

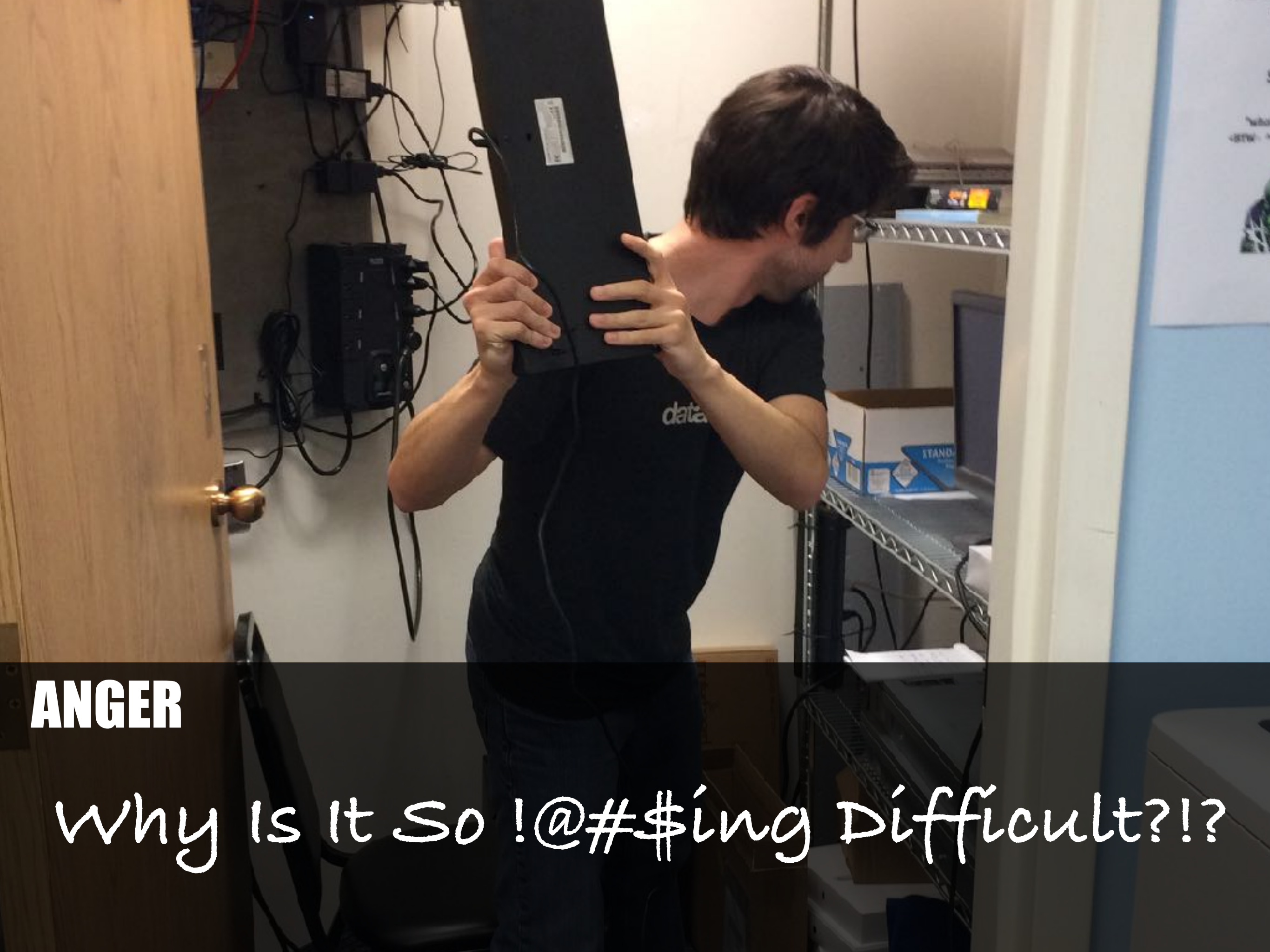
The Joys of Installing OpenStack

5 Stages



DENIAL

How Hard Can It Be?



ANGER

Why is it so !@#\$\$ing Difficult?!?

A man with dark hair and glasses, wearing a black t-shirt, is kneeling on the floor of a server room. He has his hands clasped together in a prayer position and is looking upwards with a pleading expression. The room contains server racks, a power strip with many cables, and various boxes on the floor, including one labeled 'NESPRESSO'.

BARGAINING

C'mon, just Boot Nova! Please??



DEPRESSION

Weeks of Effort, And For What?



ACCEPTANCE

Maybe Ocata Will Be Better?

A Better Way

3 Steps

- 1. Install Operating System**
- 2. Install Software**
- 3. Configure Components**

**Q: How Much Can
We Automate?**

KICKSTART
PRESEED
PXE BOOT



- 1. Install Operating System**
- 2. Install Software**
- 3. Configure Components**

1. Install Operating System

2. Install Software

3. Configure Components



CURL
SUDO
BASH



buffalab



tFTP Server boot
HTTP Server install
REST AP control

How're Things?

```
$ curl http://10.200.128.3/api/status | jq -r .
```

```
{  
  "flavor": "none",  
  "nodes": {  
    "openstack1": "new",  
    "openstack2": "new"  
  }  
}
```


Let's Install Newton

```
$ curl -X POST -d "newton" \  
    http://10.200.128.3/api/install
```

Let's Install Newton

```
$ curl -X POST -d "newton" \  
    http://10.200.128.3/api/install
```

WHAT JUST HAPPENED?

```
# cat /var/log/buffalab.log
```

```
BuffaLab coming online...
```

```
reading configuration from buffalab.yml...
```

```
reconfiguring lab to install 'newton'
```

- **openstack1 reset** 10.200.128.11 via idrac/racadm
- **openstack2 reset** 10.200.128.12 via idrac/racadm



openstack1

Installing s
Installing l
Installing f
Installing d
Installing j
Installing l
Installing f
Installing g
Installing p
Installing l
Installing f
Installing n
Installing l
Installing l
Installing c
Installing c
Installing g
Installing k
Installing x
Installing w
Installing l
Installing l
Installing l
Installing s
Installing l
Installing p
Installing c
Installing libnetlink (78/303)
Installing slang (79/303)
Installing newt (80/303)
Installing top_wrappers_libs (81/303)
Installing lzo (82/303)
Installing hostname (83/303)
Installing keyutils-libs (84/303)
Installing ethtool (85/303)
Installing gdbm (86/303)
Installing libnetfilter_comtrack (87/303)
Installing iptables (88/303)
Installing iproute (89/303)
Installing lss (90/303)
Installing libteam (91/303)
Installing ipset-libs (92/303)
Installing ipset (93/303)
Installing nettle (94/303)

openstack2, PowerEdge R710, User:root, 27.7 fps

Stark & Wayne Lab

Boot from Hard Drive hd(1,0)

Memory Self-Check
dhan - Wipe Disks !!DANGER!!
System Rescue
Install Ubuntu 16.04 (Generic)
Install Centos 7 (Generic)

Reload Configuration

Press [Tab] to edit options

Automatic boot in 23 seconds...



openstack1 - libnetlink...

openstack1 - libnetlink...

openstack2 - libnetlink...

openstack2, PowerEd...

8:14 AM

Is It Done Yet?

```
$ curl http://10.200.128.3/api/status | jq -r .
```

```
{  
  "flavor": "newton",  
  "nodes": {  
    "openstack1": "new",  
    "openstack2": "ok"  
  }  
}
```

interlude

How About Now?

```
$ curl http://10.200.128.3/api/status | jq -r .
```

```
{  
  "flavor": "newton",  
  "nodes": {  
    "openstack1": "ok",  
    "openstack2": "ok"  
  }  
}
```

Who Is 10.200.128.3?

— *Ayn Rand, probably*



WHY?

the future

jhunt/buffalab

<https://github.com/jhunt/buffalab>

