

Sending Instant Call Notifications using XMPP and Asterisk.

By Matthew Gibson

Being telephony geeks, most of us have probably heard of Jabber before, but have you heard about the benefits of using it in conjunction with Asterisk? Extensible Messaging and Presence Protocol (XMPP) is an open source messaging protocol that powers Jabber networks and allows for easy, secure integration into your corporate network. Since version 1.4 of Asterisk we now have the ability to send simple notifications to users of incoming calls and other interesting items. Asterisk has been in the press recently for its ability to link with Google Talk, but what hasn't been publicized is the ability to link with other Open Source XMPP servers. This brief tutorial will show you how to setup Instant Call Notifications using your Jabber server, or Google Talk. You can take this information and extend it into whatever neat application you or your CIO can think of.

BACKGROUND

The system we will be using for this tutorial is Ubuntu Server and Asterisk 1.4. Our XMPP Server is running a customized Ejabberd 1.3 Service with PSI IM Client. Any Linux or UNIX system with Asterisk 1.4 will work. For the purposes of this article we assume that Asterisk is installed and configured, and that you have the XMPP Service and required User Accounts already setup. Simple eh?

REQUIREMENTS

- Working Asterisk Server installed from Source
- Understanding of CLI Linux
- XMPP Server (Jabberd, Ejabberd, Wildfire, Etc)
or
- Google Talk Account

FIRST STEPS

The setup and installation of Linux on your Asterisk and Jabber Server are not covered in this document, and a general familiarity with Linux is expected to be able to complete the setup. You may use a single server to setup both Asterisk and the Jabber Service depending on the hardware that you have available. In a production environment one would always want to have a separate server for their Asterisk PBX and XMPP Jabber servers.

XMPP / JABBER SETUP

The setup of the XMPP Server or Google Talk accounts should be relatively straight forward. If you are using Google Talk, simply note your login information. If you are using your own XMPP Server, create an account for Asterisk and note the information down before starting. Now we can move on to configuring asterisk for Instant Call Notifications.

ASTERISK SETUP

Edit *jabber.conf* in the Asterisk configuration directory, if it doesn't exist copy it from the Asterisk Source Configs directory first. Modify with your server information.

```
[asterisk]
type=client
serverhost=xmpp.server.tld
username=asterisk@xmpp.server.tld/resource
secret=plaintext-password
port=5222
```

Now, modify one of your extensions so the Jabber application is called first to send a message. The username you send to here should be different than the one in *jabber.conf* above. Note that each "exten" line should be one line in your config file.

```
exten => 10,1,JABBERSend(asterisk,user@host.tld,
Call from"${CALLERID(name)}"
at number
<${CALLERID(num)}>
on
${STRFTIME(,EST5EDT,%A %B %d %G at%l:%M:%S %p)} )
exten => 10,n,Macro(stdexten,100,100)
```

TESTING

That's all there is to it. Now you will want to test your setup by restarting asterisk and placing a call to the extension you have the Instant Call Notifications setup on. In our example we are using extension number 10. You should see a message similar to the following popup in your instant messenger client.

```
Call from <USER> at number <NUM> on <DATE> at <TIME>
```

If a message does not appear, take a look at your Asterisk logs for debugging information, or start Asterisk in Debug mode and try calling your extension again.

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LINKS

Flewid Inc. - <http://www.flewid.ca>
Ejabberd - <http://www.ejabberd.im>
Jabberd - <http://www.jabberd.org>
Google Talk - <http://www.google.com/talk/>
Wildfire - <http://www.jivesoftware.org>
Asterisk PBX - <http://www.asterisk.org>
PSI Instant Messenger - <http://www.psi-im.org>