

## Pricing For End-To-End Assured Bandwidth Services

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### ABSTRACT

The Internet today mostly offers a simple best-effort mode of service. The capabilities of the Internet will be significantly enhanced if it supports better QoS modes, especially when QoS is provided for end-to-end services. This enhancement in the Internet's capabilities requires both technological development and economic mechanisms to support better QoS service modes. In this article, we study a provider's pricing problem for delivering end-to-end services with expected bandwidth assurance over a Service Overlay Network (SON) architecture. A categorization based pricing scheme is developed, where end-to-end bandwidth services are classified based on the provider's efforts in delivering the services. A nonlinear pricing based model is constructed that interacts with network management infrastructure, responds to customer demand and captures the SON provider's contractual relationships with Internet Service Provider (ISP) networks used for forming the SON.