WHAT HAVE CONTAINERS GOTTEN US?

Vincent Batts @vbatts

```
$> finger $(whoami)
Login: vbatts                          Name: Vincent Batts
Directory: /home/vbatts                Shell: /bin/bash
Such mail.
Plan:
OHMAN
$> id -Gn
devel opencontainers docker appc redhat golang slackware
```
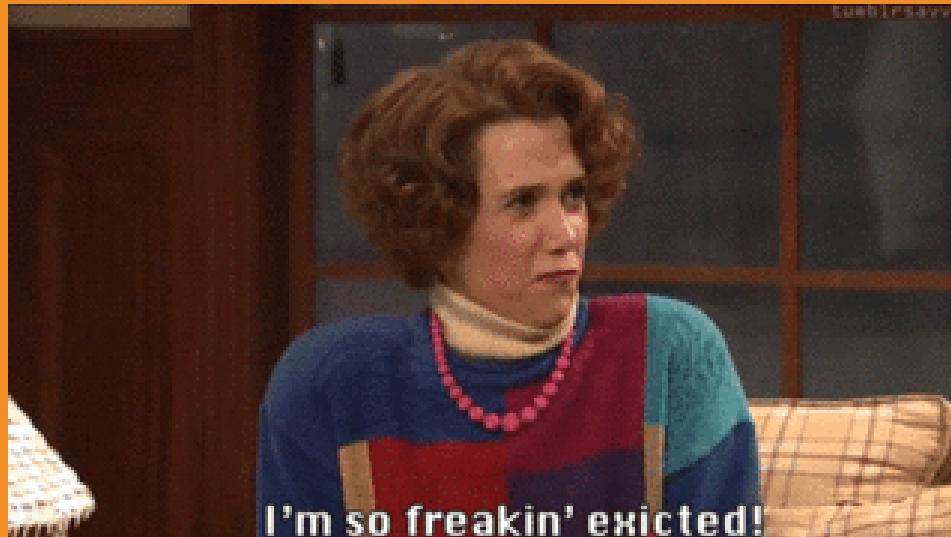

I'm so freakin' excited!

CONTAINERS

MAKE GIFS AT GIFSOUP.COM

(Cite: The Internet)

HISTORY LANE

- Installing Distros
  - DistroWatch anyone?
  - LUGs

HISTORY LANE

- Monsterous, unique installations
  - (we would never do this in production)
  - ((totally did this in production))

HISTORY LANE

- rsync for backups
- store config in version control
- and have config management
- version control the config management

HISTORY LANE

- Virtual Machines!
- and snapshots
- rsync for backups
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HISTORY LANE

- Containers!
- build files in version control
- image registries
- Virtual Machines!
- and snapshots
- rsync for backups
- store config in version control
- and have config management
- version control the config management

HISTORY LANE

- Orchestration!
- deployment configs
- Containers!
- build files in version control
- image registries
- Virtual Machines!
- and snapshots
- rsync for backups
- config management
- version control the config management

HISTORY LANE

Wash, Rinse, Repeat

GOTTEN US?

Fresh feels,
on doing the same things in a new way

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Thinner,
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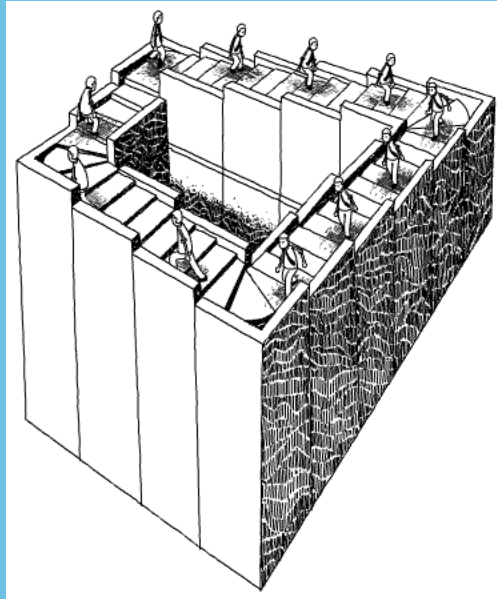
Thinner,
    but still bloated

Simpler,
    yet more complicated

Portable,
    while predictable

POSSIBLE WITHOUT CONTAINERS?

I reckon

POSSIBLE WITHOUT CONTAINERS?

GOTTEN **ALL** OF US?

GOTTEN **ALL** OF US?

Helping others?

GOTTEN **ALL** OF US?

Helping others?

exaggerated stress?

GOTTEN **ALL** OF US?

Helping others?

exaggerated stress?

Cross pollinating?

GOTTEN **ALL** OF US?

Helping others?

exaggerated stress?

Cross pollinating?

burnout?

GOTTEN **ALL** OF US?

Helping others?

exaggerated stress?

Cross pollinating?

burnout?

Looking out for each other?

POSSIBLE WITHOUT CONTAINERS?

Absolutely, and it takes everyone of us to recognize that others want stress-free happiness, just like you.

This is not

"winner takes all [the happiness]"

POSSIBLE WITHOUT CONTAINERS?

(cite: the internet)

CONTAINER STANDARDS

Runtime Specifications

- Opencontainer Runtime-spec (github.com/opencontainers/runtime-spec)
- Started June 2015
- Presently at v1.0.0-rc5
- `runc` is the flagship. Other implementations like runv and oci-runtime-tools

CONTAINER STANDARDS

Distribute Image Specifications

- Opencontainer image-spec (github.com/opencontainers/image-spec)
- Started April 2016
- Originated from Docker-1.10 and Registry v2 format
- Presently at v1.0.0-rc5
- Support from Amazon ElasticContainerRegistry (ECR), rkt, flatpak, skopeo, cri-o, containerd and more
- pull-requests opened for docker (moby/moby) and docker-registry

CONTAINER STANDARDS

Cloud Native Computing Foundation (cncf.io)

- Kubernetes orchestration
- Prometheus monitoring
- gRPC, CoreDNS, Linkerd, OpenTracing, Fluentd
- newly added containerd and rkt

WHAT'S NEXT?

Desktop applications will shape and mold
(see flatpak.org, JessFraz efforts, even an
AtomicWorkstation)

Get used to not having root privileges (see
bubblewrap and bwrap-oci, and recently runc)

Get used to not having capabilities (see
System Tap and a blog about this)

WHAT'S NEXT?

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Cloud Native application development (see CNCF)

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intercommunication (see gRPC)

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Cloud Native application development (see CNCF)

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Discoverable APIs (see OpenAPIs)

"Scheduled" functionality (see OpenShift and Kubernetes)

intercommunication (see gRPC)

event and metric driven services

WHAT'S NEXT?

Respect Life Cycles

(Cite: the internet)

VINCENT BATTS

@VBATTS| VBATTS@REDHAT.COM

THANKS!