

# STATE OF CONTAINER ECOSYSTEM

OCI POV

<http://bit.ly/2017-03-vb-containers>

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
```



# CONTAINERS



(Cite: the internet)

# CONTAINERS



MAKE GIFS AT GIFSOUP.COM

(Cite: The Internet)

# ECOSYSTEM

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(Cite: The Internet)

# ECOSYSTEM

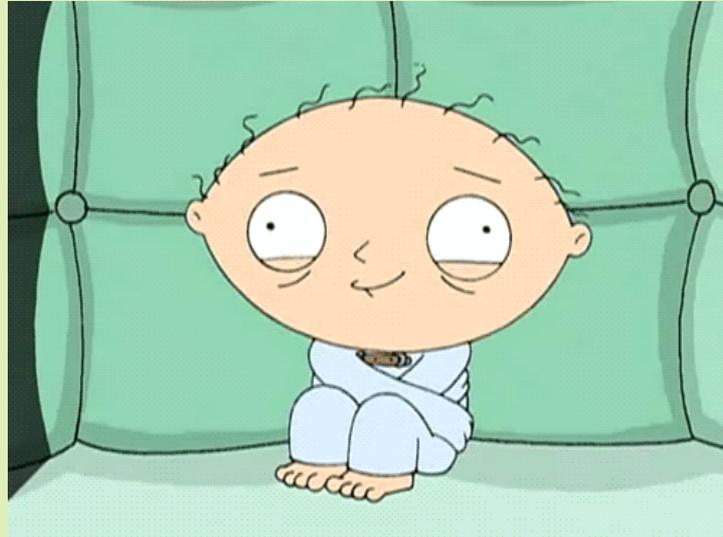


# ECOSYSTEM



(Cite: The Internet)

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# STANDARDS!

(Merriam-Webster)

# STANDARDS!

Standard

/ˈstændəd/

*noun*

something established by authority, custom, or general consent as a model or example

(Merriam-Webster)

# STANDARDS!



(Cite: The Internet)

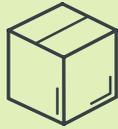
# STANDARDS!

Areas to Standardize:

# STANDARDS!

## Areas to Standardize:

- Packaging



# STANDARDS!

## Areas to Standardize:

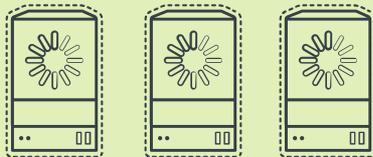
- Packaging
- Runtime



# STANDARDS!

## Areas to Standardize:

- Packaging
- Runtime
- Networking



# STANDARDS!

## Areas to Standardize:

- Packaging
- Runtime
- Networking
- Cloud



# RUNTIME - SPECIFICATIONS

OpenContainer Runtime-Spec

([github.com/opencontainers/runtime-spec](https://github.com/opencontainers/runtime-spec))

- June 2015
- Specification
- Several Implementations, with runc as flagship
- Currently v1.0.0-rc5

# NETWORK

Container Networking Interface

([CNI - github.com/container networking/cni](https://github.com/container networking/cni))

- December 2014
- Specification and Library
- Simple to integrate with a process based workflow
- Used by RKT, kubernetes, OpenShift, Kurma, Cloud Foundry, RancherOS, usable with runC, and more

# PACKAGING - IMPLIED STANDARD

## Docker Image

- Docker specific format
- Tight coupling with daemon version
- Signing requires Docker notary integration
- Image naming is Docker specific and bound to registries

# PACKAGING - SPECIFICATION

OpenContainer Image-Spec

([github.com/opencontainers/image-spec](https://github.com/opencontainers/image-spec))

- April 2016
- Originated from Docker-1.10 and Registry v2 format
- Content addressibility
- Signable. Possibility to have naming and discovery.
- Currently releasing v1.0.0-rc5
- Gaining support from rkt, flatpak, skopeo, cri-o, docker, docker-registry and more

# CLOUD

Cloud Native Computing Foundation  
(<https://cncf.io>)

- Kubernetes orchestration
- Prometheus monitoring
- gRPC, CoreDNS, Linkerd, OpenTracing, Fluentd
- with containerd and rkt proposed

# CLOUD



(Cite: the internet)

Call to Action!

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Get involved in the conversations

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Ensure your container integration touchpoints stay generic

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PoC tooling for your integration

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THANKS!