



The Australian SKA Regional Centre (AusSRC)

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Extended Abstract

The SKA Observatory (SKAO) is an intergovernmental project to build the world's largest radio telescopes. In order to fully exploit the scientific potential of the immense amount of data flowing from the telescopes, SKAO is working with science communities across the world through SKA Regional Centres (SRCs), which are nationally funded and operated nodes that form the basis of a global compute and science support infrastructure [1], referred to as the SRC Network or SRCNet. SRCNet has the critical role of providing the only user-access interface for researchers to interact with and conduct analysis on SKA data products.

The Australian SKA Regional Centre (AusSRC) is part of SRCNet and is contributing to this international effort by prototyping various operational aspects, such as testing data distribution frameworks and building data analysis pipelines. Working with SKA precursor telescopes, specifically ASKAP and MWA, AusSRC continues to develop scalable data handling strategies and automated workflows that are being used by current researchers to produce scientific results and publications. Recently, AusSRC expanded its support to more science projects to increase its capability to handle the wide assortment of data products that will be generated by the SKAO.

AusSRC is also in the process of securing computing and storage resources with the intention of being a recognised node in SRCNet v0.2. SRCNet is progressing infrastructure development with a phased approach. Each iteration – from v0.1 to v1.0-beta – will incorporate more SRC nodes dedicating hardware components to support the activities of SRCNet, building up full operational capacity and readiness.

References

- [1] “SKA Observatory Establishment and Delivery Plan”, published by SKAO, February 2021.