

Ceph Day for Research and Non-profits

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MeerKAT Ceph updates from Mzansi

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MeerKAT, one of the SKA (Square Kilometer Array) precursor telescopes, was inaugurated on the 13th of July 2018 in South Africa. We would like to update the Ceph community with progress and activities relating to the MeerKAT project with a particular focus on MeerKAT data storage.

A number of Ceph RADOS Gateway instances have been implemented for MeerKAT. We will present these use-cases, their current configurations and implementations. We will also discuss the development of bespoke software stacks for data transfer and an end user data access layer.

After two years of using Ceph, the MeerKAT data storage team is also reflecting on what we have learned and where we should focus our efforts w.r.t. Ceph and the Ceph community.

Since our first production cluster, we have been using ceph-ansible for deployment, which has suited our needs. However, looking forward, we have begun developing our own Ceph deployment process.

We have also been through a number of iterations of monitoring and alerting infrastructure for our Ceph production clusters. Our current efforts have been to use a stripped down version of the ceph-metrics for our Prometheus driven Grafana dashboards.

We are also in the process of growing our small Ceph community in South Africa. Currently this is being driven through meetup events, discussion forums and presentations at local workshops and conferences. Leveraging the perception of MeerKAT we are hoping to reach a wider audience and raise awareness of Ceph.

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