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INTEGRATING THE **FIRST MPI DISH** INTO THE MEERKAT ARRAY

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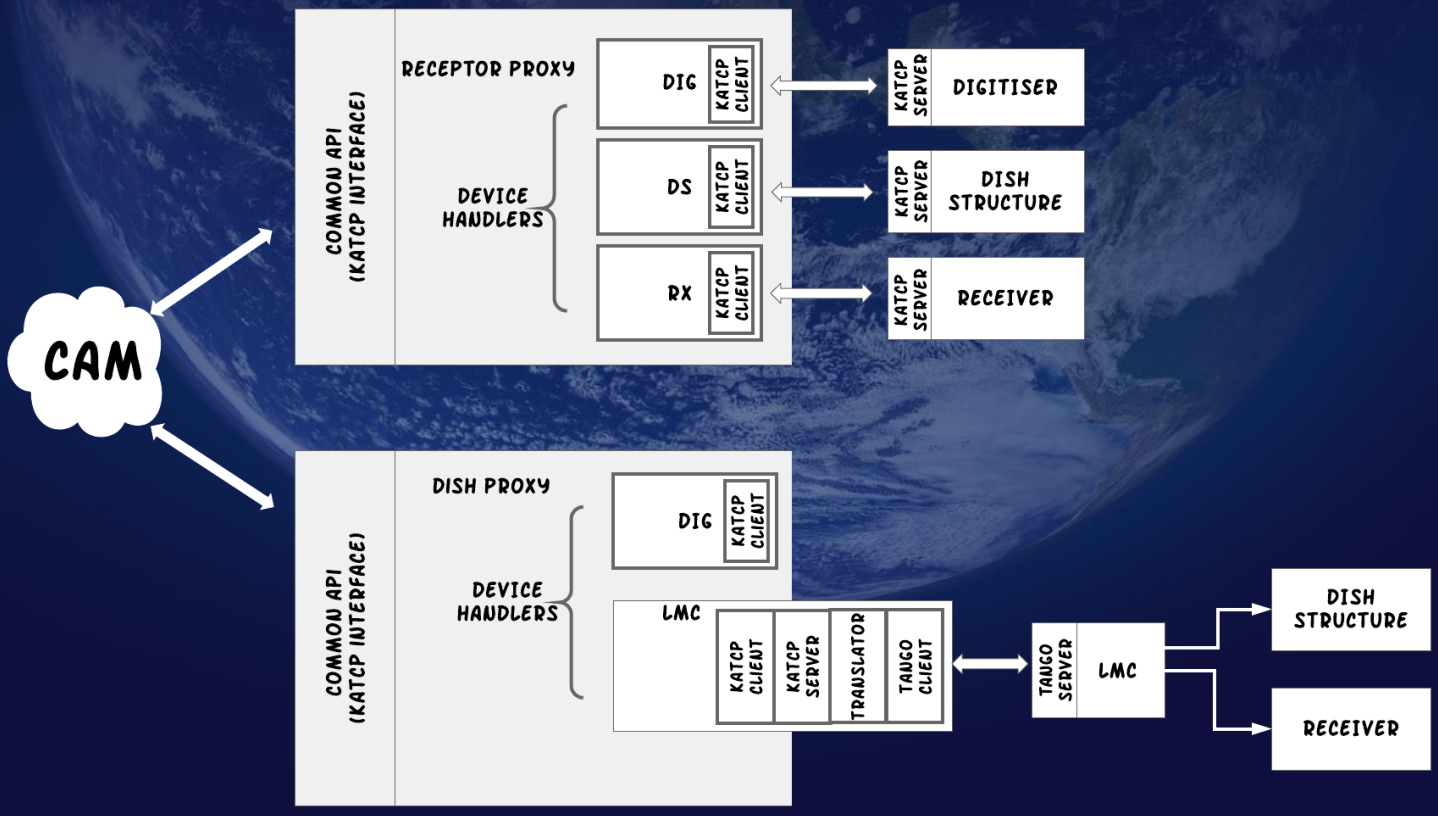

BACKGROUND

The 64-antenna MeerKAT interferometric radio telescope is a precursor to the Square Kilometre Array (SKA) which will host hundreds of receptor dishes with a collecting area of 1 sq km. During the pre-construction phase of the SKA1 MID, the SKA DSH Consortium plans to build, integrate and qualify an SKA1 Dish Qualification Model (SDQM) against MeerKAT. Before the system-level qualification testing can start on the SDQM, the qualified Dish sub-elements have to be integrated onto the SDQM and set to work.

STATEMENT OF WORK

The SKA MPI DISH, a prototype SKA dish funded by the Max Planck Institute, will be used for early verification of the hardware and the control system. This prototype dish uses the TANGO framework for monitoring and control while MeerKAT uses the Karoo Array Telescope Control Protocol. To aid the integration of the SKA MPI DISH, the MeerKAT Control and Monitoring (CAM) subsystem has been upgraded by incorporating a translation layer and a specialised SKA DISH proxy that will enable CAM to monitor and command the SKA dish as if it were a MeerKAT antenna.

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Phase 1 marks the commencement of the construction of SKA1-MID Dish array. This array will constitute 133 dishes spread over approximately 150 km

MPI dish on karoo site

https://sarao.ac.za/