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NEW PERFORMANCE INDICATORS ISSUES FOR CONVERGED SERVICES

**A REPORT FROM THE ASIA-PACIFIC TELECOMMUNITY (APT) FORUM
ON TELECOMMUNICATION POLICY AND REGULATION
HELD IN KUALA LUMPUR, MALAYSIA FROM 17-18 MAY 2002**

Introduction and Background

The APT Forum on Telecommunications Policy and Regulation was hosted by Malaysia from 16–18 May 2002. The issue on the need for new performance indicators brought about by convergence were discussed at the Forum and this led to a recommendation that the APT establish a Consultative Group on Performance Indicators to consider issues and initiatives in the Asia-Pacific region.

The discussion on new performance indicators focused on the impact of service convergence due to rapid technological changes that has blurred the traditional performance indicators. The discussion also touched on the use of indicators and the approaches in managing and supervising the industry for consumer protection as the industry move forward in competition, liberalisation and self regulation. In considering performance indicators for the new converged services, the aspects of identifying, implementing, updating and monitoring were discussed.

Inputs to this study were from the views recorded at the APT Forum during a panel discussion on the subject matter as well as follow-ups through emails. The views provided below covered issues on performance indicators in terms of quality of service (QoS) and market or industry performance.

General observations on performance indicators for converged services

APT countries are in various stages of market competition and maturity, liberalisation, as well as experiencing various levels of service convergence in their market place. Although there is such a diverse market and regulatory environment, some views and initiatives from APT members may be observed that may provide us with the way forward on performance indicators for the complex converged services environment.

The general observations are:-

- Performance indicators must be meaningful to the consumers so that they may make informed choices and be aware of their rights. It must describe the attributes of the market accurately for the regulators to act on the indicators and set benchmarks to protect the consumers as well as to manage for the common good of all stakeholders;
- The traditional performance indicators and approaches in managing performance may need to be reviewed or revised in the light of convergence and rapid technological changes for a more accurate picture of the industry and its appropriateness to reflect the socio-economic and demographic profile of a country;
- Convergence has blurred the traditional indicators which we have been used to. New applications services that have emerged out of convergence is complex to handle due to continuous evolution and innovation taking place. A light handed regulatory approach may be the way forward in this environment;

- Moving to technology neutral performance indicators may also provide a way forward to handle rapid technological changes;
- Consumer centred approaches in quality of service issues such as availability of consumer protection mechanisms, consumer education and awareness, consumers service guarantees and consumer satisfaction study or surveys may provide a way to manage the complex converged services environment; and
- Ensuring QoS guarantees or promises to consumers are sustainable, they need to be supported by mechanisms such as service level arrangements (SLAs) and quality systems to be in place such as ISO quality management systems.

Comments on the issues by some APT member countries

1. Australia

Australia's experience is similar to Hong Kong's. In the convergence environment and increased competition, old performance indicators such as penetration rates are not enough for the future. We need new indicators to firstly, assist regulators in carrying out their jobs. Secondly, to explain to the community what progress was made and what is useful to them in their execution of choice as consumers.

Different types of indicators available would appear to be appropriate for different countries, depending on the socio-economic and demographic profile. It is important for there to be a range of indicators available, so that a 'skewed' picture is not presented because of, for example, a developing country using an indicator that is more appropriate for a developed country. The idea of a '*universal indicator*' (particularly in relation to assessing qualitative improvements in service or penetration) may be difficult to find, but perhaps not impossible.

On service performance issues, Australia has a Customer Service Guarantee made by law and incorporated in the Act. It sets minimum performance standards for basic services and it gives consumers automatic credits on their accounts if a telecommunications supplier has taken too long to repair or connect a service.

2. Bangladesh

In addressing the issue of performance indicators, it was noted that in the era of convergence there is a great degree of divergence in member countries. Therefore common benchmarks should be set for member countries to achieve in terms of bridging the digital divide. The community or holistic approach is necessary, so that countries which are on the advantageous side of the digital divide can come forward and help countries which are on the other side of the divide to bridge the digital divide. GDP development is an important performance indicator, but using the benefits and opportunities of the telecom, ICT sectors for bridging the economic and social divide between countries and within countries is also very important.

3. Hong Kong SAR, China

Performance indicators in the narrowband environment should have its counterparts in the broadband environment. The regulator had often received complaints that the performance of broadband is not as fast as expected. Another kind of performance indicator is needed to measure the effectiveness of policy, regulation and competition in markets and the benefits to consumers.

4. India

Performance indicators need to be based on appraisal benchmarks involving consumers and other stakeholders. New parameters for performance indicators are needed and factors such as shortfalls and the reasons for them should be examined in developing them.

In rapid changing era of technological and market convergence, there is a need to revise performance Indicators which are currently based on traditional pattern. These should be an effective performance appraisal system based on comparison with established bench markers, finding variations, reasons for shortfall allowed by corrective measures. This should be with the active involvement of consumer organizations.

5. Malaysia

Malaysia is in the process of developing new sets of performance measures to address convergence and changes brought about by the new convergence legislative framework. The new performance indicators and benchmarks will cover the areas of quality of service and market performance. The indicators and benchmarks will be used holistically towards managing a competitive and liberalised industry to ensure its health for the benefit of consumers. A holistic approach is envisaged to nurture strong and able service providers who will more likely be able to maintain the promised quality of service to the consumers.

In the pre-convergence legislative framework, performance indicators were technologically focused and micro in approach. Such performance measures were difficult for consumers to comprehend and contribute little to consumer awareness of the level of quality that they should get and assist them in choosing a service. Thus technology dependent definitions of service quality are becoming less relevant as service convergence sets in. Malaysia is thus moving away from this for a more technology neutral and consumer focus approach to performance.

Generally, Malaysia will further review performance indicators and benchmarks that are commonly used for macro and micro monitoring and supervision of the industry. At the industry level (macro), areas of performance indicators may include:

- Service take up rates – service penetration,
- Rates or charges/pricing for services,
- Timeliness in policies and issuance of regulatory instruments and standards/benchmarks
- Cost, revenue and efficiency – infrastructure costs , growth in revenue /GDP
- Customer satisfaction
- Quality of service and network performance; and

At the licensee level (micro), performance indicators and benchmarks may include:

- Financial performance (Revenue, Number of subscribers/users and Average Revenue Per User) of licensee
- Customer satisfaction of service provided by licensee
- Quality of Service and Network Performance of licensee's network
- Availability of internal quality standards on service processes or practices (ISO)

The issue of the rapid technological changes and its impact on cost and the way applications and network services are tailored and delivered complicates measurement of macro and micro performance indicators as existing benchmarks become blurred. For example service substitution or cannibalization between mobile and fixed telephone services makes the traditional benchmarks for fixed telephone penetration as a measure of digital divide or wide spread accessibility an inaccurate measure.

The new convergence legislations has organized the communications and multimedia market into four separate vertically separated markets i.e. for the provision of network facility, network service, applications service and content applications service. The framework being technology neutral put further twist to the traditional performance benchmarks which are technology based. Thus existing performance benchmarks need to be reviewed to address the four separate markets.

In consumer focused QoS for example, performance indicators tend to define the service quality at the interface between consumer and the offered applications service. Thus for QoS performance requirements to trickle down, there is a need to have SLAs (Service Level Agreements) between parties in the service delivery chain. Malaysia has set some consumer focused basic mandatory standards for quality of service in traditional services. However in addressing the complex converged services, Malaysia intends to use a light handed regulatory approach to allow for evolution and innovation to take place while depending more on consumer self regulation and consumer satisfaction studies to monitor the market.

In addressing digital divide in the convergence environment, new benchmarks need to be set so that universal service programs may be planned. Malaysia is now using basic access to telephony and internet as our new benchmark for universal service.

The costs involved in the data collection and reporting of performance indicators need to be considered when considering the number and range of performance indicators to monitor. Some performance indicators (especially in quality of service) also need to be measured. A balance in the number of performance indicators monitored and the cost involved need to be obtained so as not to overly burden the industry but effective for the job. In Malaysia such requirements to keep and report on the data are provided for in the legislation. Audit on its records will also be applied.

Non compliance to either record keeping and not compliance to specified performance benchmarks attracts a penalty in the legislation.

6. Philippines

The bottom line for having performance indicators is to measure consumer satisfaction. In the regulator's view, less consumer complaints is a greater measure to indicate good quality of services.

7. Singapore

Singapore takes a pro-active approach in anticipating emerging trends 3-5 years ahead and assessing their implications on national infocomm strategies and policies. Singapore began monitoring the evolution of the convergence of the 3Cs - Compute, Conduit and Content, since the mid-80s. When the time was ripe, one of the first concrete steps Singapore took to address convergence at the policy and regulation, and industry development spheres was in 1999, when the government agencies in charge of IT and telecommunications were brought together to form the Infocomm Development Authority (IDA). In November 2001, the IDA was further transferred to the restructured Ministry of Information, Communications and the Arts (MITA) to allow better co-ordination with her sister agency overseeing the broadcasting industry. In the past year, under the leadership of MITA, the IDA and the Singapore Broadcasting Authority (SBA) has been working together with a view to align Singapore's telecommunication and broadcasting policy, regulatory and legal frameworks to facilitate delivery of convergent-type services (including digital media).

Indicators provided by IDA

Today, IDA publishes 3 categories of indicators/information to inform industry players and businesses, as well as educate consumers on the state of development in the telecommunication industry:

(a) Indicators on growth of Singapore's telecommunication industry

IDA monitors and publishes indicators such as subscriber bases and penetration rates of key telecommunication services, usage figures of certain telecommunication services and the number of licences issued by IDA. These basic indicators help IDA monitor the growth of the telecommunication sector.

(b) Indicators on service quality performance for key services

IDA has established a set of minimum quality of service (QoS) standards for key telecommunication services. Service providers of these services are required to comply with the minimum standards set and IDA monitors their performance to ensure compliance. IDA also publishes the QoS performance of the service providers to help educate consumers and to help them make informed decisions when choosing the service providers they wish to subscribe to. Separately, IDA also conducts consumer surveys to gather further feedback from consumers.

(c) Information on competition management and enforcement decisions

IDA publishes its investigation and enforcement actions taken on licensees for breach of IDA's regulations, licence or any legislation. The purpose is to inform industry players of the types of activities that are found to be anti-competitive or are in breach of IDA's regulations, licence or any legislation to prevent other licensees from committing the same act in the future.

Moving Ahead

IDA constantly reviews the relevance of the performance indicators in the light of changing technologies, changing regulatory environment, phase of development of the telecommunications industry and markets, and impact of emerging trends such as convergence. Performance indicators that are no longer useful are retired and new ones are introduced as and when appropriate.

8. Sri Lanka

In Sri Lanka, performance indicators have been designed following a consumer survey on subscriber attitudes towards the service attributes such as service acquisition, network efficiency, billing, call handling and overall service level. It is important that the regulation realizes the importance of consulting the public in the process of adopting the performance indicator.

One key performance indicator should be the accessibility to the people in terms of cost per phone and cost per call. In an environment of perfect competition, prices should progressively reduce reflecting the efficiency of the operations. Is this happening? Cost consideration should be a macro indicator.

Micro level indicators based on modes of telecommunication facilities such as payphones and the cost of these should be taken in consideration in terms of density measurements. In other countries, other community factors should also be considered.

Improving quality of service to increase customer satisfaction

With the growth of the telecommunications services brought about by liberalising and restructuring the market, subscribers were concerned about the quality. Their main concerns were on service acquisition, network efficiency, billing, fault handling and overall service level supplied by the operators. Therefore, the regulatory body of Sri Lanka had to pay attention to keep the quality of the telecommunications services at a standard level. As an initial step, recognizing the importance of the public consultation in regulatory decision making the Commission handled a survey to identify the existing situation of the quality of the fixed services.

Based on the findings of that survey a set of standards developed by the regulatory commission and was presented to the public through a series of Focus Group Discussions and later were adopted as the performance standards.

Fixed operators are expected to submit their performance on monthly basis for the review of the Commission. For the other operators, they shall comply with quality of service standards conforming to international norms and standards as specified by the authority.

9. Thailand

New performance indicators may be divided into 4 perspectives: financial, customer satisfaction, process efficiency and human resource development. From the perspective of human resource development, there should be some indicators that reflect the era of convergence. In term of customer satisfaction and process efficiency perspectives, individual connectivity and customer switching cost might be indicators.