Activités récentes

CTAO
Cherenkov Telescope Array Observatory

F2F DIRAC@IN2P3, Lyon 2025
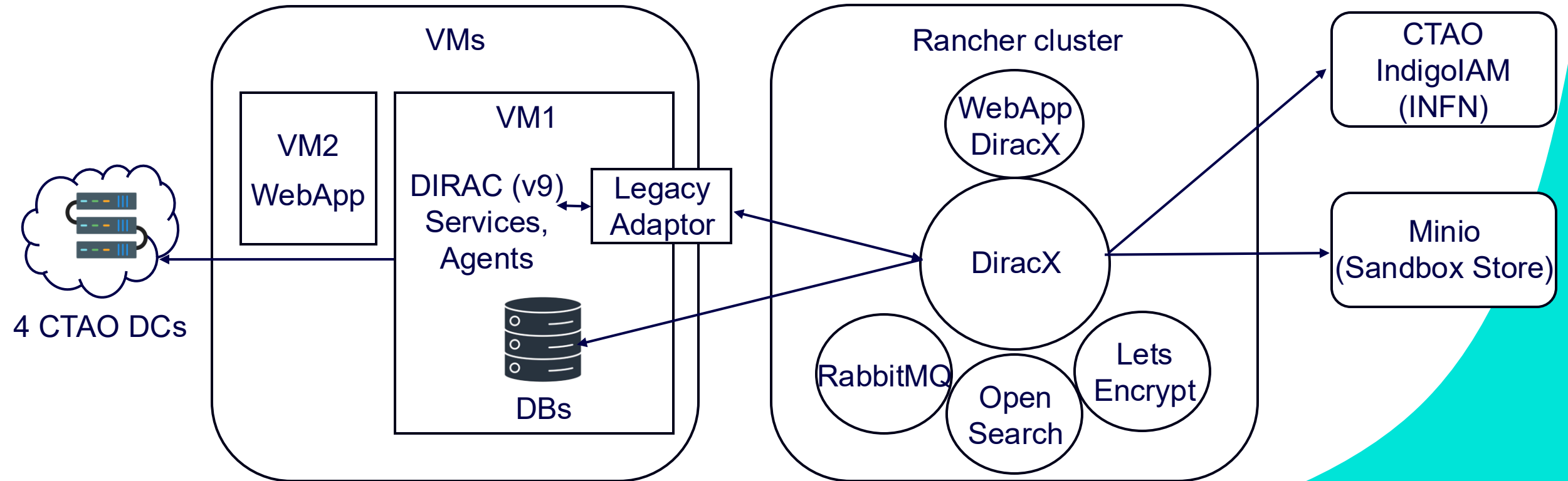
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Migration vers DiracX

de notre instance de "test"

CTAO

Helm charts

CTAO WMS: https://gitlab.cta-observatory.org/cta-computing/dpps/workload/wms

- Services, agents, executors et WebApp DIRAC (1 par pods)
- MariaDB
- 1 pod CE (SSH)
- DiracX
  - Minio
  - Opensearch
- IAM (CTAO)

Ces charts sont utilisés pour une intégration avec:
- CTAO Bulk Data Management System (basé sur Rucio)
- Les logiciels CTAO (Pipelines: Calibration, Simulation, Processing,...)

=> Pour le moment déployés sur Kind dans un pipeline CI

=> Destinés à un déploiement en (pre)production sur des DataCenters (PIC et CSCS)
=> Devrait être utilisé pour le traitement des données du premier Large Size Telescope (LST1)
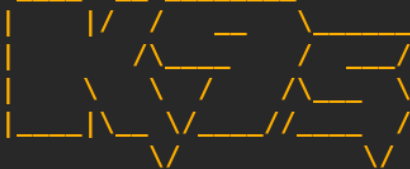
Déploiement Kind


```
Cluster:  kind-dpps-local-wms          <1> wms       <ctrl-d>  Delete        <l>       Logs           <f> S|  |/ /    __  \_
User:     kind-dpps-local-wms          <2> default   <d>       Describe      <p>       Logs Previous  <t> T|  /\___  /   /
K9s Rev:  v0.50.9 ⚡ v0.50.16                         <e>       Edit          <shift-f> Port-Forward   <y> Y|  \   \ \ /  /\___ \
K8s Rev:  v1.34.0                                    <?>       Help          <z>       Sanitize           |___|\_  \/ \  //__ /
CPU:      n/a                                        <shift-j> Jump Owner    <s>       Shell                     \/  \       \/
MEM:      n/a
```
```
──────────────────────────────────────────── pods(wms)[65] ────────────────────────────────────────────
 NAME↑                                      PF READY STATUS       RESTARTS IP           NODE                        AGE
 wms-dirac-web-app-54bf9dc865-c87wg          ● 1/1   Running            20 10.244.0.39   dpps-local-wms-control-plane 22h
 wms-diracx-7878d9c576-n6vzz                 ● 1/1   Running           253 10.244.0.29   dpps-local-wms-control-plane 22h
 wms-diracx-cli-6c5898f46d-rgms4             ● 1/1   Running             0 10.244.0.46   dpps-local-wms-control-plane 22h
 wms-diracx-web-64485dd6bb-gjmhk             ● 1/1   Running             0 10.244.0.14   dpps-local-wms-control-plane 22h
 wms-dpps-iam-bootstrap-3-wt74r              ● 0/1   Completed           0 10.244.0.110  dpps-local-wms-control-plane 67m
 wms-dpps-iam-client-86d689bc45-wbqr4        ● 1/1   Running             0 10.244.0.35   dpps-local-wms-control-plane 22h
 wms-dpps-iam-grid-clients-b75d6dd48-kcqnc   ● 1/1   Running             0 10.244.0.26   dpps-local-wms-control-plane 22h
 wms-dpps-iam-init-tls-3-czkmk               ● 0/1   Completed           0 10.244.0.108  dpps-local-wms-control-plane 67m
 wms-dpps-iam-login-service-6d4c449dbc-qvsg9 ● 1/1   Running             0 10.244.0.24   dpps-local-wms-control-plane 22h
 wms-dpps-iam-nginx-voms-775b755dc9-5zvg2    ● 1/1   Running             0 10.244.0.38   dpps-local-wms-control-plane 22h
 wms-dpps-iam-test-client-5679fdcbd8-l44wr   ● 1/1   Running             0 10.244.0.33   dpps-local-wms-control-plane 22h
 wms-dpps-iam-trust-store-29413800-26xlq     ● 0/1   Completed           0 10.244.0.91   dpps-local-wms-control-plane 169m
 wms-dpps-iam-voms-aa-6d44df59fb-7smds       ● 1/1   Running             1 10.244.0.31   dpps-local-wms-control-plane 22h
 wms-file-catalog-59567ffc7c-t576p           ● 1/1   Running             0 10.244.0.104  dpps-local-wms-control-plane 67m
 wms-job-manager-6759f8586-w9t7t             ● 1/1   Running             0 10.244.0.99   dpps-local-wms-control-plane 67m
 wms-job-monitoring-65b54b4d6f-9wkj4         ● 1/1   Running             0 10.244.0.100  dpps-local-wms-control-plane 67m
 wms-job-state-update-84f6554b68-jvc44       ● 1/1   Running             0 10.244.0.101  dpps-local-wms-control-plane 67m
 wms-mariadb-0                               ● 1/1   Running             0 10.244.0.40   dpps-local-wms-control-plane 22h
 wms-master-cs-0                             ● 1/1   Running             0 10.244.0.107  dpps-local-wms-control-plane 67m
 wms-matcher-7cd6978755-4vph2                ● 1/1   Running             0 10.244.0.98   dpps-local-wms-control-plane 67m
 wms-minio-568ff76587-st7js                  ● 1/1   Running             0 10.244.0.13   dpps-local-wms-control-plane 22h
 wms-optimization-mind-5d549c4b56-gq28k      ● 1/1   Running             0 10.244.0.102  dpps-local-wms-control-plane 67m
```

DiracX CWL prototype

- Utilisation du [Common Workflow Language](#) pour décrire les workflows Dirac(X) (Jobs, Transformations et Productions)

- Participation au développement du prototype (puis à l'intégration dans DiracX):
  - Plan: https://github.com/users/aldbr/projects/1/views/1
  - 8 participants actifs:
    - CTAO: mexanick, arrabito, stellatsuu, loxeris, natthan-pigoux
    - LHCb: aldbr, ryuwd, acquadigiorgio
  - Sprint de 2 semaines

- Les premières étapes (pour les jobs seulement):
  - JobWrapper custom pour la gestion du prototype dans DIRAC
  - Converteur CWL -> JDL
  - Gestion des I/O (data et sandbox)
  - Création d'"Execution Hooks" et de "Plugins" (e.g. gestion du Pre/Post processing)
  - Gestion d'apptainer
  - Tests avec des Workflows LHCb et CTAO

Merci !

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