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Calipsoplus Portal

Overview:

- Infrastructure
- Calipsoplus Helm Chart development
- Portal deployment









Rancher

Deploy Kubernetes easily

- Nodes on Openstack
- Configure once, scale with 1 click
- Integration of Metrics / Analytics
- Authentication for Kubernetes

Manage Multiple Cluster

- Separate Users' workloads
- Integration with HPC nodes: current research













Kubernetes Stack

Towards a full Cloud at DESY

- Kubernetes API only one part
- Tools provided on cluster level:
 - LoadBalancer
 - Ingress Controller
 - Certificate Management
 - Block Storage









→ Components for modern micro services now available for users!









Helm + GitLab

Managing Apps

- Package Kubernetes Definition files
- Template engine
- Restore defined state
 - Upgrade / Rollback

GitLab for deployment integration

- Version control for configuration
- CI job runs deployment





"Manage the release cycle of charts that have been installed with Helm"









Portal Helm Chart

From Code to Deployment

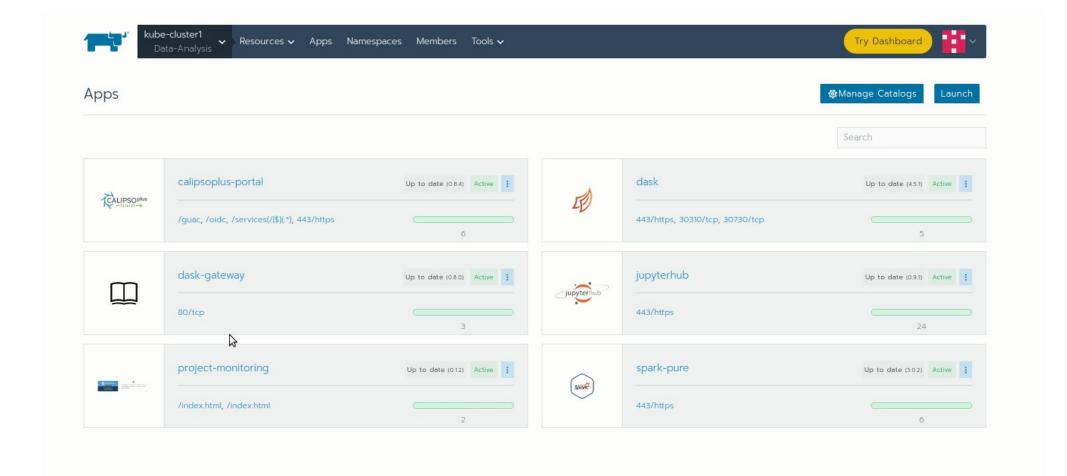
- Automated installation of app components
- Make universally usable package
 - Use site specific values to install on kubernetes
 - Separate config from code
 - Re-usability of chart











Forums Slack File an Issue

Beglish

English

Forums Slack File an Issue









Portal Helm Chart



Publicly available

- Chart repository hosted at DESY
 - helm repo add desy https://charts.desy.de/desy-it

Gitlab repositories:

- Helm chart:
 - https://eosc-pan-git.desy.de/calipsoplus/calipsoplus-portal-helm
- Docker Images:
 - https://eosc-pan-git.desy.de/calipsoplus/portal-kubernetes









The Calipsoplus Portal Architecture test experience

What we have:

https://calipsoplus.desy.de

- Deployed to Kubernetes
- Letsencrypt Certificate
- Integrate with Keycloak SSO
- Link to other kubernetes hosted services

Missing:

- Metadata Catalog / Scicat [WIP]
- Scientific data in the Cloud [WIP]











Partners involved

ALBA Light Source



ALBA is a 3rd generation Synchrotron Light facility located in Cerdanyola del Va...

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DESY



DESY is one of the world's leading accelerator centres. Researchers use the larg... Diamond Light Source



Diamond Light Source is the UK's national synchrotron. It works like a giant mic... Elettra and FERMI Lightsource



Elettra Sincrotrone Trieste is a multidisciplinary international research center...

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