

Workshop on Implementing Mobile Number Portability (MNP) Under ITU-ASP Center of Excellence Network PTA Node from 22-24 August 2007 at Margalla Hotel, Islamabad)

INTRODUCTION

A workshop on Implementing Mobile Number Portability (MNP) was held under ITU-ASP Center of Excellence Network PTA Node from 22-24 August 2007 at Margalla Hotel Islamabad, Pakistan. This was the first training program offered from this node which was circulated by Director BDT, ITU vide HCB/DM-265 dated 27-6-2007. All important aspects of MNP implementation process were discussed in the workshop. Eminent experts having hands on experience on MNP implementation process delivered lectures and shared their experiences with the participants. Practical cases were also discussed during different sessions of the workshop for understanding and better comprehension.

Objectives. The objectives of the workshop were:-

- a. To impart theoretical knowledge to the participants regarding MNP implementing process and related issues
- b. To share experience of other countries
- c. Demonstrate the practical handling of Mobile Number Porting
- d. To illustrate the best practices and lessons learnt from real case studies

Participation. This three days workshop was attended by 47 participants from Afghanistan, Bangladesh, Bhutan, Fiji, Egypt, India, Indonesia, Malaysia, Oman, Sri Lanka, Thailand, Uganda and Pakistan. List of participants is at **Annex-A.**

Agenda. Agenda of the workshop is at **Annex-B.**

Opening Session. Chairman PTA, Maj. Gen. (Retd) Shahzada Alam Malik welcomed the participants and said that it was an honor for Pakistan to be selected by the International Telecommunication Union (ITU) to provide training to other countries of the region on Policy and Regulation. He said that the MNP regime has successfully been introduced in Pakistan and PTA will be willing to share this experience with other countries of the region. He said that MNP regime in Pakistan has helped strengthening healthy competition in the market and improving quality of service/ customer care of the country's rapidly growing cellular mobile sector.

Mr. Noor-ud-Din Baqai, Member Telecom (Ministry of IT) delivered inaugural address and said that the establishment of ITU's Centre of Excellence Node in Pakistan is recognition of the country's successful liberalization & deregulation policy and the unprecedented growth that has been witnessed in the country's telecom sector. He said MNP regime in Pakistan has empowered the mobile subscribers to choose any mobile service provider while retaining their numbers.

The address of Head ITU Regional Office for Asia Pacific, Dr. Eun-Ju Kim was read by Mr. Ashish Narayan, Project Manager, ITU ASP Regional

Office, and Bangkok. In her message she said that the Workshop on “Implementing MNP” is an excellent example of PTA’s contribution to share the experiences gathered and lessons learnt while implementing it in Pakistan. The resources available and the wide experience of PTA in this area is an asset to the program.



Islamabad August 22 : The Group photo of participants of International Workshop on ‘Implementing Mobile Number Portability’ organized by PTA



Islamabad August 22 : Chairman Pakistan Telecommunication Authority (PTA) Maj. Gen. (R) Shahzada Alam Malik, Member (Telecom), Ministry of IT & T Mr.Nooruddin Baqai and Project Manager, ITU Regional office, Ashish Narayan during the opening session of international Workshop on ‘Implementing Mobile Number Portability’ organized by PTA.

CONDUCT OF THE WORKSHOP

Day -1

Session-1 (Introduction to MNP by Dr. Muhammed Yaseen, Member Tech, PTA). Dr. Muhammed Yaseen delivered an introductory lecture about definition and background of MNP, importance for competition, role in QoS and comparison with fixed-line portability. Mr. Zahid Minhas, CEO, PMD also delivered a presentation on “MNP Pakistan Prospective” in the same session.

Session-2 (Technologies and Networking by Mr. Shahid Kalim, Proj. Director, Mobilink). During this session, the speaker discussed introduction to Porting (discussion on various MNP processes with limited and unlimited mobility) and technical approaches.

Session3 (Database Concepts-I by Mr. Amir Shahzad, Director, PMD & Mr. Bryan Mordecai, Telecordia Technologies, USA). The presenters discussed concept of centralized, distributed and hybrid data bases, interface with operators (cellular, wireless and fixed-lines), number portability clearing house interface specifications and schema, call routing mechanism and inter operability (mobile-to-mobile, fixed-to-mobile).

Session-4 (Strategic Role of MNP in a Competitive Market by Mr. John Horrocks, Consultant Horrocks Technology Ltd. UK). The presenter talked about “is MNP a means to increase competition or a user right”, formulating the requirement and time table, cost & benefits of MNP,

alternatives to MNP for small countries and observations on its impact and effectiveness.

Day -2

Session-5 (Database Concepts-II by Mr. Amir Shahzad, Director, PMD).

The presenter discussed different post and pre implementation aspects of the database.

Session-6 (Database Options and Plans for NGN by Mr. John Horrocks,

Consultant Horrocks Technology Ltd. UK). The presentation covered the functions needed, alternatives to a central database, the distributed solution used in Malta, partially distributed partially centralized solutions, UK plans for support of NGN and a central database and relationship to ENUM.

Session-7 (Regulatory Framework by Mr. M. Talib Dogar, Director,

PTA). Mr. Dogar discussed various regulatory issues encountered while introducing MNP regime in Pakistan.

Session-8 (Lessons from Other Countries by Mr. John Horrocks,

Consultant Horrocks Technology Ltd, UK). The presenter discussed effects of MNP post and pre implementation scenario in UK, Germany, Ireland, Malta, Jersey, Spain, Hong Kong and parameters about the porting process, charging, involvement of the regulator, tariff transparency and recommended approach for the regulators

Session-9 (Guideline for Preparation of RFQ by Mr. Wasim Tauqir,

DG, PTA). During this session, Mr. Wasim talked about guideline for preparation of Request for Quotation (RFQ)

Session-10 (Formation of Syndicates for the Case Study by Mr. John Horrocks, Consultant Horrocks Technology Ltd. UK). During this session, the syndicates were formed to plan MNP implementation policy on a given case.

Day -3

Session-11 (Tariffs, Interconnection and other issues by Mr. John Horrocks, Consultant Horrocks Technology Ltd. UK). During this session, Mr. Horrocks discussed tariff transparency, mobile termination rates, problems caused by cost-based termination, solutions in different countries, fixed-mobile portability and implementation of onward routing charges.

Session-12 (MNP Process Guidelines by Mr. M. Talib Dogar, Director, PTA & Mr. Hassan Masud, Mobilink). The presenters talked about number portability for a new market and need for proper subscribers' guidelines as well as operator's guidelines, donor's/ recipient's responsibilities and code of practice to discourage anti-competitive behavior and ensuring level-playing field for all operators.

Session-13 (Case Study - Pakistan by Mr. Amir Shahzad, Director, PMD). Mr. Amir discussed technical and regulatory issues, lesson learnt, problems faced and present status and interconnect issues in Pakistan during post / pre implementation of MNP.

Session-14 (Briefing the Syndicates about the Case Study by Mr. John Horrocks, Consultant Horrocks Technology Ltd. UK). During this session, the syndicates were briefed about the requirement of plan which they were to suggest for a given case scenario.

Session-15 (Presentations by the Syndicates & Discussion by Mr. John Horrocks, Consultant Horrocks Technology Ltd. UK). The syndicates presented their plans on given case scenario. The syndicates supported their plans with technical, operational and financial justifications.

Session-16 (Industry Visit). After the closing ceremony of the workshop, the course participants visited the Cellular Mobile Company (Telenor) and Pakistan MNP Database (PMD) Company Limited for demonstration and hands on experience.

EVALUATION

At the end of the workshop, the participants were requested to give course evaluation. They were asked to comment on program relevance, program impact, training material, teaching method, knowledge and preparation of the instructors and general administration. The feedback received from the participants on these aspects is given bellow:

- **Program Relevance.** Participants had to respond to four items i.e. program objectives, length of the program, relevance of the program and the overall content of the course. Among the four items, the highest score was for relevance of the program (4.5/5.0). The lowest item score was for length of the program (4.0/5.0). The average of these four items was (4.3/5.0).
- **Program Impact.** The participants had to respond to three items i.e. stimulation, learning objectives and whether participants were able to

transfer the knowledge gained during the training. The participants found the training stimulating with the highest score (4.36/5.0). The lowest item score was for learning objective (4.2/5.0). The average for program impact was (4.3/5.0).

- **Learning Program.** This consisted of three items i.e. teaching methods, training materials and relevance of chosen topic. The participants rated teaching methods and relevance of chosen topic with the highest score of (4.2/5.0). The training materials were rated the lowest with a score of (3.84/5.0). The average for learning program remained (4.0/5.0).
- **Program Speakers & Staff.** This aspect was evaluated based on four items i.e. knowledge of the instructors, the program administration and management, speakers' presentation skills and speakers' preparation. The knowledge of the instructors, the program administration and management were rated the highest (4.4/5.0). The lowest item score was for speakers' preparation (4.2/5.0). The average for the program speakers and staff was (4.4/5.0).
- **Program Facilities.** This was the last component to be evaluated. There were four items under facilities i.e. class room, food and meals, accommodation, and logistic arrangements. The participants evaluated logistic arrangements the highest with the score of (4.4/5.0) while the class room was the lowest evaluated with (4.2/5.0). The average of the facilities was (4.3/5.0).

Among the five components, program speakers and staff was rated the highest with (4.4/5.0) score followed by the facilitation with the score of 4.3/5.0. The other three components had the equal score i.e. (4.1/5.0).

Budget. The total expenditure for the workshop was approx US\$ 20,300. The US \$ 10,300 are to be provided by ITU and rest amount has been funded by PTA.

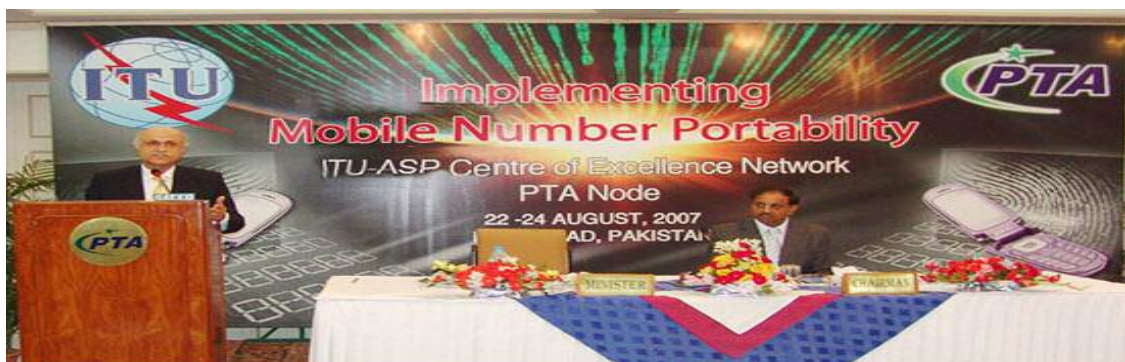
Closing of the Workshop & Certificate Distribution. Minister of State for Information Technology, Mr. Ishaq Khan Khakwani was the chief guest on closing ceremony. Speaking on the occasion, he said that Pakistan has extended help to many countries in the past in their efforts to develop regulatory regime and will offer such assistance to other countries in future as well. He hoped that ITU- ASP CoE Network PTA Node on Telecom Policy & Regulation will prove to be an excellent platform for regional cooperation and sharing of experiences among member countries.

The Minister further said that Pakistan is one of the few countries in the Asia-Pacific region where MNP regime has successfully been introduced. He said that after successfully implementing MNP regime in Pakistan, PTA is equipped with the adequate expertise for planning and implementing MNP and can share this experience with other countries. He hoped that the workshop was useful for the participants. He also appreciated PTA's efforts for hosting the workshop on an important regulatory subject.

On this occasion, the Chairman PTA, Maj. Gen. (R) Shahzada Alam Malik said that ITU has reposed confidence in Pakistan by establishing its Centre of

Excellence in the country. This node has been created with the aim and objective to assist the developing countries of Asia-Pacific region for capacity building of their human resource. He said that this node will offer courses on different policy and regulatory issues each year.

At the end, the Minister for IT&T distributed certificates to the participants and shields to speakers of the workshop.



Islamabad August 24 : Minister of State for IT&T Mr. Ishaq Khan Khakwani addressing the concluding session of the three-day Workshop on ‘Implementing Mobile Number Portability’ organized by Pakistan Telecommunication Authority (PTA). Chairman PTA, Maj. Gen. (R) Shahzada Alam Malik is also seen in the picture.



Islamabad August 24 : Minister of State for IT&T Mr. Ishaq Khan Khakwani is giving certificate to a participant of Workshop on ‘Implementing Mobile Number Portability’ organized by Pakistan Telecommunication Authority (PTA). Chairman PTA, Maj. Gen. (R) Shahzada Alam Malik is also seen in the picture.

List of Participants

| S.No. | Country | Participants' Name | Department/ Organization |
|--------------|--------------------|--|---|
| 1 | Afghanistan | Mr. Timur John Nusratty Legal Counsel Law & Govt. Affairs | Telecom Development Company Afghanistan Ltd. T/A Roshan |
| 2 | Afghanistan | Mr. Mohammad Qahir Wardak Legal & Licensing Affairs Team Leader | Afghanistan Telecom Regulatory Authority (ATRA) |
| 3 | Bangladesh | Maj. Md. Rakibul Hassan Deputy Director (Systems & Services) | Bangladesh Telecom Regulatory Commission (BTRC) |
| 4 | Bangladesh | Mr. Zian Shah Kabir Assistant Director (Systems & Services) | Bangladesh Telecom Regulatory Commission (BTRC) |
| 5 | Bhutan | Mr. Jigme Wangchuk IT Engineer | B-Mobile |
| 6 | Egypt | Mr. Abd Elhalim Mohamed Elchiaty MNP Manager (Numbering) | National Telecommunication Regulatory Authority (NTRA) |

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| 7 | Fiji | Mr. Ateen Alvin Kumar Technical Support Manager IT | Voda Fone Fiji Ltd. |
| 8 | India | Mr. Mohan Kumar Chandra Sajja Senior Research Officer (Mobile Networks) | Telecom Regulatory Authority of India (TRAI) |
| 9 | Indonesia | Mr. Aditya Iskandar Assistant Directorate of Telecom | Directorate General Post & Telecom (DGPT) |
| 10 | Malaysia | Mr. Amirul Ahmad Technical Regulation | Regulatory Department Packet One Networks |
| 11 | Oman | Ms. Zainab Khalfan Al- Farsi Asst. Junior Professional Fundamental Planning | Telecom Regulatory Authority (TRA) |
| 12 | Oman | Ms. Naashiah Saud Al- Kharusi Executive Officer | Telecom Regulatory Authority (TRA) |
| 13 | Oman | Mr. Saleem Abdullah Sa'ud Legal Specialist | Telecom Regulatory Authority (TRA) |

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| 14 | Pakistan | Maj. (Retd) Muhammad Kamil Khan Director - Regulatory, Corporate, Public Affairs / Company Secretary | Great Bear Int'l Services Pvt. Ltd. |
| 15 | Pakistan | Mr. Shahid Mahmood Senior Manger Technical Assistance Centre | PTCL |
| 16 | Pakistan | Mr. Tahir Iqbal Raja Senior Engineer Transit Switching Network IBA | PTCL |
| 17 | Pakistan | Mr. Muhammad Arif Ishtiaq Khan DE (IT), Regulatory Affairs | PTCL |
| 18 | Pakistan | Ms. Raazia Saher Operation Engineer Transit Switching Network IBA | PTCL |
| 19 | Pakistan | Dr. Ghalib Asad Ullah Asst. Prof. | College of E&ME |
| 20 | Pakistan | Mr. Asim Ejaz, Lecturer | College of E&ME |

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| 21 | Pakistan | Prof. Dr. Amir Qayyum | CASE & Jinnah University Islamabad |
| 22 | Pakistan | Dr. Syed Ismail Shah Head, Dept. of Computing & Tech | IQRA University |
| 23 | Pakistan | Engr. Farooq Cheema Faculty Member Dept. of Computing & Tech | IQRA University |
| 24 | Pakistan | Dr. Mehmood Ashraf Principal | Institute of Communication Technologies (ICT) |
| 25 | Pakistan | Syed Shees Ashraf Director (Academics) | Institute of Communication Technologies (ICT) |
| 26 | Pakistan | Dr. Avais Kamal Chief Executive | Opti-Wave Technologies Pvt. Ltd. |
| 27 | Pakistan | Mr. Darya Khan | PTCL |
| 28 | Pakistan | Ms. Bareera Riaz Assistant Regulatory Analyst | Great Bear Int'l Services Pvt. Ltd. |
| 29 | Pakistan | Mr. Fraz Ahmed Telecom Engineer | TEACH |

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| 30 | Pakistan | Lt. Col. Tariq Rashid Bhatti Manager Customer Relation & Admin | Telecom Engineering & Consultant House (Pvt.) Ltd. |
| 31 | Pakistan | Mr. Sajid Shahzad Operation Engineer | Opti-Wave Technologies Pvt. Ltd. |
| 32 | Pakistan | Mr. Muneeb Iqbal Operation Engineer | Opti-Wave Technologies Pvt. Ltd. |
| 33 | Pakistan | Brig. ® Prof. M. Khan Minhas Faculty Member, Electrical Engg. Dept. | Military College of Signals, NUST |
| 34 | Pakistan | Mr. Imtiaz Ahmed Khokhar Assistant Professor | College of E&ME |
| 35 | Pakistan | Inam ur Rehman Strategy Manager Telecom (IT) | LMKR |
| 36 | Pakistan | Mr. Waqas Ahmed DD (IL&T) | PTA |
| 37 | Pakistan | Mr. Ali Faisal AD (IL&T) | PTA |

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| 38 | Sri Lanka | Ms. Tahani Nayam Iqbal Researcher | LIRNEasia |
| 39 | Sri Lanka | Ms. Mayuri Shiwanthi Kodikara Legal Officer | MobiTel Pvt. Ltd. |
| 40 | Sri Lanka | Mr. Don Rasantha Hettithanthrige General Manager | MobiTel Pvt. Ltd. |
| 41 | Thailand | Ms. PHANNIPA SEESAI Engineer (Numbering Mgt Group) | National Telecommunications Commission (NTC) |
| 42 | Thailand | Mr. PICHAJ SUWANAKIJBORIHARN Director (Numbering Mgt Group) | National Telecommunications Commission (NTC) |
| 43 | Thailand | Mr. Sompoch Panthong Manager, CDMA Core Network Engineering Div. | CAT Telecom Public Company Ltd. |
| 44 | Thailand | Mr. Teerawat Ruangtorwong Engineer Regulatory Affairs Dept. | CAT Telecom Public Company Ltd. |

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| 45 | Thailand | Mr. Worasart Juljerm Engineer (Switching & Network Interconnection System Standard Sector) | ToT PLC. |
| 46 | Uganda | Mr. Simon Bugaba Asst. Tech. Manager (Licensing & Standards) | Uganda Communications Commission |
| 47 | Uganda | Mrs. Eileen Nakazzi Kaggwa | Uganda Communications Commission |

Annex –B

| Day 1 - August 22 (Wed) | |
|-------------------------|---|
| 0900-0930 | Registration |
| 0940-1040 | Opening Session -Inaugural Speeches -Group Photographs |
| 1040-1110 | COFFEE BREAK |
| 1110-1140 | Session-1- Introduction to MNP - Definition and background - Importance of competition - Role in Quality of Service - Comparison with Fixed-Line portability |
| 1140-1310 | Session-2 – Technologies and Networking - Introduction to Porting (Discussion on various MNP processes with Limited and unlimited mobility) - Technical Approaches |
| 1310-1410 | LUNCH BREAK |
| 1410-1510 | Session-3- Database Concepts-I - Concept of centralized, distributed and Hybrid Data bases - Interface with operators (Cellular, wireless and Fixed-lines) - Number Portability Clearing House Interface Specifications and Schema - Call Routing Mechanism Inter operability (Mobile-to-Mobile, Fixed-to-Mobile) |
| 1510-1525 | COFFEE BREAK |
| 1525-1700 | Session-4 Strategic Role of MNP in a Competitive Market -Is MNP a means to increase competition or a user right -Formulating the requirement and time table - Cost & Benefits of MNP - Alternatives to MNP for small countries - Observations on its impact and effectiveness |

Day 2 - August 23 (Thu)

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| 0900-0945 | Session-5 Database Concepts-II |
| 0945-1030 | Session-6 Database Options and Plans for Next Generation Networks (NGN) <ul style="list-style-type: none">- The functions needed- Alternatives to a Central Data Base- The Distributed Solution used in Malta- Partially distributed partially centralized solutions- UK Plans for support of NGN and a central database- Relationship to ENUM |
| 1030-1045 | COFFEE BREAK |
| 1045-1230 | Session-7 Regulatory Framework <p>Discussion on various regulatory issues encountered while introducing MNP regime</p> |
| 1230-1400 | LUNCH BREAK |
| 1400-1530 | Session-8 Lessons from Other Countries <ul style="list-style-type: none">- A look at the effects of MNP and what has gone right and what has gone wrong, covering UK, Germany, Ireland, Malta, Jersey, Spain, Hong Kong- This includes parameters about the porting process, charging, involvement of the regulator, tariff transparency- A Recommended approach for the regulators |
| 1530-1545 | COFFEE BREAK |
| 1545-1645 | Session-9 Guideline for Preparation of Request for Quotation (RFQ) |
| 1645-1715 | Session-10 Formation of Syndicates for the Case Study Workshop |

Day 3 - August 24 (Fri)

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| 0900-0945 | Session-11 Tariffs, Interconnection and other issues <ul style="list-style-type: none"> - Tariff Transparency - Mobile Termination Rates - Problems caused by cost-based Termination - Solutions in different countries - Fixed-Mobile Portability - Implementation of onward Routing Charges |
| 0945-1045 | Session-12 MNP Process Guidelines <ul style="list-style-type: none"> - Introduction to Number Portability for a new market and need for proper subscribers' Guidelines as well as operator's Guidelines - Donor's / Recipient Responsibilities - Code of Practice to discourage anti-competitive behavior and ensuring level-playing field for all operators |
| 1045-1100 | COFFEE BREAK |
| 1100-1200 | Session-13-Case Study (Pakistan) <ul style="list-style-type: none"> - Technical - Regulatory - Lesson Learnt (Problems faced and present status) - Interconnect |
| 1200-1230 | Session-14 Briefing the Syndicates about the Case Study Workshop |
| 1230-1400 | LUNCH BREAK |
| 1400-1500 | Session-15 Presentations by the Syndicates & Discussion |
| 1500-1530 | Certificate Distribution |
| 1545-1730 | Session-16-Industry Visit <ul style="list-style-type: none"> - Visit to Pakistan MNP Database (PMD) Company Limited Visit to Cellular Mobile Company (Telenor) |