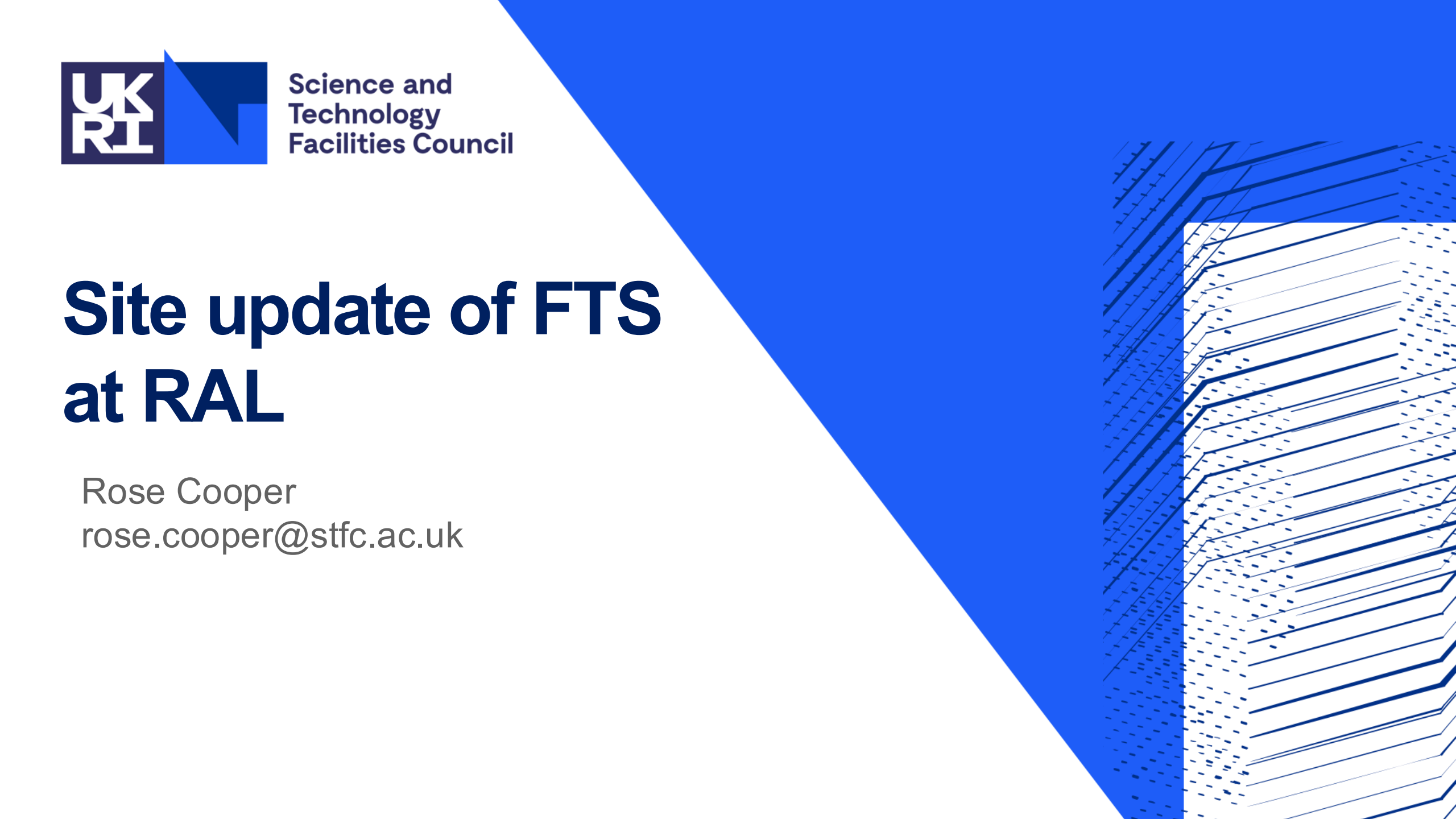
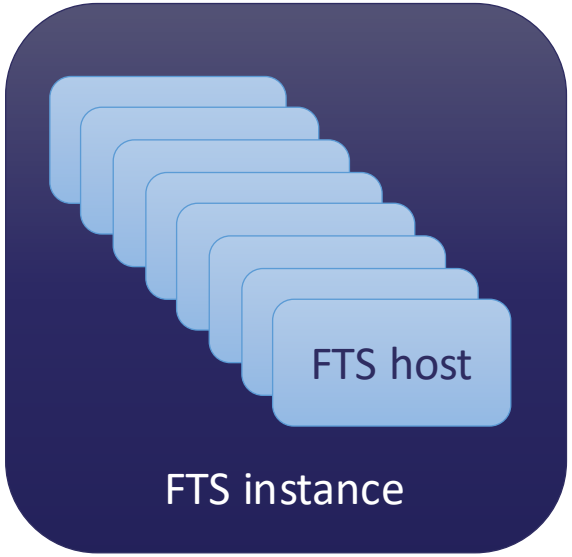


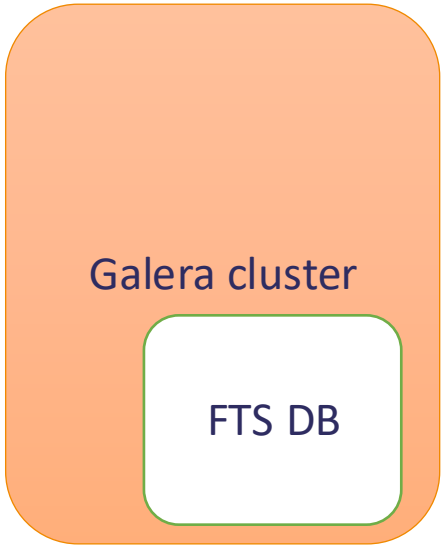
Site update of FTS at RAL

Rose Cooper
rose.cooper@stfc.ac.uk

Current FTS configuration

- 3 FTS instances comprising of 12 VM hosts
  - 4 hosts for WLCG instance
  - 4 for SKA instance
  - 4 for fts-test
  - All running FTS v3.14
- Main database cluster managed by SCD database team
  - Separate db for each instance





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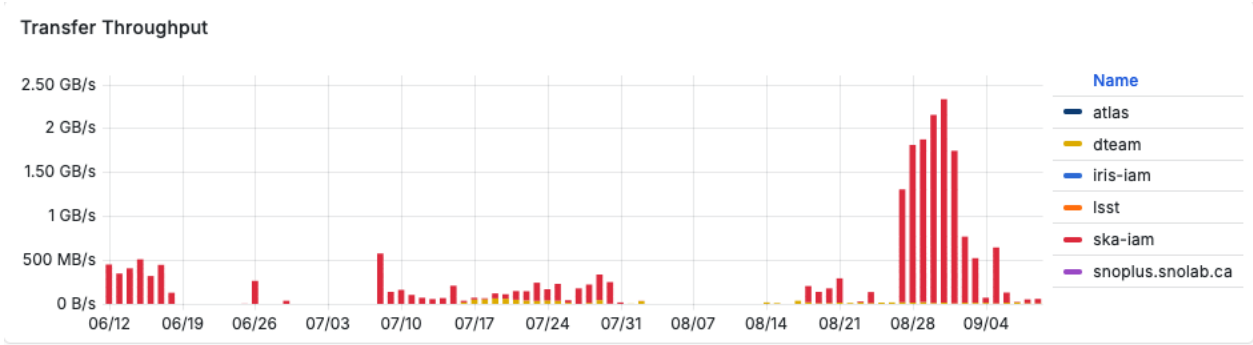
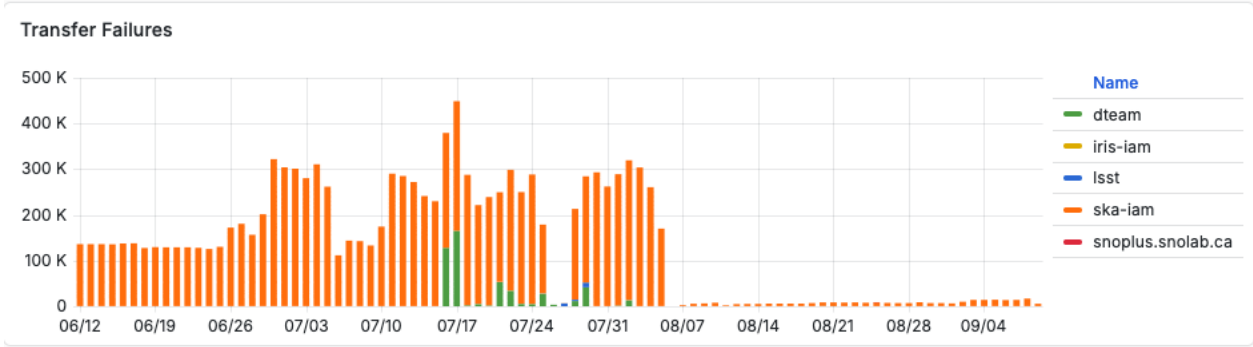
FTS at RAL

- Main user is still SKA/SRCNet, also see usage by LSST and snoplus
- Integrated lcgfts hosts with IRIS IAM
- Use a combination of the FTS web monitoring and Grafana for monitoring





davs://storm.srcnet.skao.int	davs://xrootd01.desrc.tudastro.de	ska-iam	5	–	–	100.00 %	–	
davs://storm.srcnet.skao.int	davs://dcache.ska.cscs.ch	ska-iam	5	–	–	100.00 %	–	
davs://storm.srcnet.skao.int	davs://xrootd-02.swesrc.chalmers.se	ska-iam	4	–	–	100.00 %	–	
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davs://xrootd01.uksrc.rl.ac.uk	davs://xrootd-02.swesrc.chalmers.se	ska-iam	6	–	–	100.00 %	–	

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FTS use outside of particle physics

- Used for large scale data movement tests for SKA/SRCNet alongside Rucio
  - Moving large volumes of data, and very large files!
  - More details on this in James Walder's talk!

- LSST
  - Used RAL FTS for early data movement tests
  - Now using RAL FTS for UK data movement
  - Typically move large volumes of small files

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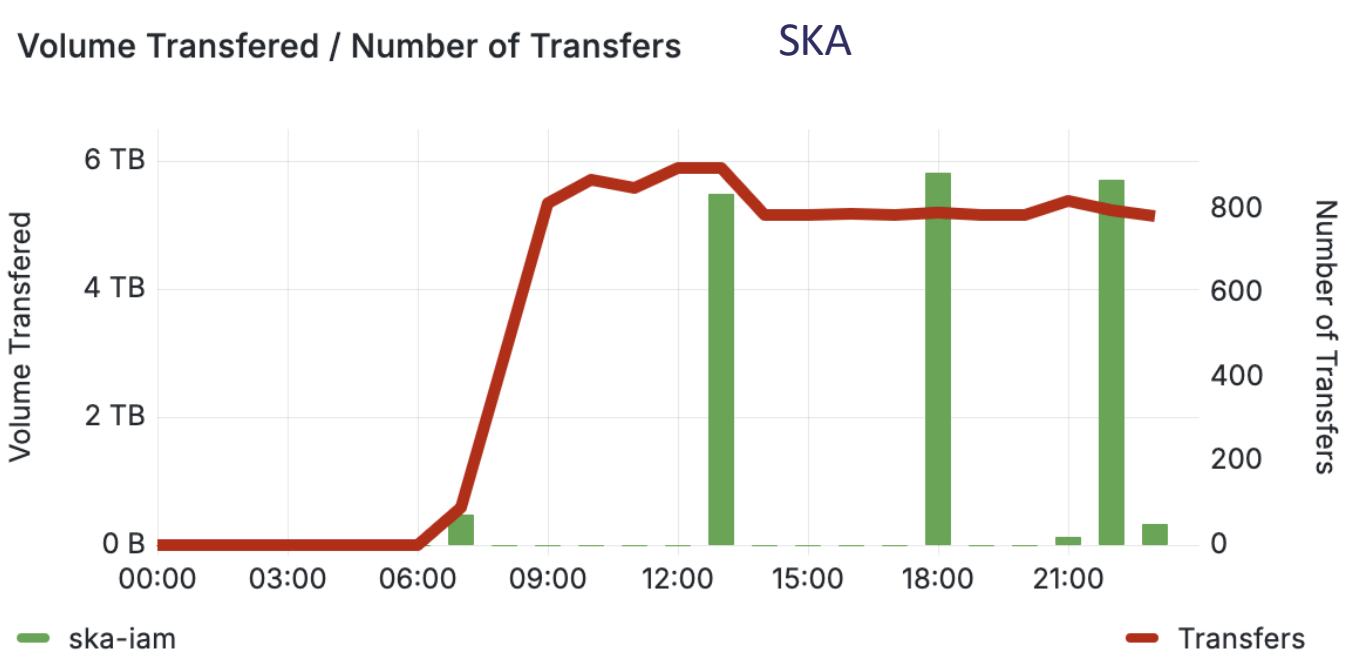
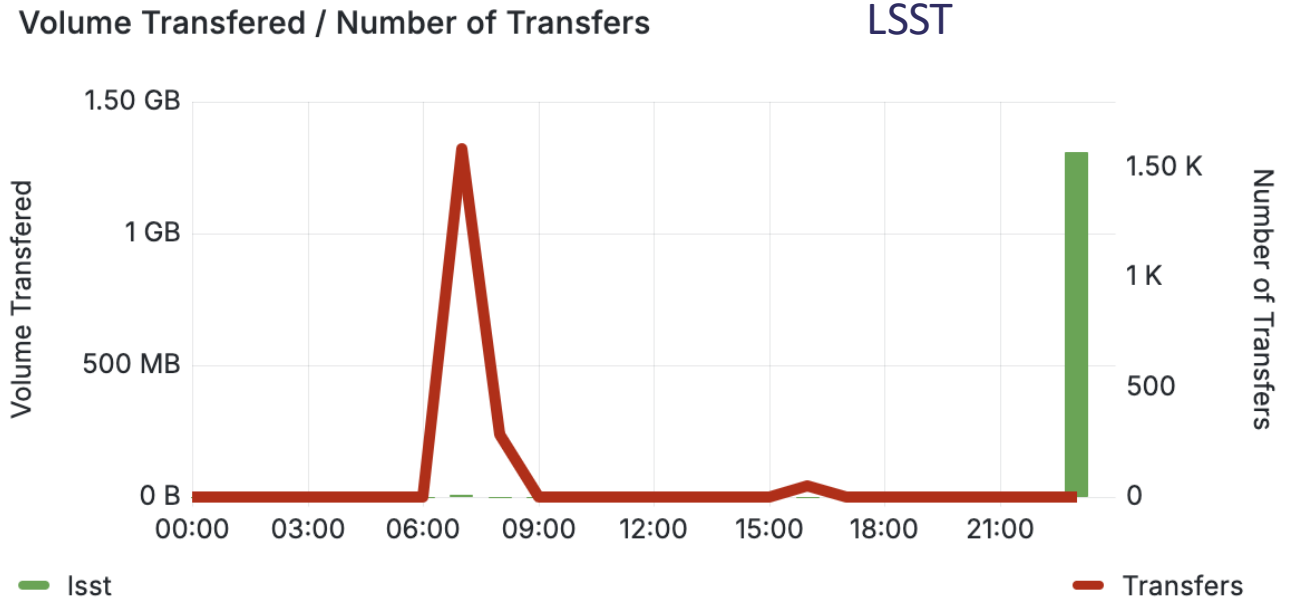
SKA



SKA move a smaller volume of larger files (1TB<)in addition to regular tests

LSST move a large volume of very small files (~20kb)

LSST



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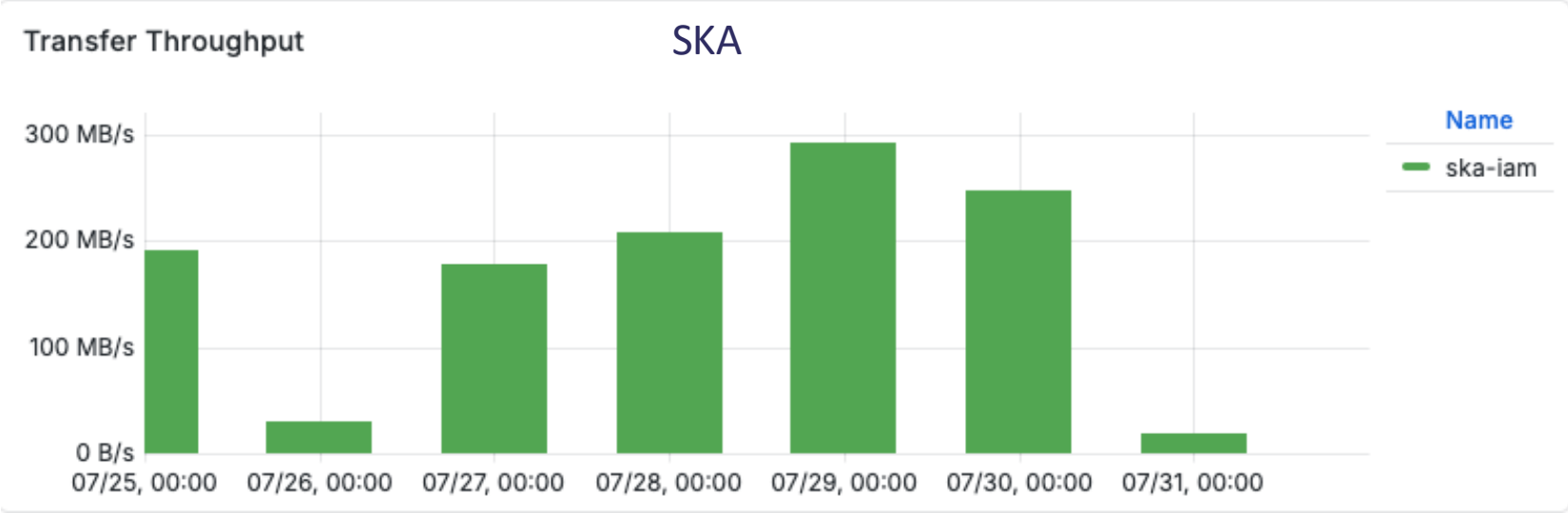
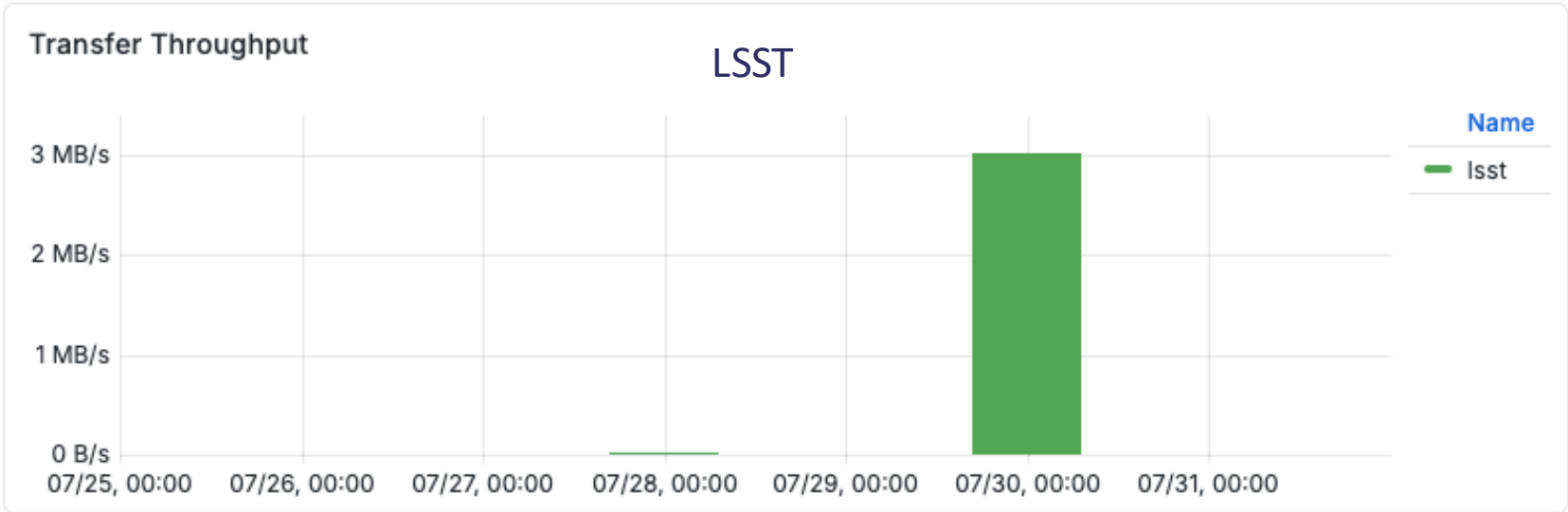
SKA



LSST



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Changes since previous workshop

- Moved FTS to new HA infrastructure at RAL
  - Moved from VMWare to Proxmox
  - Also move the lcgfts hosts over to the LHCOPN/ONE network as part of this
    - Restores access to CTA storage!

- End-to-End tests
  - 6 month apprenticeship project
  - Currently in progress

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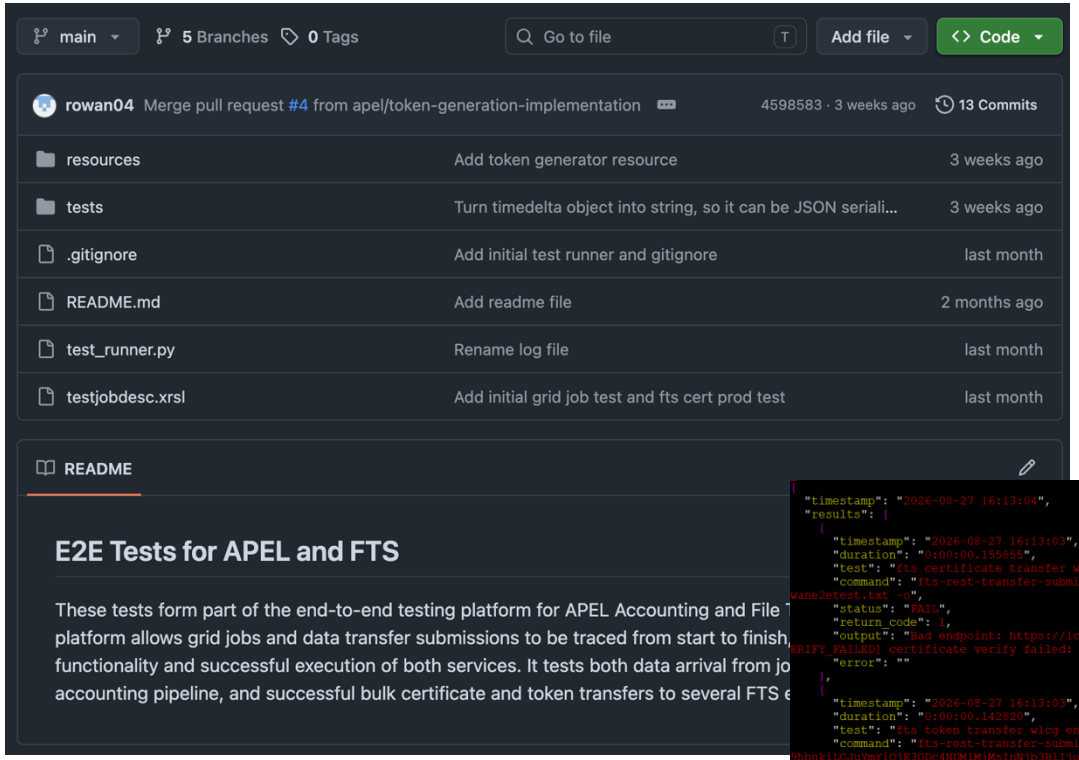

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Future plans

- FTS4!
  - Intend to also run FTS4
  - Will start preparing to deploy it when able

- Continue service operator monitoring improvements
  - End-to-end tests of common transfer workflows
    - Cert & token auth, mixture of storage endpoints/protocols, etc
    - Opensearch dashboard to collect & display results

- Kubernetes deployment?

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Questions around FTS4

- Token authentication to access web logs?
  - Currently have a fudged version of this for SKA-IAM thanks to James W
  - Is this something that could be included in FTS4 in the future? Would it possible to integrate multiple IAMs with the same FTS web monitoring?

- Accessing the FTS DB via a service proxy
  - Saw ~10% fts transfer ”failures”

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Thank you

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