IAXy Configuration Guide

Hello! and thank you for purchasing the Digium IAXy ATA Device! The IAXy is a single-port Ethernet-to-telephone adapter, speaking the Asterisk-native IAX protocol, and 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>.

Physical Layout
The back side of the IAXy features four components. From left-to-right they are: RJ11 telephone interface, a small recessed factory default configuration button, 10baseT Ethernet interface, and Power interface.

The IAXy measures 73mm x 84mm x 28mm (w x d x h).

Power Requirements
(If you purchased your IAXy with a Digium power supply, you may skip this section.)

The IAXy has specific power requirements. You will need a 6-volt switched or regulated Power Supply outputting at a minimum of 1000mA (1 Amp) with tip positive, and a plug measuring 3.8mm outer diameter and 1.1mm inner diameter to power the IAXy. The plug fits a Switchcraft (TM) RAPC712 power jack.

CAUTION: Do not use an unregulated 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
$ svn co
        http://svn.digium.com/svn/iaxyprov/trunk
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.
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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)
```

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