



IAXy Configuration Guide



Hello! and thank you for purchasing the Digium IAXy CPE Device! The IAXy is a single-port Ethernet-to-telephone adapter designed for use with Asterisk, The Open Source PBX. This document covers layout, power requirements, booting and provisioning of the IAXy. If you have any questions, please feel free to send an e-mail to support@digium.com. Good luck and thank you for your business.



Physical Layout

The orange-colored side of the IAXy features four components. From left-to-right they are: RJ11 telephone interface, a small recessed Reset button, 10baseT Ethernet interface, and Power interface. The IAXy measures 65mm x 65mm x 28mm (w x d x h).

Power Requirements

If you purchased your IAXy with a Digium power supply, continue to the next section. Otherwise read this section.

The IAXy has specific power requirements. You will need a 9-volt switched or regulated Power Supply outputting at a minimum of 800mA with tip positive, and a plug measuring 5.0mm outer diameter and 2.5mm inner diameter to power the IAXy. A regulated power supply is preferred, as a switched power supply may cause an audible hum to be present on the line on lower quality analog handsets.

CAUTION: Do not use an unregulated or unswitched power supply with the IAXy. Doing so will cause the unit to function unreliably and may cause it to fail.



Booting the Unit

The IAXy requires that you plug in the interfaces in specific order. The easiest suggestion is to follow a left-to-right methodology.

- 1 Plug in the telephone cord
- 2 Insert the Ethernet cable
- 3 Power up the unit

The key point here is that the telephone cord and Ethernet cable must be inserted before power is applied. Failing this, the unit will not boot completely and will not properly initialize the telephone device.

Upon booting, the unit will seek out an IP address from a DHCP server. The easiest way to determine the IP of the IAXy is to monitor either your syslog, messages, or your `daemon.log` file in `/var/log`. You can watch real-time changes to these files by using the tail command such as:

```
$ tail -f /var/log/syslog
or
$ tail -f /var/log/messages
or
$ tail -f /var/log/daemon.log
```

Provisioning the IAXy

Once the IAXy has booted, it needs to be provisioned in order that it might register as an IAX friend with your Asterisk server. The provisioning process specifies the IAX username, password, and host. To provision the IAXy, you will need the provisioning utility that can be downloaded by following these instructions:

```
$ cd /usr/src
$ export CVSROOT=:pserver:anoncvs@cvs.
    digium.com:/usr/cvsroot
$ cvs login (the password is anoncvs)
$ cvs co iaxyprov
$ cd iaxyprov
```

The iaxyprov package will contain the following files:

```
Makefile
frame.h
iaxydebug.c
iax2.h
iaxy.conf.sample
provision.c
provision.h
```

Build the provision utility by executing the `make` command.

Once this is done, modify the `iaxy.conf.sample` file to fit our needs:

```
;  
; IAXY Provisioning description  
;  
dhcp                ; (DHCP enabled)  
;ip: 192.168.0.100  ; (Set a static IP for the IAXy)  
;netmask: 255.255.255.0 ; (Set a static netmask)  
;gateway: 192.168.0.1 ; (Set a static gateway)  
codec: ulaw         ; (use G.711 ulaw codec)  
;codec: adpcm       ; (use ADPCM codec)  
server: 192.168.0.1 ; (the IP of your Asterisk server)  
;altserver: 192.168.0.2 ; (IP of your backup Asterisk server)  
user: myusername    ; (the username assigned to the IAXy)  
pass: mypassword    ; (the password assigned to the IAXy)  
register            ; (Registration on)  
;heartbeat          ; (Generate status packets on port  
; 9999 sent to 255.255.255.255  
  
;debug              ; (Output extra debugging to port 9999)
```

Now that we have configured our `iaxy.conf.sample` file, we can provision the IAXy with the following command:

```
./iaxyprov <ip of the IAXy> <file>
```

i.e.:

```
./iaxyprov 192.168.0.100 iaxy.conf.sample
```

If registration is successful, you will receive a notice on the command line.

Now power to the IAXy should be cycled. When the IAXy powers back up, it will emit a yellow light after it has acquired an IP address and has registered with your Asterisk server. If you do not see a solid light after 20 seconds, the IAXy has failed to register itself with your Asterisk server—please reprovision the IAXy and try again.

If you are having trouble with installation, or need further help or support in any way, please contact support@digium.com.





Configuring Asterisk to work with the IAXy

To configure Asterisk to accept your IAXy, you will need to set it up in the `/etc/asterisk/iax.conf` file. Here is a sample entry:

```
[iaxy]
type=friend
accountcode=iaxy
host=dynamic
secret=yoursecretpassword
context=yourcontext
disallow=all
allow=ulaw
;allow=adpcm
callerid="My IAXy" <(555) 555-1212>
trunk=no
```

Once the IAXy has been added to the `iax.conf` file, you must execute a reload of Asterisk for the changes to be enabled:

```
asterisk -rx reload
```

In order to call the IAXy, it must be added to your dialplan. You can call the IAXy from the `/etc/asterisk/extensions.conf` file as follows:

```
exten => 1234,1,Dial (IAX2/asteriskhost.company.com@iaxy/s)
```



**150 West Park Loop
Suite 100
Huntsville, AL 35806
(877) LINUX-ME!**

