



OSG Software Containers

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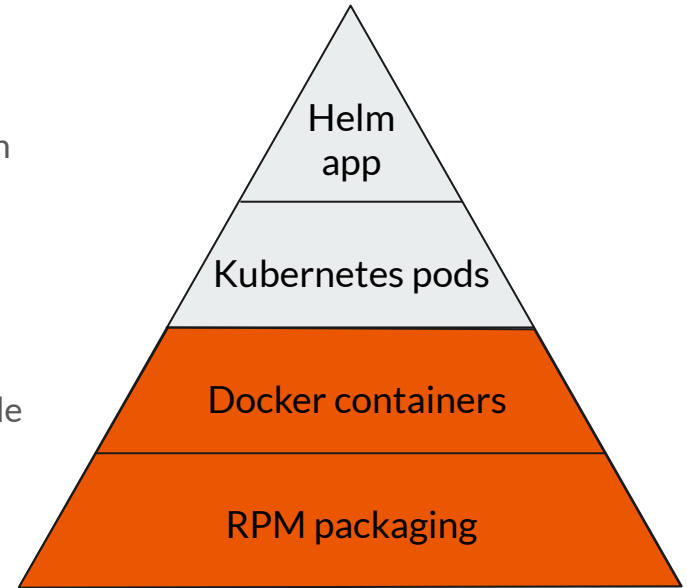


Containers

- Container release policy (<https://opensciencegrid.org/technology/policy/container-release/>)
 - Similar to RPM release policy
 - “fresh” containers are created and get labeled as “stable” when they pass community acceptance testing
 - This process is slow and we’re considering revisiting it to be more Docker-like
- Stable containers: Frontier Squid, Stash Cache, ATLAS/CMS XCache, OSG Worker Node Client
- Fresh containers in need of testing: Stash Origin
- Fresh containers under development: Hosted CE, Standalone XRootD
- Next projects: OSG in a box? CE-less OSG workers?

Distribution

- Containers distributed via [DockerHub](#)
- Can be used standalone or as part of container orchestration
- No distribution network for Kubernetes pods?
- Helm charts have repositories
 - Works for internal OSG services, e.g. Hosted CE
 - But too prescriptive for current OSG sites?
 - How would we distribute Helm binaries?
- As a result, OSG containers use Supervisor to bundle multiple processes to provide a single service





Persistent Storage

- OSG needs to store logs for troubleshooting and auditing
- By default, logs are ephemeral and disappear when the deployment goes away, e.g. upgrades
- Kubernetes doesn't have persistent storage out of the box, i.e. it's a site responsibility
- The Kubernetes-way would be to push logs to Elasticsearch
 - This could work for OSG Operations
 - It's less clear that this would be a reasonable solution for sites