Network Settings on SPA8000 Phone Adapter

Objective

The SPA8000 supports the quality of service configuration through SIP (Session Initiation Protocol) and RTP (Real Time Protocol) protocols. Class of Service (CoS) and Differentiated Services (DiffServ) bit can be set through the network setup. Class of Service (CoS) is used to specify a priority value that is between 0 and 7 inclusive that can be used by Quality of Service (QoS) to differentiate packet traffic sent by the user. The DiffServ is a Quality of Service (QoS) protocol used to manage bandwidth allocation for Internet media connections. The DiffServ value is represented in hexadecimal format, which is created by the user based on RFC2474 standard. DiffServ also controls traffic that has priorities based on the Type of Services (ToS). The ToS is used to prioritize packets in the network traffic. The network setup is used to configure the jitter buffer, SIP and RTP CoS values and other parameters as required for the SPA8000. This document outlines the procedures to change various network settings on the SPA8000 Analog Telephone Adapter.

Applicable Device

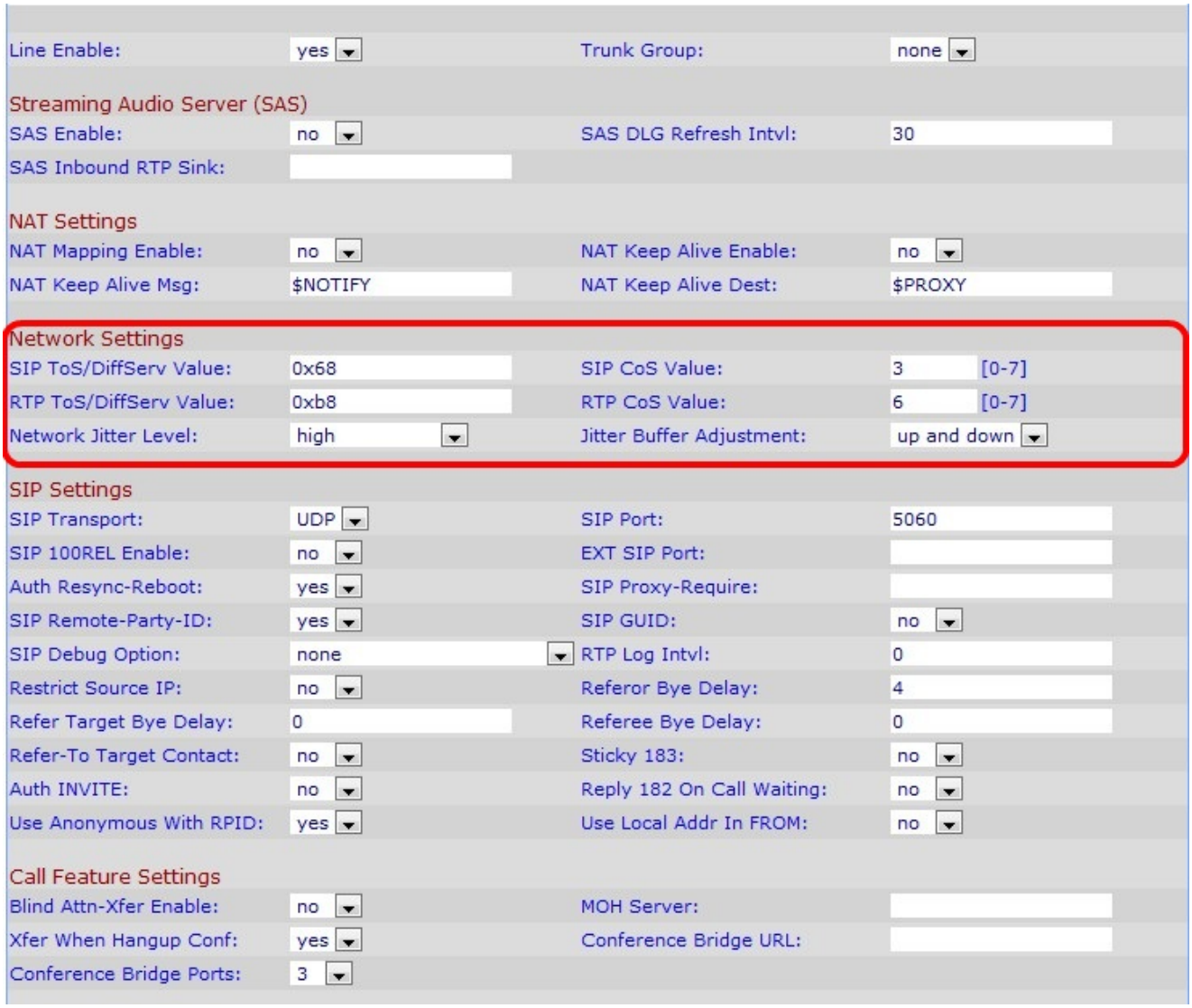
- SPA8000

Software Version

- 6.1.12

Configuration of Network Settings

Step 1. Log into the web configuration utility as an administrator and choose **Advanced** > **Voice > L1- L8**. The *Line page* opens:



Step 2. On the *Line page* page, scroll down to the Network Settings section.

Step 3. Enter a ToS/DiffServ value in the SIP ToS/DiffServ Value field. ToS/DiffServ classifies the UDP IP packets that carry a SIP message. Type of Service field in the IP header is used to set priority for the packets. It is set as 0x68 by default.

Step 4. Enter a CoS value for SIP messages in the SIP Cos Value field. This assigns CoS values to SIP packets. The highest priority has the highest priority. It is set as 3 by default in the SIP CoS Value field. The range for the SIP CoS Vale is [0 - 7].

Step 5. Enter a TOS/DiffServ value in the RTP ToS/DiffServ Value field. ToS/DiffServ classifies the UDP IP packets that carry RTP data. It is set as 0xb8 by deafult.

Step 6. Enter a CoS value for RTP data in the RTP CoS Value field. This assigns CoS values to RTP packets. It is set as 6 by default. The range for the RTP CoS Value is [0 -7].

Step 7. From the Network Jitter Level drop down list, choose an option. The Network Jitter Level determines how the jitter buffer size is adjusted by the Linksys IP phone. This setting controls the rate at which the jitter buffer size is adjusted to reach the minimum. The minimum jitter buffer size is 30 milliseconds. The starting jitter buffer size value is larger for higher jitter levels.

- Low — This level provides a low rate to which the jitter buffer size is adjusted to reach the minimum.

- Medium — This level provides a medium rate to which the jitter buffer size is adjusted to reach the minimum.
- High — This level provides a high rate to which the jitter buffer size is adjusted to reach the minimum.
- Very high — This level provides a very high rate to which the jitter buffer size is adjusted to reach the minimum.
- Extremely high — This level provides an extremely high rate to which the jitter buffer size is adjusted to reach the minimum.

Step 8. From the Jitter Buffer Adjustment drop down list, choose an option. The Jitter Buffer Adjustment controls how the jitter buffer should be adjusted. The jitter buffer is adjusted in order to give direction of how the jitter buffer size would move.

- Up and down — This option allows the jitter buffer to move up and down.
- Up only — This option allows the jitter buffer to move up only.
- Down only — This option allows the jitter buffer to move down only.
- Disable — This option disables the jitter buffer adjustment. There is no control on how the jitter buffer is adjusted.

Step 9. Click **Submit All Changes**.