

NGN Migration strategies and scenarios per network segment

Abstract

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- Network topology design is the most determinant factor when performing the migration of a PSTN towards a modern integrated multi-service network. This paper considers the main factors and steps in the migration of a network topology towards the new architecture of NGN with the new IP mode network elements.
- Architecture alternatives are analyzed as a function of geo-scenarios, network level of development and aging, country growing rates, etc. New network topology with less number of nodes and links of higher capacity are required which imply to review the location of network elements, the network security design and the design methods. Combining evolution at access, local and transit levels allow a good strategy for economic evolution paths towards a full functionality of NGN. Incorporation of IMS to the service handling is now mature and provides more flexibility for introduction on new services and powerful treatment of VPNs.
- Special importance is given today to the modernization of the OSS/BSS functions in order to facilitate the management of new services and the reduction of service operational cost to capture market and increase profitability in competitive revenue generation environment. Main steps for the evolution of different OSS vertical piles towards a horizontal and integrated IT architecture is described as well as the mapping of those steps to the ones of the basic NGN functionalities.