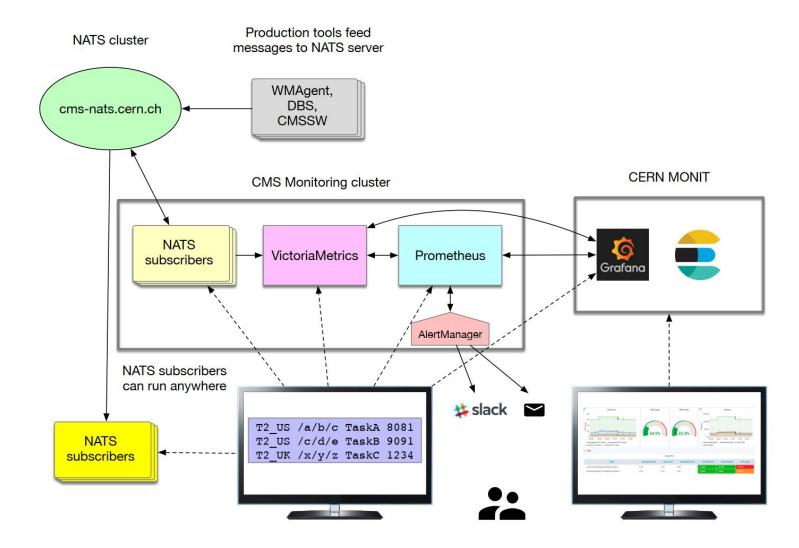


# CERN MONIT Ensuring a safe cron job transition to kubernetes

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August 10, 2022

## **CMS Monitoring infrastructure**





### Before: custom in-house solutions

**Now:** scalable open-source software (ES, Influx, Hadoop, Spark, Kibana, Grafana, k8s, docker)

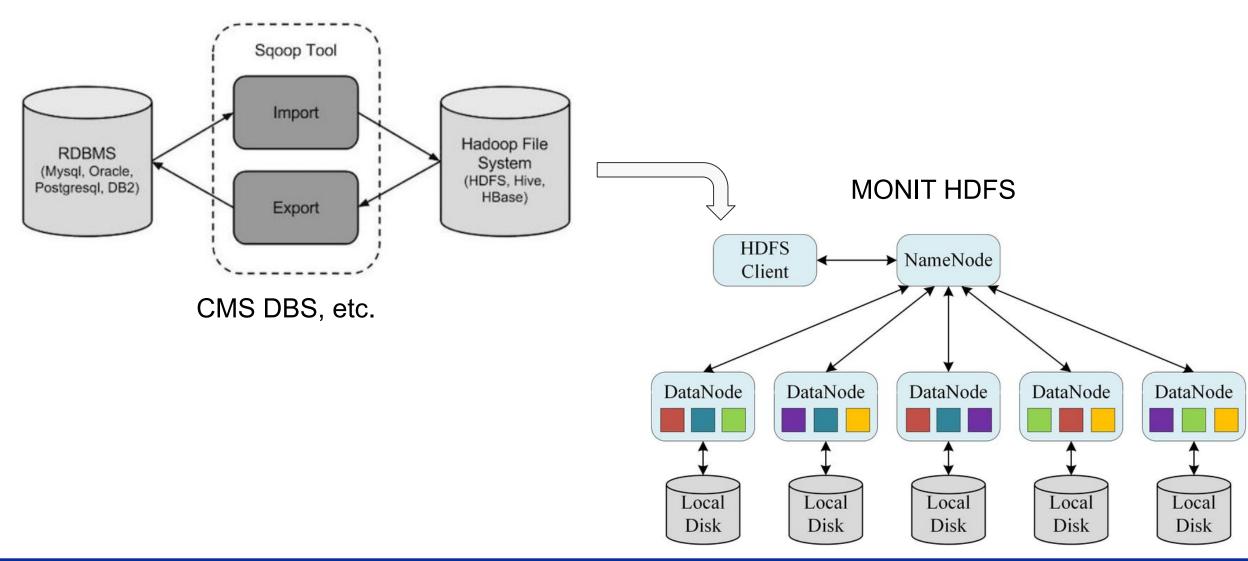
#### **Data transport Data Providers** Data storage Data access and processing Data **HTCondor** Kibana ElasticSearch injection 8 Kafka WMAgent InfluxDB Grafana **ActiveMQ** CRAB Spark HTTP **SWAN HDFS** Logstash



Current dataflow in

MONIT infrastructure:

## **CMSSpark** - framework for CMS HDFS workflows





## My work

Make sure these and many other cron jobs are prepared to be fully autonomous in a newly deployed k8s cluster

- FluxCD/ArgoCD, kubernetes, docker
- Individual bash testing
- Solid monitoring via Prometheus -

Push-gateway queries

```
0 */4 * * * /data/cms/CMSSpark/bin/cron4aggregation
0 */3 * * * /data/cms/CMSSpark/bin/cron4dbs_condor
0 20 * * * /data/cms/CMSSpark/bin/cron4dbs_condor_df /data/cms/pop-data
0 18 * * * /data/cms/CMSSpark/bin/cron4dbs_events /data/cms/pop-data
0 15 */5 * * /data/cms/CMSSpark/bin/backfill_dbs_condor.sh 1>/data/cms/CMSEOS/CMSSpark/log/backfill.log 2>&1
1 * * * /data/cms/cmsmonitoringbackup/run.sh 2>&1 1>& /data/cms/cmsmonitoringbackup/log
07 08 * * * /data/cms/CMSSpark/bin/cron4rucio_daily.sh /cms/rucio_daily
```



