The South Australian Sustainable Repository (SASR) –

Overview

The South Australian Sustainable Repository (SASR) is a managed, distributed, mass research data storage facility for South Australian researchers.

Although presenting as a unified system, SASR is implemented across physically distributed nodes located initially at the three South Australian Universities with others to be subsequently added elsewhere. These nodes link seamlessly into SAPAC's extensive RAID and tape silo data storage capability. The nodes will operate as gateways for researchers from the respective Universities to access transparently SAPAC's broad range of e-Research resources and specifically SAPAC-managed research data storage and related data management services.

It is important to note that the primary purpose of SASR is the storage and management of research data. It *complement* and *augments* existing and planned individual institutional and discipline-based digital repositories. SASR is valuable and additional service for the South Australian research community.

What will SASR do, what services will it deliver?

The SASR nodes will have four functions and provide the relevant services:

1. SASR servers will be the local access points (through flinders.sasr.edu.au, adelaide.sasr.edu.au and unisa.sasr.edu.au) to the SASR research data repository. Local researchers will be able to access some local disk for storage of research data and also have transparent access to mass research data storage and management services, including, by negotiation, project- or group-dedicated mass storage. This will also include backup and archiving to the SAPAC tape silo.
2. SASR servers will also provide a local gateway (through sapac.flinders.edu.au, sapac.adelaide.edu.au and sapac.unisa.edu.au) into SAPAC e-Research facilities and services and will facilitate the connection between local and remote users and SAPAC resources. For example, users will be able to login to the local SASR node with their SAPAC username and password to submit jobs into SAPAC HPC facilities, access dedicated mass storage etc.
3. SASR servers will also be the institutional access point to the APAC National Grid, connecting researchers with national, grid-based resources, including HPC, data storage, remote instruments and sensors etc.
4. SASR as a whole or individual SASR nodes will provide a platform for the development and deployment of additional cognate services as requested, advised or agreed by the Universities' research communities and the groups that, like SAPAC, service researchers.

SASR schematic – data storage and management

The following diagram outlines the structure of the SASR. The operation of the SASR will be explained fully in a *SASR User Guide* that will be posted on the SAPAC web site.

The grey components represent external infrastructure and services. The dashed boxes denote expandability, by adding a local SASR gateway with local disk storage and/or dedicated data storage.