

Behind the Cloud

The challenges and solutions in developing a nationwide world user class support for NeCTAR service

Hamish Holewa, Sarah Nisbet , Nick Golovachenko



Summary of Session Abstract

- The National eResearch Collaboration Tools and Resources (NeCTAR) Project is an Australian Government project funded under the Super Science initiative enabled Australian researchers access to cloud compute and storage infrastructure through the building a federation of 8 cells operating as a single Cloud fabric, the NeCTAR Cloud.
- Detail the challenges in providing user support across a user base that is nation wide, cross institutional with a user base that has varying levels of technical knowledge and it's a service that operates twenty four hours a day
- The approach in finding solutions to these challenges within a work package that focuses on and the development of a distributed national user support service and tools and process in operating a national NeCTAR Distributed Helpdesk improving documentation

Current State

- 8 Nodes across 7 states
 - QCIF, Intersect, NCI, Monash, UoM, TPAC, eRSA and Pawsey
- 30,000 Compute cores
- 5,000 Users
- Limited User Support Tool
- Limited Operator Documentation and Procedures
- Limited Web Technical Content

Challenges

- Commenced in January 2012 - Single Node with core services (UoM)
- Project Expansion 2012 to 2014 - QCIF, Intersect, NCI, Monash, uTAS, eRSA and Pawsey - Final Total 8 nodes across 7 states
- Openstack is open sources with a continuous development cycle every 6 months major upgrade - e.g. Cactus, Diablo, Essex, Folson, Grizzly, Havana, Icehouse, kilo, etc
- Support was limited to node only queues
- Best effort SLO for User Support, OLA in development between Nodes, Service Catalogue documentation due to continuous development is best effort.
- Minimal Knowledge Base (Tier 0 Self Service)
- Website Technical Guides out of date (No Policies, Processes or Procedures for updating content)
- Moving from Project Build and into Operation

- Work Package 6 User Support is designed to significantly enhance user support for NeCTAR services.
- WP6 comprises 6 sub-projects aimed at lifting user support across all channels that researchers use. Each sub-project has a Node Participant responsible for implementation and delivery of the sub-project.
- The sub-projects and Participants are:
 - 1. Tier 2 distributed help desk support (UoM)
 - 2. Tier 0 material development for core NeCTAR Services (TPAC & eRSA)
 - 3. Tooling - Shared NeCTAR user support infrastructure (QCIF)
 - 4. National training (Intersect)
 - 5. User support operations and coordination (QCIF)
 - 6. Tier 0 material development for unique node based NeCTAR services (All Nodes)

eRSA Tier 0 Materials Deep Dive