ITU-D Regional Development Forum for the Europe and CIS Region
“NGN and Broadband, Opportunities and Challenges”
Chisinau, Moldova, 24-26 August 2009

Tariffs and accounting issues under discussion in ITU

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ITU-T Study Group 3
Highlights of achievements
2005-2008 (1)

- Approved a new Recommendation D.99 on Indicative rate for international mobile termination, following the study of data collected via three separate questionnaires
- Approved revisions to Recommendation D.195 on Time-scale for settlement of accounts for international telecommunication services, following extensive discussions
- Approved a new Recommendation D.271 on Charging and accounting principles for NGN

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ITU-T Study Group 3
Highlights of achievements
2005-2008 (2)

- Held dedicated sessions at each meeting on developing country issues, resulting in proposals presented to the study group, to TSAG, to TSB, as appropriate.
- Reached consensus on proposed Terms of Reference for the Expert Group to Review the International Telecommunication Regulations.
- The Regional Tariff Groups each submitted contributions to the work of the Expert Group to Review the International Telecommunication Regulations

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Continued to survey the evolution of various international tariffs, via questionnaires.
Continued discussions on International Internet Connectivity, but consensus could not be reached in SG3 on revision of Recommendation D.50 (but was reached at WTSA-08).
Determined a new Recommendation D.156 on Network externalities, which was submitted to WTSA for approval, and approved (with reservations).

Development of charging and accounting / settlement mechanisms for international telecommunications services using the Next Generation Networks (NGNs) and any possible future development
Development of charging and accounting / settlement mechanisms for other international telecommunications services
Study of economic and policy factors relevant to the efficient provision of international telecommunication services
Regional studies for the development of cost models together with related economic and policy issues
WTSA-08 decisions

- Renewal of Study Group 3
- New management team
- Approval of Recommendation D.156 with reservations
- Revised or new Resolutions adopted
  - Res. 26, Assistance to regional groups of Study Group 3
  - Res. 29, Alternative calling procedures on international telecommunication networks
  - Res. 61, Misappropriation of international telecommunication numbering resources
  - Res. 62, Dispute settlement
  - Res. 64, IP address allocation and encouraging the deployment of IPv6

ITU-T SG 3 role and mandate

- SG 3, Tariff and accounting principles including related telecommunication economic and policy issues
  - Responsible, among others, for studies relating to tariff and accounting matters (including costing methodologies) for international telecommunication services and study of related telecommunication economic, accounting and policy issues. To this end, Study Group 3 shall in particular foster collaboration among its members with a view to the establishment of rates at levels as low as possible consistent with an efficient service and taking into account the necessity for maintaining independent financial administration of telecommunication on a sound basis.
  - All study groups shall notify Study Group 3 at the earliest opportunity of any development that may have an impact on tariff and accounting principles, including the related telecommunication economic and policy issues.
**Introduction (1)**

- A key task of Study Group 3 is the complicated job of recommending some principles for the harmonization of global interconnection rates. Interconnection rates are the costs between telecommunication service providers when linking networks for the exchange of traffic.
- This work has become increasingly complex with the more widespread use of VoIP, and the move to IP based or next generation networks (NGN). More recently SG 3 has surveyed international mobile termination rates, with a view to determining whether there are differences by region and, if possible, what might be causing those differences.
- SG 3’s aim is to keep rates fair, and as low as possible without compromising service. Interconnection rates are a key concern for our members and in particular for the developing countries.

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**Introduction (2)**

- SG 3 is the sole group which deals with tariff and charging issues for international telecommunication services under UN acting as a non-technical study group within the ITU-T.
- Focuses on broad area of telecommunication services from traditional telephone services to new services including NGN.
- Attracts around 160 delegates from 60 countries, from service providers, research institutes, governments, regulatory bodies, etc.

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Structure of ITU-T SG 3 (1)

- **WP 1**: Tariff principles related to the network capabilities and service features made available by new technologies
- **WP 2**: Charging, accounting and settlement of traditional telecommunications services
- **WP 3**: Study of economic and policy factors for international telecommunication services
- **SG 3 Regional Groups [RG]**: Africa, Asia and Oceania, Latin America and the Caribbean, Europe and Mediterranean Basin*, Arab region**
- **Rapporteur Groups**: Terms and definitions dealing with tariff and accounting principles (Q.5/3) and Regional studies for development of cost models together with related economic and policy issues (Q.4/13)
- **Ad-hoc Group**: Developing country issues

* Currently inactive
** To be established

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Structure of ITU-T SG 3 (2)

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Study Group 3

Working Party 1/3 Q1/3
Working Party 2/3 Q2/3
Working Party 3/3 Q3/3

SG3 Regional Groups Q4/3
Terms and Definitions Q5/3
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Structure of ITU-T SG 3 (3)

<table>
<thead>
<tr>
<th>Q./Group</th>
<th>Title/Subject</th>
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<tbody>
<tr>
<td>Q 1/3</td>
<td>Development of charging and accounting/settlement mechanisms for international telecommunications services using the Next Generation Networks (NGNs) and any possible future development, including adaptation of existing D-series Recommendations to the evolving user needs Mobile communications, “IP Telephony”; IIC, Traffic flow multifactors and Internet traffic flow methodology, NGN, Accounting and settlement based on IPDR, enhanced signaling.</td>
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<tr>
<td>Q 2/3</td>
<td>Development of charging and accounting/settlement mechanisms for international telecommunications services, other than those studied in Question 1/3, including adaptation of existing D-series Recommendations to the evolving user needs Mobile/fixed termination rate, Flat rate for mobile/fixed; Accounting/settlement rates for fixed, Alternative accounting procedures, Mobile roaming, Tariff issues for cross-border, etc.</td>
</tr>
<tr>
<td>Q 3/3</td>
<td>Study of economic and policy factors relevant to the efficient provision of international telecommunication services Policy and economic issues, Network externalities; Universal service obligations, Impact of the choice of accounting rate currency; Impact of convergence of services; ITRs, etc.</td>
</tr>
<tr>
<td>Q 4/3</td>
<td>Regional studies for the development of cost models together with related economic and policy issues</td>
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<tr>
<td>Q 5/3</td>
<td>Terms and definitions for Recommendations dealing with tariff and accounting principles</td>
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<tr>
<td>SG3RG-AFR</td>
<td>Study Group 3 Regional Group for Africa</td>
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<td>SG3RG-AO</td>
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<td>SG3RG-LAC</td>
<td>Study Group 3 Regional Group for Latin America and the Caribbean</td>
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Highlights of discussions (1)

- **WTSA-08 results implementation**
  - Restructuring of the SG 3 working parties and management team
  - Confirmation of the newly agreed Questions to be studied in 2009-2012 study period

- **Working methods**
  - Having an agreed objective and a timeline for achieving objectives, in particular for rapporteur groups
  - Inviting a half-day session of workshop or panel discussion at each meeting

- **Collaboration with SG 3 regional groups**
  - Strengthening cooperation and liaison between SG 3 and regional groups
  - Strengthening cooperation between each regional group (e.g. adding “collaboration with other regional group” to agenda items)

- **Approved Recommendations**
  - Approval of revised D.93, Charging and accounting in the international land mobile telephone service (provided via cellular radio systems)
Highlights of discussions (2)

- **International Internet connectivity**
  - Studying on tariff and economic issues regarding IIC including ways and means to reduce the cost of IIC, the use of IXs to reduce the cost of IIC
  - A mini panel on reducing the cost of IIC will be organized at the next SG 3 meeting (September 2009, Uganda)

- **Traffic flow multifactors and Internet traffic flow methodology**
  - Proposal on draft Recommendation D.51, Use of Border Gateway Protocol Routers to Estimate Traffic Flows proposing a method for computing traffic flow for the technical layer to be referred to in bilateral negotiations
  - Technical aspects regarding D.51 has to be further studied
  - A timeline and work plan will be developed at the next SG 3 meeting

- **NGN**
  - Study on enhancing Recommendation D.271, Charging and accounting principles for NGN will be continued incorporating IP data records and enhanced signalling issues

Highlights of discussions (3)

- **Mobile roaming**
  - By recognizing the increasing interest in international mobile roaming and studies being undertaken by many fora worldwide, a Rapporteur group has been created
  - The objective of the work is to explore relevant studies and market developments that are related to a reduction in mobile roaming rates
  - Developed ToR, deliverables, and timeline (TD37-PLen/3)

- **Guidelines based on international and regional practices for resolution of disputes regarding charging**
  - Contributions from GSC (Global Settlement Carrier), USA have been introduced which stressed the importance of dispute prevention and settlement process
  - A rapporteur group has been created with the objective to develop possible guidelines or Recommendations with a view to standardizing the handling of incoming and/or outgoing declarations or invoices so as to prevent disputes by encouraging the use of standard processes and forms
Highlights of discussions (4)

- **Policy and economic issues – IPv6**
  - Following-up on WTSA-08 Resolution 64, BDT and TSB are collaborating for the project to study the allocation and economic aspects of IP address
  - A half-day panel regarding Internet issues that fall within the SG 3 mandate to be held at the next SG 3 meeting
  - Experiences concerning the transition to IPv6 to be discussed at the next SG 3 meeting

- **Network externalities**
  - At WTSA-08, D.156, Network externalities has been approved with reservations from 28 countries
  - Items to be further studied are included as an Appendix to D.156, and the objective is to complete the study by the 2011 SG 3 meeting
  - Contributions are invited in particular from those countries that had expressed reservations and from the regional groups

Highlights of discussions (5)

- **Financial aspects of network security**
  - A study for TAS on Financial aspects of network security: Malware and spam, report from the TAS Seminar on Economics of cybersecurity, Brisbane, Australia, 15 July 08 have been reviewed
  - Considering its importance and interest to developing countries, the report is to be submitted to ITU-D Programmes 1, 2, and 4, and contributions from ITU-D related to economic effects of cybersecurity will be requested

- **Misuse of facilities and services**
  - Liaison from SG 2 on “Alternative calling procedure and phantom traffic” has been noted. It provides information on use of alternative calling procedure, including call-back, refilling, hubbing, bypass, etc. which have a negative impact on developing countries efforts made to ensure the development of sound ICT networks and services
**Contribution topics for the next meeting**

- Economic effects of call blocking on developing countries (Resolution 61)
- How to expedite SG 3 work on international connectivity, to collect data with respect to the implementation and practical effects of relevant resolutions and Recommendations (Resolution 62)
- Allocation and economic aspects of IP addresses (Resolution 64)
- Economics of cybersecurity (especially regarding items 17-21 of TD 17 (PLEN/3))
- Impact of the growing scarcity of IPv4 addresses on settlement rates for voice traffic over IP networks at the wholesale level, termination rates for IP telephony, IIC, NGN
- IP Telephony Rapporteur group’s objectives, deliverables, work plan, timeline
- Ways and means to reduce the cost of IIC
- TFMF issues (in need of traffic flow data offering from membership)
- Dispute process standardization, dispute management guidelines
- Efficiency of bill and keep in relation to billing for call termination
- Experiences in transitioning to IPv6

**SG3RG AO work highlights**

- SG3RG Asia Oceania (used to be TAS Group) conduct study on TAS cost model enhancement from cost orientated to LRIC approach for
  - TAS group cost elements for inward IDD services
  - Apportionment methodology for an incoming IDD telephone traffic cost model
- Has proposed a draft new Recommendation on SMS charging
- Also conduct survey (questionnaire) on the tariff situation in the countries of Asia and Oceania (accounting rate, transit etc)
- A BDT Seminar on topics related to tariff and accounting principles is conducted prior to each SG 3 Regional Group meeting
Other SG3RG work highlights

- The SG 3 Regional Groups for Africa and Latin America and the Caribbean work in the same way as SG3RG-AO and address similar topics.
- However, the priorities of the work items are not the same. For example, D.156 is a priority item for SG3RG-AFR

Conclusions

- Recommendations from ITU-T SG 3 affects major financial flows, which can be in the order of billions of dollars, so very careful study and consideration is required before revising existing Recommendations or agreeing new Recommendations.
- The work of SG 3 will be more critical to developing countries but will also affect developed countries.
- To achieve expected outcome, we should have a clear and agreed objective with specific timeline for each study item.
- Regional study on tariff, accounting and economic issue is needed to ensure the benefits for operators/countries in the regions.
Thank You