

MANCHESTER
1824

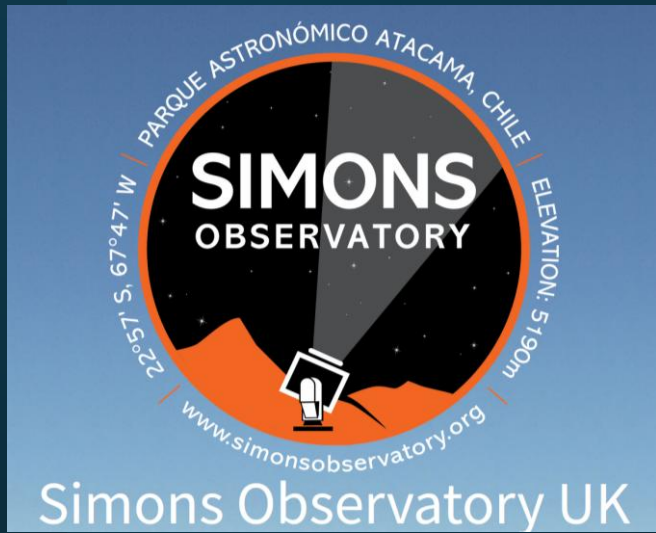
The University of Manchester



CENTRE FOR ASTROPHYSICS

Ceph for Simons Observatory UK and
UK SKA Regional Centre data centres

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3x Lenovo SR650 v3 node (112 core, 1.5 TB RAM, 25 Gbps)

90x 20 TB HDD per node, 2x 6.4 TB NVME per node

CephFS with 3x Replicated Metadata Pool on NVME
and EC 10:2 on HDD for Data Pool

3 MON, 2 MGR, 1+2 MDS, 276 OSD, 4.8 PB available

28 Client nodes

Non-ideal configuration

Crashing nodes

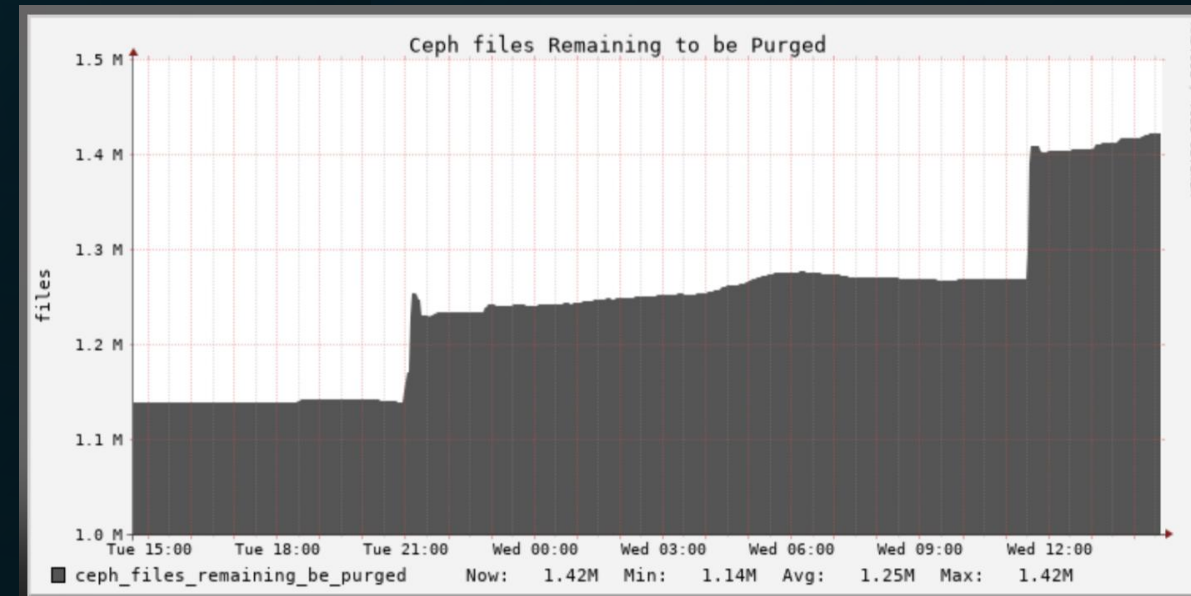
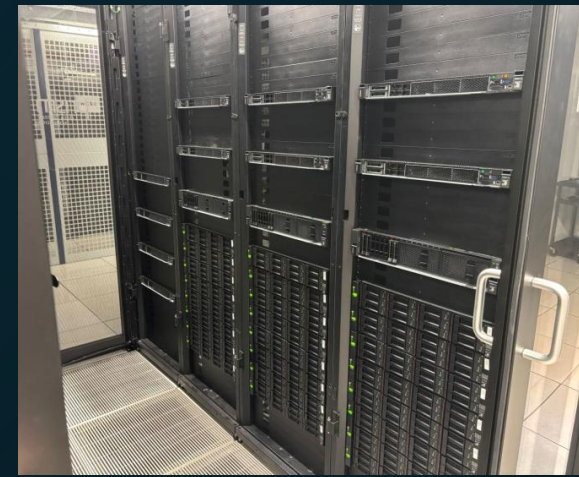
Autoscaler

Purges backed up – space & performance

Performance

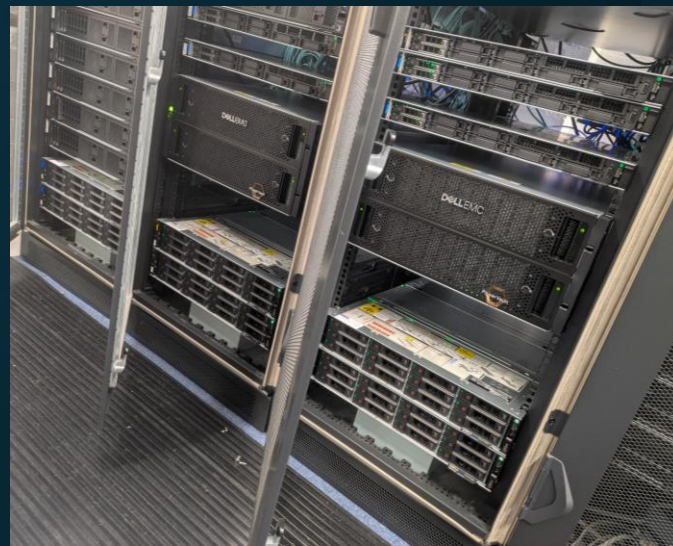
Metadata SSD replacement

Upgrade from reef to squid / tentacle





SKAO Regional Centre United Kingdom



CephFS Data Pool (EC 4:2)

6x Dell R760xd2 (24 core, 256 GB RAM, 100 Gbps, 24x 20 TB HDD)

CephFS MetaData Pool (3xRep)

4x Dell R650 (24 core, 512/128 GB RAM, 100 Gbps, 28x0.96 TB SSD in ME5084 SAS Array)

3 MON, 3 MGR, 1+3 MDS, 172 OSD, 2.6 PB available

14+ Client nodes

OpenStack on-premises cloud, MANILA (CephFS)