Traffic trends and QoS in NGN

Abstract

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- There are already a series of mature NGN networks in operation that allow seeing the evolution of traffic flow demands and important changes are derived from the video services, web browsing, social networks and P2P that are the dominant classes in the demand grow. Also in mobile, disruptive demands by the I-phones and Blackberry's are creating new blocking situations in the busy periods at metropolitan network centers of large cities due to the high signaling load. Paper analyses those trends, implications and modeling required for correct dimensioning as well as current status for QoS definitions.

- Modeling for multiservices traffic requires a characterization of service flows per category of content type and per origin destination in the network sources/sinks. A review is done for the flow types from the behavior point of view and for the available models today in the dimensioning process for nodes and links. A process is proposed for the modeling application to the network design and the overload prevention in the control servers

- QoS parameters for NGN are reviewed as currently defined within ITU for the services in the design phase as well as in the operational phase. Fulfillment of target performance values is key to ensure efficiency in the network utilization and in the customer satisfaction. Systematic measurement of traffics generated by new services is a must for the correct application of the dimensioning process and quality assurance.