Quality of Service Control Agent for an Enterprise Network

John M. DeDourek and Venkata Krishna, Tunga BaskaraRao

Many recent Internet applications require the transmission of flows of data across an internet with more stringent requirements than traditional applications. Examples include VoIP (voice over Internet Protocol) telephony, video on demand, streaming video, Internet radio, and live interactive games. Such applications may require less delay and delay variation than traditional web browsing. Various network elements such as routers and switches may provide capabilities for differentiating various classes of traffic and providing differing transmission characteristics to these classes. Signaling and coordination mechanisms are required to ensure that these devices correctly classify and handle the traffic flows.

The described research has designed and is implementing a prototype testbed of a QoS agent to provide the necessary coordination of the QoS features for devices in an enterprise network. Particular consideration is being given to facilitate the adoption of such a mechanism in an existing network. The testbed will be used to demonstrate the coordination of routers for the transmission of audio and video streams with QoS.