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## Facilitating the Sector

On the Regulatory front, PTA took various decisions and performed tasks in continuation of the process of liberalization to create a conducive environment for healthy competition in the telecommunications industry to best serve the interest of the consumers.

### **Monitoring and Reconciliation of International Telephony Traffic (M&RITT)**

Long Distance and International (LDI) operators have agreed to set up a system jointly at PTA for Monitoring and Reconciliation of International Telephony Traffic (M&RITT). This decision was taken in a meeting held at PTA Head Quarters, presided over by Chairman PTA Dr. Mohammed Yaseen.



It was decided that the funding of Phase 1(a) of the M&RITT System would be done based upon the International incoming traffic share of each LDI for the months of April, May and June,



2008. The funding of subsequent phases would be done by calculating running average of international incoming traffic starting from April, 2008 and extending up to the month when the share is being calculated for new contract.

It was said in the meeting that Monitoring & Reconciliation of International Telephony Traffic Regulations were sent to all stake-holders for their inputs. The regulations were finalized after incorporating the received comments and were approved by the all LDI operators.

The Letter of Intent (LoI) for the expansion project of technical facility to curb grey telephony would be issued by PTCL being the consortium head. The contract for the project would be signed by PTCL or jointly by all LDI operators whichever is decided amongst themselves.

### **PTA's Efforts Towards Elimination of Grey Traffic**

Grey traffic is a menace that not only incurs revenue loss to national exchequer but also denies level playing field to LDI operators who are the only legitimate carriers to terminate and originate legal international traffic. In order to effectively deal with this problem, several steps have been taken by PTA and the Government. These include regulatory measures, such as issuance of guidelines for operators, as well as deployment of technical solution to curtail grey traffic.

Technical Facility to monitor grey traffic has been acquired and placed at PTA premises for addressing the issue of grey telephony. In phase 1, the facility has been deployed at a total cost of US\$ 3.5 million through a shared mechanism adopted by a consortium of PTCL and Long Distance & International (LDI) community. It is a state-of-the-art solution engineered by NARUS a US based company, and installed by their local reseller M/s Inbox Business Technologies. The facility became operational on 1st May, 2008 and since then it is being used to scrutinize IP backbone of the country. Since commencement of its operations, PTA has detected several cases of illegal voice termination. Two illegal setups have been raided in Karachi and equipment has been seized. The cases are under investigation by FIA. A total of 139 IPs involved in illegal termination were blocked with the help of backbone operators. A total of 208 SIMs involved in termination of 2.6 million minutes per month were blocked hence unearthing & stopping numerous illegal setups. The mitigation component of the facility has been automated wherein any IP address carrying voice but not authorized to do so would be automatically blocked. As a result of Technical Facility operations, PTA has been able to stop illegal estimated traffic amounting to 16 million minutes per month which translates to saving of monthly revenue leakage of around Rs. 116 million (approximately).

The stake-holders have been briefed about the facility who have appreciated PTA's efforts against the menace of grey telephony and asked PTA to upgrade the system so that 100% traffic may be



scrutinized. Accordingly, the expansion plan has also been finalized. The expansion project of the technical facility would be entirely funded by PTCL and the LDI community, covering 100% international IP links of the country through submarine cables. It would help in elimination of grey traffic once and for all.

## Telecom Summit 2008

Telecom Summit was organized by SAMENA Telecommunication Council which is a tri-regional, non-profit telecommunications association. SAMENA represents South Asian, Middle Eastern and North African telecom Operators, Manufacturers, Regulatory Authorities and Academia. The Council strives to provide its members in South Asia, the Middle East and North Africa the power to and the means to actively learn the dynamics of the telecom markets in these three high growth regions.

Delivering a keynote speech on the inaugural session of the summit Dr. Muhammad Yaseen, Chairman PTA said that competition is intensifying between WiMAX and other 3G technologies. He also hoped that adoption of WiMAX will quickly catch up the speed in Pakistan.

Dr. Muhammad Yaseen also chaired a very thought provoking session on Spectrum Management. In his address he informed the audience that wireless broadband technologies hold promise for all countries seeking to ensure the availability of access to information communication technologies and the creation of the information society. Spectrum being a scarce resource needs to be managed effectively and efficiently in order to derive maximum economic and social benefit, including encouraging growth and rapid deployment of infrastructure and services for the consumers. Being a great advocate of broadband proliferation he also highlighted how to facilitate deployment of innovative broadband technologies, ways to promote transparency, optimize spectrum availability on a timely basis and how to harmonize international and regional practices and standards and adopt a broader approach to promote broadband access.

## Broadband through 3G

A seminar was organized by South Asia forum on “The Future of Mobile Communications in Pakistan” in Islamabad. Chairman PTA Dr. Muhammad Yaseen said during his address that data usage is increasing in Pakistan and proliferation of broadband services will help in the establishment of Information Society. He said that for mobile phone industry future direction could be value addition and innovation in services including mobile commerce, video streaming, and high speed mobile internet. He said presently broadband costs are high in the country but broadband usage has shown growth in the recent quarter. He said that PTA has carried out surveys



to understand the socio-economic impact of mobile phone which revealed that with the introduction of mobile communications productivity has increased significantly.

Chairman PTA said that now, our focus is on the proliferation of broadband services in the country at affordable rates. The Authority is aware of the developments taking place worldwide in the 3G mobile communications (mobile broadband). He said China has recently launched 3G services whereas other small countries in our region have also launched 3G services. Some countries in the region have announced guidelines on 3G licensing and would soon be auctioning the 3G spectrum. We in Pakistan have the spectrum earmarked, and all the ground work is completed. PTA will soon be inviting applications for 3G spectrum auction. He said that Ministry of IT&T is being consulted on the final procedures of 3G licensing.

He said that availability of the 3G spectrum would help the operators increase their capacity and revenues by deploying state of the art HSPA technology whereas the users would enjoy high quality mobile broadband services enabling them to avail facilities of video telephony, high speed, internet, video streaming, high quality mobile TV and a number of value added services.

## Restructuring of PTA

Soon after assuming the charge of Chairman PTA, a committee was formed comprising senior officers of PTA to restructure PTA with an objective to improve the efficiency within the organization. Committee was mandated to recommend changes in the organizational structure of PTA aimed to polish the capabilities of the employees for better performance of PTA on the whole. Considering it imperative to have suggestions from all Divisions/Directorates of PTA, the Committee met with the heads of respective outfits, to obtain valuable insight from the





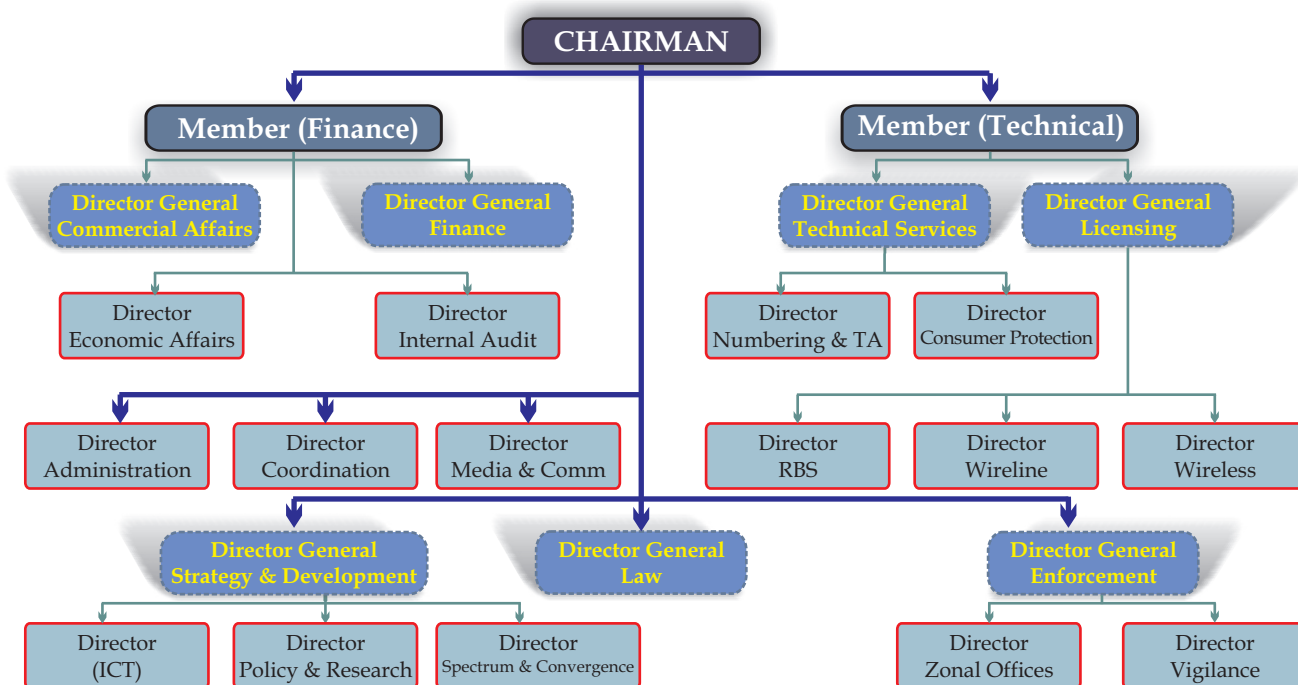
Departmental Heads and Officers, with a view to present a proposal that would look into not only the working of the outfit on the whole, but also the preferences of the officers with regards to their careers/work interests.

The different natures of work of the departments of PTA were kept in consideration while proposing the Restructuring of the Organization. The purpose was to improve the Efficiency, Effectiveness and overall Performance of the individuals while keeping in view their different areas of experience and expertise, which would resultantly have a positive impact on the performance of the organization itself. Resultantly a complete restructuring was made in PTA where the departments have been strengthened with manpower (both Officers and Staff), whereas some staff has been adjusted in accordance to the newly defined work responsibilities of the Departments. New Divisions/Departments have been created in accordance the vision of Chairman PTA. We hope the restructuring would improve the internal functioning of the Authority and PTA would be able to deliver efficiently.

### A Think Tank at PTA

The modernization and development of services sectors is crucial for achieving sustainable growth in all segments of the economy as efficient services result in improved interaction in a modern business World. Telecommunications and Information Technology has by far attained a pivotal role in this global economics and therefore concrete efforts are required in developing countries to modernize telecommunications infrastructure for seamless and robust connectivity. The Pakistan Telecommunication Authority (PTA) strives constantly to improve its functioning for achieving objectives, goals and targets set for development and modernization of ICT in Pakistan.

### ORGANIZATIONAL STRUCTURE OF PTA





Recently, the Authority established the Strategy & Development (S&D) Division at PTA for devising a clear strategy and policy towards various issues of the telecommunications industry. This Division would work as a think tank for PTA. This Division is required to put forth the "Vision" and draw a strategy for fulfillment of the short term and long term forward looking visionary goals of the Authority in the interest of the consumers, stakeholders and the government. This Division is the focal thinking machinery of PTA on policies, technical and developmental aspects of the telecommunications industry and assigned tasks on issues of core importance.

Since the implementation of the telecommunication policy framework of the Government of Pakistan in 2004, a phenomenal transition has occurred in almost all segments of the industry and in particular the 'cellular mobile' and 'Internet Protocol' applications. The S&D Division is required to observe the growth pattern in all segments of the industry and propose to the Authority necessary measures and steps for promoting innovation, modernization and availability of latest telecommunications services in Pakistan. Technical solutions to complex problems are implemented with the assistance and cooperation of all licensed operators. S&D Division is required to provide technical advice to all functioning Divisions at PTA.

For achieving the objectives and accomplishing various tasks assigned by the Authority, the S&D Division was created to conduct studies/consultancies/surveys on subjects of interest and concern for the telecommunications industry. The main purpose is to engage qualified experts for development of the sector and improve concepts and understanding within the PTA.

The Operational Divisions have been separated from the Policy Division to improve the procedural working within the Authority for the benefit of the licensees and the general public. S&D has also been made responsible for providing intellectual input for workshops/seminars/conferences on items/subjects of concern and importance.

S&D division's relationship with other divisions and directorates represent a matrix management concept. Important issues are handled collectively by the officers from S&D and with a small but goal specific team formed by the Chairman out of other divisions/ directorates, lead by DG S&D.

### **Establishment of Consumer Protection Directorate (CPD)**

Pakistan Telecommunication Authority (PTA) has recently established a Consumer Protection Directorate (CPD) at its Headquarters in Islamabad. The Directorate works under Technical Services Division. The new Chairman felt that in the past PTA has not emphasized enough on consumer front and it is about time to focus on this very neglected but important issue.



The new Directorate is mandated to work towards evolving institutionalized consumer grievances redressal mechanisms at the service providers' end who the Authority believes bear the primary responsibility for the redressal of consumers' complaints. The Directorate has engaged the concerned quarters at the operators' end to formulate comprehensive complaint redressal mechanisms that shall work round the clock under dedicated focal persons for the speedy resolution of service issues being faced by consumers.

Besides complaint resolution, one of the key cornerstones of the CPD would be to analyze behavior patterns/nature of complaints in order to eradicate their root causes, hence addressing these problems may well bring down the number of such complaints in future. The Directorate in close liaison with the Law and Commercial Affairs Division is also working towards formulation of Telecom Consumer Protection Regulations that will go a long way towards safeguarding consumer interests. The Directorate aims at building close partnerships with registered consumer groups in order to know the pulse of telecom consumers.

It may be added that PTA's Complaint Cell comprising of a dedicated team also works its way through different access methodologies to which the consumers have round the clock access e.g. toll free number, telephone, fax, e-mail, post and in-person complaints lodged at PTA offices. Consumers can access PTA headquarter or its PTA's Zonal Offices for redressal of their complaints which are addressed through dedicated resources available at hand. The consumers can also lodge their complaints through PTA's website that is being regularly updated with a prompt action taken on the complaint lodged.

For the larger benefit of telecom consumers, PTA also plans to undertake a comprehensive nationwide media campaign in order to educate and create awareness among the general public on the Consumer complaint Resolution mechanisms.

### **PTA Awards Gold Medals to University Students**

To promote academic research and build close linkages with the distinguished accredited universities/institutes in the disciplines of Telecom, PTA decided to award five top final year projects each year belonging to Telecom/IT disciplines from the accredited universities of Pakistan comprising of PTA Gold Medals with prize money of Rs. 50,000/-. Final year students in the universities were eligible to contest. It was also decided that one award (out of five) will be exclusively dedicated to relevant universities of Baluchitsan.

For this purpose, PTA approached all relevant accredited universities and widely published the same in national press for the contest. PTA also approached all Vice Chancellors to nominate their



best students for competition. In response, PTA received 18 projects related to IT, Telecom and Regulations. Universities/institutes like UET, LUMS, COMSATS, FAST and NUST forwarded the best projects of their Universities for the competition. A committee was formed in PTA to scrutinize the projects. After careful scrutiny, Committee chose 5 projects out of 18 for the award. These five projects were authored and completed by nine students. Out of a total of nine, four were female graduates.

At the Telecom Day celebration held at Marriott hotel, Islamabad on 17 May 2008, the Prime Minister of Pakistan Mr. Yousaf Raza Gillani awarded Gold Medals along with cash prizes worth Rs. 50,000 to each project. PTA decided to double to double the prize money for such future event.

### **Verification of Mobile Subscribers' Antecedents**

To meet the growing demand for mobile services, Cellular Mobile Telephony Operators (CMTOs) have significantly expanded their distribution channels to increase their sales without much focus on verification of subscribers' antecedents which resulted in increased concerns law enforcement agencies.

To address the situation, PTA adopted a series of procedures in consultation with the operators and enforcement agencies. It was observed that the directives of PTA were not followed in true spirit and the companies kept on increasing their sales without properly verifying consumers' antecedents. In May 2007, a strict directive was issued by PTA having split the verification in two





parts i.e. “New Connection Sale” and “Cleaning of Old Data” with clear dead lines for mobile operators to complete the task. As a result an adequate amount of old data was cleaned through NADRA database and considerable improvement observed in new connections sales through the franchisees only.

In January 2008, Ministry of IT & Telecom issued a Policy Directive under section 8(2)(c) of the Pakistan Telecommunication (Re-organization) Act 1996, which replicates the procedure already in place for verification of mobile subscribers' antecedents hence the obligations defined by PTA will continue and final legal notice issued to CMTOs must be taken as a clear warning from PTA. In light of the policy directive, a revised Standing Operating Procedure (SOP) was issued inline with the existing policy for immediate implementation by the Cellular Mobile Operators. To ensure the implementation of SOP a number of prompt measures were initiated which include the meeting with law enforcement officers, business communities and sales representatives.

About 106 raids were conducted, 853 Franchises were inspected, 4108 retailers were inspected. In the process around 1,425 SIMs were confiscated and 102 people were arrested who were involved in illegal business.

## Deployment of Online Verification System

The cellular operators are presently verifying their data through NADRA in batches, which at time becomes a lengthy and time consuming process. For convenient, easy and effective verification different options were explored and finally SMS based verification system has been agreed upon by PTA, Mobile operators and NADRA. The systems have been deployed with Mobile operators at selected outlets. Its expansion to all customer service centers, franchisees and registered retailers is in process. Around 15% sale is being made through this system.

The strict measures undertaken by PTA across the country resulted in following actions:-

- a. The data of mobile subscribers' antecedents for connection sold upto 31st August 2008 has been verified through NADRA. A total of 7.8 million unverified connections have been blocked.
- b. As a policy, 10 connections on single CNIC are allowed per mobile operator. The excess connections on single CNIC have been regularized through a media campaign. Uptill now 2.6 million excess connections have been blocked.
- c. To have a control on illegal sellers of mobile connections, mobile operators have now registered all authorize franchisee and retailers.

## Activation of SIMs after Verification

To ensure that the mobile connections are being sold to genuine customer with valid documentary



proof, PTA in collaboration with the stake holders in planning to introduce “Inactive SIMs” in the market. The activation of the SIMs will take place after the verification of subscriber's antecedents from NADRA.

The sale outlets that are the franchisees, retailers and mobile company customer service centers will sell inactive SIMs. After the sale has been made the call center operator of mobile company will make a call to the customer and will ask few questions to verify his particulars. If the answers are correct the SIM will then be activated.

The system will be deployed in the country by early 2009, and will have following major advantages:-

- a. The interest/business of franchisee/retailer will not change.
- b. Efficient utilization of call based online verification system whereby the activation can be done quickly and accurately.
- c. Centralized control and responsibility will be with operators.
- d. Convenience and confidentiality of customer is maintained.

### **Quality of Service Survey of Mobile Companies**

Services of the operators are continuously monitored in order to ensure quality as per the license conditions. Previously, PTA conducted four manual comprehensive Quality of Service (QoS) surveys of Mobile Operators. The mobile companies are instructed to improve their quality of service through expansion of their existing network and system as and when the services are observed below the targets.

Fifth, QoS survey of mobile operators was conducted by PTA Zonal Offices located at Peshawar, Rawalpindi, Lahore, Karachi and Quetta from September to November 2007, using recently procured state of the art monitoring equipment. The services of five GSM operators i.e. Ufone, Mobilink, Telenor, Warid, and CMPak were checked in selected major and small cities. Service parameters including Network Accessibility, Service Accessibility, Access Delay, Voice Quality and SMS were checked.

PTA published the summary of the results in leading newspapers to share the results with valued subscribers. The details are available on PTA web [www.pta.gov.pk](http://www.pta.gov.pk). The results will give the mobile companies an insight of their strengths and weaknesses so that they are able to improve the services.

### **Unsolicited SMS**

The telecom sector over the past few years has shown phenomenal growth. Although mobile



services have benefited the people in terms of mobility, ease, affordability to everyone, yet there are anti-social activities related to it which cannot be denied. Criminal activities and fooling/fleeing of innocent people through various tricks and falsified messages have augmented with the growth of mobile sector. Furthermore, unsolicited messages and obnoxious calls have added to grievances of the subscribers.

To curb this menace, PTA instructed all Mobile Companies to create an awareness campaign and warn the ones that are involved in such unsocial activities. Furthermore, PTA has established a complaint cell which is operational 24 x 7 in order to register the unsolicited SMS/obnoxious calls complaints. The registered complaints are sent to mobile companies on regular basis for evaluation followed by warning SMS to the harasses followed by closure of numbers and/or blocking of cell phones if the complainant does not stop harassment.

During the year, a total 11,088 of complaints were received regarding unsolicited SMSs out of which 9,055 cases of severe nature were sent to concerned operators for necessary action, 66 mobile

**Table - 5**  
Company wise Detail of SMS Complaints

	Mobilink	Ufone	Telenor	Warid	CMPAK	Total
Complaints Received	2,851	2,681	3,528	1,349	679	11,088
Complaints Processed	2,303	2,188	2,912	1,065	587	9,055

sets of harasses were blocked. As a result of all these prompt measures the numbers of complaints has reduced.

### Push E-mail Service

Push e-mail is used to describe e-mail systems that provide an "always-on" capability, in which new e-mail is instantly and actively transferred (pushed) as it arrives by the mail delivery agent. PTA is always looking forward to introduce new emerging technologies and services keeping in view the national security concern. Mobilink, Ufone, Telenor and Warid have started similar sort of services in Pakistan after being issued NOC.

### Countering the Mobile Hand Set Theft

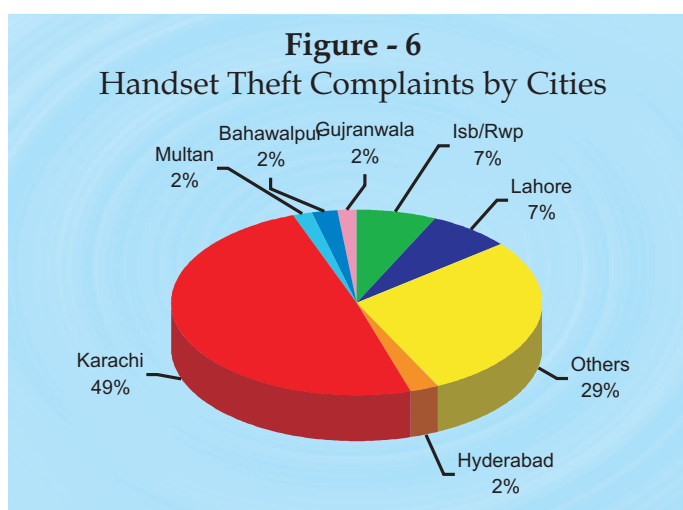
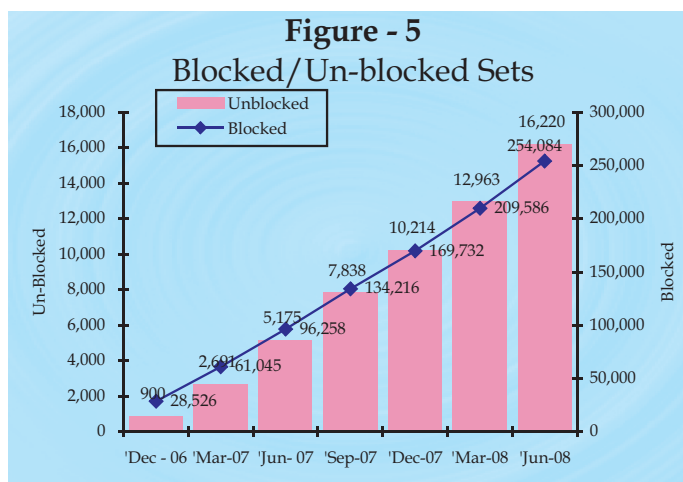
In last few years, mobile theft was on the rise which badly effected the growth of the telecom sector. To deal with this threat PTA introduced an IMEI system and implemented it in October 2006. PTA made this system available with the help of CPLC and the industry. The system registers complaints for both blocking and unblocking of the mobile handsets. Authority takes action

against the complaint after the verification of the complaint. Consumers can register their complaints through a toll free number, via e-mail or through web.

Mainly, the issue of handset theft is observed in large cities like Karachi, Lahore, Islamabad/Rawalpindi and others. As a result of this most complaints are also registered from these cities. Till 2008, 47.53% of all complaints are received from Karachi, 7.03% Lahore, and 6.65% from Rawalpindi/Islamabad.

After introducing the IMEI system, 2,54,084 complaints have been received for blocking of the handsets and all of these complaints were catered. On average 13,152 handsets/month were blocked during the year.

Ratio for unblocking the handsets is low but significant. Since IMEI blocking was introduced 16,220 unblocking request were received from the consumer and cater for. On average about 921 handsets/month are unblocked on request.



## Mobile Number Portability

Pakistan is the first country in South Asia to implement the Mobile Number Portability within a period of two years. It is honor for Pakistan that the said project has been selected by ITU to provide training to countries who like to introduce Mobile Number Portability in their country. A workshop has been conducted successfully from 22-24 August, 2007 at Islamabad. PTA is also successfully arranged an on-line course during Jan-Feb 2008 and Virtual Forum on Porting Process guideline and Regulation on MNP for the Asia-Pacific Region.

So far approximately 356,190 subscribers have been ported out successfully from one Cellular Mobile Operator to any other Cellular Mobile Operator. PTA is actively supervising the said project. Complaints filed at PTA are handled on a case-by-case basis.





## UAN & Toll Free Number

PTA is committed to simplify its procedures and automate most of its services for the convenience of general masses as well as for businesses. Universal Access Number (UAN) has become increasingly important for small and medium businesses in the country where businesses can have various phones at the backend of one UAN or toll free number. PTA issues UAN on merit against a prescribed fee to whosoever applies and meet the criteria on a “first come first serve” basis. To make the system of allocation of UAN further transparent, PTA has divided UAN into 6 categories and a prescribed fee against each category.

To facilitate the customers, PTA has started receiving applications on line. Users can request online for allocation, cancellation and addition of location against existing UAN, Toll free and UIN. The online numbering system provides all the details of the allocation procedure where user can request with his/her choice of UAN. PTA checks application and if it fulfills the requirements, demand note is issued online.

## Review of PTCL Reference Interconnect Offer (RIO)

The PTCL RIO for Fixed line operators was approved by the Authority in May 2005. Industry desired that the RIO may be improved and revised. Keeping this in view, the review was started to address the issues effectively in consultation with the industry and keeping in mind best international practices. Comments were sought from the stakeholders, analyzed and forwarded to PTCL for comments. PTCL suggested a number of changes. Several meetings were also held with the stakeholders.

Based on the discussions with the operators and PTCL, the Authority modified PTCL Reference Interconnect Offer and the same was issued after approval from the Authority in 2007.

## Rural Telephony

Rabta Ghar (telecenters) project was initiated by PTA for the expansion of telephony and other communication facilities in the remote, rural, unserved and underserved areas of Pakistan. Initially 354 Rabta Ghar have been planned to be installed throughout the country. Distribution of the approved Rabta Ghars by Provinces show that 29% will be established in the province of Sindh while 25% are being established in the Province of NWFP.

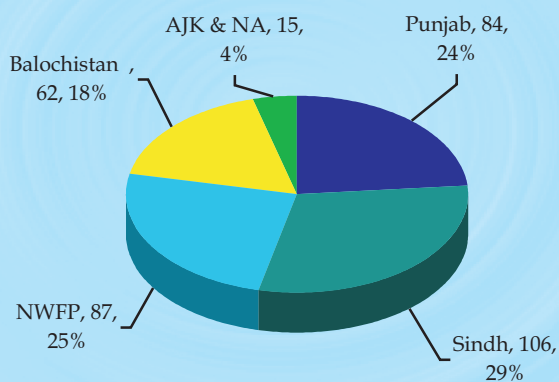
M/S Genuine Intel Dealer (GID) were appointed as vendors to execute the deployment of the Rabta Ghar in the country. M/S GID, started installation and commissioning of these Rabta Ghar w.e.f 27th October 2007.

Each Rabta Ghar is being equipped with a PC, one Wireless PCO, One Internet enabled Wireless set, Printer, scanner, copier and fax (4 in 1 machine). In addition to that each Rabta Ghar owner is being provided with a comprehensive training from the GID and the owner is also being provided a training manual and self-learning CD for future reference.

Apart from above, A Universal Service Fund (USF) has also been created to bring the focus of telecom operators towards rural population, which remained unnerved. Up till now, USF has awarded contracts to provide services in Malakand, Sukkur, DG Khan, Pishin, Mansehra and Dadu while several projects are in pipeline. It is expected that over 5 million population of these remote areas will get benefit out of these projects. USF signed Contract of Pilot project on October 04, 2007 with Telenor that aims to provide telecom related services in Malakand Division. A subsidy of Rs. 310 Million is being provided to Telenor for this project. Telenor will install a total of 175 cell sites in Malakand. A subsidy of Rs. 112 Million is being provided to Mobilink for the provision of telecom services in Sukhar which covers 25% of the province of Sindh. Warid Telecom under USF will get a subsidy of Rs. 91 Million to provide services to the mass population in un-served areas of Dera Ghazi Khan division. PTCL will provide basic telephony and data services to the population in the yet un-served areas of Baluchistan districts of Pishin, Killa Abdullah and Quetta and a subsidy of Rs. 175 Million is being provided to PTCL for this project. PTCL will get another subsidy of Rs. 300 million to provide basic telecom services in Mansehra and a subsidy of Rs. 250 million for provision of telecom services in Dadu under USF facility. USF has planned to extend the Fibre Optic connectivity to the un-served TEHSIL HQs in Pakistan for meeting the growing requirements of Voice, Data and Video in these areas.

To meet the growing need of skilled manpower in telecom sector, Government of Pakistan has

**Figure - 7**  
Rabta Ghar (Telecentres) Distribution by Province



**Table - 6**  
Status of Telecentres Deployment

Province	Approved RGs	Deployed	Under Process
Punjab	84	64	20
Sindh	106	81	25
NWFP	87	75	12
Baluchistan	62	51	11
AJK & NA	15	03	12
Total	354	274	80



established a National ICT R&D Fund in 2006. National ICT R&D Fund has approved six technical R&D projects in the first quarter of 2007-08 worth Rs.78.92 million and three technical R&D projects worth Rs 38.33 million were approved in the second quarter of the year 2007-08. These projects are aimed at contributing towards a sustainable development in Pakistan.

## **Determination on Broadband Issues**

Broadband services in Pakistan started in 2002, however, the growth in this sector remained stagnated due to various factors including high tariff(s), less consumer awareness limited access options and limited efforts to create awareness. Keeping in line with the strategic objectives of GoP to enhance penetration of broadband services in Pakistan, the Authority, through consultation, requested all stakeholders to highlight major bottlenecks for slow penetration of broadband. Keeping in mind the feedback received from the industry, the Authority on March 06, 2007 issued another consultation paper on “Broadband proliferation in Pakistan”.

The paper was floated to the industry for their comments were received. In this context meetings with the operators were also held. Finally the hearing of this matter was conducted on July 12, 2007 and determination was issued on August 03, 2007.

## **Determination Against Callmate on Overcharging**

During verification exercise of Callmate Calling Card on March 10, 2006 in Quetta, it was found that Callmate is overcharging from customers against the advertised tariffs. Another survey was also carried in Lahore Zone in which national and international long distance calls to different destinations were made on Callmate calling card. During the survey, it was observed that tariffs charged by Callmate were neither in accordance with the submissions made to the Authority nor displayed on Callmate website.

Based on the Authority's findings Callmate was found guilty of overcharging its subscribers. After hearing Callmate's viewpoint, Determination was issued on September 21, 2007 in which the Callmate was fined a sum of Rs.5 million. However, the said Determination has recently been challenged by Callmate in the court of law.

## **Charging Mechanism of Calls Made to Access Internet**

PTCL approached the Authority in August 2007 in which it suggested to change the existing charging mechanism for 131 Dial-up internet calls. PTCL proposed charging of Rs.2.01 per (10) ten minutes pulse as against the current unlimited duration. In its opinion, the proposed change would accelerate broadband proliferation and reduce the loss to PTCL due to provision of highly subsidized internet access service. Moreover, this new charging mechanism would not increase the cost of basic dialup, since majority (63%) of call duration is less than or equal to 10 minutes duration.



PTCL proposal for changing pulse duration of internet access was forwarded to ISPs for their comments and all ISPs opposed this idea. The issue have been put on hold untill early December.

## **Renewal of PMCL (Mobilink) Cellular Licenses**

In 1990 the Government of Pakistan, awarded two Cellular Licenses, one each to M/s Paktel and M/s Pakcom (Instaphone) for provision of cellular mobile telephony. The two licensees established their network using Advanced Mobile Phone System (AMPS). In 1992, the Government of Pakistan awarded a third CMT license to M/s Pakistan Mobile Communication Limited (PMCL) "Mobilink". The company established Global System for Mobile Communication (GSM) network. All the companies were granted license for an initial period of 15 years. Keeping in view the slow growth and no real competition among the three operators of the cellular mobile telephony in Pakistan, the Authority, in 1998 awarded CMT license to M/s Pakistan Telecommunication Mobile Limited (Ufone), a subsidiary of PTCL, for the provision of GSM services in Pakistan, Which launched its service in 2001.

As per the Cellular policy issued in 2004, old Mobile licenses are required to be renewed on the same terms and conditions as envisaged by the policy and the new Licenses issued to M/s Telenor and M/s Warid. The License of M/s Mobilink was to expire on July 5, 2007 but has been renewed for another 15 years in July 2007. First installment of initial license fee US\$ 14.55 Million has been paid and remaining amount of initial 50% license fee shall be paid in six installments over a period of three years. Mobilink will also have to submit performance bond for the rollout obligations.

## **Review of Settlement Rates/ APC**

The Government of Pakistan deregulated the telecommunication market of Pakistan in year 2004. As a result, a number of Local Loop (LL) and Long Distance & International (LDI) licenses were issued by PTA. Due to the availability of financial premium on incoming international traffic and to ensure efficient market entry in LDI market, the GoP introduced the concept of Access Promotion Contribution (APC) where LDI operators have to pay APC to LL operators (or to the USF account in case of mobile termination) after keeping their approved share from the settlement rates.

The Approved Settlement Rate (ASR) review is conducted periodically by the Authority as per the regulation 4 of AP Regulation, 2005. During the year the Authority reviewed ASR twice while issuing its determinations dated August 31, 2007 and 31st March 2008.

In the first review the ASR was brought down from US cents 7.5 per minute to US cents 7 per minute primarily to curb the grey traffic due to the absence of traffic monitoring system. The rates were also decreased in line with the international trends, the likely impact on various stakeholders particularly on LL and LDI operators, and keeping in mind other relevant factors.





During the second review, the Authority received recommendations from the licensees for increase in APC charges with the view to increase benefits to the Local Loop operator for increased access infrastructure. A hearing was held on 12th March 2008 at PTA Headquarters to consider various aspects of increase in APC along with measures to curb grey traffic through newly installed traffic monitoring system. PTCL being the leader of LDI consortium was given mandate to reach a conclusion in consultation with the LDI operators on the revision of APC and settlement rates. PTCL deliberated on the issues at length and several meetings were conducted with the industry to find an amicable solution.

Final hearing was held on 28th March 2008 at PTA Headquarters where PTCL along with other LDI operators submitted their proposal for increase of APC and Settlement rates. Having heard the various stakeholders of industry, the Authority decided that to revise the ASR with effect from 1st May 2008 to US Cents 10 per minute constituting of LDI share and APC of US cents 5 per minute each.

The recent increase in the Approved Settlement Rates (ASR) has not only resulted in revival of LDI sector of Pakistan, but if the ASR is maintained at US cents 10/min, it is expected that this will result in a differential increase in foreign exchange inflow by approximately USD 300 million per annum.

## **Type Approval of Telecom Equipment**

Type approval granted by PTA signifies that particular Telecommunication equipment is approved for sale and is suitable for radio communication or to connect a specific public telecommunication network in Pakistan. Over the years PTA has simplified procedures for type approval and now it accepts type approval of any renowned international organizations for most of the equipment.

## **PTA Reduces Mobile Termination Rates (MTR)**

The Authority announced cost-based interconnection (termination) charges for fixed-line as well as cellular mobile operators vide its recent determination.

The Authority after considering the results of cost models, international benchmarks and other factors, issued a short determination followed by a long determination whereby Mobile Termination Rate was reduced by 28% i.e. from Rs. 1.25/- to Rs. 0.90/- over a period of two and half years. This reduction is mainly due to rapid growth in the mobile market of Pakistan. It is expected that the reduction in MTR would reduce fixed-to-mobile and off-net tariffs within cellular operators resulting in more affordable telecom services.

Pakistan is the first country in South Asia to have determined the interconnection charges based on Long Run Incremental Costs (LRIC). This step was taken in line with the deregulation policy of



Government of Pakistan. Keeping in view the significance and complexity of the task, the Authority engaged a UK-based consultant Ovum plc after a transparent and competitive bidding process, to assist the Authority in determining interconnection charges using Fully Allocated Cost (FAC) under historical costing, bottom-up LRIC and international bench-marking. PTA is hopeful that this decision will have far reaching impact on the growth and investment in the telecom sector of Pakistan, as interconnection rates are critical for proliferation of basic telecommunication services.

## Mobile Numbers Changed from 7 To 8 Digits

Pakistan Telecommunication Authority (PTA) has successfully completed the first three critical phases of migration of cellular mobile subscriber numbers from 7 to 8 digits as of January 2008. The dialing codes of all mobile companies have also been changed from 4 digits to 3 digits. According to new Mobile Numbering Plan, all mobile numbers in the country would now comprise of 8 digits by moving the last digit of the dialing code into subscriber number such that the dialing code would be reduced to 3 digits (i.e 0333-51xxxxx would now be 033-351xxxxx). It is important to note that numbers of Mobilink, Warid, Ufone and Telenor will remain the same 11 digits as before. For Zong (China Mobile), Instaphone and SCOM (AJK& Northern Areas), in addition to aforementioned shifting of subscriber numbers, digits of their dialing code would also change (i.e. 0304-51xxxxx will be 031-451xxxxx, 0320-51xxxxx will be 036-451xxxxx and 0335-61xxxxx will be 035-561xxxxx). All these changes have become effective from April 1, 2008. Until June 30, 2008 all old and new numbers could be dialed. From 1 July 2008 onwards only new numbers will be valid.

## ITU Awards GREX Certificate to PTA

Global Regulator's Exchange {G-REX} is a platform for national communications regulators, Policy makers and regional regulatory authorities, where they can pose any question regarding telecom regulations and seek feedback from their colleagues around the world. G-REX was launched by the Telecommunication Development Bureau (BDT) of International Telecommunication Union in May 2001. G-REX is an interactive online platform maintained by ITU for the benefit of regulators to exchange information and best practices.

The Telecom Development Bureau of the ITU in reorganization of a high level participation by PTA and excellent support to the Hotline forum awarded appreciation Certificates to PTA for the year, 2008. ITU has also awarded PTA G-REX earlier in 2005 & 2007 During the closing session of Global Symposium ( GSR-08), Mr Sami Al Basheer, Director of ITU's Telecommunication Development Bureau awarded the G-REX certificates to its most active users which includes the regulatory authorities of Pakistan (PTA), Costa Rica, Hong Kong (China), Peru, Lithuania, Saint Vincent and the Grenadines, Sudan and Venezuela.

Syed Nasrul Karim Ghaznavi, Member (Finance), head of the Pakistan Delegation, received the



PTA's GREX Certificate during GSR 2008.

### **On-line course on “Porting Process Guidelines and Regulations on MNP”**

An online course on “Porting Process Guidelines and Regulations on Mobile Number Portability (MNP)” was held under ITU-ASP Center of Excellence Network PTA Node. Initially more than 60 participants from Asia Pacific region were registered in the course. Keeping in view size of the course visa-vise management difficulties, ITU decided to split the Course into two editions. The first edition was conducted from 21 Jan-29 to Feb, 2008 and 35 students from Afghanistan, Bangladesh, Bhutan, Cambodia, India, Iran, Indonesia, Hong Kong, Malaysia, Moldova, Thailand, Nepal, Kiribati, Papua New Guinea and Pakistan participated in this first edition. The second edition of the course was conducted from 2 June to 11 July 2008 and 40 students from Afghanistan, Bangladesh, Cambodia, India, Iran, Indonesia, Hong Kong, Malaysia, Malta, Mangolia, Nepal, Pakistan, Papua New Guinea, Samoa, Thailand, and Uganda participated

This was the first online training program offered from PTA node. The course was planned for the policy makers, regulators and mobile operators interested in human resource capacity for planning and implementation of MNP in their countries. The course was particularly useful for officials dealing with the MNP planning and implementation process as the experts having practical experience of the subject structured this highly specialized program. This on-line course provided PTA an excellent opportunity to share its experience and expertise in the implementation of MNP as Pakistan is one of the few countries in the region whose MNP regime has been successfully implanted. The introduction of MNP has enhanced competition and has improved the quality of service in cellular mobile sector.

The participants of both the editions actively participated in the course by asking questions from the tutor through “Chat Session”, reading of the materials placed on the e-learning platform and sharing experiences through “Discussion Forum” and exchanging e-mails etc. In the final evaluation, the participants graded the course contents and delivery of the course very high.

### **Consultancies**

During the year 2007 PTA outsourced various studies/consultancies from experts for technical assistance on issues of the Industry. The prime objective of undertaking extensive consultancies on topics of interest is to enhance the capacity at the PTA for growth and modernization of the telecommunications industry. A number of consultancies were completed that include Testing of GSM Operators QoS for Intentional Roaming aimed at analyzing quality of service (QoS) of international roaming for Pakistani subscribers. The tests were performed by Optiwave Technologies for post paid and prepaid users. The results were compiled for call originating from and terminating into various countries including Malaysia, South Africa & USA. The tests were also performed for SMS services and the results provided were analyzed to judge QoS standards of the operators. The results indicate 85% call success rate and 95% SMS success rate. The study has



been concluded successfully with detailed report and results placed on PTA website.

PTA awarded a study on Radio Frequency Identification (RFID) to Center of Advanced Studies in Engineering, Islamabad. The study examined RFID for regulatory oversight of services provided through RFIDs and their type approval procedures.

Convergence of Technologies of Telecommunication & Media is an important issue and study undertaken by PTA focused on various aspects of Convergence to have an advance insight on this issue.

A study on “Socio Economic Impact of Cellular Mobile Growth in Pakistan was completed by a local consulting house. Study found that cellular mobile growth has a tremendous impact on the as in social and economic conditions of the people of Pakistan. Particularly, the sale of small businesses increased by Rs. 10,000/- per month with the use of mobile phones through reduction in travel and and ease of doing business.

A number of new consultancies are being undertaken during 2008 that include a Consultancy on Socio Economic impact of telecom growth. The consultancy requires detailed surveys based on targeted and non-targeted approach. The Consultants are required to examine the impact of telecom growth on the Economy, Business and Social Development in Pakistan separately for Cellular Mobile, Fixed Local Loop (FLL), Wireless Local Loop (WLL), Long Distance & International (LDI), Internet/Broadband, Payphones and other value added services. A forecast model for telecommunication services will be prepared keeping in view the trends in modern telecommunications in comparable economies.

Consultancy on QoS on International Roaming Services and Key Performance Indicators is planned. The consultancy is envisaged to stretch from 2008 to 2009, evenly. The output of the consultancy will be in the form of at least reports: 6 monthly reports, each consisting of the monthly plus aggregate figures (except the first). The report will be able to bench mark international roamer services across five GSM operators. It will provide quality results alongside billing accuracy reports. The purpose of the consultant shall be to also look into international roamer tariffs and suggest methods for making the rates more affordable for the Pakistani Cellular roamer.

Radio Frequency Management & Development of New Spectrum Charging Regime Consultancy focuses on radio resource management and spectrum pricing issues. Now it has been assigned in-house.

Unbundling of Access & Services Consultancy will assist in implementation of a comprehensive framework for access and services for both wireless and wired systems. The impact assessment of





unbundling of Access & Services (in Pakistan) on SMP operator's market share and revenues, SMPs' plans for new investments in infrastructure has been included in the Consultancy project. The pricing structure including cost calculation mechanism for unbundled access & services will be prepared by the Consultant based on best international practices with recommendation for the Pakistan telecommunication industry.

In-House Cabling Consultancy defines different standards for the proper In-house cabling of telecommunication equipment for correction of procedures in practice.

Local Number Portability Consultancy will help in analyzing the approach for the benefit of users of fixed line networks. PTA has successfully implemented Mobile Number Portability (MNP) in a competitive mobile telecommunications market.

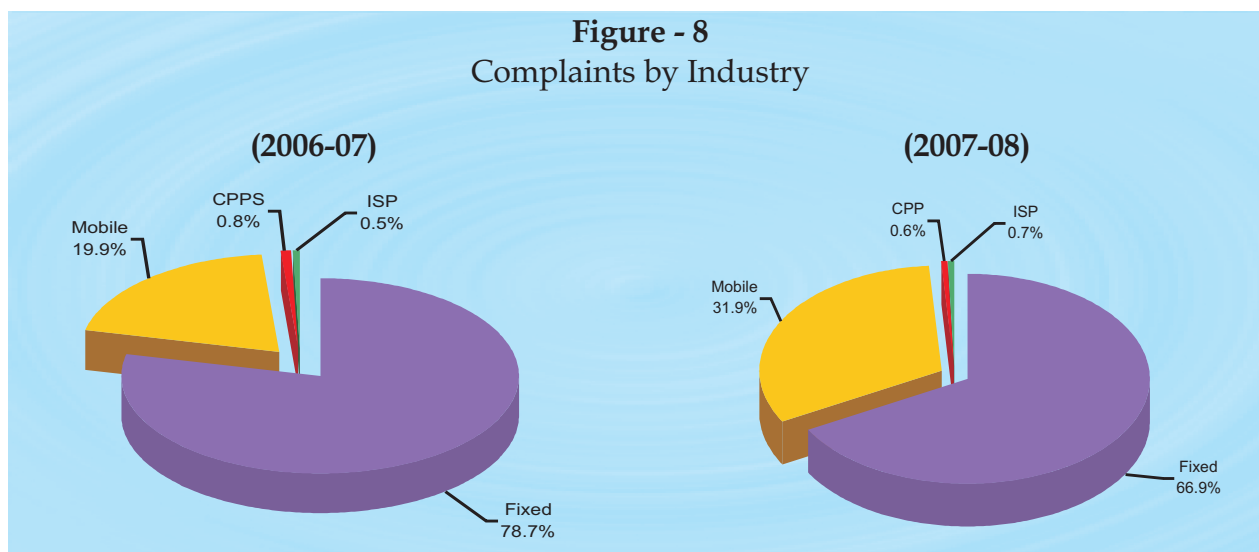
## Consultation Papers

During the year, PTA issued consultation papers detail of which is being given in ensuing paragraphs.

Internet Protocol version 6 (IPv6) greatly improves on IPv4 by vastly increasing the number of available addresses and by enabling better quality of service, more efficient routing, simpler configuration, build-in security, better support for real-time data delivery etc. In this regard, PTA has invited industry, academia and other interested parties to get together and actively participate in the establishment of IPv6 test beds within various universities. PTA has prepared a consultation paper on the issues & floated on the PTA's website for feedback.

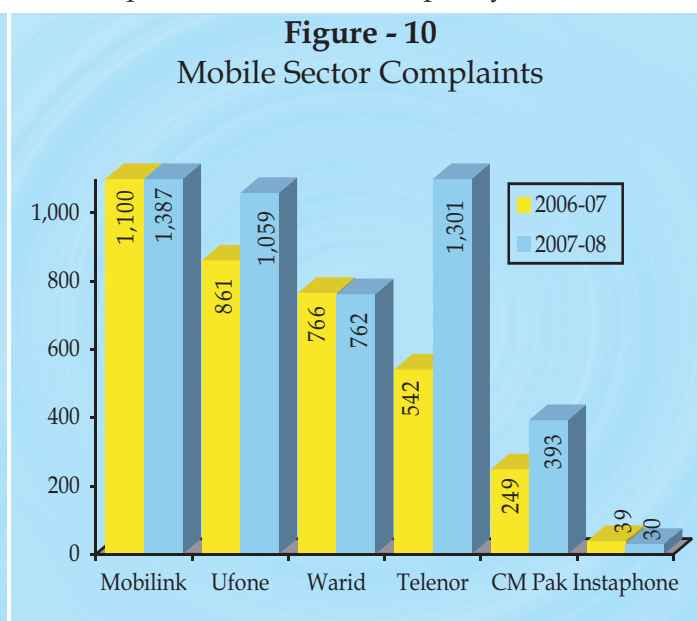
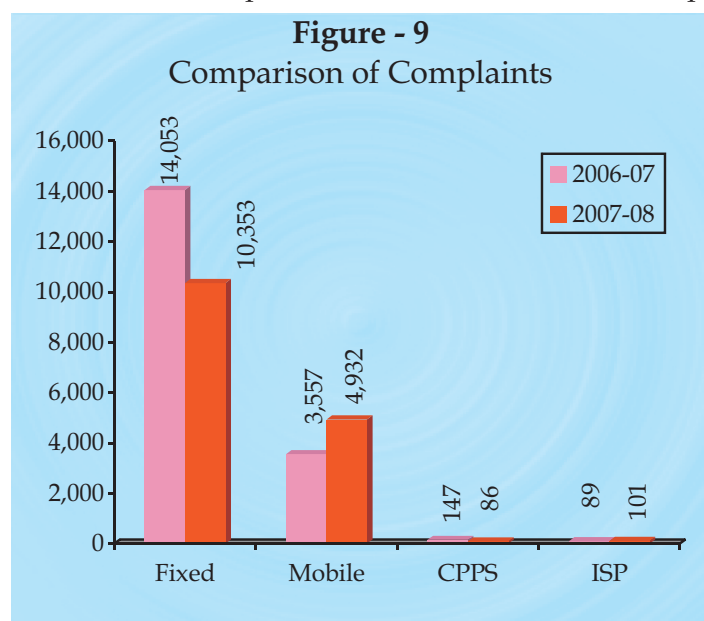
## Consumer Complaints

Protection of consumer rights has been set a priority area by the new leadership of Pakistan telecom



Authority where it has established a separate Consumer Protection Directorate fully dedicated to address the consumers' grievances. PTA received over 10,353 complaints against Fixed line operators (Mainly PTCL) which are 26% lower than the previous year complaints. Major complaints against PTCL were about the telephone fault particularly in Karachi and other urban centers. Internal conflicts, strikes by lower grade employees caused serious hurdles to overcome such complaints by PTCL. New telephone connections and billing complaints were other major areas of concern where PTA received number of complaints from consumers against PTCL. Non availability of infrastructure remained impediment for new connection by PTCL. PTA took cognizance of the situation and resolved most of the complaints it received against the incumbent, PTCL.

Overall complaints on various issues of mobile phone companies decreased but quality of service



specific issues reflected upward trend during the year 2007-08. Complaints about Quality of Service for CMPak and Mobilink decreased where complaints against all other operators increased. Overall, consumer complaints against Telenor increased by 140% in the year 2007-08 which are highest among all operators. Second to Telenor was ufone against whom the complaints increased by 27% in the year 2007-08.