SERVICE PROVIDER PANEL

AeRO Forum
4th May, 2017,
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THE AARNET MODEL

- Structure and Governance
- Subscription/Consumption Model
- Co-Investment
- Wholesale Model
- Demand Aggregation
- Operating Surplus
- Internationally Aligned and Integrated
- Addresses a Market Failure
- Acquires, Pools and Leverages Assets
LONG RANGE INVESTMENT PLAN

National Network Backbone (Perth-Brisbane) until 2038
International Capacity to Asia
AARNet, Google, Indosat, Singtel, SubPartners, and Telstra

Two pair fibre system Singapore – Sydney via Perth – 9,000 km

This is the FIRST subsea project where a National Research and Education Network (NREN) has been a consortium partner

This is one of the first subsea projects to make available portions of the fibre (spectrum or frequencies) to investors

This investment involves no Federal government funding, either for the initial investment or for the operational support

The contracted life of this system is multiple decades
LONG RANGE INVESTMENT PLAN

Network Expansion
1. What key eResearch learnings from the last 10 years do we want to address/carry forward into the next 10 years?

2. How do you build user confidence in the long-term sustainability of an eResearch service, with or without significant Federal investment?

3. What role you see your organisation playing in the definition, evolution and operation of an ARDC?

4. How can researchers best be given streamlined access to data (and tools) that may be offered across many providers?
LEARNINGS

Integration
Clarity of purpose
Institutional engagements
USER CONFIDENCE

Ease of use
Research relevance
Service/facility (not program)
Won’t (ever?) get all the data co-located with all the compute
CLOUDSTOR USAGE (SYNC/SHARE)

- **Users**: 30,500+
- **Domains**: 238
- **Storage Used**: 135 TB

*Latest data as of 2017-01-31*
WHY?

• Zero-barrier to entry
  • Free (and on-net)
  • Pre-approved 100GB
• Familiar
• Fast
• Australian
• Cross-institution collaboration
• Local “real” support
• AARNet brand

• Strong institutional interest …
CLOUDSTOR AS THE (OR A) DARK MATTER ...

- Web Client
- Owncloud Sync Clients
- CloudStor Collections
- Instruments
- Webdav
- API+

CloudStor

EOS

CloudStor Storage

S3

NeCTAR RC Storage

??

Institution Storage

??

RDS(I) Funded Storage

S3

AWS

Other Cloud Storage

OCM – Open Cloud Mesh

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Create Australian Research Data Cloud

Enhance existing capability through the integration of existing capability – ANDS, NeCTAR and RDS to establish an integrated data-intensive infrastructure system, incorporating physical infrastructure, policies, data, software, tools and support for researchers.

https://docs.education.gov.au/node/42216
AARNET RESPONSE

AARNet is very strongly of the opinion that the “Create Australian Research Data Cloud” requires significant further definition.

Moreover, there are several stakeholders that are critical to the success of this priority that must be explicitly and formally engaged in the definition, subsequent deployment and operation of the services the Australian Research Data Cloud will provide.

At a minimum, these stakeholders are AARNet, the AAF, the Pawsey and NCI facilities, and representatives of Australia’s research institutions, and these should be identified as being critically important players in the roadmap in addition to ANDS, RDS and NECTAR.
ARDC ISSUES

Governance

Operational Sustainability

Existing Infrastructure is Close to End of Life

Federated Services

Industry leverage

Service Consistency, Integration and Ease of Use

Consolidation
Discuss
THANK YOU
... more integrated, coherent and reliable system to meet the needs of data-intensive, cross-disciplinary and global collaborative research

... broadly align with the European Open Science Cloud and other global initiatives.

... support research data management from creation and discovery, through description and provenance, integration and storage, manipulation and analysis, and preservation.

... provide digital platforms that meet specific research requirements and integrate other data rich research infrastructure.

... support the sharing of informatics and software techniques to enable the deployment and wide use by researchers.
Tier 1 HPC
Enhance existing national HPC
Explore governance integration of these Tier 1 high performance computing facilities

Create Australian Research Data Cloud
Enhance existing capability through the integration of existing capability

Research Networks
Enhance the capability and capacity of the Australian Research and Education Network

Access and Authentication
Enhance capability and international relationships in access, authentication and authorisation services

ERESEARCH

ICT Industry

eResearch

Integration
Adaptation
Aggregation
Development
Customisation

Research Communities

Skills, Training, Awareness

As Is

RESEARCH OUTCOMES