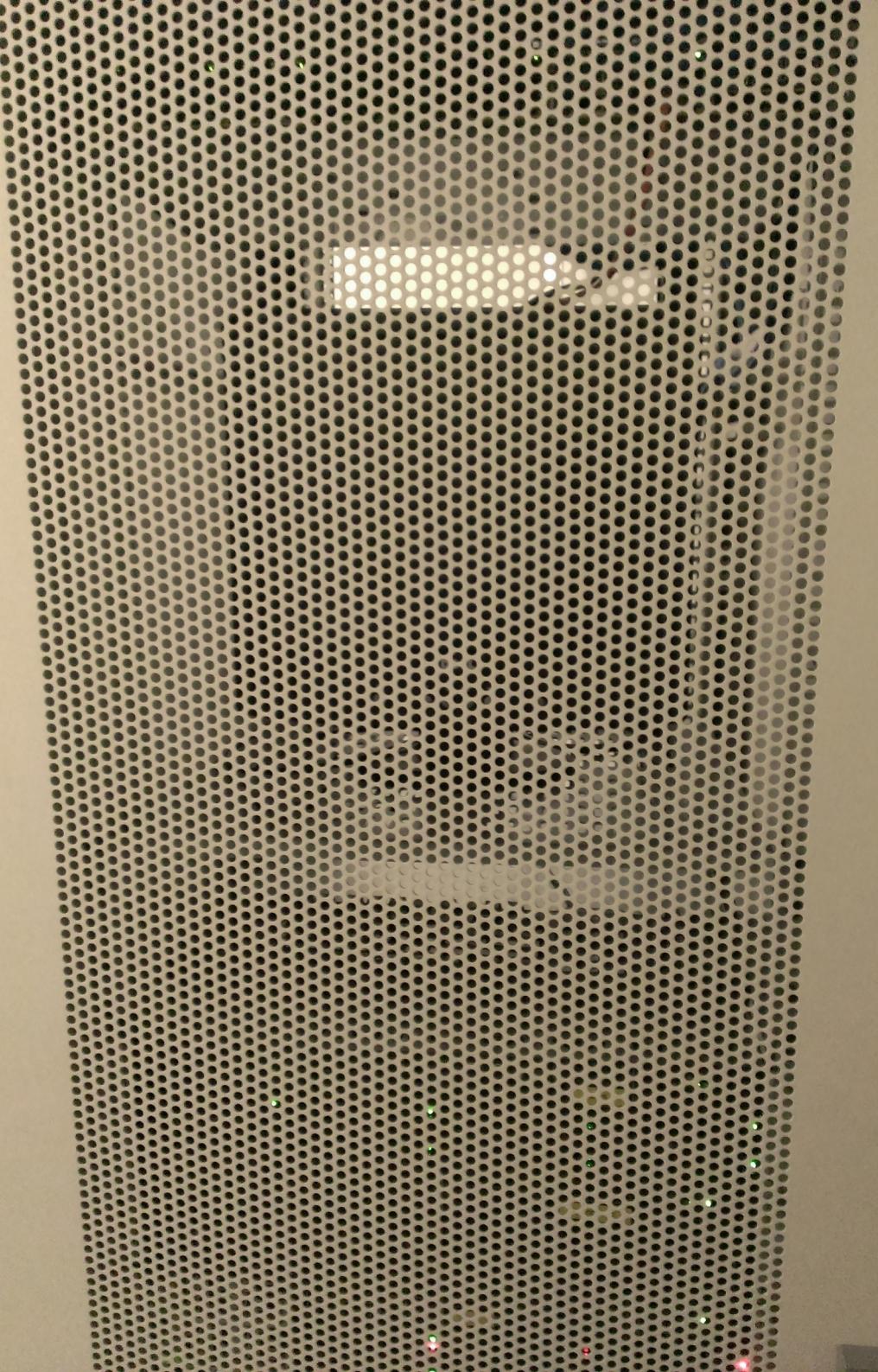
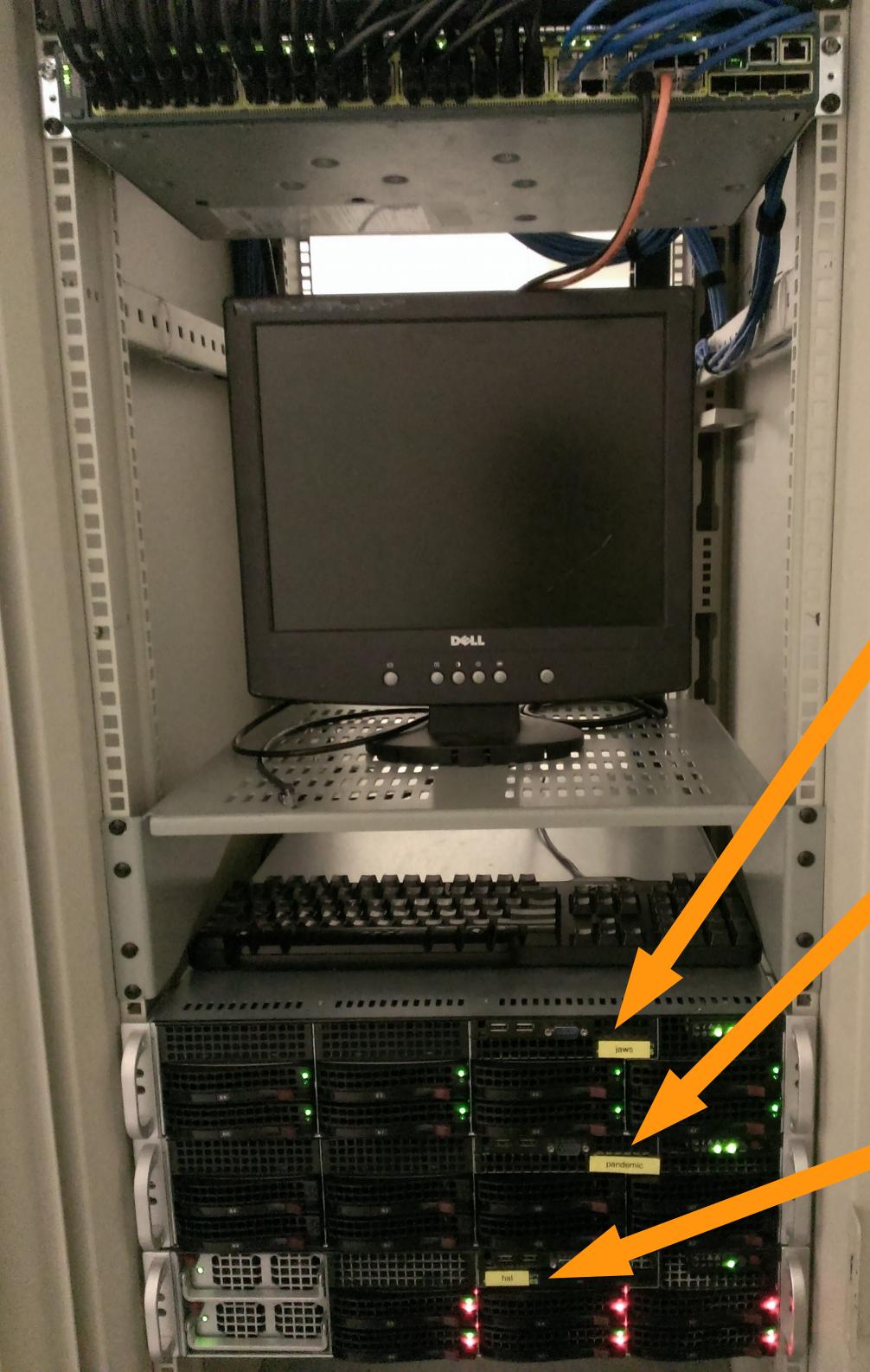


# OCF servers

a very brief overview

A photograph of a server rack. The front panel is made of a dark, perforated metal mesh. A horizontal strip of blue LED lights runs across the top edge of the panel. The rest of the panel is mostly dark, with some faint reflections and a few small colored lights (red, green) visible at the bottom.

# 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**

A photograph of a server rack containing three physical servers. The top server has a black Dell monitor mounted on it. The middle server is a black server unit with a yellow 'JBWS' label. The bottom server is a black server unit with a yellow 'pandemic' label. Numerous blue and red cables are visible at the top of the rack.

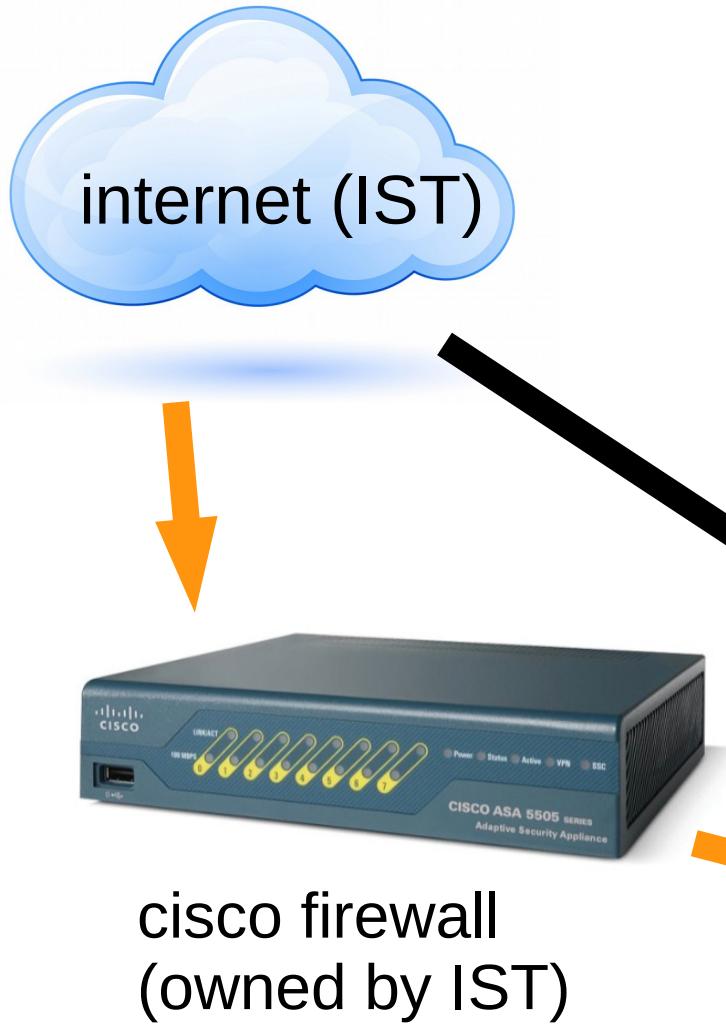
**Three main physical servers**

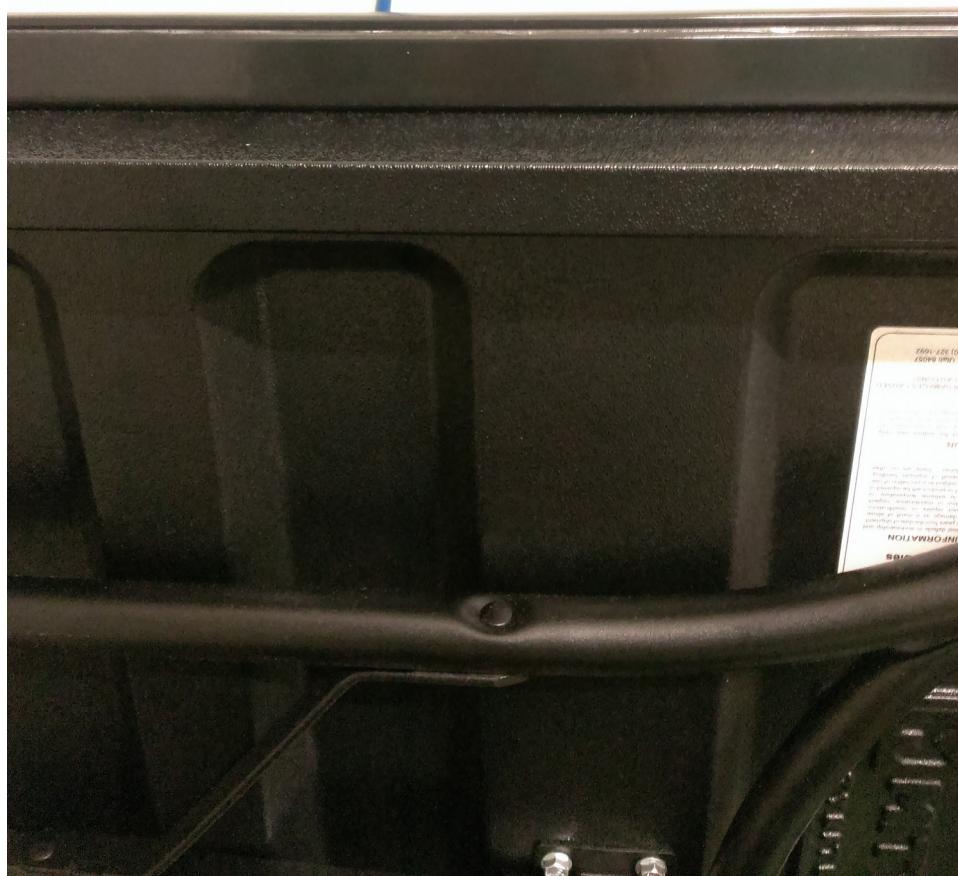
see <https://ocf.io/servers>

# OCF internet/networking border

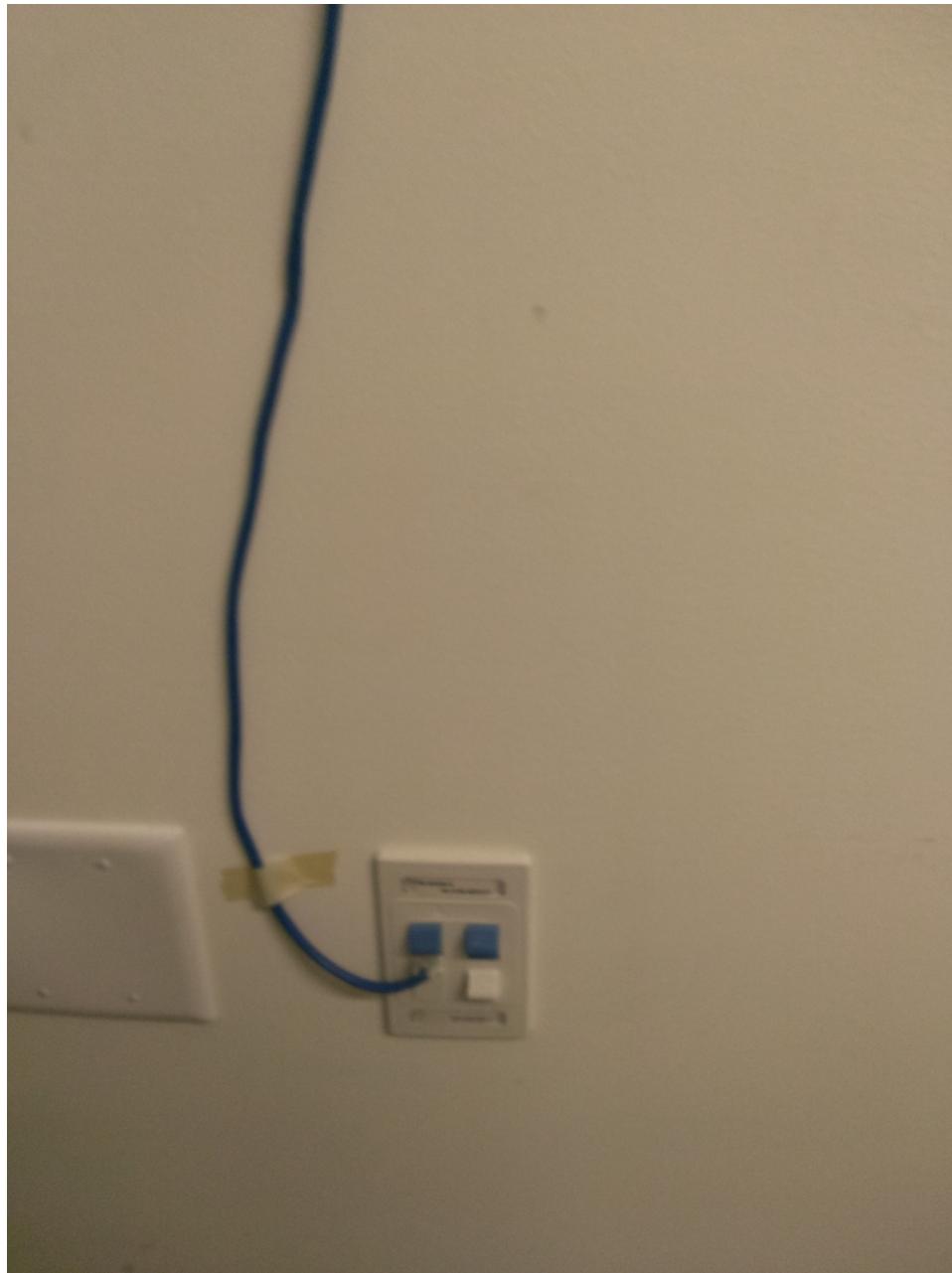
## (and how to access OCF from outside)

# ocf internet setup





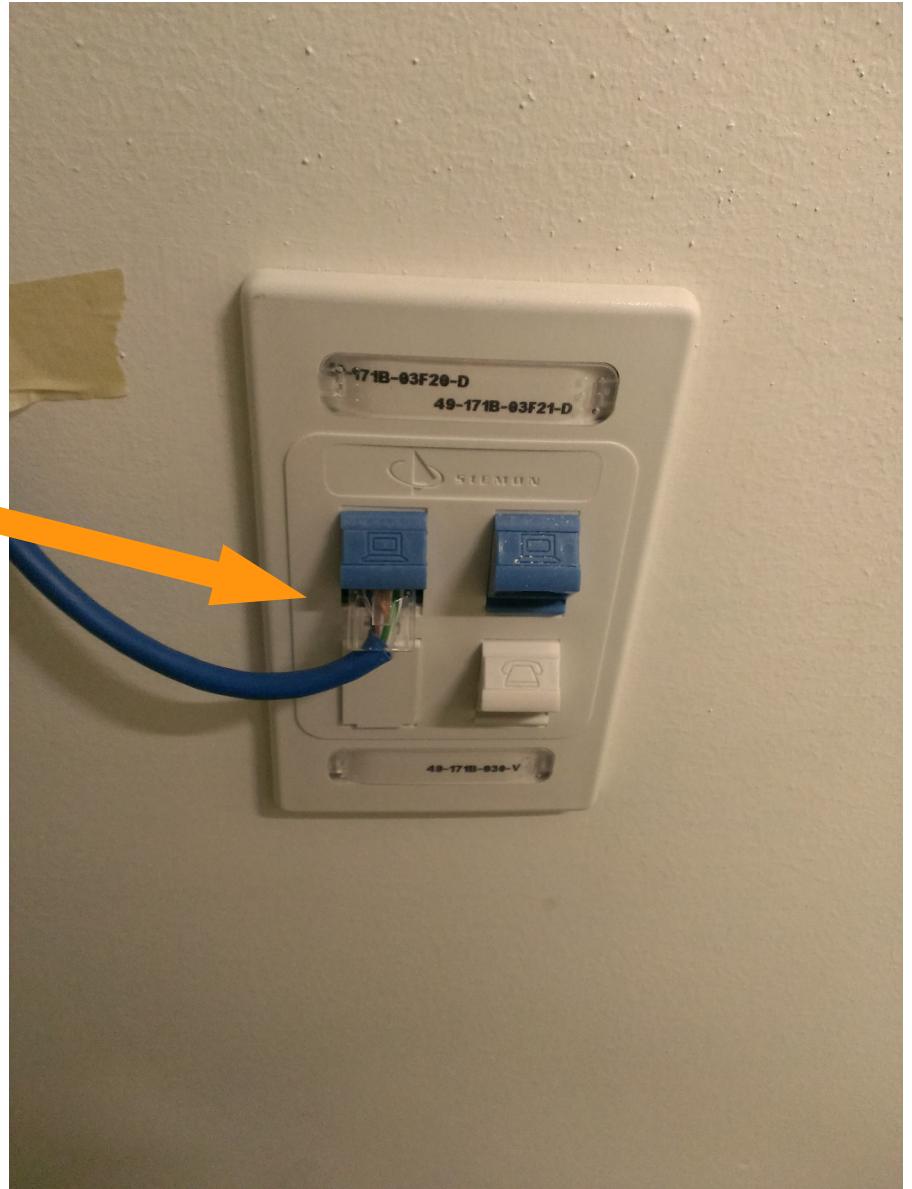
ethernet jack in our  
server room



ethernet jack in our  
server room

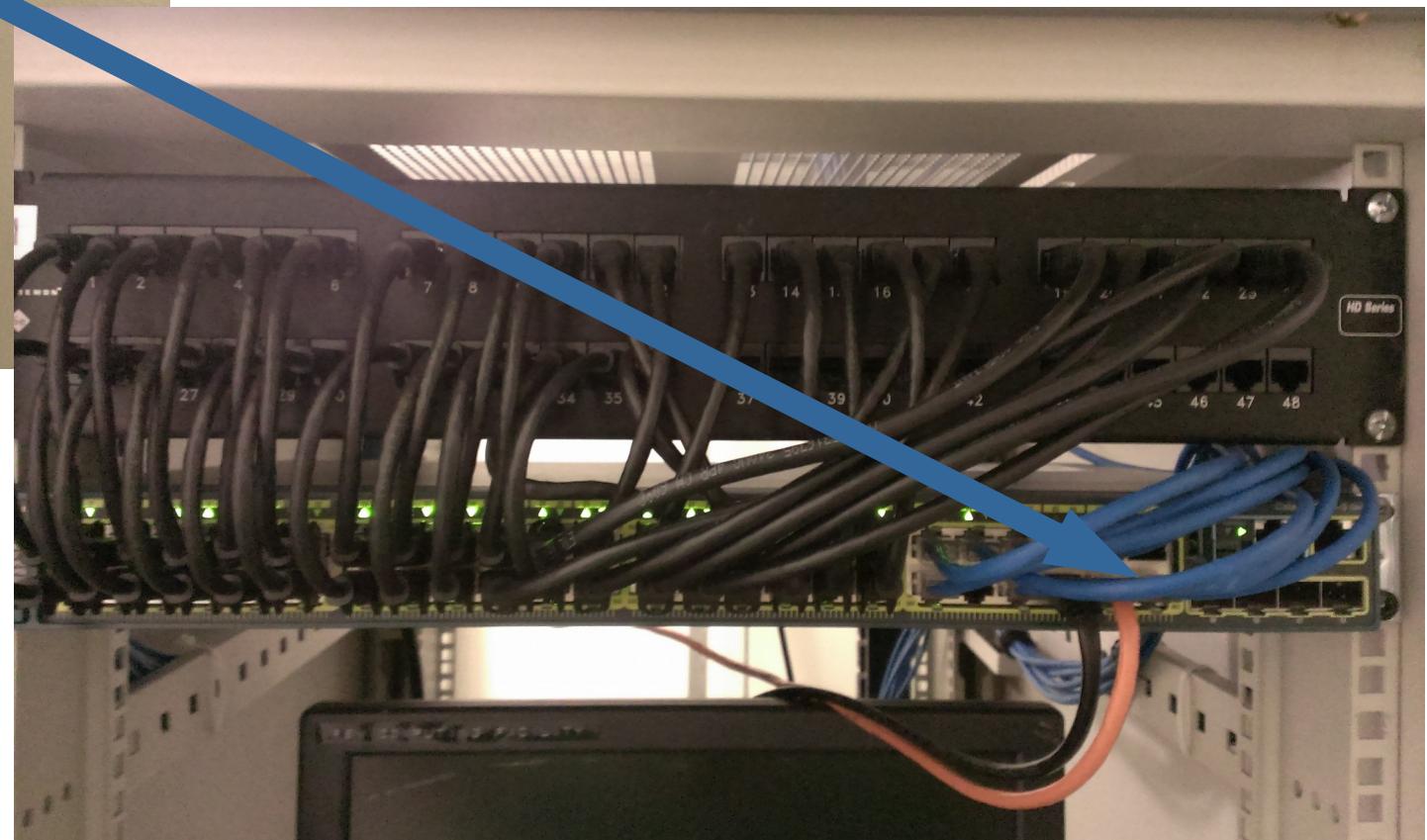
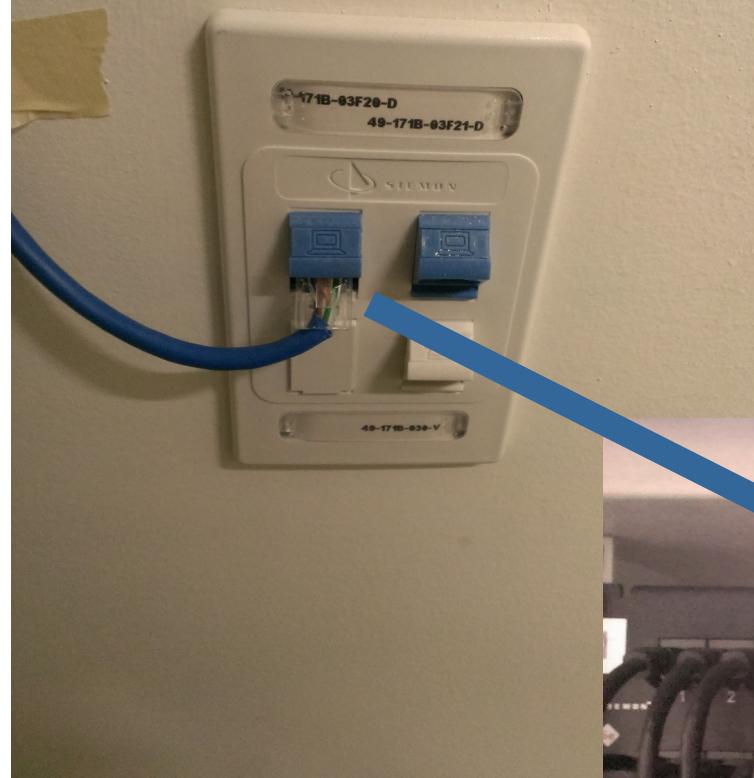


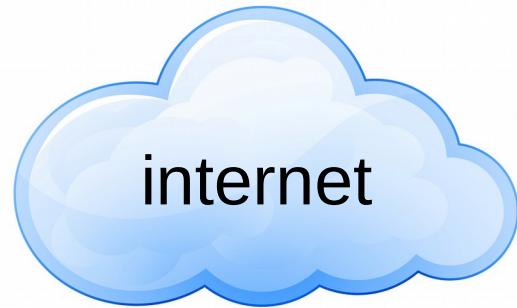
cisco firewall  
(owned by IST)



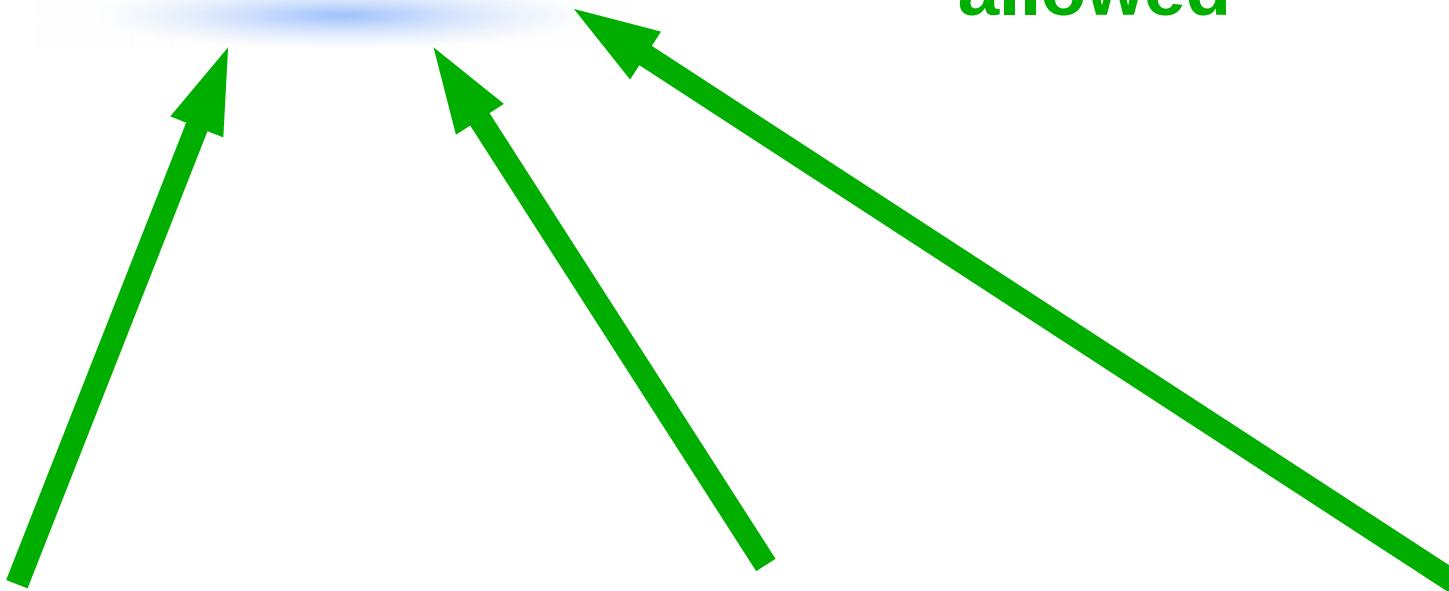
ethernet jack in our  
server room

blackhole connected to internet  
everything connected to blackhole





**all outbound traffic  
allowed\***



\*one exception: email (for spam reasons)

desktops  
(computer lab)

services  
(web, email, ...)

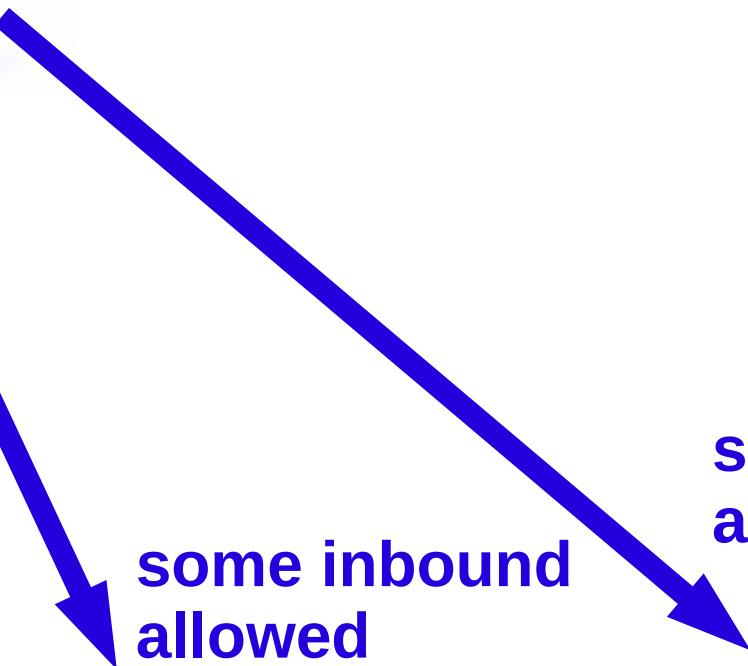
login  
(ssh)



**all outbound traffic  
allowed\***

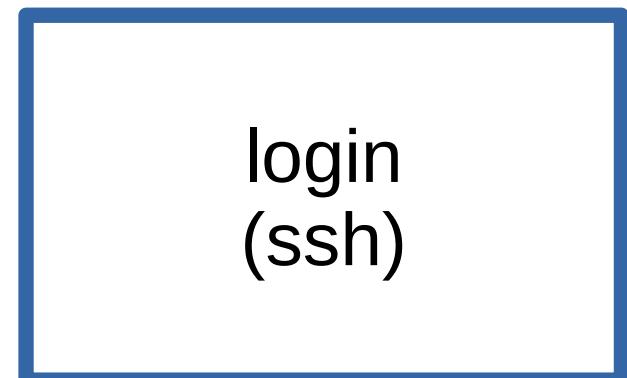
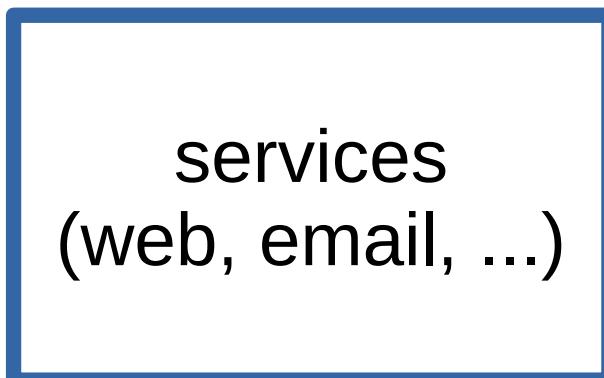
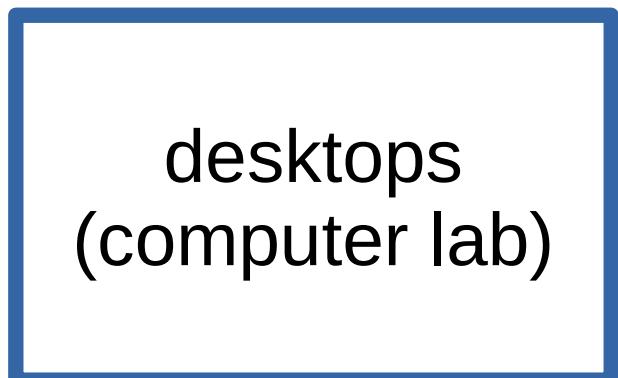


**no inbound  
allowed**



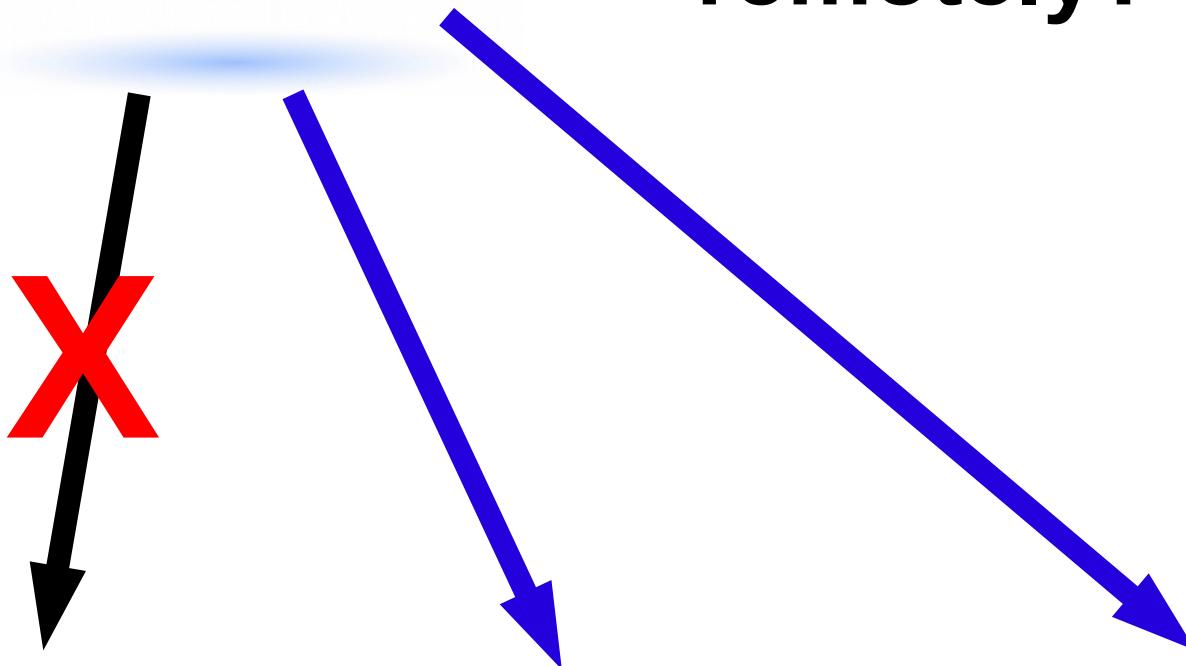
**some inbound  
allowed**

**some inbound  
allowed (ssh)**





**what if I want to access  
a desktop or server  
remotely?**



desktops  
(computer lab)

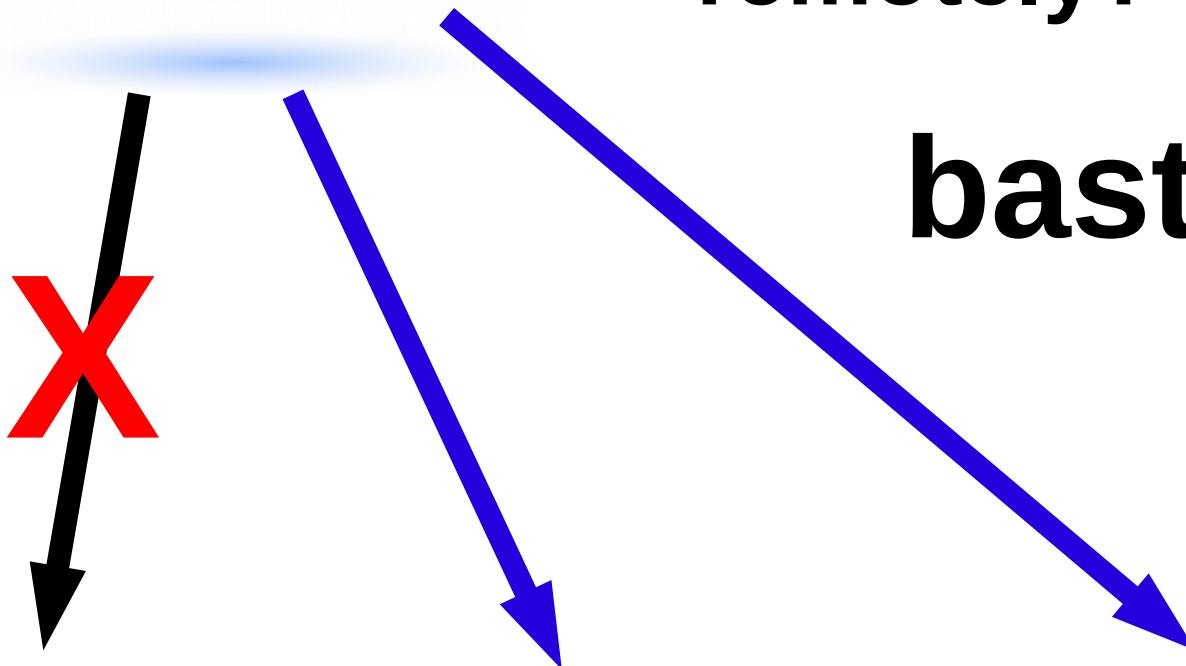
services  
(web, email, ...)

login  
(ssh)



**what if I want to access  
a desktop or server  
remotely?**

**bastions!**



desktops  
(computer lab)

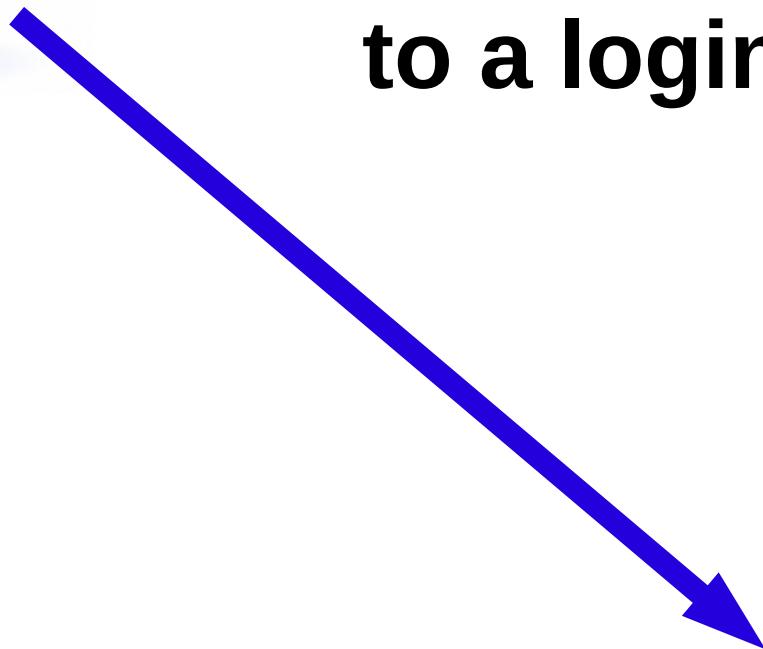
services  
(web, email, ...)

login  
(ssh)



# **bastions!**

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



desktops  
(computer lab)

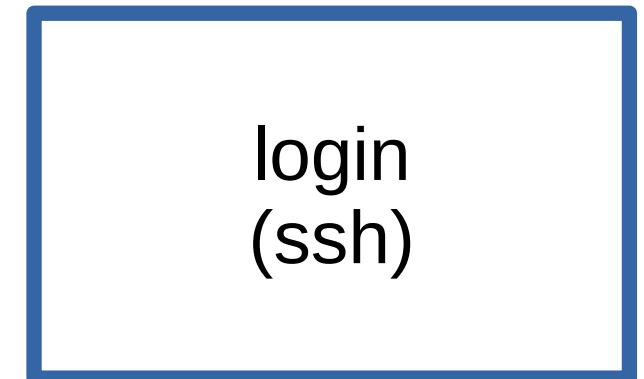
login  
(ssh)



# bastions!

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

**then, connect to  
anything else**



# OCF has two login servers:

**tsunami**

public, all OCF users can access it

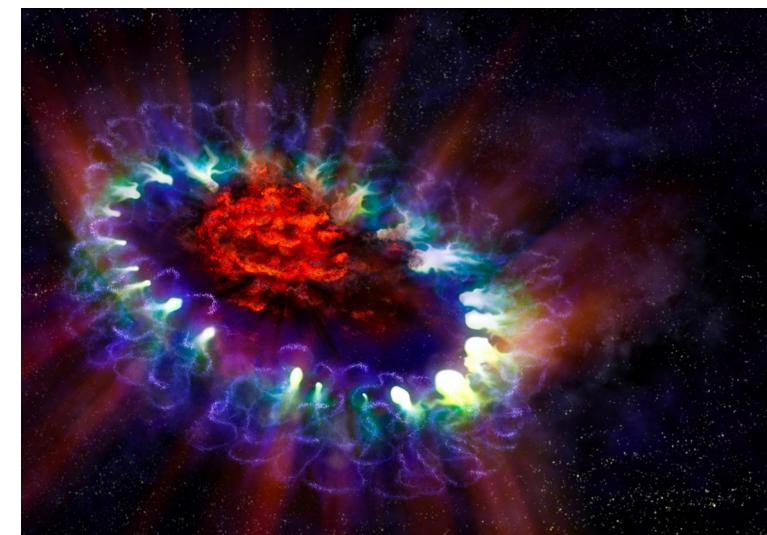
**no access to other OCF stuff**



**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

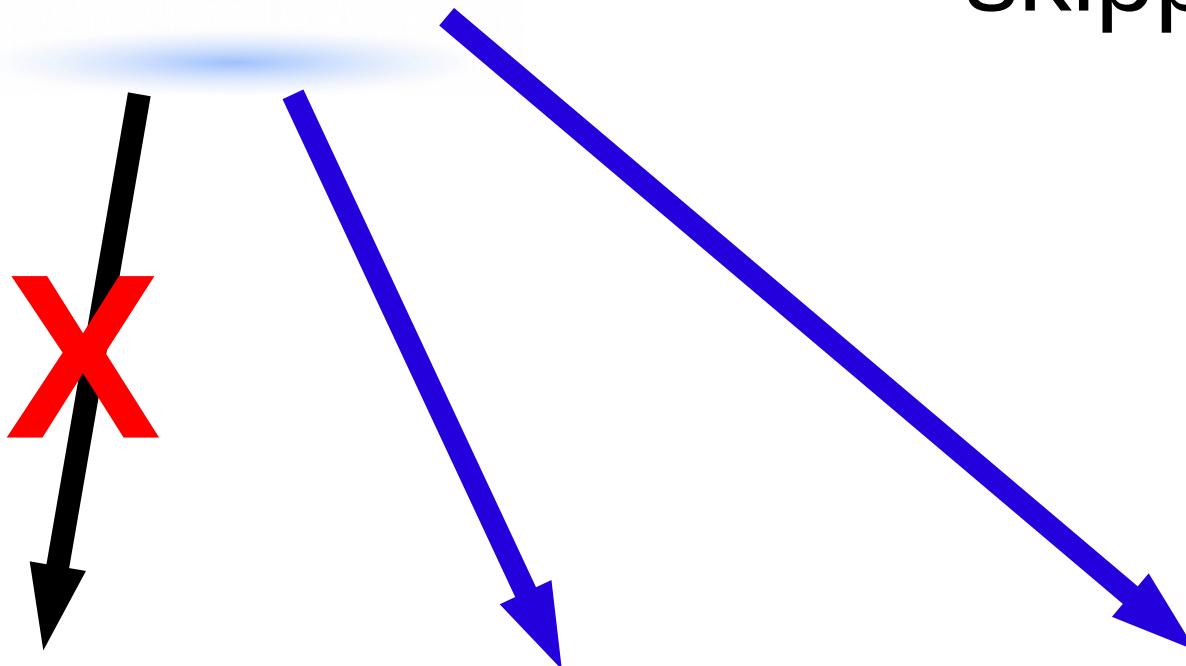
Last login: Mon Sep 12 17:57:51 2016 from eruption.ocf.berkeley.edu
mattmcal@supernova ~ $ ssh anthrax
mattmcal@antrax's password:
Hi, I am anthrax, a virtual server at 169.229.226.35.
Primary mail server, for use by internal systems, staff, and forwarding for users.
- Puppet classes: ocf_mail, ocf_mail::site_ocf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

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

third step: do whatever!



one thing we  
skipped...



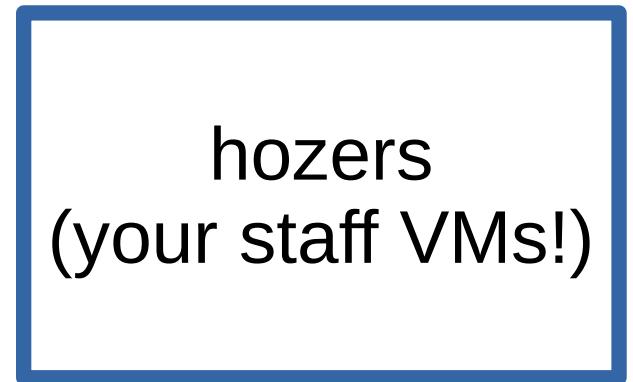
desktops  
(computer lab)

services  
(web, email, ...)

login  
(ssh)



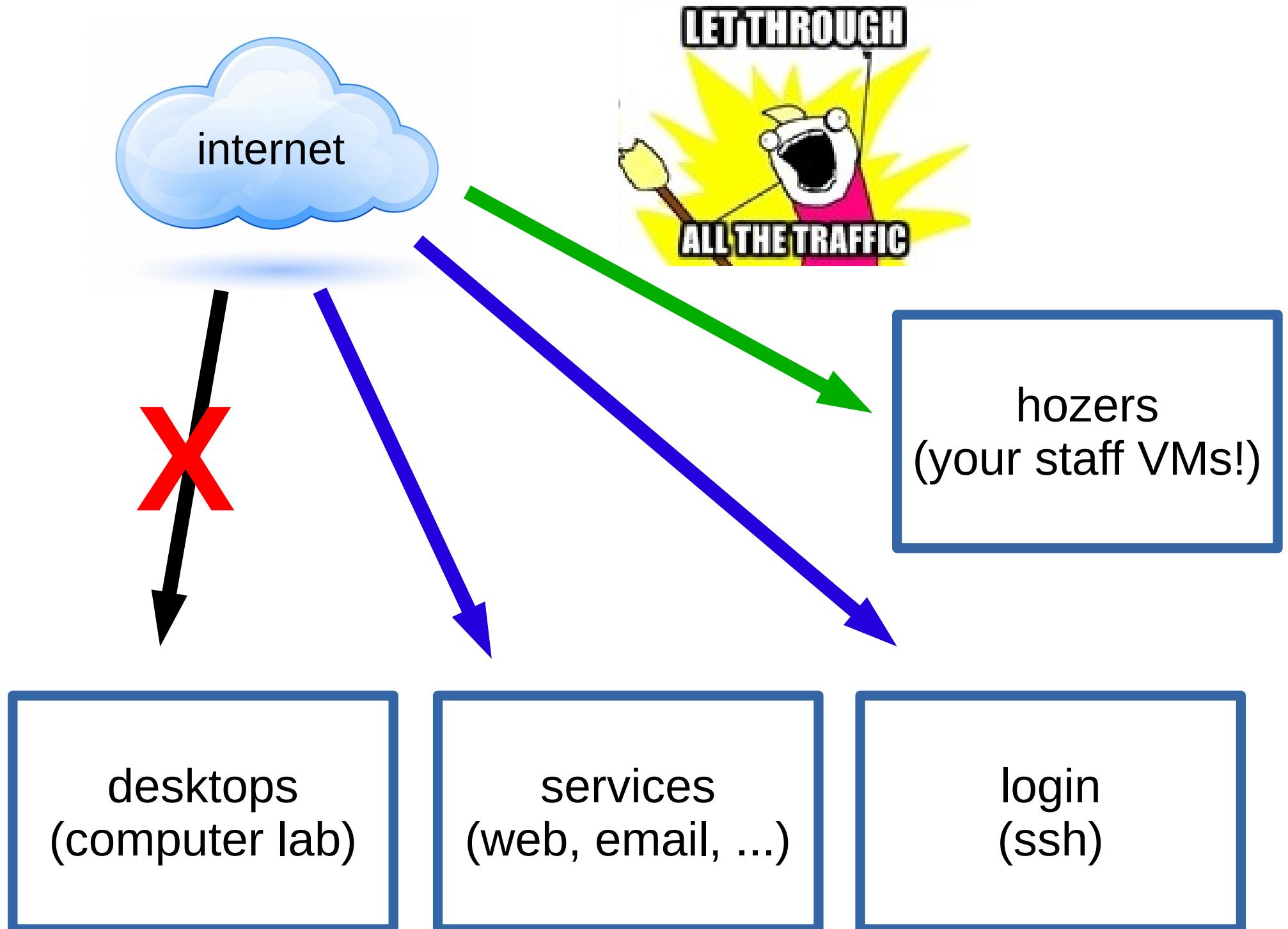
internet



desktops  
(computer lab)

services  
(web, email, ...)

login  
(ssh)



**congrats!**  
now you can log in to the OCF!