Using the Contactual Registrar: Avaya 46xx SIP Phones

Avaya SIP Phone Configuration

Firmware

The following firmware and handset combinations has been tested and verified:

- Avaya 4621SW IP running SIP load 2.2.2
- Avaya 4610SW IP running SIP load 2.2.2

To obtain the correct release of the Avaya SIP firmware load:

1. Navigate to the following URL: Avaya 4600 Series IP Telephones: Downloads
2. Search for the file labeled "46xxH323_071008.zip" (53 MB).
   This file contains all of the required firmware files needed to support the 4610SW IP, the 4621SW IP, and possibly other (untested) variants of Avaya SIP phones. Contactual Customers should review the license and download terms from Avaya and ensure that they are entitled to download, install, or make use of Avaya's firmware loads.

Dual Registration

Contactual now offers a fail-over for SIP registration. Contactual has enabled this functionality by default in our redistributable configuration file, so customers need not do anything to enable this functionality. Phones will register to: **sip1.mycontactual.com** and **sip2.mycontactual.com** by default.

DHCP Server Configuration

Using the Avaya 46xx SIP phones with the Contactual application requires the use of a local TFTP server which must be defined as a part of your local DHCP scope settings. Although configuring DHCP goes beyond the scope of this article, the following settings are required by the Avaya 46xx SIP IP Phone at boot time in addition to the standard IP Pool information:

- Option 001: Subnet Mask
- Option 003: Router (Default Gateway)
- Option 006: DNS Servers
- Option 015: DNS Domain Name
- Option 066: Boot Server (TFTP Host for Avaya Firmware/Configs)

Contactual has tested this configuration using CentOS 4.2 and Slackware 11.0 using tftpd and dhcpd, though just about any major DHCP and TFTP release should work, assuming the daemon supports case-sensitive filenames.

TFTP Root Configuration

Assuming that you've configured your DHCP settings appropriately, your Avaya phone will boot and attempt to retrieve a series of files via TFTP during its boot sequence. The majority of these files are contained within the ZIP aforementioned ZIP file from Avaya's support page, which contains the base firmware files for your 46xx IP phone. In addition to these files, Contactual provides two critical files that you will need to place in the root of your TFTP server installation expanding the base firmware files.

To download these files, click the following link: Contactual-Avaya TFTP Settings

TFTP Overview

- Expand contents of "46xxH323_071008.zip" to TFTP Root
- Expand contents of "atftp-config.zip to TFTP Root, overriding any files if prompted
- Edit 46xxsettings.txt and complete "Mandatory" settings portion (Note: set domain)
- Edit advanced settings (optional)

Once you have all the files extracted, you need only edit your "46xxsettings.txt" file and update the "SIPDOMAIN" parameter with a setting that is appropriate for your company. We recommend using something similar (or equal to) your company's public domain name. You may also choose to disable G.729 support if you prefer to only use G.711 alaw as your voice codec. Most users will not need to touch any other settings in this file.
Note: Please do not enable G.711 alaw without checking with Contactual Support if your platform supports this. Contactual may ban unauthorized VoIP clients attempting to communicate with G.711 alaw.

Handset Extension Configuration

By this point, your TFTP server should be fully configured. If all is well, your phone should boot and prompt you for an extension, which may be any number between 1-6 digits. This extension will become registered with the Contactual Datacenter and will become available for use in the Contactual Application.

If you set your extension to "1234" and your SIPDOMAIN in 46xxsettings.txt was set to "mycompany.com", your SIP URI for use in the Contactual Application would be "1234@mycompany.com". You will simply enter this value into the "SIP URI" field in the Agent GUI's Profile screen.

Do not enter a Domain name. Make sure that this field is blank.

Once you save the configuration, try a verification call.