OCF servers

a very brief overview
The server rack
Three main physical servers

- **jaws**: newest, fastest production servers and nfs
- **pandemic**: dev/staging server software mirroring
- **hal**: mega old staff VMs and backups
Three main physical servers

blackhole
fancy network switch
Three main physical servers

see https://ocf.io/servers
OCF internet/networking border

(and how to access OCF from outside)
ocf internet setup

internet (IST)
cisco firewall
(owned by IST)
ethernet jack in our server room
ethernet jack in our server room
internet
cisco firewall
(owned by IST)
ethernet jack in our server room
blackhole connected to internet
everything connected to blackhole
all outbound traffic allowed*

*one exception: email (for spam reasons)
all outbound traffic allowed*

internet

X

no inbound allowed

some inbound allowed

some inbound allowed (ssh)

all outbound traffic allowed*

desktops (computer lab)

services (web, email, ...)

login (ssh)
what if I want to access a desktop or server remotely?

- Internet
- Desktops (computer lab)
- Services (web, email, ...)
- Login (ssh)
What if I want to access a desktop or server remotely?

Bastions!
first, connect via SSH to a login server
internet

**Bastions!**
first, connect via SSH to a login server

then, connect to anything else

desktops (computer lab)

login (ssh)
OCF has two login servers:

**tsunami**
- public, all OCF users can access it
- no access to other OCF stuff

**supernova**
- private, only OCF staff can access it
- full access to other OCF stuff
always connect to supernova first!

mattmcal@eruption:~$ ssh mattmcal@supernova.ocf.berkeley.edu

first step: SSH to supernova from your machine
always connect to supernova first!

mattmcal@eruption:$ ssh mattmcal@supernova.ocf.berkeley.edu
Hi, I am supernova, a virtual server at 169.229.226.36.
Staff login server, plus host of create (account creation service).
    - Puppet classes: ocf_admin
    - Puppet environment: ckuehl
    - DNS names: admin, create

Last login: Mon Sep 12 17:57:51 2016 from eruption.ocf.berkeley.edu
mattmcal@supernova ~ $ ssh anthrax

second step: SSH to some other server from your laptop (e.g. anthrax)
always connect to supernova first!

mattmcal@eruption:~$ ssh mattmcal@supernova.ocf.berkeley.edu
Hi, I am supernova, a virtual server at 169.229.226.36.
Staff login server, plus host of create (account creation service).
  - Puppet classes: ocf_admin
  - Puppet environment: ckuehl
  - DNS names: admin, create

Last login: Mon Sep 12 17:57:51 2016 from eruption.ocf.berkeley.edu
mattmcal@supernova ~ $ ssh anthrax
mattmcal@anthrax's password:
Hi, I am anthrax, a virtual server at 169.229.226.35.
Primary mail server, for use by internal systems, staff, and forwarding for users.
  - Puppet classes: ocf_mail, ocf_mail::site_ocf
  - DNS names: mail, smtp

Last login: Mon Sep 12 17:58:01 2016 from supernova.ocf.berkeley.edu
mattmcal@anthrax:~$ 

third step: do whatever!
internet

one thing we skipped...

desktops (computer lab)
services (web, email, ...)
login (ssh)
Desktops (computer lab) → services (web, email, ...) → login (ssh) → hozers (your staff VMs!)
Internet

desktops (computer lab)

services (web, email, ...)

login (ssh)

hozers (your staff VMs!)

Let Through All The Traffic
congrats!
now you can log in to the OCF!