

Research Data Transfer Services

Technical solutions for managing big data flows

AARNet offers specialised network solutions for meeting the unique data transfer needs of data-intensive research.

Data-intensive research has the potential to generate incredibly large volumes of data. How to move large single flows of data (also known as “elephant flows”) over the AARNet network between instruments, high performance compute, storage and collaborators without impacting business critical services for other users is a challenge faced by many universities and research facilities. AARNet offers several specialised network solutions for managing this issue. We can help you maximise data throughput and ensure cost-efficient usage of campus infrastructure.

Specialised network solutions

+ Private Circuits

Private optical fibre and Ethernet circuits of up to 100Gbps are available to meet the needs of researchers transferring large data volumes consistently between two locations, such as a scientific instrument and compute facility, in Australia.

+ Science DMZ Managed Service

Science DMZ architecture is another way of maximising data throughput by separating the data-intensive research traffic from day-to-day operational traffic. Our Science DMZ Managed Service provides AARNet customers with an end-to-end solution. Our engineers manage the design, procurement, deployment and ongoing operation of this service for you.

+ Research VPN

The AARNet Research Virtual Private Network (VPN) provides dedicated 100 Gbps capacity with international reach, accessible only to a small community of organisations involved in data-intensive research.

+ Consultancy Services

AARNet’s enterprise engineering consultancy team provides AARNet connected institutions with cost-effective remote and on-site assistance and professional advice for a wide range of technical and network related tasks, including network issue investigation and upgrades, vendor choice, and more.

Choosing the right solution

Our engineers will work with you to determine which technical solution is right for meeting the unique needs of your researchers.

The role of AARNet

AARNet is the high-performance network for the Australian research and education community. Our job is to build and operate the infrastructure to support scientists and their collaborators at universities and research institutes. AARNet is committed to investing in for-purpose infrastructure to enable data-intensive science.

What our customers say

“AARNet connectivity gives us more power to do more sophisticated analysis and makes our data more accurate.”

Tony Gill,
NSW Department of Planning, Industry
and Environment Remote Sensing
Scientist and Programmer