

CMS Token Status

- HTCondor-CEs submission is all done with token
- ARC-CEs token commissioned at all but three sites
 - SAM/ETF token submission issue for ARC-CEs prevents switching; new EL9 container ETF setup; progressing
- all native xrootd storage setups at Tier-1,2 complete
- 82% of dCache setups at Tier-1,2 token commissioned
- waiting for EOS CMS upgrade to start token campaign
 - EOS permission issue required change in SciToken library
- one DPM setup remaining
- Rucio transferring data via token when possible
 - fine write-token granularity
- migration to Kubernetes IAM instance in progress
- HashiCorp Vault at CERN config for CMS in progress
- adding token support to infrastructure/tools started

CMS Token Plans

- **a vault will securely store refresh tokens**
- **users will get access tokens from the vault**
- **for automated processes / long-lifetime credentials a token bastion will be used**
- **with**
 - 1) **all storage token enabled**
 - 2) **vault and bastion**
 - 3) **CMS framework / workflow core “protected”****==> provide grid jobs with data access token**
- **switching “direct clients” one-by-one**
- **need CMS-specific scopes to tackle CMSWeb**

CMS Token Issues

- **token support in tools/services in early stage; thanks to developers for addressing issues quickly!**
 - **we hope the HTCondor-G--ARC-CE issue can be understood/sorted out soon**
- **we expect IAM and vault to be 24x7 services**
- **switch IAM from OpenShift to K8s instance involves all site services**
- **need to sort out scope authorization hierarchy with IAM developers and define CMS specific scopes**