

Octasic Software Echo Cancellation

Product Information

OctWare's SoftEcho is a simple to integrate echo cancellation application for Asterisk® based IP PBX systems up to 8 channels.

SoftEcho is a cost-effective way for Asterisk integrators to leverage Octasic's sound processing expertise to offer carrier grade voice quality. In addition to keeping integration quick and simple, SoftEcho effectively eliminates customers' support calls about unsatisfactory voice quality.

Based on years of experience in trunk side as well as local side network echo cancellation, SoftEcho's algorithm is auto-tuning meaning that no adjustments are necessary: just install SoftEcho and your IP PBX will offer superior voice quality.

Requirements

- A x86 (32 bit) or x86_64 (64 bit) Linux machine running a 2.4 or 2.6 series kernel
- Internet access to register your Octasic licenses with their registration servers

Step 1 of 5: Build the octvqe kernel module

- cd /usr/src
- Download the appropriate tarball for your server architecture:
32 bit: wget <http://www.octware.net/pub/octvqe8/32-bits/latest/octvqe8-01.04.00-pr-base.tgz>
64 bit: wget <http://www.octware.net/pub/octvqe8/64-bits/latest/octvqe8-01.04.00-pr-base.tgz>
- tar zxvf octvqe8-01.04.00-pr-base.tgz
- cd octvqe8-01.04.00-pr
- cp -rf octvqe /usr/src/zaptel-<version>
- cd /usr/src/zaptel-<version>/octvqe
- make
- make install
- killall octvqed
- rmmod octvqe
- depmod

- modprobe octvqe

Step 2 of 5: Rebuilding the Zaptel module with Octasic support

Since the default Zaptel libraries do not contain Octasic software, it must be recompiled with such support. These instructions assume you are using a Zaptel version above 1.2.12 (or above 1.4.0 in the 1.4 series).

- `cp /usr/src/octvqe8-01.04.00-pr/octwareec14.h /usr/src/zaptel-<version>`

Open `zconfig.h` in the Zaptel source directory with your favorite text editor. Search within the file for keyword `ECHO_CAN` and replace the default echo cancellor with the Octasic/OctWare one by commenting out the old line and adding the following line:

- `#define ECHO_CAN_OCTWARE`

Now open `zaptel-base.c` in your favorite editor, search for the keyword `ECHO_CAN` and add the following lines in their appropriate section:

- `#elif defined(ECHO_CAN_OCTWARE)`
- `#define ZAPTEL_ECHO_CANCELLER "OCTEC"`
- `#include "octwareec14.h"`

Now recompile and reinstall the Zaptel drivers:

- `make`
- `make install`

Reload the Zaptel module in kernel space:

- `rmmod zaptel`
- `modprobe zaptel`

Step 3 of 5: Activating your Octware licenses

- Download the appropriate tarball for your server architecture:
32 bit: `wget -O /usr/local/sbin/octreg http://www.octware.net/pub/register/32-bits/latest/register32`
64 bit: `wget -O /usr/local/sbin/octreg http://www.octware.net/pub/register/64-bits/latest/register64`
- `chmod 500 /usr/local/sbin/octreg`
- `octreg`

If you have technical difficulties with license registration please contact Zapmicro support. Our contact methods can be located in the footer of this document.

Step 4 of 5: Installing the Octasic OctWare daemon

- cd /usr/src
- Download the appropriate tarball for your server architecture:
Intel 32 bit: wget <http://www.octware.net/pub/octvqe8/32-bits/latest/octvqe8-01.04.00-pr-intel32.tgz>
Intel 64 bit: wget <http://www.octware.net/pub/octvqe8/64-bits/latest/octvqe8-01.04.00-pr-intel64.tgz>
AMD 32 bit: wget <http://www.octware.net/pub/octvqe8/32-bits/latest/octvqe8-01.04.00-pr-amd32.tgz>
AMD 64 bit: wget <http://www.octware.net/pub/octvqe8/64-bits/latest/octvqe8-01.04.00-pr-amd64.tgz>
- tar zxvf octvqe8-01.04.00-pr-<platform>.tgz
- cp octvqe8-01.04.00-pr/octvqe/octvqed /usr/sbin
- chmod +x /usr/sbin/octvqed
- cp octvqe8-01.04.00-pr/octvqe/octvqed.init /etc/init.d/octvqed
- chmod +x /etc/init.d/octvqed
- chkconfig --level 2345 octvqed on
- octvqed

Step 5 of 5: Configuring Asterisk

Now ensure that in /etc/asterisk/zapata.conf you have the following line uncommented:

- echocancel=yes
- echocancelwhenbridged=yes

Now restart Asterisk:

- service asterisk restart

You should now have a fully functional Octasic Software Echo Cancellation setup!

Warranty and Technical Support

Zapmicro provides two years warranty for the quality of all Zapmicro brand cards and modules. End users are entitled to 30 days of e-mail support to ensure your card operation is running smoothly, and a 2 year warranty for hardware replacement. Our e-mail address for all support relation inquiries is support@zapmicro.com and our telephone number is +1-352-353-6062.