



**Asia-Pacific  
Economic Cooperation**

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**2014/TEL49/LSG/004**  
Agenda Item: 3.3

## **Draft Report of Workshop on Quality of Service for Regulators**

Purpose: Information  
Submitted by: Indonesia



**Liberalization Steering Group Meeting  
Yangzhou, China  
25 April 2014**



## **PROJECT OVERVIEW**

- Workshop on Quality of Service for Regulators was proposed at APEC TEL 47 as a self-funded project by Indonesia.
- The project sought to facilitate information sharing through the following activities:
  - A survey of APEC economies' regulatory framework and requirements for telecommunication service providers, including quality of service rules and regulations scheme, consumer protection measures as well as the agencies responsible for implementing and enforcing these rules and regulations.
  - A ½-day capacity building and information sharing workshop at TEL 48.



**SUMMARY OF THE RESPONSES TO  
THE SURVEY OF QOS AND CONSUMER PROTECTION  
REGULATORY FRAMEWORK**



**RESULT OF THE SURVEY OF QOS AND CONSUMER  
PROTECTION REGULATORY FRAMEWORK**

- We have received five responses to the survey from 6 economies. The respondents are Brunei Darussalam, Hong Kong, Indonesia, Malaysia, Thailand and Vietnam.



## SUMMARY OF THE RESPONSES (1)

- Question 1):
  - Does your economy have specific legislation for quality of service (QoS) and consumer protection for telecoms/ICT consumers?
- Question 2):
  - (If Yes), please describe briefly regulatory framework and requirements for telecommunication service providers, including QoS rules and consumer protection measures.
- Summary of the responses to Question 1) and Question 2):
  - Each economy of the respondents has QoS regulatory framework to promote transparency of telecommunications network and service performance to consumers. Governments or regulatory bodies in some economies of respective respondents set some QoS mandatory standards. Telecommunication operators in economies with QoS standards and an economy with led-market approach are requested to publish their respective statistics on actual performance achieved against QoS standards or their own pledges. Non-compliance to QoS Mandatory Standards or operators' own pledges will result in penalty. In some economies, there are guidelines for billing information and payment collection in respect of QoS and consumer protection.



## SUMMARY OF THE RESPONSES (2)

- Question 3):
  - How does regulatory body or service providers in your economy identify QoS parameters and their thresholds for different telecommunication services?
- Summary of the response to Question 3):
  - In identifying QoS parameters and their thresholds/targets, majority of economies of the respondents determine QoS parameters and thresholds/targets through due process of consultation with all stakeholders. Technical parameters and thresholds/targets are identified in accordance with international standards and best practices adopted in other jurisdictions. But for economy adopting market-led approach, QoS parameters are determined by telecommunication network operators and service providers.



## SUMMARY OF THE RESPONSES (3)

- Question 4):
  - Who are responsible for implementing and monitoring mandatory QoS standards in your economy?
- Summary of the response to Question 4):
  - In some economies of the respondents, QoS standards are implemented by telecommunication network operators / service providers and monitored by regulatory body. In certain economy, QoS standards are established and implemented by service provider without monitoring by regulatory body.



## SUMMARY OF THE RESPONSES (4)

- Question 5):
  - Do the agencies responsible for implementing and monitoring QoS standards in your economy have difficulties in collecting statistics? If yes, please explain the difficulties and please describe measures to solve such difficulties.
- Summary of the response to Question 5):
  - Some respondents found no difficulty concerning statistics faced by both service providers and regulatory body. For some economy with QoS monitoring by regulator, to some extent, there are the problem associated with collecting data for measurement. Note: there is difference in sample size among economies of the respondents. For some economies the sample size is 30 test calls while for some other economies they sample size is based on international standards.



## SUMMARY OF THE RESPONSES (5)

- Question 6):
  - What quality of service monitoring survey mechanism does your economy have?
- Summary of the response to Question 6):
  - Some economies of the respondents conduct both technical monitoring and customer survey. But for some other economies of the respondents just conduct technical monitoring.



## SUMMARY OF THE RESPONSES (6)

- Question 7):
  - In case QoS monitoring system based on self-reporting by service providers and followed by auditing by regulatory body, was there any problem associated with data collection? Please describe the problems and how to solve them.
- Summary of the response to Question 7)
  - Some respondents found no difficulty concerning statistics faced by both service providers and regulatory body. For some economy with QoS monitoring by regulator, to some extent, there are the problem associated with collecting data for measurement. Note: there is difference in sample size among economies of the respondents. For some economies the sample size is 30 test calls while for some other economies the sample size is based on international standards.



## SUMMARY OF THE RESPONSES (7)

- Question 8):
  - Does your economy publish operators' QoS achievement? If yes, media for publication:
- Summary of the response to Question 8):
  - Concerning media for publishing the result of QoS measurements, most of economies of the respondents have QoS achievement of service providers published on web site. Even some economies have QoS achievements published through additional media like news paper.



## SUMMARY OF THE RESPONSES (8)

- Question 9):
  - What is QoS standard achievement reporting in your country?
- Summary of the response to Question 9):
  - In terms of reporting, in majority of economies of the respondents, QoS measurement result is reported to regulatory body or to government for audit purpose. Publication of audited QoS report by regulatory body or government is intended for comparing QoS achievement of service providers. Publication by other party, e.g. press, is implemented by certain economy. For economy with market led approach, QoS achievement is published by service providers directly to customers without auditing by regulatory body or government.



## SUMMARY OF THE RESPONSES (9)

- Question 10):
  - Does your economy need separate reporting for different geographical areas, or for cities?
- Summary of the response to Question 10):
  - In respect with separate reporting for different geographical area or cities, most of economies do not require separate reporting.



## SUMMARY OF THE RESPONSES (10)

- Question 11):
  - How frequently should result be reported?
- Summary of the response to Question 11):
  - Frequency of reporting QoS achievement varies for each economy. Some economy require reporting quarterly, some others require reporting every 6 months, and the rest is every year.





## SUMMARY OF THE RESPONSES (11)

- Question 12:
  - Does your economy impose penalty on the service providers for non-compliance of certain QoS key parameters laid down in the regulation? If yes, what is the amount of the penalty and what parameters identified as key parameters?
- Summary of the response to Question 12):
  - Concerning penalty on telecommunication operator / service provider for non-compliance to QoS parameters laid down in regulation, for economy with market led approach, there is no penalty imposed for non-compliance to QoS standards. While for other economies, penalty for non-compliance towards submission of periodic reports shall be levied at different rate. For certain economy, service providers who do not comply with QoS regulation will be asked to improve the service and if they fail in succession without good reasons then they will be fined with the amount that will be determined case by case.



## SUMMARY OF THE RESPONSES (12)

- Question 13):
  - Is the penalty payable to the regulatory body or to affected customer? Please explain the mechanism of imposing penalty in your economy?
- Summary of the response to Question 13):
  - Penalty against non-compliance to QoS standards is payable to regulatory bodies or to government. Regulatory bodies or governments take into consideration before imposing penalty: impact of non-compliance, contributing reasons towards non-compliance and efforts made by the service provider to deal with the emerging position. For some economies, penalties may be imposed to deal with recurring problems. In the cases where relief must be provided to the set of affected customers, direct compensation or adjustments to customer must be provided by telecommunication network operators or service providers.



## SUMMARY OF THE RESPONSES (13)

- Question 14):

- Is there any dispute resolution scheme to anticipate dispute between regulatory body and service provider when imposing penalty? If yes, please explain the scheme.

- Summary of the response to Question 14):

- Concerning dispute resolution to anticipate dispute between regulatory body and service provider when imposing penalty, majority of respondent find no dispute resolution scheme in their respective economies. In case of disagreement with telecommunication network operators / service providers, the disagreement is taken to court. As a matter of practice, the QoS report audit results have been shared with the service providers before actual publications appeared through the web site or press. It allows eliminating chances of wrong interpretation of data.



## SUMMARY OF THE RESPONSES (14)

- Question 15):

- Does your economy give incentives to service providers exceeding minimum QoS target? If yes, please explain the scheme of granting such incentives.

- Summary of the response to Question 15):

- Concerning incentives to service providers exceeding minimum QoS target, at present, there is no monetary or regulatory relaxation for the service providers that exceed minimum QoS target(s). Regulatory body or government undertakes publication of performance data on comparative basis for the competing service providers. It allows customers to exercise their own respective choice or judgments to select the optimal price-quality combination as per respective needs. Hence, superior performance is automatically recognized and brand value is



## SUMMARY OF THE RESPONSES (15)

- Question 16):
  - Does your economy plan to have legislation for QoS and consumer protection for telecoms/ICT consumers?
- Summary of the response to Question 16):
  - Economies of respondents have no plan to have legislation for QoS and consumer protection for telecoms/ICT consumers because the economies have already QoS mandatory standards.



## IMPLEMENTATION OF THE WORKSHOP



## WORKSHOP PROGRAM (1)

- Welcome Address by the Project Overseer, Indonesia (Introduction, Background, objectives)
  - Ikhsan Baidirus (Director of International Affairs, Ministry of Communication and Information Technology / MCIT, Indonesia)
- Session 1:
  - Introduction
  - Session Coordinator: Mr. M. Neil El Himam, Deputy Director for Software Standards and Audit, MCIT, Indonesia
  - Speakers:
    - Quality of Service in Indonesia: Mr. Mochamad Hadiyana, Deputy Director for Quality of Service and Standards Harmonization, MCIT, Indonesia)
    - Telecommunications QoS Regulation in Viet Nam: Mr. Dinh Hai Dang, Department of Science&Technology, MIC, Vietnam
    - Consumer Protection Policy and Enforcement in Mobile Communication Business: Mr. Ying-Ti Chen, Executive Officer, NCC, Chinese Taipei)
    - Thailand's Quality of Service Regulations: Dr. Atiwat Aimdilokwong, Director, Telecommunication Standardization Bureau, Office of NBTC
    - Publication Requirement for Internet Service Providers: Mr. Jason Teo, Senior Manager, Infocomm Development Authority (IDA) of Singapore



## WORKSHOP PROGRAM (2)

- Session 2 (Formulation of QoS/QoE parameters and their targets for different telecommunication services)
  - Session Coordinator: Mrs. Sofi Soeria Atmadja, Deputy director of International Affairs, MCIT, Indonesia
  - Speakers:
    - Quality of Service Regulation in the United States: Ms. Jennifer Steffensen, Office of International Communications and Information Policy, USA
    - Domestic Framework and Measures for Quality of Service in Malaysia: Mr. Azhar Abdul Rahman, MCMC, Malaysia
    - Current QoS Status in Japan: Mr. Wataru Aikawa, Assisstant Director, Telecommunications Policy Division MIAC, Japan
    - Overview of ITU-T SG12 and related Recommendations: Mr. Hiroshi OTA, ITU/TSB (delivered by Mr. Mochamad Hadiyana)
- Presentation of summary of survey responses by Ms. Sofi Soeria Atmadja (on behalf of Director of International Affairs)



Wrap Up and Closing Session

## Workshop Outcomes (1)

- The workshop was attended by 45 delegates with active participation from the members. Delegates of the workshop discussed their economy's best practices and experience in establishing and implementing QoS standards .
- The presentations were uploaded onto the TEL49 website.



## Workshop Outcomes (2)

- Brief summary of discussion notes of the speakers' presentations:
  - Mr. Mochamad Hadiyana shared information about the definition of QoS, the Importance of QoS, rationale for regulating QoS, telecommunication QoS in Indonesia including telecommunication service consumer profile and complaint statistic, setting QoS minimum standards, defining parameters, defining targets, defining measurement methods, QoS regulations, and enforcement. He also address challenges to distribute test sample in an archipelagic country, problem associated with data collection in relation with auditing and accountability, and minimum targets that do not give incentive to service providers to pursue peak performance.
  - Mr. Dinh Hai Dang shared information concerning telecommunications Market in vietnam, services, under QoS regulations, QoS applied standards, procedures of the implementation of QoS standards, enforcement and challenges



## Workshop Outcomes (3)

- Mr. Chen Ying-Ti shared information concerning consumer protection policy & enforcement in mobile communications business. Because consumer disputes in mobile communications, especially in quality, installation and charges, is very high, Chinese Taipei is trying to implement consumer protection measures. The measures, among others, are reviewing mobile telecommunication related operation constitutions, urging operators to improve infrastructures, to enhance network coverage and capacity, to relieve network congestion, and Establishing Dispute Settlement Center for addressing NCC telecommunication service disputes in charge of investigation, settlement, resolution, and amendment of customer policy and regulation.
- Mr. Atiwat Aimdilokwong presented principles of QoS based on ITU-t recommendations, process of establishing QoS standards in NTC which involves public participation, scope of telecommunication service in Thailand subject to QoS standards, QoS parameters with their targets, examples of QoS measurement result, enforcement mechanism, and example of QoS report. He also address problems relates to authenticity of the QoS reports, statistical data collected by operators, no means to double check authenticity of the data, low consumer awareness of the QoS reports, QoS reports which are not easily accessed in the operators website, and reports publishing which are delayed and outdated.



## Workshop Outcomes (4)

- Mr. Jason Teo presented publication requirement for Internet service providers (ISPs) in Singapore. Key factors prompting IDA Singapore to intervene ISPs are disputes, there is a rise in complaints from end users who were dissatisfied with their broadband speeds as compared to the advertised speeds and the difficulty face by end users in making informed choices. Measures taken are setting requirements for ISPs to disclose typical speeds before end users can enter into contracts, disclose on the computation, test results and measurement methodologies (updated on a quarterly basis), and prominently publish on ISPs' websites, brochures, digital and press advertisements. He also inform process of the implementation of QoS in Singapore, including monitoring QoS achievement by service providers.



## Workshop Outcomes (4)

- Ms. Jennifer Steffensen shared the implementation of QoS in USA. She explained that QoS regulations vary across all 50 U.S. States. States generally apply 4 common principles: speed and reliability with which new service is installed, the number of service problems reported by customers, the speed with which reported problems are resolved, and overall customer satisfaction. Telephone providers are required to submit QoS reports on all of these measures to the proper state department. Many but not all, state utility agencies publish online the QoS reports that the companies file. There are no QoS rules for wireless and broadband services. USA apply market-led approach for those services. QoS relies on the competitive market to create incentives for providers to maintain high quality of service. There are private companies that survey users as to their satisfaction with their telecommunications provider. These survey results are reported publicly and often used by the carriers in their marketing materials.

## Workshop Outcomes (5)

- **Mr. Azhar Abdul Rahman shared information with regard to QoS principle based on ITU-T recommendations from definition to basis of QoS parameters selections. He also shared the implementation of QoS standard covering the scope of services under QoS mandatory standards with their parameters, process of establishing QoS standards in Malaysia which involves public inquiry, and also penalty for in compliance to the mandatory QoS standards. He also address MCMC plan to publish service providers' QoS achievement in MCMC website starting from first half 2014, based on quarterly submissions especially for broadband service. Responding to a question regarding measurement location, Mr. Azhar Abdul Rahman said that QoS measurement conducted not only in Peninsular Malaysia, but also in other part of Malaysia including Penang island and Langkawi islands.**



## Workshop Outcomes (6)

- Mr. Wataru Aikawa shared information concerning the implementation of QoS standards in Japan. He said that only voice services that subject to QoS mandatory standard. Fixed phone, IP phone, and mobile phone services are required to comply with QoS standards. QoS measurements are conducted by telecommunication carriers in Japan. Association, including government agencies, select measurement location randomly. Telecommunication carriers conduct and complete measurement. A common measurement server for all telecommunication carriers will be employed. All measurement results will be published and reflected in carriers' advertisements.
- Mr. Hiroshi Ota provided information concerning ITU-T SG 12 and its recommendation which will be references for ragulating QoS.



**THANK YOU**

