1

WORK AND ORGANIZATION OF PAKISTAN TELECOMMUNICATION AUTHORITY

Objective:

An efficient, competitive & de-regulated telecommunication sector that caters to the needs of the people of our country

FUNCTIONS, POWERS & RESPONSIBILITIES OF THE AUTHORITY

The Pakistan Telecommunication Authority was established in January 1996 under the Pakistan Telecommunication (Re-organization) Act, 1996. It consists of a chairman and two members, Member (Technical) and Member (Finance). The PTA's functions include:

a) Regulating the operation and maintenance of telecommunication systems in Pakistan

b) Protecting interests of the consumers

c) Ensuring transparency and non-discrimination in telecommunication licensing

d) Managing radio frequency spectrum resource

e) Promoting universal service obligation to make basic telecom service accessible to all

f) Encouraging introduction of modern terrestrial, cellular and satellite services in the country

g) Supporting modernization of telecommunication systems through liberalization, de-regulation and privatization

h) Creating a rationalized tariff structure for the telecommunication industry

i) Investigating into complaints against the licensees for alleged violations of the Act

j) Protecting and representing Pakistan's telecommunications interests at international forums

Powers of the Authority

In order to carry out its functions in an effective and efficient manner, the government of Pakistan has empowered PTA to:

a) issue and renew licenses for different telecommunication services.

b) ensure effective enforcement of the licenses.

c) develop national telecommunication numbering plan.

d) carry out inspection of telecommunication equipment and premises of licensee and summon any person for investigation or enquiry.

e) prescribe standards and type approve telecommunication terminal equipment.

f) provide guidelines for interconnection arrangements.

g) collect information with respect to the telecommunications services and systems.

STRUCTURE OF PAKISTAN TELECOMMUNICATION AUTHORITY

COMPSITION OF THE AUTHORITY & ITS DIRECTOR GENERALS

Chairman

Major General Khalid Bashir, was commissioned in the Corps of Signals, Pakistan Army in 1965. He holds Masters of Science degree from the Quaid-i-Azam University, Islamabad. He received technical schooling in telecommunications at the College of Signals and distinguished himself to be placed as member of the faculty in the College. He qualified in the discipline of Operations Research from the University of Engineering and Technology, Lahore and in the Strategic Management of Telecommunications from the Telecommunications Executive Management Institute of Canada. He has a blend of vast and varied experience in telecommunications and multi media, the two converging technologies of the modern era. He joined PTA as Member (Technical) on 27th March 2000 and took charge as Chairman PTA on 28th December 2000.

Member (Finance)

Mr. Muhammad Akram Khan, is an officer of the Accounts Group. He did his B. Com (Hons) and M. Com. from Hailey College of Commerce, Lahore, University of the Punjab in 1966 and 1967 respectively. He got M.Sc. (Industrial Management) from the University of Aston in Birmingham, UK in 1970. The same year he joined the Department of the Auditor General of Pakistan after qualifying Central Superior Services examination. He has held various positions in the Auditor General's Department, including the post of Deputy Auditor General. He was Additional Secretary in the Ministry of Finance (Economic Affairs Division), before joining PTA as a Member (Finance) in March 2000. Mr. Akram Khan is widely known for his significant contribution in the field of government accounting, financial and performance auditing, economics, finance and management. His books and papers have been published both within Pakistan and abroad.

Director General (Legal)

Ch. Inayat Ullah Khan, received his LLB in 1978 from University of Leeds, UK and was admitted to the Bar as Barrister-at-Law (Lincoln's Inn) in 1980. Other qualifications include: Certified Administration (A Inst. AM) 1980 and Ph.D (Law) (awaiting award) from Fairfax University, USA. He is Associate Member of Institute of Administrative Management, UK. His first employment was Birmingham City Council Treasury Department, Finance and Investment Section. Later he served as Community Relation Officer for Oxfordshire UK, Director Southampton Racial Equity Council, Southampton and Principal Muslim Law College, Rawalpindi, Pakistan. Mr. Khan is author of many research papers such as Police and Black Community, Immigration Laws, Nationality Laws and Legislation Vs Liberalization.

Director General (Technical)

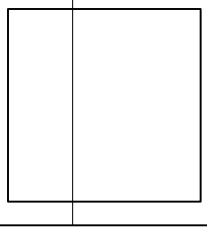
Mr. Ahsan Jafri graduated from Government College, Lahore in 1969. He passed B.Sc. Engineering (Electrical) specializing in Electronics & Communications with three distinctions in 1973. He participated in the installation, operation and maintenance of first electronic switching system in Pakistan. Mr. Jafri worked as Director Public Data Network in PTCL and introduced/ Internet Services in Karachi, Quetta & Hyderabad in 1997 – 98. He joined Pakistan Telecommunication Authority on 8th March, 1999 as Director General (Standards & Specifications).

Director General (Finance)

Mr. Nadeem A. Khan is an officer of Carrier Telephone Industry, Pakistan. He has to his credit, diversified experience in telecommunications and manufacturing sectors. He is an associate member of the Institute of Cost and Management Accountants of Pakistan and holds Post Graduate Diploma in Project Management from the Netherlands. He joined PTA in April 2000.

Director General (Licensing Enforcement)

Muhammad Iqbal Wasim has graduated in Electronics Engineering in the year 1972. He joined Pakistan Telegraph & Telephone Department in 1974. He was deputed in Pakistan Telecommunication Authority in the year 1998 as Director General, Regional Office Karachi. He posseses 25 years experience in telecommunication sector. He got training in Netherlands, USA, France and Japan in various telecommunication areas.

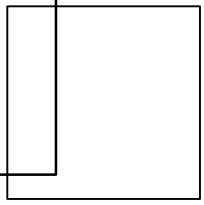


Director General (Policy & Research)

Rafiq Hussain graduated in engineering from NED University, Karachi in 1965. He studied in German Post Telecommunication School, Bremen in all branches of Telecommunication Engineering for about 2 years. He further studied in Telecom Network School, Munich for about 1½year for specializing in digital switching EWSD hardware. He completed many other courses in telecom traffic, planning, computer and administration. He made his service career in erstwhile Pakistan T&T Department. He served in Pakistan T&T and PTCL for long in development, maintenance, operation and planning of local, transit and international gateway exchanges in different capacities as D.E., Director G.M/C.E. He also served in PTCL Headquarters for planning of value added services and development of network etc. He joined PTA in 1999 as Director General.

Director General (Licensing & Regulation)

Muhammad Din has graduated from University of Engineering & Technology in 1973 and joined T&T in December 1974. He did his M.Sc in Mathematics from Punjab University. He joined PTA in March, 1996. Presently he is working as Director General (Licensing & Regulation) and responsible for issuing different type of licenses and drafting regulations.



2

LICENSING TELECOMMUNICATIONS AND RADIO-BASED SERVICES

Objectives:

A regulatory frame-work that provides maximum benefits to the people and creates a competitive environment in the telecom industry;

Maximum utilization of the scarce resource of radio frequency spectrum and development of telecommunication infrastructure

Pakistan Telecommunication Authority is responsible for regulating telecommunications sector in Pakistan. The Pakistan Telecommunication (Re-organization) Act, 1996 envisioned a highly efficient and competitive telecommunication sector which can live up to the expectations of the people of our country.

TELECOMMUNICATIONS LICENSING

Pakistan Telecommunication Authority has exclusive power to grant licenses if it is satisfied that the applicant:

- Possesses the technical and financial resources.
- Would protect the public interest and provide benefits to users of telecommunication services.

The licensees have to comply with standard license conditions, regulations, rules and provisions of the Telecommunications Act, 1996. The license conditions relate to rights and obligations of the licensees, monitoring and inspection by the Authority of telecommunication equipment, ensuring minimum standards for quality of service and safety of Public Switched Telephone Network (PSTN). In addition, there are a number of consumer and community obligations for promoting fair and free competition in the industry that the licensees are supposed to meet.

VALUE ADDED SERVICES

Pakistan Telecommunication Authority had taken various steps for improving standard operating procedure for award of licenses for value added telecommunication services. During the year of report, PTA took steps to liberalize licensing for Value Added Services like Card Payphone, Internet, Cable TV, Data Communication Network Services and Audio Tex etc. On the initiative of the Minister for Science & Technology, Prof. Dr. Atta-ur-Rehman, PTA put in place adequate arrangements for processing licenses applications within seven days.

During the year 2000-2001, PTA issued 31 licenses for card payphone services, 26 for electronic information services, 9 for data communication network services, 5 for store and forward fax services, and one for vehicle tracking system. Appendix–1 shows the total number of licenses issued by PTA till June 2001. However, the summary of licenses issued during July 2000 to June 2001 is as below:

VALUE ADDED SERVICES

Table 1

S. No	Service	License Issued 2000–2001
1	Card Payphone Service	31
2	Electronic Information Services	26
3	Data Communication Network Services	9
4	Store and Forward Fax Services	5
5	Vehicle Tracking System	1
	Total	**72**

Fee schedule for various licenses was as below.

FEE SCHEDULE FOR THE LICENSES ISSUED BY PTA

Table 2

SL. No.	Services	License Fee (Rs)	Renewal Fee
1	Electronics Information Services *	National Level 500,000 Provincial Level 300,000 District Level 100,000 Tehsil Level 50,000	20% of License Fee
2	Data Communication Network Services	1,000,000	25% of License Fee
3	Digital Radio Paging Services	1,000,000	20% of License Fee
4	Card Pay Phone Services	National Level 500,000 Big City (Metro) 300,000 Small City Level 100,000	25% of License Fee
5	Voice Mail Services	500,000	25% of License Fee
6	Electronic Mail Services	300,000	20% of License Fee
7	Trunk Radio Services	500,000	25% of License Fee
8	Audiotex Service	500,000	25% of License Fee
9	Vehicle Tracking Systems	1,000,000	25% of License Fee
10	Burglar Alarm System	500,000	20% of License Fee

* Concessional License fee is charged from accredited educational institution.

CABLE TELEVISION

In pursuance of the government's policy to streamline cable TV networks, PTA started issuing licenses to terrestrial cable TV operators from June, 2000. CTV licenses pertained to any of the eight categories listed in the table 3 below. The licenses had a life of five years, renewable annually on payment of prescribed annual license fee.

TYPES AND FEE SCHEDULE FOR THE CTV LICENSES

Table 3

Type of CTV License	No. of Subscribers	Initial License fee (Rs)	Annual license Fee (Rs)
B8	Above 200,000	15,00,000	7,50,000 + 10/subscriber
B7	100,001 – 200,000	10,00,000	5,00,000 + 10/subscriber
B6	50,000 – 100,000	8,00,000	4,00,000 + 10/subscriber
B5	25,000 – 50,000	6,00,000	3,00,000 + 10/subscriber
B4	10,001 – 25,000	4,00,000	2,00,000
B3	5,001 – 10,000	2,00,000	1,00,000
B2	1,001 – 5,000	1,00,000	50,000
B1	Up to 1,000	50,000	25,000

PTA issued 822 CTV licenses by June 2001. Regional distribution of CTV licenses by office of issue was as under:

CABLE TV NETWORK LICENSES ISSUED BY VARIOUS OFFICES OF PTA

Table: 4

Licenses issued at Islamabad/ Rawalpindi/NWFP	101
Licenses issued at Lahore	348
Licenses issued at Karachi	373
Total	**822**

Regulatory Issues of Cable TV Operations

In order to monitor activities of cable TV operators, PTA issued CTV Rules and Regulations, 2000. The regulations required, *inter alia*, that licensees should respect national sovereignty and integrity and promote religious, social, cultural and political values of the people of Pakistan. PTA asked operators to adopt the following parameters for the service:

- To provide at least twenty channels including two Pakistani, one Islamic, one Quranic and four decoded channels for a maximum tariff of Rs 200 per month.
- Not to transmit or relay contents in violation of Censor Code, provisions of Copy Right Act and tenets of Islam.
- Not to transmit any locally generated contents.

During the year 2000 – 2001, PTA issued show cause-notices to all such cable TV operators who violated the above instructions. It cancelled license of M/S Skywaves Cable TV Network, Peshawar for violating the license conditions.

RADIO-COMMUNICATIONS

Radio communications licensing covered amateur, aircrafts, ships and coastal stations services. The Frequency Allocation Board has exclusive powers to allocate radio frequency spectrum to all those applicants who intend to provide telecommunication services, operate radio and television or any other wireless service. The PTA receives applications for allocation and assignment of radio

frequency spectrum and after initial examination refers them to the Frequency Allocation Board for allocation of frequency.

The total number of licenses issued for radio communication services increased from 2,056 in June, 2000 to 2,114 by June, 2001. The largest number of licenses issued during the year was 20 in the VHF station category. The total number of licenses in this service was 691 at the end of June, 2001. It was followed by licenses for Inmarsats for hiking expeditions. PTA issued 13 licenses for this category during the outgoing year.

A list of the type of service and licenses issued is as under:

RADIO COMMUNICATION LICENSES

Table No. 5

S.No	Type of Radio Station/Service	Licenses as on June 2001
1	Aircraft/Ship/Coastal/Station	68
2	UHF Station	212
3	VHF Station	691
4	Broadcast Station	381
5	V-Sat Station	6
6	Spread Spectrum Radio Links	30
7	Amature Station	400
8	Dealership	18
9	HF	249
10	Temporary uplink for special event	2
11	GMPCS	1
12	Satellite (for Data Communication	0
13	Inmarsat for expedition	16
14	Inmarsat Terminal	40
Total		**2114**

SPECTRUM CHARGES

During the year the Pakistan Telecommunication Authority revised the spectrum charges for various categories of radio communications. The charges for use of frequency spectrum for different categories of Aircrafts, Non-Commercial HF Wireless Stations and Commercial HF Wireless Stations are given in table 6:

CHARGES FOR USE OF FREQUENCY SPECTRUM

Table 6

S. No	*Type of License*	Charges (Rs)
I	***Aircrafts, Ships, etc.***	
1	Aircrafts, Ship & Aeronautical station	5,000
2	Coastal station for ships	4,000
3	Amateur station (HF/ VHF) Non Commercial & Aero modeling	50
II	**Non Commercial** HF Wireless Stations**	
	Base/Control station	**SSB/DSB**
1	Upto 20 Watt.	2,500
2	21-50 Watt	4,000
3	51-100 Watt	6,000
	101-500 Watt	7,500
III	**Commercial* HF Wireless Stations**	**SSB/DSB**
1	Upto 20 Watt.	5,000
2	21-50 Watt	8,000
3	51-100 Watt	12,000
4	101-500 Watt	15,000

SATELLITE MANAGEMENT

The satellite carriers beaming signals into Pakistan offer transponder capacity for domestic data communication services. In the year 2000, the licenses to M/S Global System Network (Local rep of APT SAT) and M/S Transnet (Local rep of Thaicom) were approved by the Authority with a initial license fee of Rs 10,000,000/- and

4% royalty of the gross revenue of the licensee, derived from license operations in Pakistan during the preceding year or 50% of the license fee, whichever is greater.

LICENSE ENFORCEMENT

PTA's regional offices played an important role in license enforcement. The Lahore office conducted 5 raids on illegal telecom service providers and carried out 18 inspections to ensure compliance with the license conditions by the licensees.

During the current year Karachi office carried out 22 inspections in different companies for the quality of service, 16 on complaints made against ISP's, 6 against card payphone companies, 10 for illegal use of wireless and 17 against cable TV operators. These inspections were aimed at ensuring appropriate quality of service for the consumers to redress their complaints.

Since its establishment in January 2001, Regional Office, Peshawar carried out 11 inspections of Cable TV Networks, 3 of Cellular Mobile operations and 4 of North Telecommunication Region (NTR) of PTCL. Apart from that it checked illegal use of transmitters and frequency spectrum by NGOs.

TYPE APPROVAL OF TERMINAL EQUIPMENT

The Pakistan Telecommunication (Re-organization) Act, 1996 emphasizes that no terminal equipment shall directly or indirectly be connected to a public switched

network unless it has been approved by the Authority or by an agency appointed by the Authority.

PTA has always been in the forefront to introduce new technology in the country. During the year of report, PTA requested Ministry of Commerce to incorporate relevant provisions of the Telecommunication Act, 1996 in the trade policy 2001-2002 and allow import of only those models of telecom terminal equipment which are type approved by PTA. It also requested CBR to facilitate the import of mobile phones by authorized agents of manufacturers besides the mobile phone operators. CBR accepted the PTA recommendation and allowed free import of mobile phone sets provided such sets are type approved by PTA.

During the year 2000 – 2001, PTA issued Type Approval Certificates for the following terminal equipment:

TYPE APPROVED EQUIPMENT

Table 7

S. No.	Type of Equipment	TACs/NOcs issued to No. of firms
1	EPABX	2
2	Card Payphone	17
3	Line Protection Unit (LPU)	57
4	Fax Machine	8
5	Telephone set without CLI	6
6	Telephone set with CLI	1
7	Cellular Mobile Phone handset	33

STANDARDS & SPECIFICATIONS

During the year 2000 – 2001, the Authority approved technical standards for the following equipment.

- Hand Free Telephone sets
- Asynchronous modems
- Cordless telephones for A – PSTN.
- Private Branch Exchange.
- Fax machines.
- ISDN – PRI (Layer 1).
- ISDN – PRI (Layer 2).

These standards are available at PTA's website. PTA adopts standards from sources available worldwide e.g. ITU, CCITT, ETSI, IEC, FCC, etc.

3

TARIFF REGULATIONS

Objective:

Provision of cost effective telecommunication services to the people.

The Pakistan Telecommunication Authority is vested with the responsibility of regulating tariffs of telecommunication services in the country. Section 26 of the Pakistan Telecommunication (Re-organization) Act 1996 provides general principles for tariff regulations.

The Telecommunication (Re-organization) Act 1996, under Section 26(e), provides that there shall be no cross subsidization of other telecommunication services in basic telephone service. Through this clause, the Act requires that tariff of various services should be cost-based. However, the regulated tariff should provide a reasonable

rate of return to the operators. The need for tariff re-balancing arose because PTCL had not rationalized its tariff structure for the last many years.

TARIFF REBALANCING

Tariff rebalancing is a process that brings tariff of various services in line with the cost of providing that service. Until 1997, PTCL had an uneven tariff structure. It had higher International Direct Dialing (IDD) and Nation Wide Dialing (NWD) tariffs than the cost would justify. With these excessive rates, PTCL cross subsidized the low tariffs of local calls.

This unbalanced situation was not sustainable in the forthcoming competitive telecom market. In the year 2003, PTCL would enter a new era of competition, when its monopoly would come to an end. It would no longer be able to rely on excessive profits from one segment of the market to finance deficits in other segments. New entrants in the market would naturally prefer to focus on the more profitable segments and like to invest in these services, thus getting the lion's share in the profits. In that case, PTCL would be saddled with the provision of local service that would be making a loss. To avoid this eventuality, the company needs to re-balance its prices so that the degree of cross subsidization between market segments is significantly reduced from its current tariff structure.

Thus, tariff rationalization could be described as a three-pronged strategy which:

a) Safeguard consumer interests;

b) Rationalize tariffs and remove cross subsidies among services;

c) Generate revenues to meet budgetary requirements and return on investment targets of the government.

PTCL'S TARIFF PROPOSAL

PTCL was supposed to submit its tariff proposal in the light of the telecommunication policy set forth by the Government of Pakistan. The proposal presented by PTCL was given as under:

TARIFF RATIONALIZATION PROPOSAL FOR THE YEAR 2000-2001 (TWO OPTIONS)

Table 8

Services	Existing Amount in Rs	Option I Amount in Rs	Option II Amount in Rs
Installation	4,390	4,737	4,000
Monthly Rental	235	282	280
Local call (Incl.CED)	2.10	2.31	2.00
Time Metering	5 Min.	5 Min.	3 Min.
Long Distance (incl. CED)			
Full Rate/min. > 600Km	21.00	19.65	18.18
Full Rate/min.< 600Km (Ave)	9.75	9.36	9.36
International/min. (Ave. Incl. CED)	67.04	60.34	54.30

No pulse on Internet dial-up calls for one year

Option I of the package was based on recommendations by Privatization Commission consultants. This option proposed 20% increase in the line rent, 8% increase in installation charges and 10% increase in the local call charges over the existing rates. The proposal, however, offered reduction in NWD and ISD charges by 6% and 10% respectively. This option ensured quite high PTCL revenues and Government receipts which were expected to increase by 7% and 9% respectively over the 1999-2000 level.

Option II provided reduction of about 9% in installation charges and it also offered higher reduction rates in NWD (14%) and ISD (19%) call charges. This higher reduction would bring the company close to cost-based prices of these elements in a shorter span of time. Although it was proposed that the local call charges should be cut down to Rs 2.00 yet this reduction was more than offset by reduction in pulse rate from 5 minutes to 3 minutes. This reduction in pulse duration would increase the effective rate of local calls by more than 50%. As per PTCL's call analysis, less than 20% local calls were of more than 3-minute duration. This situation showed that if option II was approved, only 20% users would be affected. On the other hand, the remaining 80% time-conscious users would benefit from the reduced call rates. This option also seemed in-line with the longer term per minute-based call regime. This option, however, provided lesser revenue and Government receipts as compared to option I.

Decision Of PTA Regarding PTCL's Tariff Proposal

PTA examined the proposal in the light of PTCL's rebalancing process, Government's revenue targets and the Authority's responsibility towards consumer's interest. The recommendations of PTA's in-house studies and its out-sourced consultancy by Coopers & Lybrand Consultants (Feb.'99) were also considered in the process of evaluation and analysis. Recommendations and opinions of the advisory committee and the consumer interest groups were given due consideration in arriving at the decision. The Authority approved the following tariff caps.

It decided that the present level of installation charges at Rs 4390 should be maintained as a cap. The line rent should be capped at Rs 282 per month. The local call charges should be increased and capped at Rs 2.31 including CED per call, keeping the call duration at 5 minutes. Maximum NWD charges should be capped at Rs 19.65 per minute including CED. The Authority also considered the proposal of PTCL and agreed that the international call charges be re-calculated to give an average revenue including CED of Rs 60.34 per minute.

INTRODUCTION OF CPP REGIME IN MOBILE TELEPHONY

Calling Party Pays (CPP) in mobile telephony became popular in the world in early 90s. Since 1994, 39 countries had switched over to CPP. Out of these 17 were in Europe, 10 in Latin America, 6 in Asia Pacific and 6 in Middle East and Africa. CPP was under consideration in North America as well. Although the number of countries which introduced CPP was smaller as compared to the total number of countries of the World, yet they had a high concentration of mobile phone users. In terms of number of mobile subscribers, these countries represented 50% of the total mobile phones in the World. On an average, after adopting CPP, mobile telephony showed growth from 80% to 100% in terms of number of subscribers. India also decided, in 1999, to adopt CPP. However, the implementation was stayed by a court of law. USA, Canada, Mexico and Sri Lanka were also studying to adopt CPP regime.

The issue of Calling Party Pays (CPP) principle was under study and consultation by the Authority for quite some time. However, the Minister for Science & Technology, Prof. Dr. Atta-ur-Rehman, expedited the whole process by directing PTA to implement CPP immediately. After the directive of the Minister, the Authority notified to the concerned operators on 4th July 2000 that the CPP principle should be implemented w.e.f. 1st October 2000. By this notification, PTA extended the deadline for finalizing the interconnect agreements and required the interconnecting operators to finalize their interconnect terms by 15th August 2000.

Simultaneously, the Authority issued two consultation papers for seeking feedback on the proposed framework of CPP. Besides, the Authority held three public forums for an open debate on the subject. The Authority held a series of meetings with all operators jointly as well as separately. All these efforts enabled the Authority to analyze the whole issue dispassionately and to arrive at a judicious framework. The Authority persuaded the operators to agree on the interconnect arrangements as a commercial agreement. However, the operators could not agree on interconnect terms even by utilizing the extended time period. The Authority was, thus, left with no choice but to step in to determine the interconnect agreements.

Determination

Having satisfied that, the parties were unable to mutually reach an agreement, the Authority, under Section

5(2) (h) of the Pakistan Telecommunication (Re-organization) Act 1996, determined the terms of interconnect arrangements between fixed line and cellular mobile operators.

The Authority examined all relevant information, arguments and demands of the operators on interconnect terms and CPP tariff. It also kept in view the opinion of consumer interest groups on CPP tariff.

CPP Tariff

The Authority carried out detailed analysis of the data provided by the cellular mobile operators and PTCL to work out CPP tariff level, which could ensure recovery of cost of incoming calls, and at the same time did not put undue burden on fixed line users. The balancing thesis of the Authority was based on the following broad principles:

- The cost of mobile operators for incoming calls is recovered.
- PTCL should give maximum discounts on its monopoly prices.
- CPP tariff should pass on maximum benefit of the interconnect discounts to the consumers
- The operators should get benefit from future expansion.

Several options were analyzed and run into the financial model to work out CPP tariff based on the data provided by the operators. The Authority determined the following caps for the CPP tariff, which it felt, would ensure the required balance among the stakeholders, the

consumers, the mobile operators and the fixed line operators.

RATES OF VARIOUS TARIFF COMPONENTS

Table 9

Tariff components	Maximum tariff per minute (Rs)
Mobile operator's share	2.20
Fixed line operator's share	1.00
Total CPP charge	3.20
Add: CED* @15%	0.48
Maximum Consumer price (CPP premium)	3.68

*CED or any other tax shall be added as levied by the government.

The Authority considered that the mobile operators' share was based on actual cost-based data provided by the mobile operators. The share would be sufficient to cover the average per minute cost for terminating a call on the mobile operators' network. Similarly, the rate of one rupee per minute for fixed phone operators was justified on different grounds. This was a share of the operator for generating the call. The average duration of fixed phone call was about 2 minutes. At the rate of one rupee per minute, the fixed phone operator would be able to generate average revenue of Rs 2.20 per call. This was its revenue per call in the pre-CPP regime. The Authority considered that the average revenue for generating the call from fixed phones should be protected as it decided to protect the average revenue of mobile phone operators for generating their calls.

The above tariff was made applicable from 1st December 2000 for a period of one year only. In 2001, PTA would review the tariff on the basis of actual data.

REVENUE SHARING UNDER CPP

For incoming calls under CPP regime, operators would not charge for any incoming airtime, and different types of telephone calls will be treated and charged in the manner as explained below:

- ***Fixed to mobile – local:*** These calls would be charged on per minute basis. The fixed line operator would charge the calling subscriber the CPP premium as determined above and pay the mobile share to the respective operator.
- ***Fixed to mobile – Local, with mobile on roaming:*** These calls would be charged on per minute basis. The fixed line operator would charge the calling subscriber the CPP premium as determined above and pay the mobile share to the respective operator. The mobile operator, however, would charge usual roaming charges to its called subscriber.
- ***Mobile receiving an international call while at home location****:* PTCL would pay to the respective mobile operator per minute charges equal to Rs 2.20.
- ***Mobile receiving an international call while roaming at other than home location:*** PTCL would pay to the respective mobile operator per

minute charges equal to Rs 2.20. The mobile operator, however, would charge usual roaming charges to its called subscriber.

- ***Fixed to mobile -NWD call (Mobile at home location):*** The fixed line operator would charge its respective NWD tariff and mobile share of CPP premium from its calling subscriber and pass on CPP premium to the mobile operator.
- ***Fixed to mobile – NWD call (Mobile at roaming):*** The fixed line operator would charge its respective NWD tariff and mobile share of CPP premium from its calling subscriber and pass on CPP premium to the mobile operator. The mobile operator, however, would charge usual roaming charges to its called subscriber.
- ***Mobile to fixed:*** No change in the existing system. Local call would continue to be of 5-minute pulse.
- ***Mobile-to-mobile (different operators):*** The mobile operators shall be allowed direct Mobile-to-Mobile interconnect and the mobile operators shall mutually agree interconnect terms.
- ***Mobile to fix where mobile does not have service at the calling destination:*** No change in the existing system.
- ***SCO/NTC calls to the mobile networks:*** The fixed-line operators (SCO & NTC) shall charge CPP premium, as determined above. The

mobile operator's share shall be passed on to the terminating mobile operator and 40% of fixed line operator's share shall be passed on to PTCL. The higher share of the originator has been proposed to meet billing, collection and bad-debt cost. The share of mobile operators will remain intact i.e. Rs 2.20 per minute.

- ***Mobile to SCO/NTC calls:*** Forty per cent of the net PSTN charge received from mobile operators shall be passed on to the terminating fixed line operator.

- ***Calls from fixed line to fixed line network:*** No change in the existing system. Local call would continue to be of 5 minutes pulse.

Thus, PTA settled some of the contentious issues among different telecom operators in the year 2000 – 2001. These issues of interconnect agreements and introduction of CPP regime will have a significant bearing on the future course of its action. The upshot of it all will depend on the close co-ordination of PTA, PTCL and other telecom operators to create a rationalized and efficient tariff structure in the country.

4

CONSUMER PROTECTION

Objectives:

To provide consumers equitable access to telecommunication services.

Due participation of consumers in PTA's decision making.

Pakistan Telecommunication Authority is responsible for promoting and protecting interests of users of telecommunication services in the country. PTA informed the consumers about its activities through Annual Reports web-site hosting, public forums, press releases and media publicity.

CONSULTATION WITH CONSUMERS

Section 6(d) of the Act, 1996 requires the Authority to ensure that the persons affected by its decisions get a fair chance of being heard. Hence it was incumbent upon the Authority to adopt ways and means to consult users of the services and keep them informed on the proposed changes in the tariffs and charges.

The Authority instituted a system of advisory committees on which sat eminent citizens and learned men from all walks of life. The Authority also consulted with these advisory committees on issues of public interest. A list of the advisory committees formed by PTA for this purpose is at Appendix–2.

Public hearing and web hosting were important steps in the consultation process. PTCL tariff proposal submitted in July 2000 was placed before the Central Advisory Committee for consultation on 14th July 2000. PTCL presented the proposal to the committee and extensive discussions were held. The members offered valuable suggestions, which helped the Authority to conclude and arrive at a fair and more informed decision. The Authority also held a public hearing on 15th July 2000 to discuss the proposal with important consumer interest groups. A large number of eminent citizens, academicians, representatives of Chambers of Commerce & Industry, Stock Exchanges, Consumers Right Commission and Citizens Committees etc participated in the hearing and offered suggestions on the issue.

PTA consulted the consumers on other important issues before taking decision. For example, it heard the views of the general public in three public forums held in Islamabad, Karachi and Lahore regarding the complaints of the people on card payphone industry. Same was its procedure while deciding on CPP and cable TV tariff.

CONSUMER INFORMATION

One of the key objectives of the Pakistan Telecommunication Authority was to create an informed community by providing them regular information about matters relating to the telecommunication industry. PTA is responsible under Section (18) of the Telecommunications Act, 1996 to submit a yearly report at the end of each financial year on the conduct of its affairs including action taken for protection of consumer's interests. It was against this backdrop that PTA published its Annual Report to provide information about the performance of different telecommunication services, consumer benefits and the quality of service. PTA also brought out Telecom Status Report every year which presented a broad overview of telecom industry and services in Pakistan as well as global market.

PTA has also developed a website to inform the consumers about the activities of the PTA. The site provides necessary information about the operational nature, new standards, and issues regarding consumer satisfaction and consumer benefits.

The electronic media was also part and parcel of PTA in its efforts to inform the public about new challenges of the information revolution. The campaign proved effective in raising awareness about consumers' rights and duties and encouraged the Authority to increasingly focus on their needs.

IT EXHIBITION

ITU celebrates Telecom Day each year on 17th May to promote awareness about technological developments and to encourage spread of telecom services in the underdeveloped areas of the world. This year world telecommunication day highlighted the emergence of 'digital divide'. While people all over the world do access the Internet, its users still accounted for only 5% of the world's population. To mark the World Telecommunication Day, the Pakistan Telecommunication Authority organized a one day telecom information technology seminar cum exhibition. Federal Minister for Science and Technology, Prof. Dr. Atta-ur-Rehman, inaugurated it. Internet service providers, mobile phone companies, telecom equipment manufacturers and PTCL worked jointly with PTA in holding the exhibition. In a live chat show, Major General Khalid Bashir, Chairman PTA and PTCL officials answered questions of the people regarding telecom and IT. The purpose of the exhibition was to create telecom and IT awareness in Pakistan. The exhibition attracted a large number of interested people where the stallholders displayed their soft and hard masterpieces.

5

STREAMLINING PTA AND ITS HUMAN RESOURCES

Objective:

Efficient management of PTA' Human resources to develop managerial skills.

EMPLOYEES TRAINING PROGRAMME

PTA chalked out a comprehensive strategy to train its employees through various workshops, seminars and training programmes. The main objective of training was to improve regulatory skills and capabilities of the staff for meeting the needs of a competitive telecommunication market. This year 29 members of PTA staff attended different training courses at foreign institutes and universities. A list of their visits, the nature of the programme and places where they went is at Appendix–3.

E-Commerce

Training Program

E-Commerce for Developing Countries (EC-DC) was a new ITU initiative funded through revenues generated by telecom exhibitions and forums. The objective was to address the challenges faced by developing and least developed countries in the application of new technologies in e-commerce. Throughout the world, 112 countries including Pakistan were participating in this program.

The Pakistan Telecommunication Authority was closely watching all major developments in the World Telecommunication arena and tried to seize every opportunity for the development of the telecommunication sector in the country. Being conscious of rapid developments occurring in this sector, the Authority took the initiatives and submitted a draft e-commerce law to the Government last year. In another initiative, it approached the ITU to hold basic training course on e-commerce in Pakistan. This course, being first of its kind, was held at PTA headquarters from 30th March to 3rd April 2001.

The main objectives of this course were:

- ***Infrastructure Development***

  Provide assistance in building the soft and hard infrastructure for the provision of secure e-payment, secure transactions and trust services to multiple independent businesses in the community, region or county.

- ***Local capacity building and technology transfer***

  Provide mechanisms through the organization of training workshops for IT professionals to develop skills in e-commerce and enable the transfer of this technology so that Pakistani businesses can run and operate the e-commerce services.

- ***E-commerce policies and regulatory issues***

  Provide training, assist and advise decision-makers to adopt and define national policies to create a favorable environment for the deployment of e-commerce technologies and to consider e-commerce as a vital component of the economic and infrastructure development strategy.

- ***Foster awareness on making Neutral and Non-exclusive alliances with Industry***

  Since no single entity holds complete answer to e-business, forging alliances and strategic partnerships are the key factors to foster awareness. To discuss who could be the partners in e-business, the partners could be brought closer to each other to work for new global market place.

Twenty-two participants from telecom industry including PTA, PTCL, NTC, FAB, Cellular Operators, ISPs and Card Payphone Operators attended the course.

Workshop on Competitive Transformation of Telcos

ITU organized a workshop during 18 – 22 June 2001 on Competitive Transformation of Telcos in collaboration with PTA for the benefit of telecom industry staff. The main objectives of the workshop were:

- To equip the telecom operators with useful knowledge and new tools on the eve of transformation to competitive market;
- To discuss the fundamental process of quality management and re-engineering as applied in actual telecommunication cases;
- To validate different quality management and re-engineering models, which are based on real-life cases of different entities reflecting different entities and different degrees of competitiveness;
- To evaluate strategies for integrating different management development efforts in a comprehensive model of transformation of the telecommunication business;
- To analyze the difficulties likely to be encountered by participating entities in a transformation process and define a possible plan of action for this activity.

For five days, 32 participants from various public and private telecommunication companies including PTA, PTCL, NTC, FAB, Cellular Operators, ISPs and Card Payphone Operators actively took part in the workshop. They focused on the objectives of the workshop and learnt new ways and means which could be applied in the telecommunication business. The workshop provided them an opportunity to share their experiences, ideas and views with each other and also to interact with the representatives of ITU.

PTA's LIBRARY

PTA is planning to establish a library to promote regulatory skills of its staff. This library on regulatory issues, being the first of its kind, will go a long way for equipping telecom experts with latest information on telecom sector. This year PTA library added 380 books to its stock. It issued 436 books to different staff members as compared to 336 of last year. The library provided various ITU publications and material regarding latest developments in the field of telecommunications.

TOWARDS A MORE PLANNED STRATEGY

The PTA adopted a more planned strategy to address its main business and to inculcate a spirit of public service among its staff. As a first step, officers of Finance Wing prepared their individual plans. Each officer decided to take some initiatives besides handling the routine work. For routine work, also, everyone decided to follow a benchmark for efficient performance of his or her duty. The effort was

intended to take the whole organization towards a more planned architecture for regulatory work. The officers adopted a system of self-monitoring, reporting on their performance on the 3rd of every month. The system worked quite well. It made possible for PTA to introduce several procedural changes for improving its efficiency. For example:

a) PTA converted its cash-based single entry book-keeping into accrual-based double entry system.

b) PTA revised its existing chart of accounts and elaborated it to enable analysis of cost information directorate-wise, section-wise, function-wise and telecom service-wise. It was a major effort which facilitated in computerization of accounts.

c) PTA developed regulations of provident funds and endowment funds for pension of its employees.

d) PTA also finalized the procedure for drawing and disbursements of funds for its regional offices.

e) One of the problems in the financial affairs was the recovery of PTA receivables and handling of PTA receipts. The procedure for these two items was designed and approved by the Authority in November last year.

f) One important achievement in the field of finance was the constitution of purchase committees for different regions and emergency purchase committee for the headquarters. This was a step toward elimination of anomalies in the procedure of purchasing different items and equipments and for ensuring competitive and transparent procurement practices.

INFORMATION TECHNOLOGY AND TELECOMMUNICATIONS

Rapid technological developments of recent years have also affected telecommunication sector in Pakistan. Information technology has confronted Pakistan with new challenges in the 1990s. The government was fully aware of the increasing role of information technology in the development of telecommunication services. The formation of a separate Division for information technology and telecommunication under the Ministry of Science and Technology was a step toward integrating telecommunication services and information technology.

PTA undertook various projects to automate its operations during the year 2000 – 2001. These included development of databases for licenses of inventory and type approval. Introduction of Document Tracking System (DTS) was a major milestone in PTA's efforts to improve its internal efficiency. With the introduction of this system, which was being tested since June 2001, it would be possible to track the exact location of any document during and after processing, assign time taken during processing

and tasks still waiting attention. The task of implementing Local Area Network (LAN) in the new building was also completed during the current year in order to connect all employees' workstations for sharing of information.

APPENDIX –2

LIST OF ADVISORY COMMITTEES OF PTA