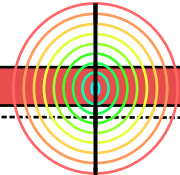*Chapter - 2*

# PTA Focus Areas

## 2008-09

# Introduction

Pakistan Telecommunication Authority [PTA] has, within a few years, come a long way towards achieving a highly promising telecom sector even in a difficult economic situation in the country. Standing on the unprecedented growth patterns of the past few years, Pakistan's telecom scenario today presents a look of a growing sector with the launch of a great many state of the art services and modern telecom infrastructure. The sector is maintaining good foreign investment and generating significant economic activity and huge employment opportunities in the country. During the year 2008-09, the Authority actively participated in the Government's efforts to help the earthquake affectees as well as Internally Displaced Persons (IDPs) of Malakand division. Besides working on its focus areas in line with the incumbent government's policies, it went a long way to overcome the menace of terrorism by installing a new SIM verification protocol.

# Humanitarian Efforts

Chairman PTA, Dr. Mohammed Yaseen presented a cheque of Rs. 201 million to Prime Minister Syed Yousuf Raza Gilani for "Prime Minister's Special Fund for the Victims of Terrorism" in order to help rehabilitate the IDP's. The amount included Rs. 200 million contribution by the PTA from its own funds, Rs. 0.558 million donation by the PTA employees in form of one-day salary and Rs. 0.516 million donation by Motorola Pakistan.

In addition to that, the PTA, in collaboration with cellular mobile industry, started 1199 SMS Service for the welfare of the IDPs. Through this service, subscribers of all the mobile operators could send an SMS to 1199 by writing "FUND". Each SMS was charged Rs. 10 (with tax exemption), and in this way, a donation of Rs. 5.1 million was collected, which was deposited to the Prime Minister's special fund for the affectees. People from all walks of life actively participated in this fund raising campaign contributing to this national cause through the SMS.

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Dr. Mohammed Yaseen, Chairman PTA presented a cheque amounting Rs. 201 million to the Syed Yousuf Raza Gilani, Prime Minister of Pakistan for relief of victims of terrorism at PM House, Islamabad on August, 2009
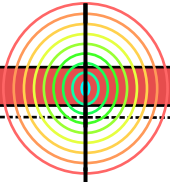
Similarly, PTA, with the help of the cellular mobile industry, launched 1188 SMS service wherein the subscribers of all CMTOs could send an SMS to 1188 by writing "FUND". Each SMS was charged Rs.10. A sum of Rs.574,043 was collected and deposited to the Chief Minister Punjab's Special Fund for IDPs.

The PTA employees contributed their one-day salary to the relief fund for earthquake victims of Baluchistan to demonstrate solidarity with them in their hour of need. The amount was used to provide relief goods to the earthquake-hit areas of the province. The Chairman PTA also made an appeal to the telecom operators to generously donate

for rehabilitation of earthquake victims. Furthermore, PTA directed the telecommunication operators to make their best endeavors to immediately restore telecommunication services in the calamity-hit areas of the province.



Earthquake Relief Cheque on behalf of PTA being presented to Governor Balochistan by Zonal Director PTA

The PTA conducted a study on Disaster Communication System with the objectives to assist Disaster Relief Managers by providing communication networks at a short notice and also to propose a plan. Identification of disaster, study of techniques and proposing a plan to cope-up with the situation were main features of the study. The study was completed and recommendations were made regarding national plan for disaster/emergency communications for early utilization of the resources. Under the the proposed plan, all the operators (public/private) will be required to maintain inventory to meet the disaster situation, functions of each entity will be predefined, a list of focal persons for each organization/ operator will be maintained. NTC and SCO will be the central agencies for Pakistan and AJK respectively to maintaing inventory for disaster situation,  and all private operators will maintain inventory for disaster communication at national, provincial and district headquarters levels. The plan is lying with MoIT for approval.

## Focus Areas of Work

Keeping in view the present government's vision, the Authority brought a change into its approach while focusing on national security and the overall betterment of the people at large. The PTA kept on promoting local businesses to have more foreign investment and increase the sector's contribution to the national exchequer. This year, the Authority decided to work on the following four focus areas:

    i)   *Consumer Protection*
    ii)   *Promotion of ICTs*
    iii)  *Promotion of Competition*
    iv)  *National Security*

The details of hectic work done in the above-mentioned fields by the Authority are highlighted in the ensuing pages.

## Consumer Protection

During the year 2008-09, the Authority contemplated upon the public Government's vision and felt the need to address Consumer Protection issues without making any compromise on the growth of the sector. The Authority initiated a comprehensive consultation process with the industry in order to come up with the benchmarks to ensure non-discriminatory provision of services, fair commercial practices and effective redressal mechanism for the telecom consumers. To manage consumer grievances, specific regulations were drafted and an apt complaint handling mechanism was designed, and implemented.

## Establishment of Consumer Protection Directorate

As a guarantor of telecom consumer protection, the Authority believes that the issues pertaining to consumer interest and grievances should be tackled in a broader but more focused manner, and with this rationale a dedicated Consumer Protection Directorate (CPD) was established at PTA headquarters, Islamabad, in September 2008. The Directorate is solely aimed to focus on mechanisms both at the operators' as well as Regulator's end for ensuring effective redressal of consumers' complaints.  The said directorate comprises of a Complaint Cell to which the consumers have access through Toll Free Number

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(0800-55055), telephone (051-9225325), fax (0512878127), e-mail (complaint@pta.gov.pk), PTA website, post and in person visitation for lodging their complaints and getting the solution. Moreover, consumers can also go to the PTA zonal offices across the provincial capitals for redressal of their complaints. The PTA takes up all such complaints with the concerned operators for their solution. More than 80,000 individual consumer complaints have so far been received and redressed by the Authority since establishment of complaint mechanism in September, 2008.

## Regulatory Intervention to Protect the Consumers

While building up the edifice of consumer protection, PTA issued Consumer Protection Regulations and Anti-SPAMs regulations to control obnoxious and unsolicited calls. It also issued subscribers verification regulations. Details of these regulations have been highlighted in ensuing pages.

### Subscriber Verification Regulations

Draft Subscriber Verification Regulations have been prepared in order to eradicate the menace of illegally issued SIMs and misuse of consumers' CNICs. The Authority undertook comprehensive campaign for verification of user antecedent data and blocking of nearly 11.2 million unverified SIMs. In order to reiterate significance of the matter in the present security scenario, the Authority also show caused cellular mobile operators and held hearings with regard to ensuring that directions of the Regulator on
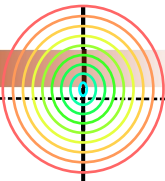
the matter shall be strictly complied with, and that there is no room of compromise on this issue.

PTA is very proud to successfully establish the new user friendly system of SIM Activation – the said system provides no room for illegal sale of mobile services. These efforts from the Regulator shall go a long way towards legal and verifiable use of services in the country. For convenience of the telecom consumers, the PTA is also working on a project under which consumers will be able to know about the number of active subscriptions against their CNICs through text messaging to a short code (668), facilitated by the Regulator.

### Consumer Protection Regulations, 2009

Consumer Protection Regulations 2009 were notified in March 2009 placing the telecom licensees under an obligation to establish comprehensive consumer complaints lodging and redressal mechanisms at their respective ends, besides ensuring fair commercial practices. Rationale behind formulation of the said Regulation was the need realized by the Regulator to revamp existing consumer complaint handling and the mechanism of redressal of grievances at the licensees' end to make it responsive, sensitive and answerable to the telecom consumers in the country. The said Regulations also place obligations upon the licensees to observe best and fair commercial practices. Main features of the said Regulations are listed below:

- ◉ Service Provision as per consumer choice, request & without discrimination.

○ No service disruption, suspension or termination without (30 days) prior notice, communicating substantial reasons or as per well defined policies communicated to the consumer.

○ No activation or deactivation of services/packages without user consent .

○ Fair commercial practices/advertisement that should not be misleading, inadequate or unclear in terms & tariffs, clear & complete specification of tariff information, contains detailed billing information as per license conditions and gives publication of Code of Commercial Practice & Service Contract for the awareness of consumer.

○ Consumer Complaint Handling & Redressal Mechanism that covers categorization of complaints, Lodging of complaints with specified contact details, handling of complaints (Issuance of Complaint Number, timeline for redressal, escalation path info, Redressal measures communicated to complainant) .

○ Confidentiality of consumer information to be maintained .

○ Publication of consumer manual (90 days of notification) .

The said Regulations shall go a long way in redressing consumer complaints in an efficient, cost effective and accountable manner.

### Regulations on Measures Against SPAM, Unsolicited, Obnoxious and Fraudulent Communications 2009

The Regulator has observed over a year that more than 40% of the consumer complaints comprised of misuse of service and fake prize scams and that regulatory framework was required in order to establish technical support systems at the licensees' end and formulating redressal mechanism to protect the victims of such activities. The PTA remains in close contact with the Federal Investigation Agency's Cyber Crime Wing to facilitate the same. At the same time, hectic coordinated efforts are going on to install anti-SPAM filters in  the telecom systems. Following are the main features of SPAM Regulations 2009:

○ Anti-SPAM Filters having technical measures to control spamming to be taken by the telecom operators and guidelines for money/balance transfer in order to avoid credit loss of consumers.

○ Fraudulent Communication including warning, blocking of number & Handset upon verification, Habitual shall be denied telecom facility in future, money recovery to be done through FIA's Cyber Crime Wing, Black list to be maintained of user antecedents of those involved in fraudulent activity.

○ Unsolicited communication including establishment of DO NOT CALL REGISTER, Registration of telemarketers, consent sought from consumers for receiving telemarketing/promotional communication.

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Obnoxious communication including technically feasible features e.g. call barring facility to be made available for the consumers, Warning & Blocking of number upon verification and Black list to be maintained of user antecedents of those involved in obnoxious activity

Public/Consumer awareness with number of articles have been written in nationwide press for the awareness of the general consumers to beware of fraudulent prize scam schemes and not to fall in the trap of such unscrupulous elements.
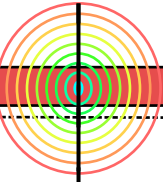
## Complaint Handling Mechanism

In collaboration with the telecom operators, the PTA overhauled their respective complaint lodging and redressal systems.

The modes of lodging complaints were expanded, besides having been made more efficient and consumer friendly. Dedicated focal teams were earmarked to cater to the consumer complaints. At a joint press conference of the Authority and the telecom operators on July 24, 2009, a mechanism of Complaint Lodging and Redressal of Grievances was launched. Based on the principles of accessibility, cost effectiveness and efficiency, the said system offers the telecom consumers the facility of speedy and accountable complaint handling on the operators' end. The telecom consumer complaints are made to the respective operators through call centers, telephone, fax, e-mail & web mail. If the complainants are not properly addressed with the measures taken by their respective service providers, it is lodged with the PTA on the specified contact details. In this case, the Authority contacts the relevant operator after thorough analysis of the complaint, issues complaint number and the complaint is redressed within 24 hours.



Dr. Mohammed Yaseen, Chairman PTA alongwith Syed Nasrul Karim Ghaznavi, Member (Finance) & Dr. Khawar Siddique Khokhar, Member (Technical) briefing media in Press Conference on the occasion of launch of Complaint Handling Machanisum

## Consumer Awareness & PTA Media Campaign

The Authority strongly believes that consumer activism can be achieved through public awareness campaigns about their rights as well as knowledge of the contacts and procedures to lodge complaints and grievances. The same has been advertised nationwide by the Authority in collaboration with major stakeholders. Regulations issued by the Authority also place obligations on the other licensees to well publicize their respective modes of contacts for general public awareness. The regulator has directed the operators to carry out comprehensive media campaign on complaint handling and redressal of consumer grievances mechanism in line with the Consumer Protection Regulations 2009. The said campaign shall include all the contact details for lodging complaints.

Apart from the above, the PTA plans to hold country-wide Consumer Forums to get input from all stakeholders of the industry as well as consumers on the issues pertaining to the telecom sector and its

services. The first forum was held in Karachi on in August 2009, which had attracted a large presence from the industry, renowned consumer groups, media and consumers. Such events would provide each other with an opportunity to share each other's vision, ideas and expertise that would ultimately lead to the sustained growth of the telecom sector. The PTA shall remain committed towards protecting consumer rights, and in this regard, suggestions and comments from media, consumer groups and general consumers are always welcomed.

## Managing of Unsolicited SMS & Deceptive Advertisements

Unsolicited messages and obnoxious calls have added to the grievances of the subscribers. To curb this menace, the PTA instructed all the mobile companies to launch an awareness campaign warning those involved in such criminal activities.

Similarly, the Authority observed that some of the Cellular Mobile Operators (CMOs) were engaged in running advertisement

Dr. Muhammed Yaseen, Chairman PTA, Dr. Khawar Siddique Khokhar, Member (Technical) PTA, Mohtarma Fatima Surraya Bijya, Mujahid Bralvi and senior representatives of industry at PTA Consumer Forum, Karachi

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campaigns which were misleading for the general public and deceptive in their contents. This unethical practice by the operators resulted into increased consumer complaints, besides raising of questions by some public representatives in the Parliament. In this regard, the PTA directed all the CMOs to adopt the ethical code of conduct whereby the advertisements aired/ published by the operators should not be deceptive for the general public. As a result, the advertisements were corrected.

## Complaints Analysis

During the reported period [2008-09], the Authority received a total of 13,325 complaints against all the operators. Being the largest segment for having maximum number of subscribers, the Mobile Cellular Services got registered the highest number of complaints; i.e. 7,479, followed by PTCL 5,288 and LDI and WLL services 405 respectively. This year, the Authority also received complaints against the Pakistan Mobile Database, a company which is responsible for Mobile Number Portability in Pakistan.

The maximum complaints [40%] were received about misuse of service - obnoxious &

fraudulent calls/SMSs and illegal practices. After the SIM verification system in place, many complaints [13%] were made regarding transfer of connections ownership, issuance of SIMs, blocking of number/SIM without notification and non registration of SIMs.

This year again, service disruption remained one of the major complaints. There were almost 5% complaints related to the matters of billing, overcharging, unjustified deduction/tariffs and non-issuance of bills. Figure shows the number of complaints received against each mobile operator during 2008-09.

There was a significant portion of complaints against the incumbent PTCL. Quality of Service remained a major problem at PTCL's end, and about 73% complaints were received for poor quality and disruption/faults in service. There were 9% complaints regarding provision of service activation/restoration/closure/ up-gradation, and 6% complaints for poor customer Services. In addition to that, there were complaints against obnoxious calls and value added services.

The Figure - 9 shows the rate of redressal, which is quite encouraging as it remained

### Figure - 1
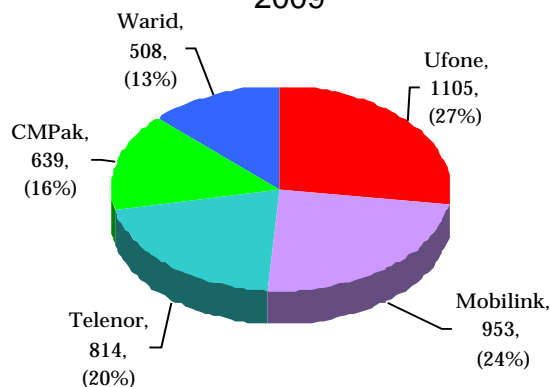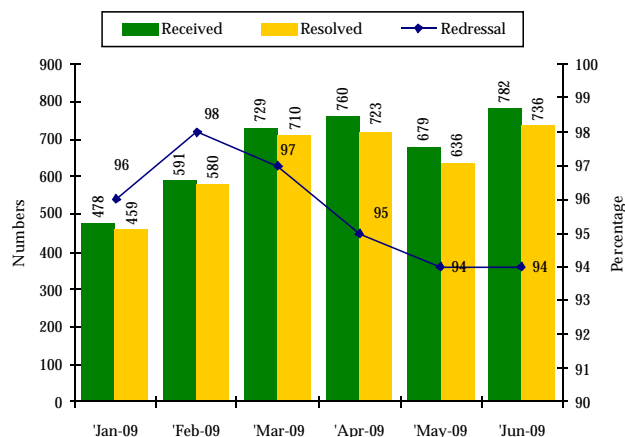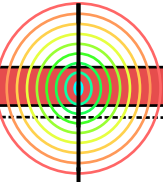### Operator Wise Summary of Consumer Complaints against CMOs 2009

Warid, 508, (13%)
Ufone, 1105, (27%)
CMPak, 639, (16%)
Mobilink, 953, (24%)
Telenor, 814, (20%)

### Figure - 2
### Complaints Received and Resolved

Received | Resolved | Redressal

| | Received | Resolved | Redressal |
|---|---|---|---|
| 'Jan-09 | 478 | 459 | 96 |
| 'Feb-09 | 591 | 580 | 98 |
| 'Mar-09 | 729 | 710 | 97 |
| 'Apr-09 | 760 | 723 | 95 |
| 'May-09 | 679 | 636 | 94 |
| 'Jun-09 | 782 | 736 | 94 |

around 95% during the last 6 months. This could not have been possible without the efforts of the Authority which went hand in hand with the operators.

## Promoting ICTs

The second most important focus area of work for PTA was the promotion of ICTs in Pakistan wherein the Authority intended to devise an effective mechanism for extensive proliferation of broadband services in Pakistan and introduction of emerging technologies. In this regard, the Authority took a number of steps including establi-shment of regulatory platform for interac-tion between the government and the stakeholders to identify the focus areas and develop rules and guidelines for different ICT matters. Following is the detail of ICT initiatives taken by the Authority.

## Fixed Broadband KPI's

As the Authority is working on broadband proliferation in the country, a balance has to be maintained between the quality and the quantity. The Authority, therefore, decided to have Key Performance Indicators (KPI's) for Fixed Broadband Services. In this regard, a study was conducted and a set of KPI's was developed for Pakistan. These KPI's have been much deliberated and discussed upon in a series of debates in the Authority. The document has now gone for public consultations before its finalization.

## Dialogue Meeting on Broadband & Formation of Broadband Stakeholders Group

The PTA organized an Open Dialogue Session in Islamabad on 6th November, 2008 to debate issues related to broadband proliferation in the country. The meeting was presided over by Dr. Mohammed Yaseen, Chairman PTA and attended by some high-level representatives from the Ministry of Information Technology, Universal Service Fund, ICT R&D, Pakistan Software Export Board, PTA, Broadband Service Providers, Cellular Mobile Operators, Vendor, Consultants and Academia. Various issues including facilitation by the government and PTA, infrastructure related problems, taxation,



Chairman PTA Dr. Mohammed Yaseen Chairing a meeting of Expert Group Forum on Information Security Guidelines at PTA Headquarters, on November 25, 2008.
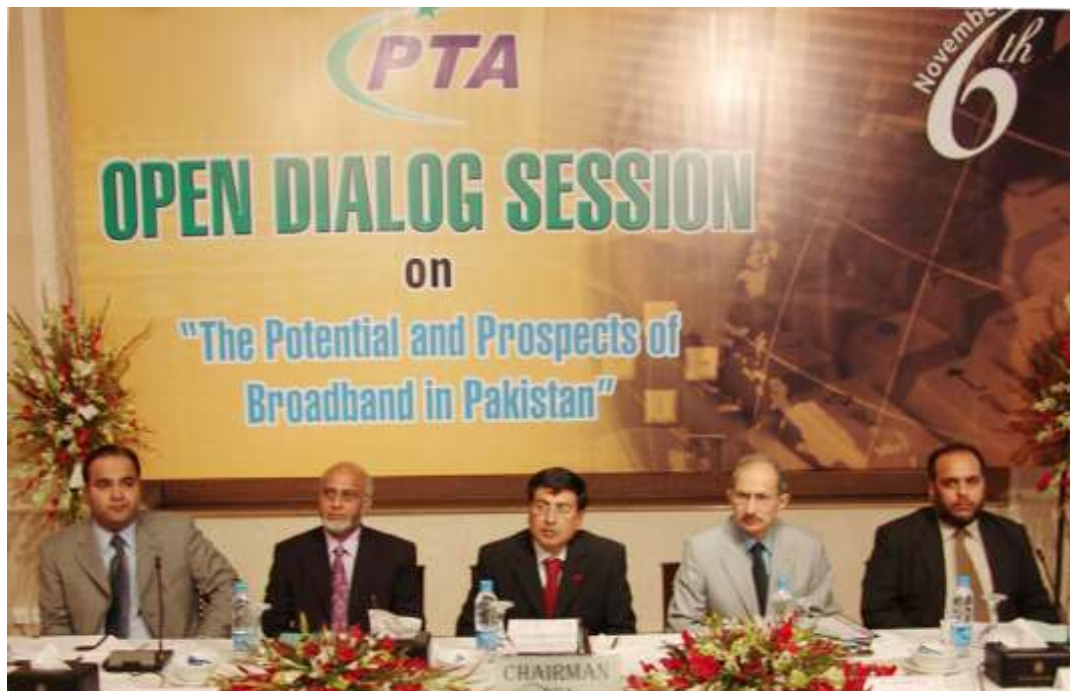
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content development, creating enabling environment and utilization of USF for broadband proliferation etc were discussed.

The participants were briefed of the projects undertaken by the USF and PTA efforts for broadband proliferation. They included laying of optic fiber cable across the country and a pilot project launched in Faisalabad to connect schools, libraries and dispensaries etc. Some of the participants stressed that the government should offer incentives to ICT industry and play its role in creating an enabling environment by taking on board all the concerned ministries and depart-ments. The participants suggested that focus should be made on rural areas, which direly need e-education, e-government and e-health etc. It was also pointed out that "access" is the real impediment in broadband proliferation; therefore, wire-less technology is the best option for its development. In this regard, availability of more spectrum was also stressed.
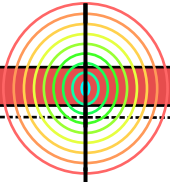
In light of that debate, the PTA constituted Broadband Stakeholders Group with an objective to provide a neutral forum for organizations across the broadband value-chain to discuss principle issues related to broadband development.

## Preparation of ICT Security Guidelines

Recognizing the need for secure networks, a focus group was formed to prepare the network security framework. Subsequent to that, it was realized that the guidelines on the subject need to be provided to the telecom sector, the government of Pakistan and the end users. After lengthy deliber-ations and discussions, the group drafted the security guidelines keeping in view the key matters. These guidelines have been circulated among the stakeholders concer-ned for their comments and feedback, and the same will be issued after incorporating comments of the stakeholders.



Dr. Mohammed Yaseen, Chairman PTA addressing Open Dialogue on "The Potential and Prospects of Broadband in Pakistan".

## Expert Group Forum on ICT Security Framework

The PTA also organized an Expert Group Forum on "Information Security Guidelines for the Government of Pakistan" on 25th November 2008, aspiring to set up comprehensive, pragmatic and implementable security guidelines to be followed for ensuring that the country's national assets and information do not reach the unauthorized personnel. These guidelines would not only prevent information loss, but would also detect and identify the incidents as and when they happen. The Chairman PTA apprised the audience that the PTA intends to establish working coordination with ICT Industry in order to discuss and scrutinize potential security threats being faced by information and communication networks of the country. Apart from the above, the issues like Assessment of ICT assets, Impact of Distributed ICT assets environment, Security guidelines for physical access to assets, Backup Strategy Guidelines, Disaster Recovery Guidelines, Access Control Guidelines, Integration with ICT Infrastructure Security Guidelines, Security Training and Capacity Building of Personnel also came under discussion.

## Transition of .pk Domain

Keeping in view the growing demand & awareness of internet in the country, it is realized that .pk domain should have a local infrastructural presence. In this regard, PTA had been engaged with PKNIC (present ccTLD operator for .pk), and as a result to this coordination, PKNIC has successfully implemented mirroring of .pk Domain Name Server (DNS) inside Pakistan.

## Industry Broadband Issues & Interconnection Agreements

Internet Service Providers of Pakistan collectively approached the Authority for resolution of broadband issues and revision of DSL Interconnection Agreement, which was thought of a one-sided agreement. The Authority took cognizance of the issues and held several meetings with Stakeholders for resolution of various broadband issues including delay in provision of infrastructure, installation of fiber optic cable by DSL operators to PTCL co-locations, non-provision of SLA to DSL operators, refusal to implement DSL provisioning SOPs by PTCL field staff, revision of DSL Interconnect Agreement and higher tariff for IP bandwidth by PTCL.

The PTA started consultation process with DSL operators and PTCL for finalizations of these issues. Costing of broadband services was also carried out to analyze cost components which can be reduced in order to facilitate DSL operators for proliferation of broadband. After detailed consultations and deliberations, the following issues were resolved:

*Approval of DSL Interconnect Agreement*
*IP bandwidth tariff offered by PTCL was reduced.*
*DSL operators were allowed to acquire bandwidth from a third party.*
*DSL operators were allowed to lay their own fiber optic cable on their co-locations.*
*Locked in the rates of leased media charges for a period of one year.*

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## E-commerce Gateway in Pakistan

The PTA has also initiated a consultative process with players concerned in order to develop an E-commerce Gateway in Pakistan. The process has resulted into development of Pakistan's first ever E-commerce gateway, which is to be launched in due course.

## Propagation of M-Commerce

Keeping in view immense growth in the mobile sector, the Authority is working with the Industry to introduce mobile-commerce applications in the country. In this regard, possible introduction of m-ticketing service by a leading International Airline of the country is under-way. Moreover, the Authority is also engaged with a number of stakeholders for
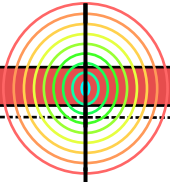
introducing mobile banking services in the country.

## Mobile-Based Information Systems

Today, mobile usage is growing expone-ntially in Pakistan, both in terms of number of users and the amount of activity. The PTA has started its work to utilize this immense growth for betterment of the society. For the purpose, an in-house SMS-based Educational Information system was developed, and successfully handed over to the Ministry of Education for necessary distribution among schools and colleges in the country. The primary theme is to equip schools with an interactive mobile application while broadcasting important information to students and their guardians on their mobile phones. The Authority has developed an advanced version of this application, targeting the agriculture sector of the country.



Mr. Naguibullah Malik, Secretary (IT&T), handing over the software application of "SMS-based Information System" for education institutions to Mr. Abdur Rauf, Secretary (Education). Dr. Mohammed Yaseen Chairman PTA and Dr. Khawar Siddique Khokhar, Member (Technical) PTA are also seen.

## Indigenous Research

The PTA made various studies on emerging technologies and their introduction in Pakistan. The PTA conducted a detailed study on IPv6 wherein it presented a roadmap for the launch of IPv6 in the country. It has been pointed out that IPv4 addresses are getting exhausted, and after some time, no more IP addresses will be available for online applications without implementation of IPv6. The Authority has sent its recommendations to the Ministry of IT&T.

In consultation with the cellular operators, Ministry of IT&T and PTCL, the PTA prepared a research paper on E-commerce and mobile commerce in Pakistan. The industry was contacted to gather inform-ation about e-commerce and mobile comm-erce activities in the telecom sector.

In order to launch Satellite Broadband Services in Pakistan, a study was conducted on Satellite Broadband with a view to thoroughly analyze Pakistan's scenario taking into consideration the factors like geography, service demand, coverage, digital divide, world best practices etc. In this study, the Regulatory challenges in introduction of satellite broadband service have been identified, and recommend-ations have also been made to solve problems in the existing satellite regulatory framework.

## Promoting Competition

Competition in an industry depicts the level of stability of that sector. Since the deregulation, Pakistan Telecom Authority has been undertaking every possible effort to promote competition in the sector., With passage of time, competition has matured in the local sector, and the Authority is now working towards ensuring the best competitive practices in the sector. Following are the few initiatives taken by the Authority in this regard;

## PTCL and ISPs Sign Revenue Sharing Agreement

The PTA is making utmost efforts to remove bottlenecks in the growth of sector. The ISP (Internet Service Providers) industry was not making headway over the past few years and was facing difficulties in expanding its user-base in spite of low tariffs. In this regard, PTCL signed revenue sharing agreements with three major ISPs including Link dot Net, Sky Net and Comsats in January 2009. Under this agreement, ISPs will henceforth offer internet services to general public at zero tariffs on postpaid mechanism. The users will only be charged local call tariffs for 20 minutes pulse by PTCL, the revenue of which shall be shared between PTCL and ISPs. Internet is expected to grow further with such measures.

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## Directive for Advertisement of Government Taxes and Service Charges

The Authority has observed that the cellular subscribers, especially prepaid users, are not fully aware of applicability of the taxes resulting into consumer complaints regarding actual tariffs and unreasonable reduction in balance. The issue was also taken up in a meeting of National Assembly's Standing Committee on Information Technology wherein it was stressed that the telecom companies should clearly inform the consumers about the taxes. In the light of this observation, , the cellular mobile operators were advised to conspicuously mention applicability of government taxes and service charges in their advertisements.

## PTA Directs Mobile Operators to Announce Helpline Charges Through IVR
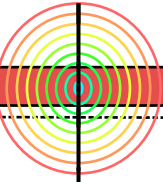
The PTA has observed that most of the subscribers do not know the helpline charges, and operators also, sometimes, do not give 30-day advance notice to the subscribers for change in helpline tariff. Some of the operators are already announcing helpline charges through IVR for information of subscribers. In order to make the helpline charging transparent, the PTA has directed CMOs to mention helpline charges on their IVRs on a permanent basis and ensure compliance.

## Analysis of LDI Operator's Bank Accounts

It came to the notice of the Authority LDI operators are not adhering to the Approved Settlement Rates (ASR) despite issuance of repeated directives. In order to ensure settlement of the international incoming telephony on ASR, all the operators have been directed to maintain separate bank accounts for international remittances as per Access Promotion Rules and Regulations, and provide bank statements to reconcile the rates and traffic.

## Revision of Access Promotion Charges

The Authority conducts regular meetings with LDI and LL operators including PTCL in order to review the levels of ASR/APC and subsequent traffic trends in international call termination and grey traffic patterns. A meeting was held with the stakeholders on 17th June 2009, wherein the Authority noted a marginal raise in grey traffic since last increase in the APC. The Authority also took notice of the fact that hardly any money is being spent from the APC on increasing teledensity by LL operators. Thus, after due deliberations the Authority decided to reduce the APC to US$ 0.055 and Settlement rates to US$ 0.105. The Authority issued a determination on 19th June 2009, and these rates will be applicable w.e.f. 20th July 2009.

## Review of Interconnection Guidelines 2004

The interconnection guidelines were issued by the PTA in 2004 at the time of liberalization of telecommunication market. However, keeping in view the considerable changes occurred in telecom networks/interconnection arrangements and emerging new technologies like NGN, it was deemed appropriate to review Interconnection Guidelines. In order to seek feedback from the industry, the operators were requested to give their comments / suggestions on Interconnection Guidelines. A few responses on Interconnection Guidelines were received, while comments from majority of operators are still awaited. Necessary amendments in the Interconnection Guidelines shall be made after receipt of comments from all the stakeholders.

## SCO Reference Interconnect Offer (RIO)

After deregulation of telecommunication sector in AJ&K and NAs, the SCO being an SMP operator in fixed line was required to submit its Reference Interconnect Offer to the Authority for approval. The SCO submitted draft RIO to the PTA for approval in September 2008. The RIO was evaluated by the PTA in the light of consultations with stakeholders. After due deliberations on various clauses of the SCO RIO, it was approved by the Authority, and the approved RIO has been issued to the industry for implementation of interconnection in AJK and NAs.

## Review of PTCL's RIO for Mobile Operators

The PTCL RIO for fixed line operators was approved by the Authority in May 2005. Several issues were underlined by the PTCL as well as the LL & LDI operators to improve the RIO concerned. Mobilink proposed some amendments in PTCL's RIO for Mobile operators. In this regard, all cellular mobile operators were requested to give their comments on the proposed modifications, along with any other changes need to be made in the PTCL RIO. The operators have submitted their comments, and the Authority has finalized PTCL RIO for Mobile Operators.

## Review of PTCL Co-Location Charges

The PTCL approached the Authority for upward revision of its co-location facility charges as cost of property, fuel, electricity etc had increased considerably. The PTCL was advised to propose its new co-location charges to the Authority, which would be scrutinized and consulted with the industry before application. The PTCL-proposed co-location facilities charges were forwarded to the industry and feedback from all the stakeholders was received. The co-location charges had been revised keeping in view the current situation and the industry feedback.
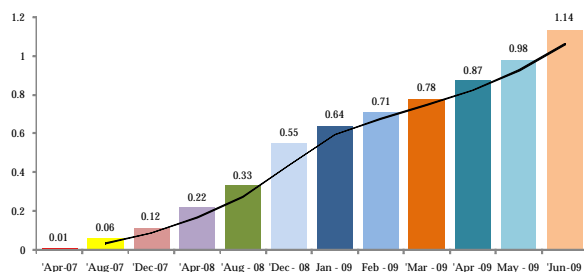
## Mobile Number Portability (MNP)

Pakistan is the first country in South Asia to implement Mobile Number Portability

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(MNP) in March 2007 within a record time period of two years. Pakistan Mobile Number Portability Database (Guarantee) Limited (PMD) was established by the six cellular mobile operators to act as a centralized clearing house for Mobile Number Portability. The PTA closely monitors MNP progress and also compl-aints through PMD. The porting activity has seen consistent growth, with over 1.14 million subscribers having availed the facility by June 2009 since the implemen-tation of MNP project. The Porting activity picked up pace in December 2008 when over 70% of the total porting took place after the December 2008.

## Figure - 3
## Mobile Number Portability



### Framework for Local Number Portability

After the success of Mobile Number Portability (MNP) last year, the PTA planned to study launch of the same facility for the subscribers of fixed line/locall oop networks. Voice Tel-Tech (VTT) was given its consultancy, and the consultant deliv-ered final presentation to the Authority and all PTA officials on December, 2008, which covered all the important issues/benefits and risk factors involved in the launch of LNP in Pakistan. The final report has been received wherein the consultant has

favored the idea and given phase-wise implementation programme. It is expected that the subject will be seriously considered when "Telecom Policy - 2009" will come up for discussions and deliberations.

### Development of Online Web Based Applications for Numbering & Type Approval

The PTA has already automated the process of Number allocation and Type Approval for precise handling of the Numbering and Type Approval cases received by the PTA. The automated software i.e. Online Web Based Applications has proved as conven-ient for applicants while bringing transpa-rency and improvement in processing of the cases.
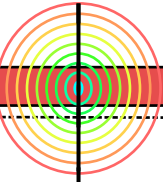
### Type Approval of Telecom Equipment

Type approval granted by the PTA signifies that some particular telecommunication equipment is approved for sale, declared suitable for radio communication or for connecting a specific public telecomm-unication network in Pakistan. The categories of telecom equipment type approved from 1st July, 2008 to 30th June, 2009 are shown in the Table - 2.

## Table - 1
## Equipments Type Approved

| S.No. | Name of Equipment | Quantity |
|---|---|---|
| 1 | Fixed Wireless Terminal | 15 |
| 2 | Wireless Radios | 14 |
| 3 | Wireless LAN Card | 42 |
| 4 | Modem | 02 |
| 5 | Fax Data Modem | 02 |
| 6 | WiFi Terminals | 09 |
| 7 | Video Teleconferencing Terminals | 03 |
| 8 | Bluetooth Module | 02 |
| 9 | WLAN Module | 02 |
| | Total | 91 |

The PTA issued a public notice in national press warning all importers, vendors,

distributors, manufacturers, sellers and users to get type approval from PTA for devices like GSM Fixed Wireless Terminals, Fixed Cellular Terminals Gateways etc, and also Tellular devices before their use. It was warned that the use of such devices without PTA's approval was a serious offence for which illegal devices could be confiscated. A fine to the tune of Rs. 350 million could be imposed and responsible people could be arrested.

## Surveys Conducted by the Authority

The Authority conducts survey on service quality of different services time to time on regular basis to check any violation of license conditions. Besides, surveys are held on demand and requirement. Following is a detail of surveys conducted during the reported period.

### CMTOs Surveys

Quality of Service (QoS) Survey of Cellular Mobile Operators was conducted through NEMO TOOL by all the zones at Rawalpindi, Islamabad, Gilgit, Muzaffarabad, Mirpur, Peshawar, Abbottabad, Lahore, Faisalabad, Multan, Quetta, Sibbi, Karachi, Hyderabad and Sukkur. The parameters checked during the survey were Network Accessibility, Service Accessibility, Access Delay (Call Set Up Time), Retain ability (Call Dropping), Voice Quality and SMSs. Out of these parameters, some were found as improved while the others remained unchanged.

During the reported period, the PTA carried out a series of three surveys on pre-

active SIMs sale at registered sale points. In each survey, a sample of around 20 – 100 pre-active SIMs, where available, was collected from different registered retailers. During the survey, a total of 17 cities were visited and 439 pre-actives SIMs were purchased. It was found that after the issuance of Enforcement Order to all the mobile companies and the raids conducted by the PTA field officers along with FIA, the situation considerably improved.

The PTA also conducted CMTOs Call Centers Survey in Lahore, Karachi and Rawalpindi to check /verify internal verification procedures of non-activated SIMs. The survey revealed that Mobile companies were adhering to PTA's SOP.

A joint survey by PTA and FAB was carried out to check the power level of BTSs transmitters and receivers and other parameters to ensure compliance of clause 10 (1) of the "Protection from Health Effects of Radio Base Station Antennas Regulations, 2008". The survey was conducted from $1^{st}$ April, 2009 to $30^{th}$ June, 2009. The results revealed that power level of all the BTSs surveyed was within the limits.

In order to gauge the Quality Of Service (QoS) being offered by cellular operators to Pakistanis travelling abroad, PTA conducted a limited QoS test (Phase-I) in 2006-07. Later in 2009 PTA initiated an in-depth survey with a reasonably good sample size (for the frequently visited countries) for billing error rate, voice quality, CLI display, call completion ratios, SMS delivery and corresponding delays and also on enhancing its KPIs. A final report containing the recommendation after discussion with CMTOs will be available in the last quarter of 2009.

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## Quality of Service Survey of ISPs

During the period under review Quality of Service Survey of ISPs was conducted by Zonal Offices in seventeen cities. The comparison of the results of ISP Survey 2007 and 2008 has been given in Table - 3. In this survey a significant improvement was observed in Quality of Service when compared to the last year.

### Table - 2
### ISP,QoS Results

| Zones | Good (%) | | Average (%) | | Poor (%) | |
|---|---|---|---|---|---|---|
| | 2007 | 2008 | 2007 | 2008 | 2007 | 2008 |
| Lahore | 40 | 76 | 40 | 15 | 20 | 9 |
| Karachi | 63 | 64 | 31 | 18 | 4.5 | 18 |
| Rawalpindi | 20 | 19 | 60 | 19 | 20 | 62 |
| Peshawar | 7.14 | 43 | 78 | 36 | 14 | 21 |
| Quetta | 100 | 100 | 0 | 0 | 0 | 0 |
| AJ&K | - | 0 | - | 100 | - | 0 |

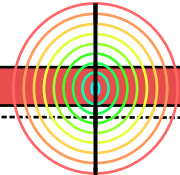## Survey on Quality and Accuracy of PTCL Directory Services

The PTA conducted various surveys to check any violations in the license clauses by the operators during the report period. A survey on "Quality and Accuracy of PTCL Directory Services" was conducted so that the Authority could be appraised about the situation with appropriate recommendations. The survey was carried out in ten major and ten small cities. The survey results revealed that owing to centralized Call Center, the subscribers of local cities (being ignorant to Urdu language) could not get help. The PTCL, therefore, was directed to hire CSRs who speak local language i.e. Pashto etc. Moreover, PTCL was also asked to update its subscriber database for having complete information.

## National Security

Telecom services have spread over all across the country. On one hand, this growth has brought in array of advantages becoming a growth engine for rest of the economy, while on the other, many unsocial activities cropped up in the due course. Consequently, the national security become vulnerable at times, posing threat to peace in the country. Being the regulator, the PTA has to look after all the aspects of the sector, ensuring national security. The poor law and order situation in the country pushed the regulator to take some major precautionary measures to assist the government in curbing unsocial activities and the security threats. The Authority thus took national security as central area of activity for the year 2009. Following are the initiatives taken by the Authority during the year.

## Activation of New SIMs After Verification

The PTA has been taking concrete steps to get registered all cellular mobile users so that cellular mobile technology could not be misused. The Authority has been working in closely liaison with law enforcement agencies and cellular mobile operators. On January 31, 2009, the PTA introduced a new system of new SIM activation after verification of customers' antecedents. Since the day, non-active mobile SIMs were sold which were to be activated only after verification of consumer data from NADRA, subsequently bringing the sale of pre-activated SIMs to an end. Under this new system, a non-activated SIM would be sold to the consumer after checking his original

CNIC and filling of Cellular Service Agreement (CSA) form. The consumer would then call 789 from the same SIM and the Call Center representative would ask him few questions to verify the data. After the online verification from NADRA and if answers were found correct, the SIM would be activated. In case of incorrect answers, the consumer would contact NADRA Swift Center or Customer Services Center of the concerned mobile operator.

The PTA has been continuing efforts to stop functioning of unregistered SIMs under the directives of the Ministry of IT and Telecom and the guidelines given by Senate Standing Committees on Interior, IT and Cabinet. A Standard Operating Procedure (SOP) has been devised to verify SIMs from NADRA database, and the PTA checks violations in this regard . With these efforts, a total of 11.5 million connections have so far been blocked. The Authority continues



Dr. Mohammed Yaseen, Chairman PTA, visits Ufone's New Sale Activation 789 Contact Centre in Karachi on 6th February, 2009

## Blocking of Unregistered SIMs

The PTA has been continuously monitoring sale of new SIMs. The PTA Zonal Offices located at Karachi, Lahore, Peshawar, Quetta, Rawalpindi and Muzaffarabad are checking authorized Customer Services Centers, Franchises and retailers of mobile operators to ensure that no SIM is sold and activated without adopting new procedure already in place since 1st February 2009.

verification of unregistered SIMs, and in this regard, a number of Franchisees and Retailers were inspected in different areas of the country and AJ&K. Besides, during the period under review, two nationwide joint surveys were conducted for sale of new connections. In the light of the survey results, Show Cause Notices were issued to all mobile companies on violation of the PTA's Standing Operation Procedure (SOP) on issuance of new Mobile SIMs/Connections.

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## Detection & Elimination of Grey Traffic

The PTA has been working hard to detect and apprehend grey traffic in the country, which is harming the national exchequer as well as healthy competition in the industry. In this connection, multifaceted approach has been adopted which involves automatic mitigation of unauthorized IP addresses, unearthing of setups/illegal gateway exchanges causing millions of rupees loss to government exchequer for consequent raids by PTA and detection of licensees involved in contraventions of their license conditions. During the last six months, 500+ IPs were blocked on daily basis, 5 cases of illegal exchanges were unearthed and detection of DID service.

Providers. Simultaneously the system identifies undisclosed minutes. Vendors like Tekelec, Teralight and Nexus presented their solutions after which CRPL was finalized as vendor for mediation solution. The required SS7/IP probes have been installed at PTCL premises by NARUS, Tekelec and Nexus which serve as inputs to CRPL system.

## Cross Border Interference

Since July 2006, Pakistan's monitoring agencies and GSM operators have been reporting a problem of interference and spill over signals into Pakistani territory from Afghanistan and India. The problem was conveyed to Afghanistan through appropriate channels. The Afghan
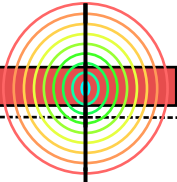


Equipment confiscated during raid against illegal international gateway exchanges in residential areas of Islamabad and Karachi

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

PTA in collaboration with LDI industry, has formed International Traffic Reconciliation System to resolve disputes among LDI operators and also with other Access

authorities showed their resolve to eliminate the problem. As a result, a delegation headed by Chairman Afghanistan Telecom Regulatory Authority (ATRA) visited Pakistan Telecommunic-ation Authority (PTA) on 12th March 2009. During the meeting, the Chairman ATRA also raised the issue of interference signals emanating

from Pakistani side to Afghan territory. Both the Chairmen agreed that complete stoppage of interference and spill over signals across international borders on the either side would be ensured and relevant ITU/APT recommendations would be followed. For the purpose, an SOP was prepared and extended to the Afghan government for implementation.

The Pakistani operators and Frequency Allocation Board have been reporting interference and spill over signals into Pakistani territory from Indian side, all along the eastern border as well the Arabian Sea Coastline from Kashmir to Karachi. The matter was conveyed to India, which could not effectively address the issue due to absence of a mutually agreed SoP. Similar concerns were conveyed by the Indians to Pakistan, specifically in Kashmir area. On receipt of instructions from IT & Telecom Division a draft SoP was prepared and sent to Frequency Allocation Board for comments and finalization for its onward submission to IT & Telecom Division.

## Other Regulatory Initiatives

During the year 2008-09, a number of other regulatory initiatives were taken for growth of telecom sector. They included preparation of different laws and regulations as well as research and consultation papers. Following is a brief detail in this respect.

### Framework for Digital Push to Talk Services in Pakistan

The PTA initiated study of Trunk Radio Regime in order to incorporate Public Commercial Digital Push into Talk Services in Pakistan. The bands 845-851 MHz / 856-860 MHz were identified for trunk radio services in National Frequency Plan. The current regime and its spectrum charging were analyzed in the light of the world scenarios to cater needs of this service. The case studies of 14 countries across Asia-Pacific, Europe, the United States and Arab Regions indicated an impact of the regulatory reforms on push to talk service markets. Consultations with stakeholders have been completed on available technology options, interconnection, roaming, roll out obligations, services scope, tariff regulation, number of licenses to be issued, liberalization of the sector etc. The report would be finalized soon.

### Guidelines for Use of ISM Band In Pakistan

The PTA initiated to formulate clear and transparent guidelines for the use of ISM bands in Pakistan. This task involved a detailed study of the best practices in the world regarding use of ISM bands. These guidelines were prepared in coherence with the technology neutral licensing regime of PTA that included both licensed and unlicensed use of the band. Initial Draft was circulated to both PTA and FAB for in-house comments. After receiving comments, the guidelines have now been published for public consumption.

### Pakistan Maritime Regulatory Framework & Visiting Aircraft Regulations

The PTA initiated a study of Maritime communication systems and International Maritime Communications Regulatory

Framework for developing transparent regulatory framework and spectrum charging regime for maritime communication services in Pakistan. PTA took on board all relevant departments including Ministry of Ports & Shipping, Mercantile Marine Department, Marine Fisheries Department, Naval Head Quarters, Maritime Security Agency and Frequency Allocation Board while preparing this framework. The regulatory framework for Pakistan Maritime would be finalized shortly.

PTA also developed a draft of visiting aircraft regulations to regulate the frequency use by visiting Aircrafts and ships in Pakistan territorial air-space and waters respectively. At the moment, practice is that cases of radio equipment use on board the visiting Aircrafts are not processed through PTA whereas the applications for use of radio equipment on board visiting ships/vessels are processed and forwarded to FAB via PTA. Since, this is a long process that normally takes one to three months, by the time the approval is granted, the ships have already sailed off Pakistani coast. The regulations have been drafted to formalize the procedures for regulating the radio use on board the visiting Aircrafts and Ships.
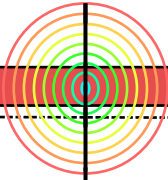
## SOP For Installation of Sub-Meters by Telecom Operators in PTCL's Co-location

The DSL operators approached the Authority complaining that the tariff charged for electricity by PTCL for their collocation spaces was higher than the actual rates of the electricity company. In order to resolve the issue, the PTCL was directed to allow installation of sub-meters

by ISPs/OLOs in February 2009. However, the same was delayed and the Authority pursued the PTCL to prepare an SOP for approval of the Authority. Once the SOP was prepared and submitted by the PTCL, it was shared with the stakeholders and comments were received. These comments were again shared with the PTCL, and after mutual understanding by all parties, final draft of the said SOP was approved by the Authority, which was later circulated to all concerned.

## Implementation of 7 to 8 Digit Fixed Number Migration Plan

The Pakistan Telecommunication Authority (PTA) has devised a comprehensive numbering plan to accommodate growing telephone users especially in the major cities of the country. As part of the plan, the fixed line numbers of the PTCL, the NTC as well as other Fixed Local Loop (FLL) and Wireless Local Loop (WLL) operators in Karachi and Lahore have successfully been changed from 7 digits to 8 digits. The digit "3" has been added to all the existing 7-digit telephone numbers of Karachi and Lahore except the numbers starting from "9", while the digit "9" has been added to all the existing numbers starting with "9". Both old and new numbers were dialable during Parallel Operation Phase (i.e. 1st July to 30th September 2009); however, the numbers in 8 digit format will only be dialable after expiry of the Parallel Operation Phase. During the Announcement Phase (1st Oct to 31st Dec 2009), an announcement will be made by the respective operators about the change in number format. The PTA and all other operators conducted successful tests on their systems for successful implementation of Parallel Operation Phase to make

sure that consumers do not get affected by the change.

The 7 to 8 Digits Fixed Number Migration Plan will be implemented in a phased manner all across the country. In Phase-1, FLL and WLL operators in Karachi and Lahore have migrated from 7 digits to 8 digits numbers. This would create capacity for current and future expansion as these two cities have reached a level where migration was essential to cater smooth growth in the subscriber base of various operators. In Phase-2 (after 1-2 years), the change would be made in other major cities, while in the Third Phase, the rest of the country would be shifted in 3-4 years.

## Implementation of New Numbering Plan in AJK and NAs

In the interest of stakeholders and for convenience of the people, all fixed line and WLL numbers along with area codes have been changed from 10 digits to 11 digits. Areas codes in 15 districts of AJ&K and NAs have been changed into a new Area Code of 5-digit (including digit '0') for each district with 6-digit subscriber number. Now, the 11-digit dialing format is in use (i.e. 5-digit Area Code plus 6-digit subscriber number) for calls between AJ&K and NAs and vice versa. The same also applies for the calls made from other parts of the country to AJ&K and NAs. From 15th February to 15th May 2009, Parallel Operation of old and new numbers including area codes remained in use. After successful completion of Parallel Operation Phase, new 11 digit numbers dialing format was successfully implemented w.e.f. 16th May 2009 and now the caller/public is dialing only the new numbers along with new area codes.

During the Third Phase i.e. Announcement Phase (16th May to 14th August 2009) announcements were made by the respective operators to guide the subscribers about this change.

## Atomic Clock & Timing Synchronization

PTA in collaboration with LDI industry has established the Monitoring & Reconciliation of international telephony traffic (M&RITT) project to monitor and block any illegal voice/IP traffic. It was felt that there needs to be a mechanism to synchronize the timing of system. In order to do so, PTA initiated this project and has been successful in achieving its major goal.

## Rabta Ghar Project

Rabta Ghar project was initiated by the PTA for expansion of telephony and other communication facilities in the remote, rural, unserved and underserved areas of Pakistan. Genuine Intel Dealer (GID) was appointed as vendors to execute deployment of Rabta Ghar in the country. GIDs, started installation and commissioning of Rabta Ghar w.e.f 27th October 2007, and

### Table - 3
### Rabta Ghar

| S. No | Province /Area | Deployed RGs |
|-------|----------------|--------------|
| 1 | Punjab | 82 |
| 2 | Sindh | 104 |
| 3 | NWFP | 86 |
| 4 | Baluchistan | 62 |
| 5 | AJK & NA | 15 |
| | Total | 349 |

completed on November 30, 2008. A total of 349 Rabta Ghar have been successfully deployed all across Pakistan. Every Rabta Ghar is capable to provide internet connection, Fax Machine, Wireless PCO, Scanning machine, photo copier and printer.

# Consultation & Research Papers

A consultation paper on Rationalization of New Radio Frequency Spectrum Charging Mechanism has been prepared by the Authority and floated in the industry for feedback. The final mechanism would be implemented after the approvals from governing bodies.

In order to get an idea of the impact of telecom growth on the Economy, Business and Social Development in Pakistan, through and independent source a detailed study was conducted with a reasonable sample size to measure the impact. The survey included all telecom services. The survey studies & forecasts the impact of telecom services on all sectors of life like employment, business, economy and social setup etc. The final report is expected to be completed by September 2009.

For provision of high quality telecomm services to public, PTA plans to test GPRS-EDGE services. PTA developed GPRS and EDGE KPIs and have floated a consultation paper for industry consultation. PTA plans to complete the process and issue regulations by October/November time frame.
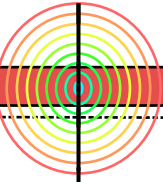
The Authority took initiative to prepare a consultation paper on the NGN interconnection and its charging methodology. The paper covers various technological and regulatory changes in interconnection arrangements and charging principles with introduction of NGNs. It will highlight challenges for the regulators and operators with changing telecommunication networks, and also provide their probable solutions for consultations. In order to assess real issues faced by international roaming users and to address their concerns, the PTA prepared a consultation paper on international roaming tariffs. The comments from industry were received. Dispute settlement is another area where a consultation paper has also been prepared by the PTA.

The Authority was receiving complaints from international roaming users on matters such as high international roaming tariffs, billing transparency, consumer awareness etc. In order to assess real issues faced by international roaming users and to address their concerns, the PTA prepared a consultation paper on international roaming tariffs. The comments from industry were received.

A research paper on dispute settlement mechanism was also prepared and circulated to all PTA officers for comments and suggestions. Also, a technical paper on Lawful Interception (LI) was prepared in order to streamline modalities and counter the issues arising out of this in the future. The paper has been approved by the Authority.

The PTA also prepared a Consultation Paper on "Interfacing IMEI Database with Centralized Equipment Identity Register (CEIR)". In this consultation paper, the PTA proposed that the PMD setup might be utilized for establishing Centralized Equipment Identity Register (CEIR), which will further communicate with the individual

cellular mobile operators' EIR. The comm-unication pattern will be similar to MNP data communication to provide real-time online barring capability for the stolen mobile handsets. For this purpose, the existing MNP database may be utilized by enabling and engaging the user-defined fields available un-used in the Number Portability Clearing House (NPC) database. Alternatively, a separate database running over the same hardware/software platform as enacted for MNP may be used to keep CEIR activities and its corresponding reporting mutually excluded from that of MNP.

The other model proposes that the allocation of IMEI numbers to the generic mobile handsets may be done at the operator level where all the operators will

implement a software solution (outside the EIR DB) to generate and allocate the IMEI number and subsequently, allocate it to the connecting generic device. This informa-tion, then, will be populated in the white list of the operator EIR as well as updated in the central EIR. On reporting of a stolen hand-set, the information shall be communicated to the PMD CEIR, which shall immediately black list the handset and communicate the black list update to all participating network operators' EIRs.

In addition to above there are number of studies and consultation papers underway at the Authority which include following study on slow growth of wireless broadband, In house cabling consultancy and WiMAX infrastructure sharing