Regulatory Issues for Next Generation Networks

by

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Abstract:

The main objective of any telecommunication Regulation is to assure, that both existing telecommunication services and the development of new ones are offered to the end users under competitive prices. The best regulation is currently seen to develop free competition inside a liberalized telecommunication market with the objective to establish self supporting competition and thereby allowing reducing or withdrawing regulatory measures. .

Current regulatory policies concentrate – besides others – on indemnifying so called network bottlenecks. Despite abolishing the legal monopoly of the incumbent operators, these bottlenecks give them an economic advantage over their competitors. Accordingly, regulation tries to overcome this economic barrier to entry by obliging incumbents to grant cost based access to bottleneck facilities to competitors. Since regulators aim at achieving a market outcome comparable to a competitive market they take traffic and network aspects into account in order to determine the technical and performance conditions for efficient service provision either for wholesale or end user services.

This contribution exposes the main problems resulting from the introduction of Next Generation Networks (NGN) and describes important models for telecom cost and price regulation and its application to NGN. The paper shows that the main regulation issues resulting from NGN are wholesale broadband access services (bitstream services), interconnection schemes considering fixed mobile integration (FMI) and the introduction of QoS requirements. The contribution identifies the corresponding network bottlenecks mainly situated in the Subscriber Access and Aggregation network part. Furthermore, the contribution focuses on identifying the peculiarities and thus difficulties of determining traffic and cost figures of efficient service provision in NGNs that regulators face. Multiple services as well as multiple and competing players in providing the value chain for broadband services are characterising the NGN.. The contribution shows first results from interconnection studies applied to VoIP and for bitstream access services and discusses its extensions considering forthcoming network architecture and services resulting from the NGN concept.