Claim control of your Docker images

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Agenda

- Docker & Registry
- Control
- Demo
What is Docker anyway?

Let’s have few words about it.
Containerization vs Virtualization

Virtualization vs Containerization

- **Virtualization**:
  - VM
  - App A
  - App B
  - App C
  - Bins/Libs
  - Guest OS
  - Hypervisor
  - Infrastructure

- **Containerization**:
  - CONTAINER
  - App A
  - App B
  - App C
  - Bins/Libs
  - Docker
  - Host OS
  - Infrastructure

Source: https://docs.docker.com/get-started
Containerization and Virtualization

Source: https://www.docker.com/what-container
**Terminology**

- **Container**
  Containers are processes with much more isolation

- **Image**
  Images provide a way for simpler software distribution

![Diagram showing layers of a container with `writable layer`, `mariadb`, and `opensuse`]

**Layers**
- `mariadb`
- `opensuse`

**Volume**
- `writable layer`
Workflow

1. docker build
2. docker pull
3. docker run
What is registry?

And can I have my own?
Registry

- Provided by Docker
  - Cloud
    - Docker Hub (https://hub.docker.com/explore/)
    - Docker Store (https://store.docker.com/)
  - On-premise
    - Standalone
    - Containerized
- Provided by 3rd parties
  - Quay.io, Artifactory, Google Container Registry
Reasons

- Storage
- Access
- Integration
How can I control it?

Only by typing commands or there is another way?
The solution is Portus

- Open source
- Manages authentication in Docker Registry
- Nice and easy UI

Created with ❤️ by the SUSE team
Security

- Compliant with the specifications
- Grained control
- Users and Teams
Roles

Viewer
Contributor
Owner
Organization

Tags
- Tag 1
- Tag 2
- Tag 3
- Tag 4
- Tag X

Repositories
- Repository 1
- Repository 2
- Repository 3
- Repository X

Namespaces
- Namespace 1
- Namespace 2
- Namespace X

Teams
- Team 1
- Team X

Users
- User 1
- User 2
- User X
Searching for images

- Search capabilities
- Considers access rights
Audit

- All events are logged
- Recent activities for every user
Demo

Let’s see it in action
Useful resources for our journey.
Resources

• Official site
  http://port.us.org/
• GitHub
  https://github.com/SUSE/Portus
• Portus group in Google
  https://groups.google.com/forum/#!forum/portus-dev
Thank you!

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