

ABSTRACT

The study would allow TOT to understand better the various methodologies for VOIP and multi-service backbone networks. This study methodology gives the background for doing the actual network design and considerations. A good network design will significantly reduce the Cap-ex and op-ex for the operator. This also shows how a study may be undertaken within a large telecommunications operator for an IP network and review for understanding properly a VOIP and data network that would support a world-class network with inherent quality of service. This study would ensure that the methodology is correct before moving forward with a more defined and in-depth study of an existing network or one that is being implemented which will utilize mature technologies to reduce total network cost while assuring the Quality of Service (QoS) and network performance as required by various voice and data services.

The cost of maintaining a separate network is high and also managing a discrete network is difficult to deploy new service and the bandwidth is also not wisely managed. So service providers should build a multi-services converged network to support voice, video and data traffic.

Service providers are interested in exploring the consequences of providing multiple services over a single converged packet network based on ATM or IP technology. The Network Planning and Design community has developed a general methodology for a design of a packet network supporting multiple services. It has been involved in understanding the networking requirements of its customers in order to plan and design cost-optimized network topologies that satisfy the traffic demands generated by the multiple services. Additionally, such networks must satisfy requirements of robustness, reliability, scale ability, ease of evolution, and assurance of performance objectives and QoS.