

Audio Adjustments for ShoreTel IP Phones

KB11000

The audio levels for the handset, headset and speaker are set to default values when the phone boots. These values can be overridden by configuration file settings. The phone supports multiple configuration files, and the last setting encountered in a configuration file wins.

Global Audio Setup

The base configuration file for each phone type is created by the installer, so although new values may be set in these files, they will be lost when the system is upgraded. *Customized audio levels should be set in customized configuration files rather than the base configuration files.* Below is a table showing phone name, model and file names:

ShorePhone Name	Name on Top of Phone	Model Name on Barcode Label Underside of Phone	Base Configuration File Name	Custom File Name c:\inetpub\ftproot\
IP 110	110	S0	shore_s0.txt	s0custom.txt
IP 115	115	S01	shore_s01.txt	s01custom.txt
IP 210	210	S1	shore_s1.txt	s1custom.txt
IP 210A	210	S1A	shore_s1a.txt	s1custom.txt
IP 212k0	212k	S12	shore_s12.txt	s12custom.txt
IP 230	230	230	shore_sev.txt	sevcustom.txt
IP 230G	230G	230G	shore_sevg.txt	sevgcustom.txt
IP 265	265	236	shore_s36.txt	s36custom.txt
IP 530	530	S2	shore_s2.txt	s2custom.txt
IP 560	560	S6	shore_s6.txt	s6custom.txt
IP 560G	560G	S6G	shore_s6g.txt	s6gcustom.txt
IP 565G	565G	S6C	shore_s6c.txt	s6ccustom.txt
BB24	ShoreTel 24	SBB	Shore_sbb.txt	sbbcustom.txt

Single IP Phone Audio Setup

You can use shore_<MAC_ADDRESS>.txt to add the Custom Audio Level for each Individual Phone. You will create a new file called shore_<MAC_ADDRESS>.txt -- where MAC_ADDRESS is the actual MAC Address or Serial Number of the IP Phone.

(Example: "shore_aaBBccDDeeFF.txt") Note You do not use the < >

Custom Ring Tone

You can add a custom ring tones globally or

```
WaveRinger1 L/rg 192.168.0.20/audio/dave.wav  
WaveRinger2 L/r1 192.168.0.20/audio/dave.wav
```

SETTING THE LEVELS

There are four sets of audio levels that can be custom configured: headset, handset, speaker and ringer. Below are the default values for each type:

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Prior to ST6.1:

HandsetLevels	5157,183,258,365,516,728,1029,1631,2303,3254,4596,917,13
HeadsetLevels	6144,183,258,365,516,728,1029,1631,2303,3254,4596,1375,13
RingerLevels	130,258,410,649,1029,1631,2584,4096,6492,10284
SpeakerLevels	4096,258,410,649,1029,1631,2584,4096,6492,10289,16306,13

Here are the parameter definitions:

HandsetLevels	TxGain, RxGain1, RxGain2, RxGain3, RxGain4, RxGain5, RxGain6, RxGain7, RxGain8, RxGain9, RxGain10, Side Tone, Handset DTMF Attenuation
HeadsetLevels	TxGain, RxGain1, RxGain2, RxGain3, RxGain4, RxGain5, RxGain6, RxGain7, RxGain8, xGain9, RxGain10, Side Tone, Headset DTMF Attenuation
RingerLevels	RxGain1, RxGain2, RxGain3, RxGain4, RxGain5, RxGain6, RxGain7, RxGain8, RxGain9, RxGain10
SpeakerLevels	TxGain, RxGain1, RxGain2, RxGain3, RxGain4, RxGain5, RxGain6, RxGain7, RxGain8, RxGain9, RxGain10, Speaker DTMF Attenuation

ST6.1:

HandsetLevels	5157,183,258,365,516,728,1029,1631,2303,3254,4596,917,13,13
HeadsetLevels	6144,183,258,365,516,728,1029,1631,2303,3254,4596,1375,13,13
RingerLevels	130,258,410,649,1029,1631,2584,4096,6492,10284
SpeakerLevels	4096,258,410,649,1029,1631,2584,4096,6492,10289,16306,13,13

Here are the parameter definitions:

HandsetLevels	TxGain, RxGain1, RxGain2, RxGain3, RxGain4, RxGain5, RxGain6, RxGain7, RxGain8, RxGain9, RxGain10, Side Tone, Handset DTMF Attenuation, Call Progress Attenuation
HeadsetLevels	TxGain, RxGain1, RxGain2, RxGain3, RxGain4, RxGain5, RxGain6, RxGain7, RxGain8, RxGain9, RxGain10, Side Tone, Headset DTMF Attenuation, Call Progress Attenuation
RingerLevels	RxGain1, RxGain2, RxGain3, RxGain4, RxGain5, RxGain6, RxGain7, RxGain8, RxGain9, RxGain10
SpeakerLevels	TxGain, RxGain1, RxGain2, RxGain3, RxGain4, RxGain5, RxGain6, RxGain7, RxGain8, RxGain9, RxGain10, Speaker DTMF Attenuation, Call Progress Attenuation

The "TxGain" parameter sets the level of the audio transmitted from the phone onto the network. The "RxGain" values correspond to each of the 10 volume setting levels shown when one adjusts the volume on the phone. "SideTone" is the audio picked up from the microphone and transmitted to the speaker (speakerphone, handset or headset speaker) that provides feedback to the user that the phone is working speaking. Customer experience has shown that sometimes the RxGains are not high enough and need to be customized for an individual system. SideTone gain is very subjective, and is sometimes lowered and sometimes raised. DTMF Attenuation sets the receive DTMF level that the phone user will hear.

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The Plantronics CS50 wireless headset provides its own side tone, plus inserts 20 ms delay between the headset and the phone, which causes some people to say they hear echo when using the Plantronics headset, and in this case headset side tone may need to be reduced. When you speak, Plantronics does reduce the gain on the speaker by -24dB, but when you stop speaking, the gain is turned up, and you can hear the last little bit echoed in your ear.

For example, inserting the following line in "s2custom.txt" or "s6custom.txt" and rebooting the phone increases the headset volume settings 11 dB at the highest setting, which may be required in noisy environments:

Note: ShoreTel 6 added an additional parameter. The examples below reflect the settings prior to that release

```
HeadsetLevels 6144,183,258,409,649,1028,1630,2899,6491,10288,14333,1375,13
```

The same levels could be used for "HandsetLevels", and also for the 210 phone. Inserting the following line reduces the headset side tone by 9.5 dB, which some CS50 users prefer: There were releases and opinions that 460 was found to be a better value for sidetone.

Note: ShoreTel 6 added an additional parameter. The examples below reflect the settings prior to that release

```
HeadsetLevels 6144,183,258,365,516,728,1029,1631,2303,3254,4596,460,13
```

Minimum gain values are 0 and maximum are 32536. Setting values very high may saturate the speaker and create poor sound quality.

N.B.: You can change gains on an individual phone by changing the configuration files and then rebooting that phone. But eventually all phones on the system will obtain these values when they eventually reboot. We do not currently have the ability to individually configure ShoreTel IP phones.

TX Levels	
Gain	Value
Flat 0db	4096
1db	6144
2db	8192
3db	10240
Max 4db	12288