

Ouroboros, python for daemon lovers

```
beasty# jls
```

JID	IP Address	Hostname	Path
1	10.133.7.10	ytseab.layerone.net	/usr/jails/ytseab

```
beasty# jexec 1 csh
```

```
ytseab# jls
```

JID	IP Address	Hostname	Path
1	10.133.7.100	beastyy.layerone.net	/usr/jails/beastyy

Introduction

- ZFS
- FreeBSD
- ... and some scripts to manage

Cloud???

Easy to manage multi-host virtual servers FOR FREE

DISCLAIMER: NOTHING IS FREE

Requirements

You need at least one server, but you probably want several for best effects.

- FreeBSD 7.x or greater (8.2 is currentish)
- ZFS v3 or greater (v5 on 8.2)
- python 2.6 or greater (2.7 on 8.2)
- Something else? (see later -- let me know!)

ZFS

CDDL licensed invention of Sun

One word: `freenas`

ZFS tooling > *

Jails

- Core feature
- Same kernel
- SUPER CHROOT
- lightweight

Loonix and Oracle Lovers

- LXC (linux containers), solaris zones
- <http://zfsonlinux.org>
- gmake (haha)

Where's Vyrus???

- Working
- Sleeping
- [NOT HERE](#)

First environment

```
make build install JAIL=template  
make snapshot
```

```
make clone JAIL=beasty
make migrate JAIL=beasty TARGET=backuphost
```

Gotchas

- `named_chroot=""` (bind in a jail)
- i386 ZFS has horrible `kmem_size`, `kmem_size_max`, and `KVA_PAGES` settings
- jails share a lot of resources

Contact

- <http://dc310.org/talks/ouroboros>
- [PDF version](#)
- [merlin *** dc310.org](#)
- [EFNET #DC-310](#)
- [github/merlincorey](https://github.com/merlincorey)

Addendum - Build Server

An nginx server configuration is provided to create a build server so you can build packages from ports just once and easily install them on your jails and host machines.

... Also some python scripts and a makefile to get you started if you are unfamiliar with ports management (adds requirement of portmaster on build server)

On machines that will use the build server, set **PACKAGEROOT** `http://yourbuildserver` in the environment before running ``pkg_add``