

NCRIS – Australian National Data Service (ANDS) – AARNet Statement of Capability

AARNet Pty Ltd is the not-for-profit company that owns and operates one of the world's most advanced and wide reaching national and international research and education networks. With more than 30,000kms of fibre assets nationally, AARNet has the largest footprint of any national research and education network in the world. Our vision is a high bandwidth Australian Research and Education Network, in which the tyranny of distance does not impede Australian research, teaching and learning collaboration both locally and internationally.

Our strategy is to capitalise on our investment in long term infrastructure with network innovation for the benefit of future generations of Australian researchers, educators and students. Our focus is our dedication to research and education and connectivity to the other advanced international and national research and education networks around the world.

AARNet provides high-capacity communications services to its Shareholders, the 38 Australian universities and CSIRO, as well as to other research and education institutions in Australia and the South Pacific. Managing the network is our primary function. AARNet operates a 24-hour, 7-day response service, achieving extremely high levels of service on both the network and other services. The differentiator is many gigabits of bandwidth with no congestion both nationally and internationally.

AARNet generally connects customers via customer edge equipment to ensure the integrity and performance of the network. However, where required AARNet connects and supports directly-connected servers such as the MAMS Testbed Shibboleth Federation, the RETAIN file store which acts as a Mirror and provides other network-connected storage capabilities.

AARNet has a staff contingent of 38 with a significant presence in every capital city except Hobart. Against this background, AARNet can offer the following capabilities to ANDS:

1. Connection to the AARNet3 network.
2. Specialised network connections (e.g. dedicated light paths) between 2 or more sites.
3. Provisioning of special circuits for experimental use in research.
4. Provisioning "private" networks among closed communities – "research commons", ad hoc or lasting.
5. Civil works for connections into the core network.
6. Videoconference and VoIP services operating over the network.
7. Connection to the network of devices requiring high-availability and high-performance connections.
8. Location and management of specialised servers, including for instance a file store which could be used to aggregate the smaller storage needs of organisations who find it uneconomical to provide one themselves.
9. Skilled technical staff in most capital cities to participate locally in projects requiring high network connectivity.
10. An Operations Response Centre that could be expanded to cover other services of national importance.
11. An incorporated entity and neutral aggregation point with a proven willingness and ability to collaborate with a wide range of users across the research and education community, nationally and internationally.
12. A lightweight governance structure – AARNet already has contractual agreements in place for connection to the network with all of the institutions in the higher education and research sector throughout Australia.

TAR: 7-Jun-07