operators negotiate and settle agreements with foreign operators. It may also be noted that Access Promotion Rules, 2004 and Access Promotion Regulations, 2005 are applicable on all LDI operators irrespective of the fact whether an LDI is a SMP operator or not.

Retail Broadband Market

(i) **PTCL's comments:** Broadband market (0.26% penetration) is not ready for SMP regulation at this stage and any regulatory intervention would adversely impact its growth. The legislation/ regulation should be made for the benefit of the people and the development of the country and not on the basis of some complaints. GoP has waived of the Federal Excise Duty (FED) on broadband services to help in greater proliferation of the service. Any detrimental measure like SMP application to broadband market will hamper the broadband growth and will directly hurt GoP's policy objective. The broadband market is too small to allow meaningful SMP designation and should be left unregulated. On supply side there are multiple operators having different technologies capable of providing broadband to end users on competitive rates. Other DSL operators who are using PTCL infrastructure can also provide wireless broadband in collaboration with wireless infrastructure operators as well. There are choices on supply side and also on demand side no technology is influencing customer's preference as the charges are very competitive.

Authority's findings: After the launch of DSL service by PTCL, broadband operators lodged a complaint to the Authority terming PTCL's tariffs as anti-competitive. Resultantly, the Authority had to issue 'Determination on Broadband Issues and Complaint of ISPs on PTCL's DSL launch' wherein PTCL was restricted not to further extend its promo for unlimited downloads. The Authority is of view that the broadband market has matured enough to justify the introduction of *ax-ante* regulation for possible anti-competitive practices from dominant operators. It may also be noted that the access network still is a bottleneck facility in provision of broadband services to end-users. Therefore, the Authority considers it justified to declare retail broadband market as a relevant market for determination of SMP operator(s).

(ii) **Mobilink's comments:** Mobilink has agreed with Authority's proposal to declare retail broadband market as relevant for SMP declaration. Furthermore, Mobilink has requested that while determining SMP status in the retail broadband market the factors such as copper loop, co-locations, MDF space, local media as well as IP transit should be kept in mind in addition to the market share criteria.

Authority's findings: The Rules laid down criteria for determining of SMP in the relevant market. According to the Rules, an operator will be considered as SMP if it has a share of more than 25% of particular telecom market based on sectoral revenues. The Authority will focus on primary criteria. In case, an operator has less than the aforementioned market share then the Authority shall take into account the operator's ability to influence market conditions, its turnover relative to size of the relevant market, its control on the means of access to customers, its access to financial resources and its experience in providing telecommunication services and products in the relevant market.

(iii) **Warid's comments:** Broadband market should be categorized into two categories i.e., regional which is granted to local loop operators and country-wide which is granted to CMOs.

Authority's findings: The Authority in its consultation paper has included broadband services which are being provided to end-users by means of various technologies like DSL, Cable, WiMax, FTTH, EVDO etc. Although the cellular mobile subscribers outweigh fixed-line subscriber however they have not been considered in the broadband category owing to lack of usage.

Domestic Leased Lines Market

(i) **PTCL's comments:** Leased line market is fully competitive with multiple operating networks and does not need regulatory intervention. PTCL is not an SMP anymore in the leased line market and therefore, should not be regulated. There are now four strong players: PTCL, Wateen, Link Direct and Multinet. Each has greater than 5,000 km of networks. The market is competitive with alternative technologies and networks all across Pakistan. Without regulatory intervention, the market has become competitive and tariffs have been declined significantly.

Authority's findings: Although there are four players offering domestic leased line service in Pakistan, however mere presence of operators cannot determine the extent of competition in the said market. It is pertinent to highlight that cellular mobile market also had four operators before 2004, however no competition was observed due to which the Authority had to award two additional cellular licenses to stimulate competition. Similarly, decline in prices cannot be construed that the market is competitive. Moreover, in some areas where other operators have not laid their leased lines, PTCL has in fact increased its prices which can be taken as indication of less or no competition. Nevertheless, the Authority is of the view that declaration of SMP operators should not consider the number of operators rather market share of each operator shall be taken into account as provided in the Rules.

(ii) **Mobilink's comments:** For determining SMP in domestic leased line market, it is requested that the Authority must not rely merely on Rule 25(1) i.e. 25% revenue share as it shall not portray the true picture of market. It is proposed that the Authority must consider other factors under Rule 25(2) of Telecom Rules 2000 for the purpose of identifying SMP in leased line market.

Authority's findings: PTA vide its Previous Determination declared Leased line market as single market. However, the Authority has now decided to further segregate leased line market into domestic leased line and international lease line market. In our view, further segregation of domestic leased line market is not practicable at this stage.

(iii) **Warid's comments:** DPLC market should be further sub-divided into core network, spur network and metro network to avoid cross subsidization and anti-competitive product bundling.

Authority's findings: The Authority acknowledges concerns raised by Warid Telecom, however, it may also be noted that the Authority has now segregated leased line market into two categories i.e. domestic private leased line and international private leased line. The Authority intends to further segregate domestic private leased line upon availability

of information. It is pertinent to highlight that whosoever is declared as SMP operator in domestic private leased line market would also have the obligation on core network, spur network and metro network.

International Leased Lines Market

(i) **PTCL's comments:** At international side, there are two operators (PTCL & TWA) competing hard for limited market share. The prices have already reduced significantly. Both the operators have invested heavily in establishment of international submarine cable network and providing cost effective international connectivity. This has enabled other telecom/IT operators to provide services at affordable rates. International leased line market is self regulated and requires no external regulatory intervention.

Authority's findings: As mentioned earlier, two elements i.e., i) the number of operators or ii) deduction in prices, cannot be used and considered as a tool to determine that the market is competitive. The Rules laid down the criteria for determining SMP operators, which is market share of each operator in a given relevant market.

(ii) **Warid's comments:** International leased line market should be regulated as well SMP determination should be done on the basis of each mode of communication separately i.e. submarine, terrestrial and satellite.

Authority's findings: As mentioned earlier, the Authority has segregated leased line market into two categories i.e. domestic private leased line and international private leased line market. At this point in time, it is not possible to declare SMP on each mode of communication separately. The Authority intends to declare SMP operator in international leased line market for submarine and terrestrial only.

National Interconnection Market

(i) **PTCL's comments:** Under wholesale call termination on telecom networks, any subscriber of a network making call to other network has no supply substitution as there is only one operator able to provide termination service for the call made to a particular subscriber of the called network and it is not technically possible for the operator (caller) to purchase call termination on a given network from an alternative source. It is therefore concluded that given the technical constraint, the relevant market for interconnection is an individual market, where each operator has monopoly over the traffic terminated onto its network, and not national market.

Authority's findings: The Authority concurs with PTCL's viewpoint regarding existence of individual interconnection market and has accordingly declared this market as relevant market for the purposes of determining SMP operators.

(ii) **Mobilink's comments:** The Authority instead of declaring call termination as national interconnection market should declare it as individual market for interconnection and use the criteria as adopted by other regulators in line with the international best practices.

Authority's findings: The Authority concurs with Mobilink's viewpoint and has accordingly declared individual interconnection market as relevant market for the purposes of determining SMP operators.

Others

(i) **PTCL's comments:** Mobile and fixed voice are substitutes in Pakistan, and hence the voice market should be treated as having unified access. In developed markets, fixed line operators had already achieved high penetrations (close to 100% of households) before mobile telephony was launched. In contrast, mobile voice was an expensive niche product at launch. Fixed voice was therefore regulated in order to provide a boost to the new mobile technology. In Pakistan, however, the telecom market developed very differently. Both fixed and mobile were at 3% penetration in 2003-2004. Subsequently mobile has reached over 60% penetration while fixed remains at 3%.

In this context, PTCL believes that European voice regulations do not cater to the evolution of the Pakistan market. We request that given the easy substitution for fixed voice by mobile voice, PTA should consider one single voice telephony market in which fixed and mobile are competing in the same space as evidenced by substantial fixed to mobile substitution.

Authority's findings: The Authority has issued separate licenses for fixed (LL and LDI) and mobile services owing to different market dynamics and required network elements. Based on separate licensing, the Authority vide its determination dated August 2004 declared separate markets for fixed and mobile services. Moreover, the European Commission in its review has also identified fixed and mobile as separate markets. Keeping these facts in view, fixed and mobile services cannot be merged into one relevant market for the purpose of declaring SMP operators.

(ii) **PTCL's comments:** The international trend is for light-touch technology neutral regulation and focus is on helping foster new technologies and innovative services. PTCL believes that SMP regulations as proposed by the Authority would be prohibitively expensive to implement in Pakistan. In addition, SMP regulations would not lead to fulfillment of policy objectives. There are alternatives to such regulation that are more suited to the Pakistani market.

Authority's findings: The declaration of SMP in Pakistan has to be compliant with the legislative requirements of Pakistan. The Authority has to perform its functions/obligations as entrusted in the Act and Rules, including declaration of SMP operators, even the implementation of the same is perceived to be expensive by PTCL.

(iii) **PTCL's comments:** The obligations on SMP operators in Pakistan cannot be the same as for developed markets considering high variations in economical, socio-political and infrastructure conditions. Additionally, SMP operators are public sectors organizations who have limited resources and severe restrictions in business affairs as compared to multinational companies operating in Pakistan telecom market, there is due justification to lower the current obligations of SMP.

Authority's findings: The Authority appreciates the PTCL's viewpoint to lower the obligations on SMP operators but observes that such relaxation is generally introduced in the markets which are fully competitive. The majority of obligations of SMP operators have already been defined under the respective policies, rules, regulations etc. For the purpose of developing a fair and non-discriminatory regulatory framework, it is necessary that all SMP operators in a given relevant market should be placed with same obligations. Moreover, none of the existing SMP operators in Pakistan is a public sector organization, as stated by PTCL. The Authority considers that the status of companies, in itself, is not a relevant factor in determination of SMP operators in light of the existing policy and legal provisions.

(iv) Mobilink's comments: The Authority must consider each region in Pakistan and AJK/GB as separate relevant market and identify SMP operator for each of such markets otherwise it would mean that an operator having a license in one region is being compared with an operator having licenses in all the regions. Separate data from all the operators should be sought on regional basis for determining SMP separately for each region where they are licensed.

Authority's findings: The approach suggested by Mobilink is already being used by the Authority, as elaborated in the Consultation Paper. For this purpose, separate data has been obtained from all operational local loop operators for each telecom region. In case, an operator is SMP in one region as per the conditions mention in the Rules then it will be declared as SMP operator in that particular region.

(v) Mobilink's comments: It is requested that the Authority should also declare internet bandwidth (IP Transit service) which is the major input for the entire broadband market as relevant market for the purpose of declaring SMP operator. This should be assessed on the same lines in case of international leased line market.

Authority's findings: The Authority is also of the view that IP bandwidth market is not competitive despite presence of two operators. In this regard, the Authority has obtained data from both the operators in order to assess competitiveness of IP bandwidth market. Based on the results, the Authority intends to declare IP bandwidth market as a separate relevant market for the purpose of declaring SMP operator.

(vi) Warid's comments: The consultation paper does not provide details of the obligation of SMP operators. In addition to the existing obligations of publishing a RIO and seeking prior approval for tariffs, it is suggested that both the tariff floor and ceiling should be regulated to restrain supra normal profit and anti-competitive below cost ceiling.

Authority's findings: The Authority can only impose obligations on SMP operators in accordance with the Rules, Regulations and License Conditions.

(vii) Nayatel's comments: IP Bandwidth, IP Transit and internet bandwidth backbone services should also be considered as a relevant market for the purpose of declaring SMP.

Internet bandwidth is a critical and major input for broadband operators and makes them fully dependant on PTCL and TWA.

Authority's findings: The Authority concurs with the viewpoint provided by Nayatel. Although there are two operators providing IP bandwidth however, market cannot be termed as fully competitive. In the past, broadband operators faced a lot of issues regarding IP bandwidth. In this regard, the Authority has sought data from PTCL and TWA to declare it as a relevant market for the purpose of declaring SMP.

5. The Relevant Markets and SMP Operators:

For the purpose of declaring SMP operators, the entire telecom market of Pakistan (including AJK & GB) shall be divided into different relevant markets on the basis of (i) geographical area and (ii) products/ services offered in that particular market segment. Geographic market shall be based on the area where an operator is authorized to operate under its respective license. Regarding product/service markets, the Authority's view is as under:

Retail Level Markets:

(i) Local Loop Fixed-line Telecommunications Market

Local Loop Fixed-line Telecommunications Market includes provision of access and call services to end-users (whether through PSTN or WLL) in the Region for which the Local Loop license has been granted by the Authority. Geographically, this product/service market shall be further sub-divided into fourteen (14) Regions in Pakistan and three (3) Regions in AJK & GB.

The Authority determines that for the purpose of determining the total market size and the market share of a particular operator in Local Loop Fixed-line Telecommunication Market, only the revenues from the provisions of licensed Local Loop telecommunication services (including WLL) to the subscribers shall be taken into account. Such revenues may include installation/shifting charges, line rental, call charges, etc. For the avoidance of doubt, interconnection revenues from call termination services shall not be included in the total revenue base.

The Authority observes that new entrants have emerged in Local Loop Fixed-line Telecommunication Market of Pakistan, especially in WLL. However, still majority of market share, which ranges from approximately **78%** to **100%** in different telecom region of Pakistan, is still owned by PTCL. The Authority also noted that Local Loop Fixed-line Telecommunication Market in AJK & GB is still under the monopoly of SCO, which holds **100%** market share in all three (3) Regions. Keeping this into consideration, the Authority is of the view that:

- (i) Local Loop Fixed-line Telecommunication Market shall continue to be identified as relevant market for the purpose of declaring SMP operators; and*

- (ii) *PTCL and SCO have SMP status in Local Loop Fixed-line Telecommunication Market in each of the fourteen (14) Regions of Pakistan and three (3) Regions of AJK & GB respectively.*

(ii) LDI Fixed-line Telecommunications Market

LDI Fixed-line Telecommunications Market includes provision of long distance and international call services on national basis to end-users. Geographically, this product/service market shall be further sub-divided into two (2) markets; i.e. Pakistan and AJK & GB markets.

The Authority determines that for purpose of determining the total market size and the market share of a particular operator in LDI Fixed-line Telecommunication Market, only the revenues from the provisions of licensed LDI telecommunication services shall be taken into account. Such revenues include call charges for long distance and international outgoing calls, whether collected from the customers directly or from other operators (excluding call transit charges). Moreover, revenues generated from calling cards shall also be considered while assessing the market share. However, revenues from international incoming calls shall not be included in the total revenue base.

The Authority notices that with the entrance of new LDI operators in Pakistan market, considerable competition has been experienced from new LDIs. However, PTCL still holds **57%** of the said market. The Authority observes that in AJK & GB, currently no operator, except SCO, is providing the long distance and international telephony services at retail level. Therefore, SCO has **100%** market share in the said relevant market. Based on the aforesaid, the Authority is of the view that:

- (i) *LDI Fixed-line Telecommunication Market shall continue to be identified as relevant market for the purpose of declaring SMP operators; and*
- (ii) *PTCL and SCO have SMP status in LDI Fixed-line Telecommunication Market in Pakistan and AJK & GB respectively.*

(iii) Mobile Cellular Telecommunications Market

Mobile Cellular Telecommunications Market includes provision of wireless-based telecommunication services (other than WLL) on national basis. This product/service market is further sub-divided into two (2) geographic markets; i.e. Pakistan and AJK & GB markets.

The Authority determines that for purpose of determining the total market size and the market share of a particular operator in Mobile Cellular Telecommunications Market, only the revenues from the provisions of licensed mobile telecommunication services to subscribers shall be taken into account. Such revenues may include line rental, outgoing airtime, roaming charges, revenue from data services, etc.

The Authority has noticed that Mobile Cellular Telecommunications Market is in a state of fair competition. The entry of China Mobile through acquisition of Paktel and the introduction of mobile number portability have intensified the level of competition among mobile operators. Keeping this in view, the Authority hereby determines that Mobile Cellular Telecommunication Market (of both Pakistan and AJK & GB) are fairly competitive with no operator has SMP position. Hence, this market shall be no more identified as relevant market for the purpose of declaring SMP operators till the time the Authority determine otherwise.

(iv) Retail Broadband Market

Retail broadband market includes provision of always-on internet connection with a download speed of at least 128kbps connectivity using DSL, Cable or WiMax. This product/service market is further sub-divided into two (2) geographic markets; Pakistan and AJK & GB markets.

The Authority determines that for the purpose of determining the total market size and the market share of a particular operator in Broadband Market, all revenues from the provision of broadband services to subscribers using DSL, Cable and WiMax shall be taken into account. This will include installation charges, monthly rental charges, bandwidth capacity charges etc. For clarification purpose, revenues from sales of consumer premises equipment shall not be included in the total revenue base.

The Authority notices that with the entrance of new broadband operators in Pakistan market, competition has been started among the operators. However, PTCL still holds **38%** of the said market. The Authority observes that in AJK & GB, currently no operator, except SCO, is providing the broadband services at retail level. Therefore, SCO has **100%** market share in the said relevant market. Based on the aforesaid, the Authority is of the view that:

- (ii) Retail Broadband Market shall be identified as relevant market for the purpose of declaring SMP operators; and*
- (ii) PTCL and SCO have SMP status in Retail Broadband Market in Pakistan and AJK & GB respectively.*

Wholesale Level Markets:

(i) Domestic Leased Lines Market

Domestic Leased Lines Market includes provision of wholesale domestic leased circuits to other telecom operators. This product/service market shall be further sub-divided into two (2) geographic markets; Pakistan and AJK & GB markets.

The Authority determines that for purpose of determining the total market size and the market share of a particular operator in Domestic Leased Lines Market, only the revenues raised by the operator from the provisions of domestic leased lines services

shall be taken into account. For the purpose of clarification, only the revenues from the original rental or sale by the operator, and not the revenues from reselling of domestic leased lines shall be considered.

The Authority is of the view that although new operators have recently started to provide services in the said market, PTCL still holds **51%** market share for the period under consideration. The Authority also observed that in AJK & GB, SCO has **100%** market share in provision of domestic leased lines services. Keeping these in view, the Authority is of the view that:

- (i) *Domestic Leased Lines Market shall be identified as relevant market for Pakistan and AJK & GB for the purpose of declaring SMP operators; and*
- (i) *PTCL and SCO have SMP status in Domestic Leased Lines Market in Pakistan and AJK & GB respectively.*

(ii) International Leased Lines Market

International Leased Lines Market includes provision of wholesale international leased line services to other operators through submarine as well as terrestrial cable system and by other means. At present, international leased line service is only available through Pakistan, hence this product/service market shall only be identified for Pakistan.

The Authority determined that for purpose of determining the total market size and the market share of a particular operator in International Leased Lines Market, only the revenues raised by the operator from the provisions of international leased lines services shall be taken into account. For the purpose of clarification, only the revenues from the original rental or sale by the operator, and not the revenues from reselling of leased lines shall be considered.

The Authority is of the view that although new operators have recently started to provide services in the said market, PTCL still holds **69%** market share for the period under consideration. Keeping these in view, the Authority is of the view that:

- (i) *International Leased Lines Market shall be identified as relevant market for Pakistan for the purpose of declaring SMP operators; and*
- (ii) *PTCL has SMP status in International Leased Lines Market in Pakistan.*

(iii) IP Bandwidth Market

IP Bandwidth Market includes provision of wholesale IP bandwidth to other operators for voice as well as data services.

The Authority determined that for purpose of determining the total market size and the market share of a particular operator in IP Bandwidth Market, only the revenues raised by the operator from the provisions of IP Bandwidth services shall be taken into

account. For the purpose of clarification, only the revenues from the original rental or sale by the operator, and not the revenues from reselling of IP Bandwidth shall be considered.

The Authority is of the view that although new operators have recently started to provide services in the said market, PTCL still holds **83%** market share for the period under consideration. The Authority also observed that in AJK & GB, SCO has **100%** monopoly in provision of leased lines services. Keeping these in view, the Authority is of the view that:

- (i) *IP Bandwidth Market shall be identified as relevant market for Pakistan and AJK & GB for the purpose of declaring SMP operators; and*
- (iii) *PTCL and SCO have SMP status in IP Bandwidth Market in Pakistan and AJK & GB respectively.*

(iv) Individual Fixed Interconnect Market

Individual Fixed Interconnect Market includes provision of call termination services by a given individual LL operator (PSTN or WLL) for local, long distance, and/or international calls.

The Authority is of the view that there is virtually no competition in this market due to the fact that call termination service cannot be provided by any other operator but the owner of the called network and, in this context, each LL operator has monopoly (100% market share) on termination of calls to customers connected to its own network. Therefore, this market shall be identified as relevant market for the purpose of declaring SMP operators and each of the LL operators is SMP operator in this market.

The Authority is also of the view that regulatory obligations on operators should be appropriate and proportionate. In this regard, the operators who are already under obligation to comply with the requirements of publishing Reference Interconnect Offers (RIO), cost-based interconnection charges, accounting separation etc. shall continue to observe these obligations, unless otherwise determined by the Authority. All other operators shall only have to follow the obligations of provision of interconnection upon request and non-discrimination, as given in the Rules.

(vi) Individual Mobile Interconnect Market

Individual Mobile Interconnect Market includes provision of call termination service by a given mobile operator to other telecom operators for local, long distance, and/or international calls.

The Authority is of the view that there is virtually no competition in this market due to the fact that call termination service cannot be provided by any other operator but the owner of the called network and, in this context, each mobile operator has a monopoly (100% market share) on termination of calls to customers connected to its own

network. Therefore, this market shall be identified as relevant market for the purpose of declaring SMP operators and each of the mobile operators is SMP operator in this market.

The Authority is also of the view that regulatory obligations on operators should be appropriate and proportionate. In this regard, the operators who are already under obligation to comply with the requirements of publishing Reference Interconnect Offers (RIO), cost-based interconnection charges, accounting separation etc. shall continue to observe these obligations, unless otherwise determined by the Authority. All other operators shall only have to follow the obligations of provision of interconnection upon request and non-discrimination, as given in the Rules.

(viii) Call Transit Services Market

The interconnection comprises of call origination and call termination as well as transit traffic, when traffic is carried through the network of a third party. Call transit service means transmission of switched voice service originating from another telecom network. This includes transmission of traffic through the network of a third party both inside a Telecom Region (i.e. Metropolitan Transit) and between Telecom Regions. A third party means a network operator that conveys switched voice services, which does not originate from or terminate on this operator's network.

The Authority noted that in Pakistan, although there are several LDI operators throughout all Telecom Regions, in most cases they have not directly interconnected their networks with other operators due to practical, technical or economic reasons. On the other hand, the incumbent operator i.e., PTCL is interconnected with almost all telecom operators. In this scenario, if an operator wants to provide voice transmission services within a Telecom Region or between Telecom Regions by means of transit services, it must acquire the transit services from PTCL. Considering the current dominance of PTCL over this market, the Authority is of the view that this market should be declared as relevant market for the purpose of declaring SMP operators.

The Authority determined that for the purpose of determining the total market size and the market share, revenues generated from the provisions of call transit services to other operators in a given Region shall be taken into consideration.

The Authority has observed that PTCL owns **91%** of market share of Call Transit Services Market of Pakistan. In AJK & GB, as the new fixed-line licenses are yet to be issued by the Authority, therefore, SCO is currently in a position to hold **100%** market share of Call Transit Services Market of AJK & GB. Keeping this in consideration, the Authority is of the view that:

- (i) Call Transit Services Market shall be identified as relevant market for Pakistan and AJK & GB for the purpose of declaring SMP operators; and*

- (ii) *PTCL and SCO have SMP status in Call Transit Services Market in each of the fourteen (14) Regions of Pakistan and three (3) Regions of AJK & GB respectively.*

(ix) Wholesale Broadband Access Market

Wholesale broadband access market is composed of the wholesale access service provided by a network operator to other broadband service providers. Wholesale broadband access service means provision of network access service to broadband service providers, through technical equipment (e.g. splitter and DSLAM), that enhances the throughput capacity. Optical Fiber Access Networks (OFAN) may also be used for the provision of said service. The particular use of technology/networks in provision of services to other operators is not the key issue for market definition, since competing wholesale services might provide similar functionality using a different mix of technology or network architecture. Therefore, for the purpose of this determination, reference to any particular technology/network will be for illustrative purposes only and it is the functionality of the service that is more important.

The Authority observed that in spite of deregulation in the sector, still the market share in Wholesale Broadband Access Market is concentrated in the hands of incumbent operator and the operators wishing to have access to wholesale broadband networks do not have other alternatives but to lease the same from the incumbent. Keeping this in view the Authority intends to identify this market for the purpose of declaring the SMP operators so that wholesale broadband access services are available to requesting operators (such as ISPs) to offer competing retail broadband services to end-users.

The Authority determined that for the purpose of determining the total market size and the market share, revenues generated from the provisions of access services to broadband service providers shall be taken into consideration.

The Authority has observed that PTCL and SCO own **100%** of market share of Wholesale Broadband Access Market in Pakistan and AJK & GB respectively. Keeping this in consideration, the Authority is of the view that:

- (i) *Wholesale Broadband Access Market shall be identified as relevant market for Pakistan and AJK & GB for the purpose of declaring SMP operators; and*
- (ii) *PTCL and SCO have SMP status in Wholesale Broadband Access Market in Pakistan and AJK & GB respectively.*

6. The Authority's determination of Relevant Markets and SMP Operators:

Given regards to the primary criteria for determination of SMP operators as mentioned in the Rules, the provisions of the Act as adapted by AJK and GB respectively, consultation with the stakeholders and the analysis, the Authority hereby determines that following product/service and geographical markets shall be declared as

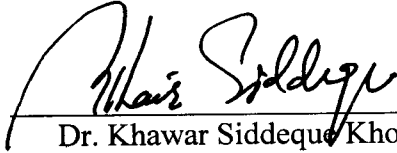
relevant markets along with operators which have been found to have SMP status in these markets and their respective obligations (in the manner mentioned in this determination):

S. No.	Relevant Markets		SMP Operators
	Product / Service Market	Geographical Market	
Retail Level Markets:			
1.	Fixed Local Loop (LL) Telecommunication Market	14 Regions of Pakistan	PTCL
		3 Regions of AJK & GB	SCO
2.	Fixed Long Distance & International (LDI) Market	Pakistan	PTCL
		AJK & GB	SCO
3.	Retail Broadband Market	Pakistan	PTCL
		AJK & GB	SCO
Wholesale Level Markets:			
4.	Domestic Leased Lines Market	Pakistan	PTCL
		AJK & GB	SCO
5.	International Leased Lines Market	Pakistan	PTCL
6.	IP Bandwidth Market	Pakistan	PTCL
		AJK & GB	SCO
7.	Individual Fixed Interconnect Market	Pakistan	All LL Operators
		AJK & GB	All LL Operators
8.	Individual Mobile Interconnect Market	Pakistan	All Mobile Operators
		AJK & GB	All Mobile Operators
9.	Call Transit Services Market	Pakistan	PTCL
		AJK & GB	SCO
10.	Wholesale Broadband Access Market	Pakistan	PTCL
		AJK & GB	SCO

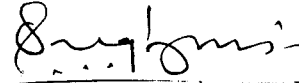
This determination shall come into force with immediate effect and rescind the Previous Determination issued by the Authority on the subject.



Dr. Mohammad Yasin
Chairman
Pakistan Telecommunication Authority



Dr. Khawar Siddeque Khokar
Member (Technical)
Pakistan Telecommunication Authority



S. Nasrul Karim A. Ghaznavi
Member (Finance)
Pakistan Telecommunication Authority

This determination is signed on this 15th day of July 2010 and comprises of 19 pages.