

## Overview of Application-Level Session Tracking and QoS Control

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The SRC software has been integrated with the Ellacoya Networks Deep Packet Inspection (DPI) platform to provide a traffic management solution that combines the advanced traffic identification and reporting features of the Ellacoya DPI with the SRC software's intelligent service policy enforcement. With this solution, providers can identify, monitor, and control traffic on a per-application or per-subscriber basis.

Application traffic such as peer-to-peer file sharing or instant messaging, which in many cases originates or terminates outside a provider's network, can cause abusive or indiscriminate consumption of bandwidth and affect a provider's ability to deliver its own services. In particular, services that require higher, guaranteed levels of performance, such as voice over IP (VoIP) or video on demand, can be affected. Having visibility into applications that are transported over the network and their associated bandwidth consumption at various times is important, as is the ability to control those applications.

The DPI solution allows providers to implement service control policies on specific traffic flows quickly and effectively. Such policies include throttling back, capping volume, or even enhancing bandwidth or service quality for sanctioned peer-to-peer applications.

### ***Benefits of Application-Level Session Tracking and QoS Control***

By identifying and effectively controlling traffic at the application level, service providers can:

- Put usage controls on applications on a subscriber basis. For example, you can put a quota limit on the amount of peer-to-peer traffic that a subscriber can consume in a month.

Once subscribers have used their quota, you can apply a policy that throttles back or blocks a subscriber's peer-to-peer traffic, bill the subscriber for additional usage, or allow the subscriber to purchase additional quota.

- Limit the total percentage of network resources that a specific type of traffic is allowed to consume.
- Provide higher or guaranteed levels of performance for premium services by applying QoS control to application sessions. For example, two subscribers start an Xbox Live session. The Ellacoya DPI platform detects activity for this application, and sends application usage counters to the SRC software. The SRC software pushes policies that deliver a specific level of QoS for this application session to a router or other network device.
- Charge subscribers based on their usage of premium content-based services.
- Offer and charge for tiered Internet services based on both speed and application.
- Better support network planning functions by gaining an in-depth understanding of traffic flows and patterns on a per-subscriber and per-application basis.

