

Telecommunication Regulatory Commission of Jordan

Input for 2007 GSR Consultation

Using each of the elements listed by the ITU in its invitation letter dated 14 November 2006 as a template it is possible to identify the regulatory touch points that should be addressed as follows:

1.1 Access;

The ITU concept of NGN covers both the Access and Core networks for both fixed and mobile technical solutions, thus all forms of company specific access regulation would need to be reviewed as would any designation orders pertaining to call origination or call termination issues. With a higher preponderance of alternative technologies providing local access solutions including copper, fibre and wireless technologies changes in the way in which the local access network can be viewed and ultimately the concept of unbundling needs to be revisited. Where in the past access has been seen as the "bottleneck" with NGN this should not necessarily be the case.

1.2 Competition;

There is little doubt that NGNs implemented in accordance with the ITU-T definition would lead to higher levels of service competition. The removal of technology specific constraints with respect to the service and transport layers opens competition to non traditional market players. However, the lack of, or limited nature of regulation for the internet market contrasts with the much more heavily regulated telecoms market. Whilst it would be reasonable to say that ex-post regulatory remedies imposed as a result of market failure in the telecoms sector with respect to competition related issues may remain valid and transferable to the internet market it is not so clear with ex-ante regulation. Consequently ex-ante regulations would need to be reviewed in light of potential changes in market definition arising from the convergence between telecoms and internet markets.

1.3 Consumer awareness and protection;

Interestingly consumer awareness may well increase as a result of convergence however so do the problems of protection, which needs to be looked at on many different levels including personal data protection; protection of minors; the protection of end-users from invasion of privacy and unsolicited media. In addition the pervasive nature of IP throughout the core and access networks creates other limitation that need to be considered. Thus there needs to be considerable re-enforcement with respect to consumer awareness of the limitation that an NGN network may have with respect to quality of service and access to emergency services; as well as work with operators and service providers to put in place the necessary measures to limit the potential for invasion of privacy and enhance the capabilities to detect the source of material that is sent unsolicited. As NGNs become more commonplace there will be an increasing need to re-enforce e-commerce and cyber-crime related regulation and laws. This is particularly true for developing countries that have not benefited from the 100+ years of anti-trust and competition law development that has occurred in more developed economies.

1.4 Interconnection;

Interconnection would remain as a corner stone for regulation however the NGN concept raises a number of problems that would need to be resolved. In defining economic or relevant markets the shift from legacy to NGN networks may well begin to challenge these definitions. Also, by separating the transport layer from the service layer the more traditionally recognised points of interconnection for different services tend to converge on a single point thus the number of Points of Interconnection is also likely to change quite significantly. Therefore not only will the number of points of interconnection be reduced but also the physical locations may be different. This raises the question of how to manage the transition from a regulatory perspective; this appears to be being answered by the concept of equivalence as applied in the UK to BT in its migration to 21CN.

Within the converged world of NGN in which interconnection will most likely happen in IP, then end-to-end quality becomes more difficult to manage especially as there are several prioritisation and resource reservation protocols in use today without clear technical standardisation. Data interconnection becomes a more complex issue than that for voice. This is because the nature of the content will vary considerably from simple static content to interactive or video content. It may therefore be necessary to develop a tiered structure to allow for these variations in requirements and the potential cost differential associated with them.

1.5 Investment;

Regulators need to look into the investments decision very carefully before adopting what could be seen as asymmetric regulation in favour of the incumbent. Incumbents would generally seek to maintain the currency of their networks and to ensure that the capacity of their core transport networks keeps pace with the demands of the access network. In short, they will continue to invest in upgrading their existing technology path. It could be argued that such investment decision would tend towards the deployment of the latest technology anyway and therefore the risk associated with investing in NGN technology is to some extent mitigated. Whilst it is clear from a regulatory perspective that there should be encouragement of investment it is as yet unclear what would be the most appropriate remedy with respect to existing, especially SMP, networks. Adjustment to WACC for specific investments may be the way forward but this runs the risk of creating asymmetric regulation and discouraging investment by alternative service providers particularly in the access network.

1.6 Licensing;

Where the licensing of broadcast and telecommunications are still separated this does pose additional problems with operators requiring multiple licenses and the potential of being subject to the rules and regulations of multiple regulatory authorities. It is therefore appropriate to reconsider the structure of regulatory environment and start to create converged regulators where this is not already the case.

1.7 Pricing;

Assuming that retail prices are linked in some way to the cost of service provision it is reasonable to assume that the deployment of NGNs will result in reductions in prices paid by consumers. In the absence of retail price controls that are linked to cost the market must rely on competition to drive prices down towards cost. Interestingly there is a mixed school of thought on how competition will develop and where this will come from. Clearly with an open access network service competition should be strong with the potential products and services only being limited by innovation and thought rather than technical constraints, however this is not so clear for infrastructure competition.

1.8 Quality of service;

In most regulated countries QoS is well established, furthermore many regulators have declared technology neutrality. Hence in theory the existing QoS measures applied to voice for example should be maintained regardless of the technology by which the service is delivered. However this has often not been the case and VoIP has been afforded a more relaxed approach because it is more difficult to achieve the same QoS levels as those offered in a traditional circuit switched environment. However since it is anticipated that over time IP will become the central technology used this could have severe implications for the future in that there will be an overall reduction in the level of quality. One way of addressing this is to allow the consumer to choose their service provider based on the quality that is offered or indeed to create a tiered QoS approach whereby the consumer is able to select the QoS and pay accordingly. Which ever solution is adopted whether to maintain existing QoS obligations or to allow flexible offerings it is essential that there is a supporting awareness campaign to keep the end-user adequately informed and an increasing need for the regulator to monitor and publish comparative QoS reports.

1.9 Universal Access / Service.

Universal service and access will always present both policy and commercial problems. Traditionally Universal Service has been the domain of the fixed incumbent however increasingly the use of wireless technologies has meant that universal access is more commercially viable than fixed access solutions. There has been considerable debate by operators and regulators about the viability of WiMax deployment in rural low income areas. There are claims that it is not commercially viable and therefore if such an obligation were to be imposed some form of compensation fund would be required. In some markets such as India it has been found that locations otherwise considered uneconomic contain stronger demand than would have been anticipated and end-users are making a conscious choice of how to spend their disposable income. This would imply that there may be previously untapped markets in which consumers are willing to adjust their expenditures to pay for services for which there is a perceived value. Therefore it is essential that the appropriate UA and UA fund arrangements are established to take account of latent demand rather than rushing to perpetuate the existing paradigms or indeed establish funds where they may not be necessary.