



Building on GLIF: integrating network, compute and storage to create better research outcomes

**Annual Global LambdaGrid Workshop , Prague
29 September 2015**

**David Wilde,
Network Architect, AARNet**

Australia's Academic and Research Network



AARNET

AARNet



Schools



TAFEs



Universities



Hospitals



Cultural

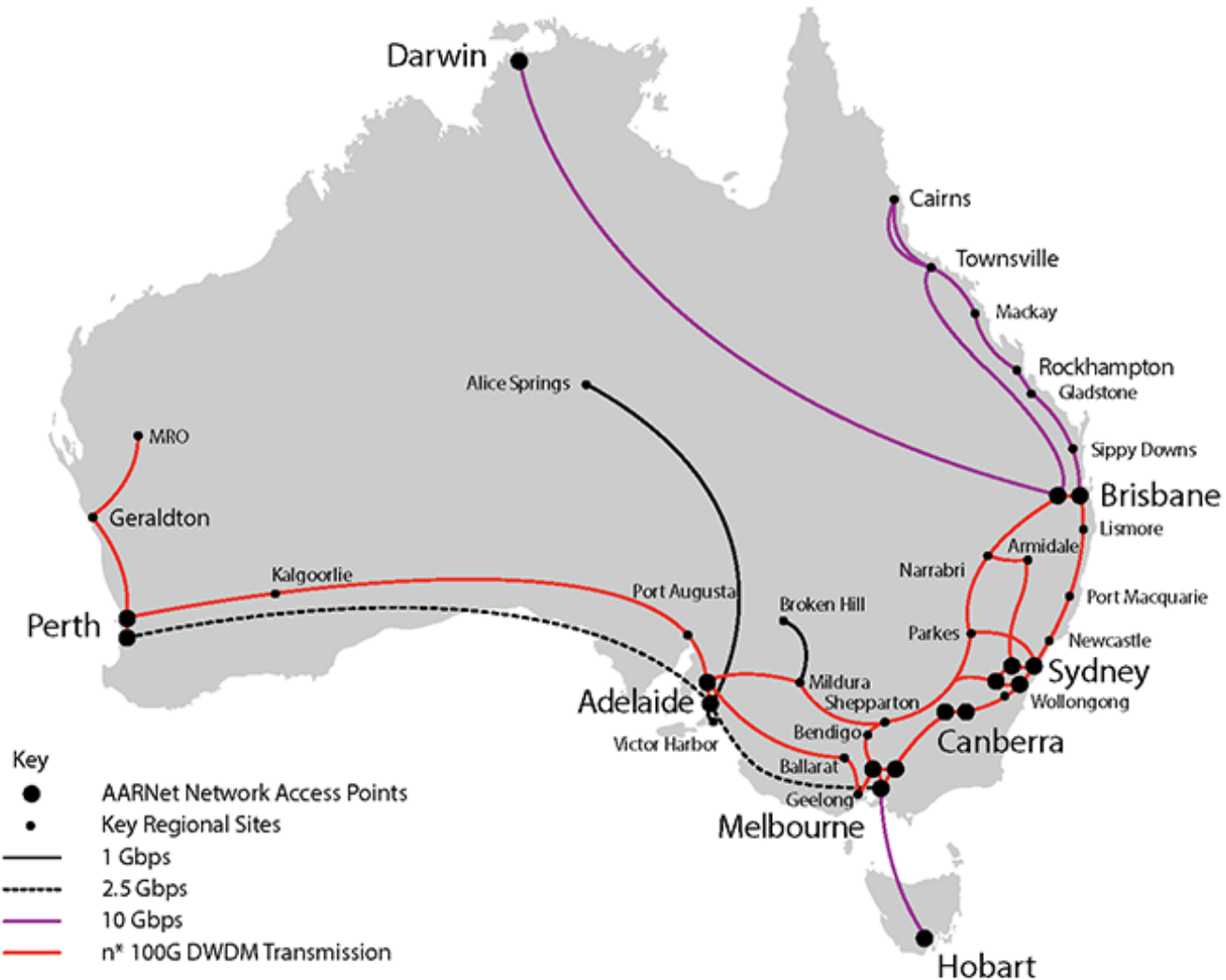


Research

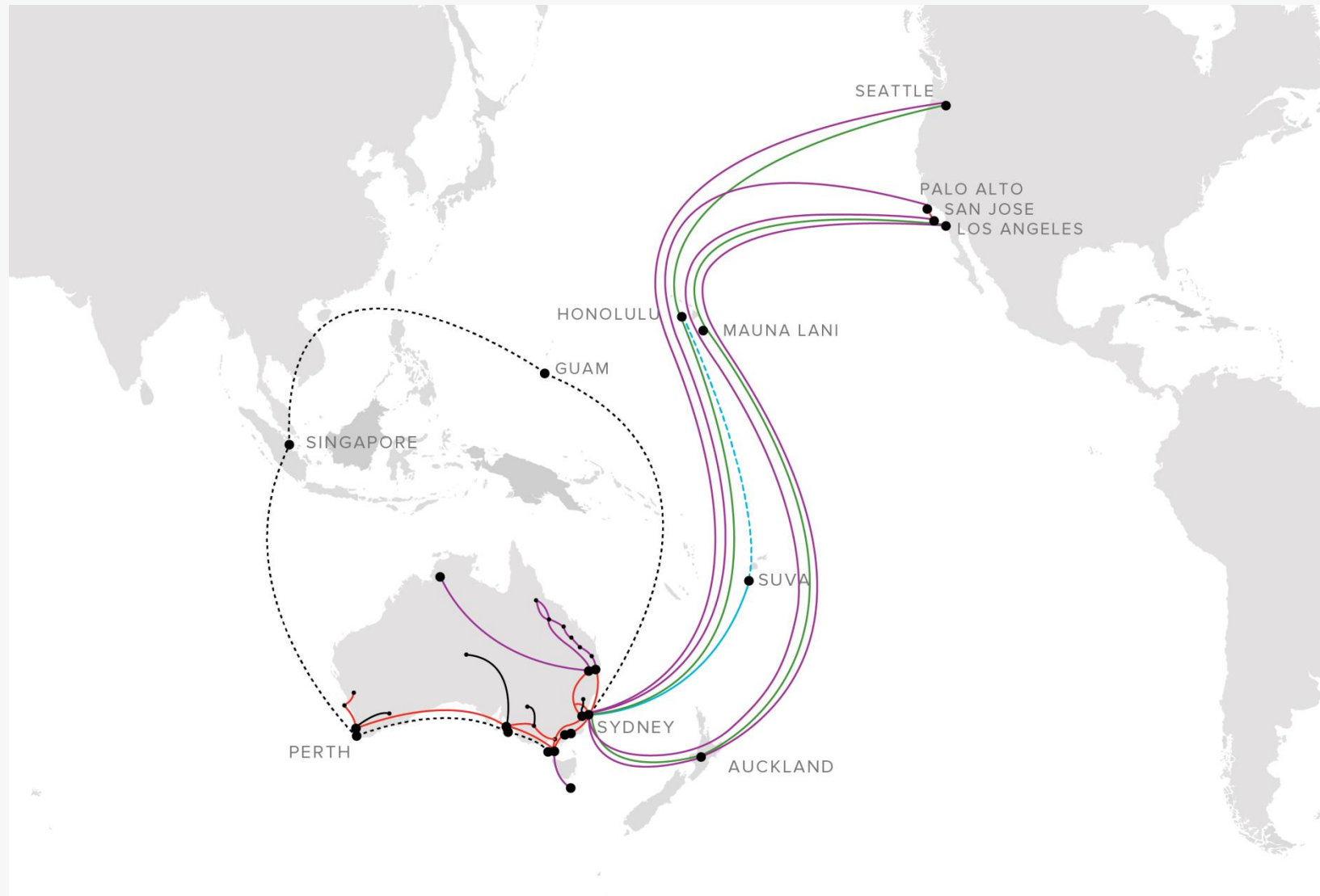
Typical AARNet office



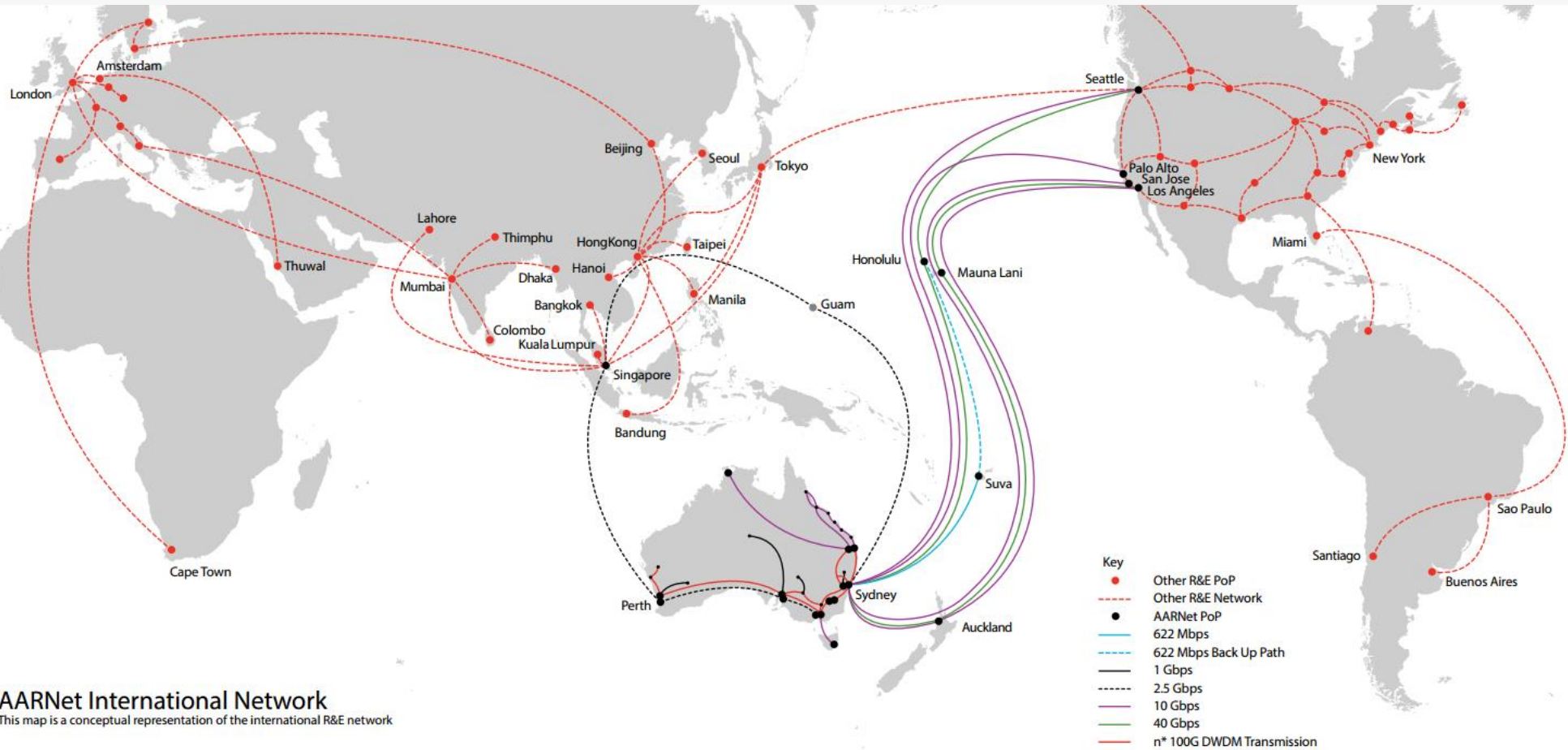
AARNet national network



AARNet: international network



AARNet: global R&E





Greenland

Iceland

Sweden

Finland

Norway

Denmark

United Kingdom

Ireland

Belarus

Poland

Ukraine

Germany

Austria

Romania

France

Italy

Turkey

Spain

Greece

Portugal

Tunisia

Morocco

North Atlantic Ocean

Australia

WA

NT

QLD

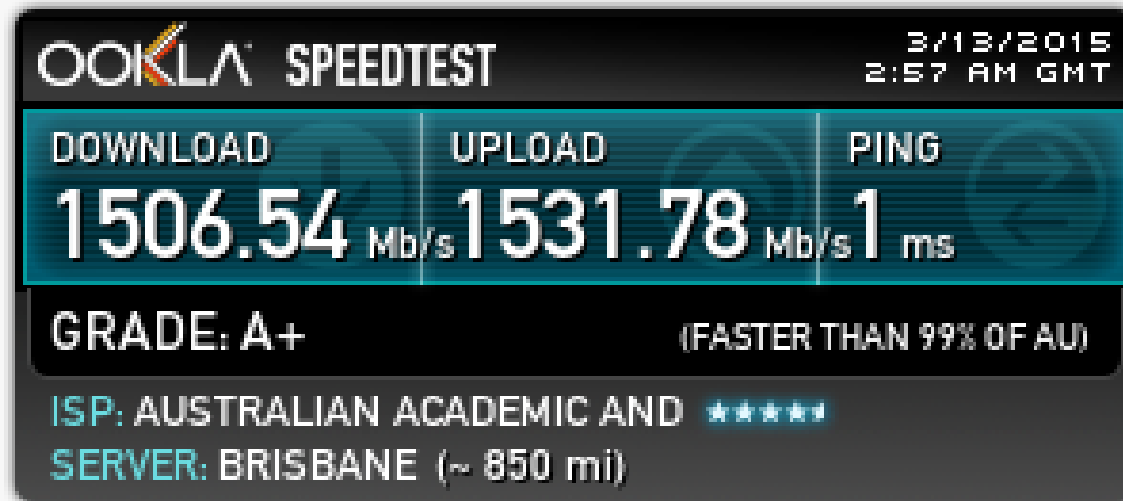
SA

NSW

VIC

TAS

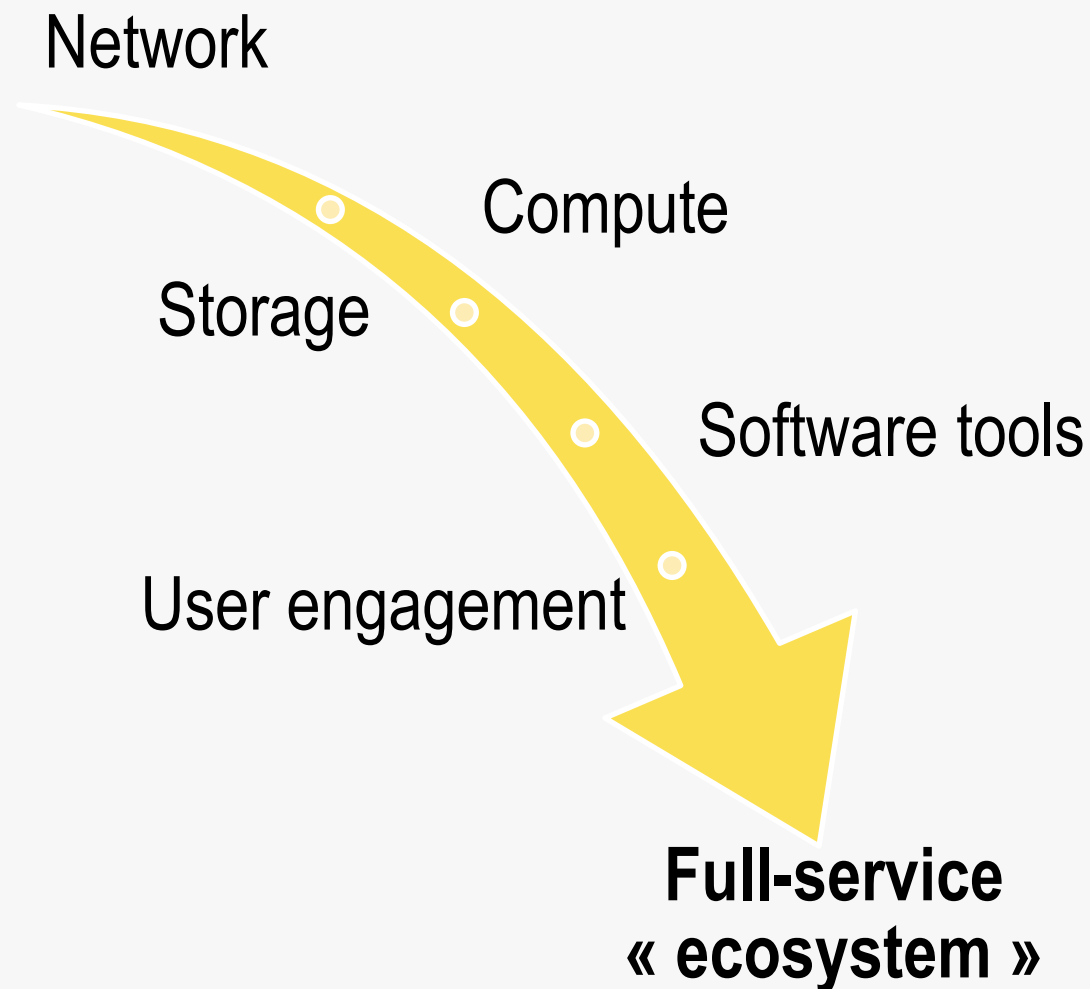
AARNet (& NRENs) known for:



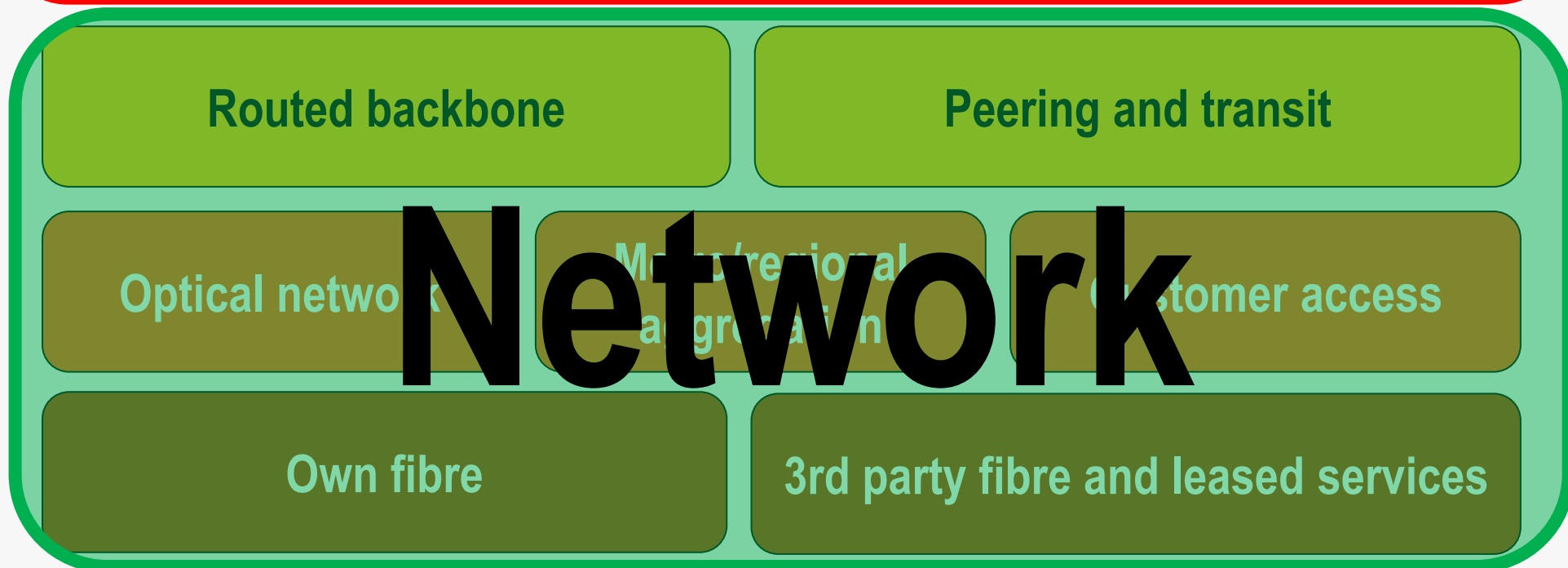
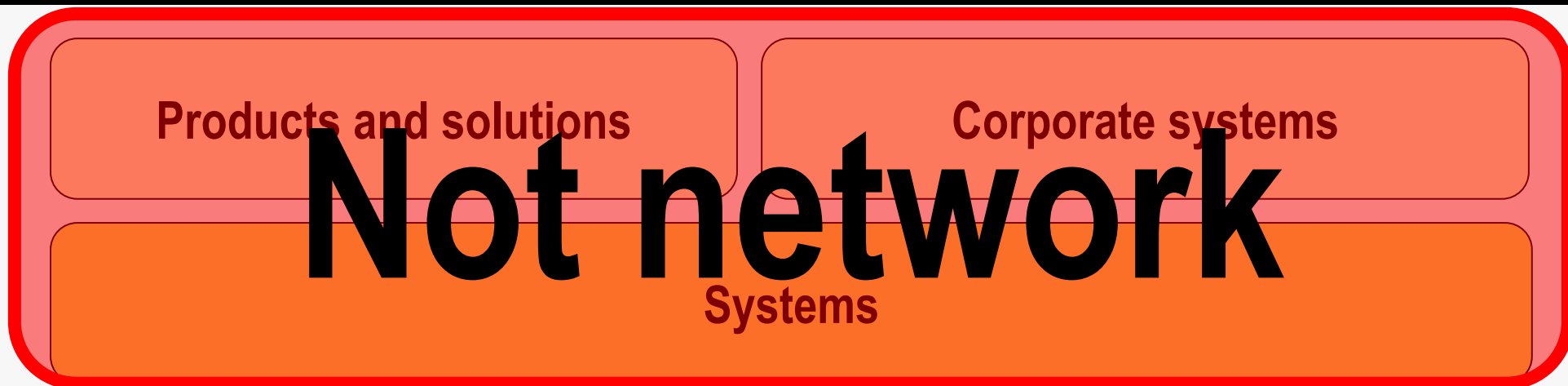


IS THE NETWORK ENOUGH?

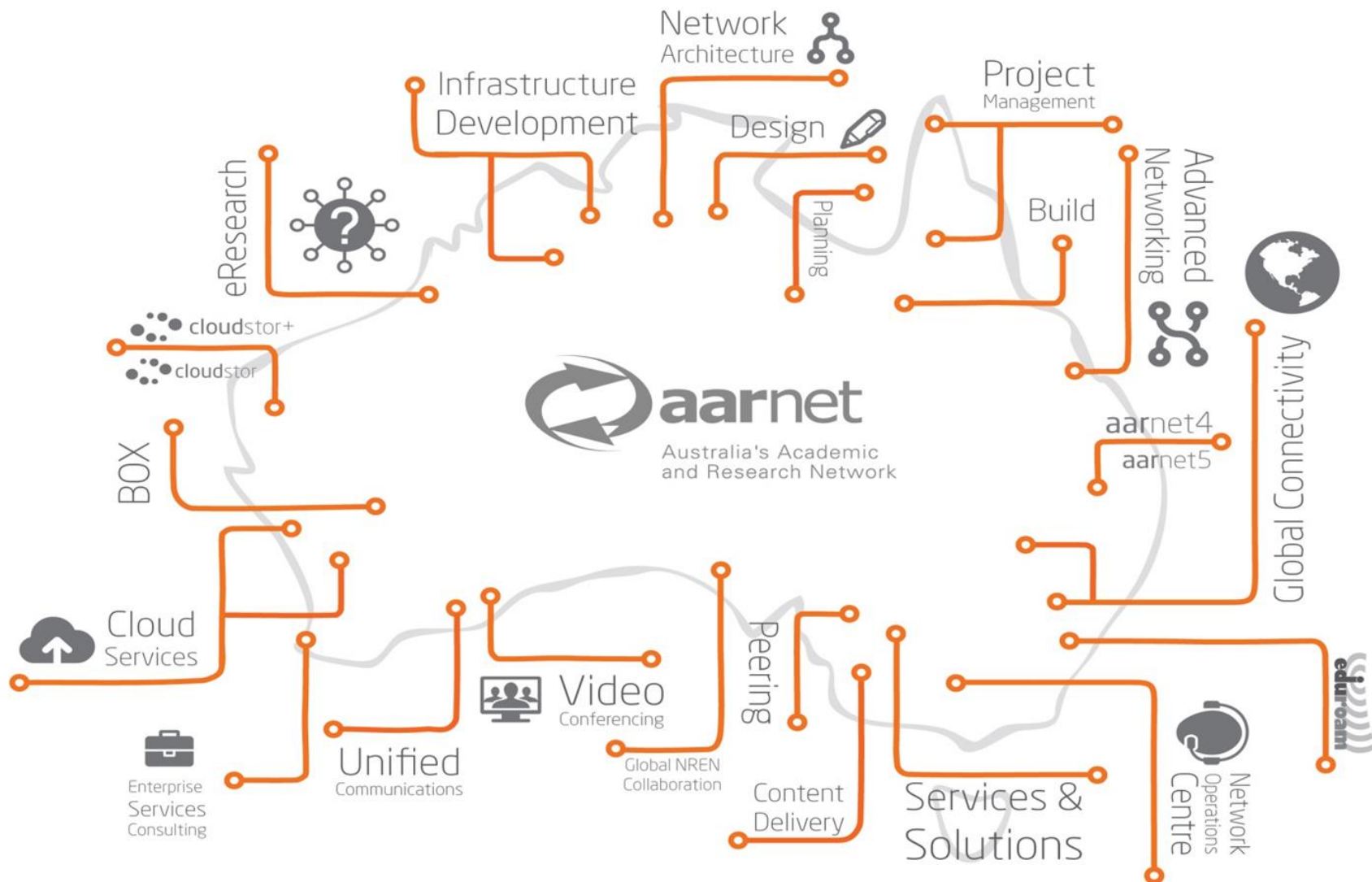
Networking, part of a wider ecosystem



Breakdown by component



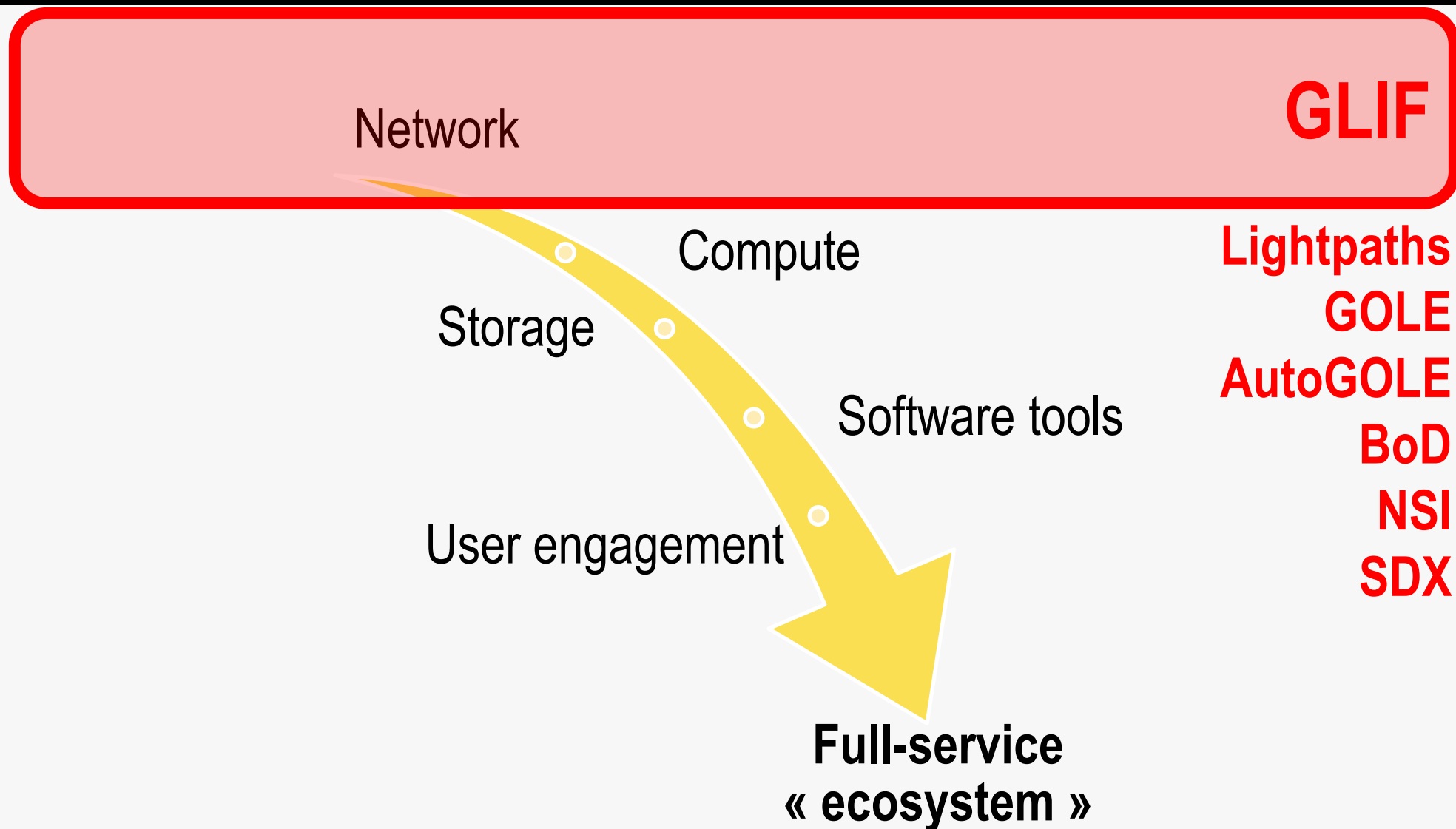
An NREN portfolio





GLIF

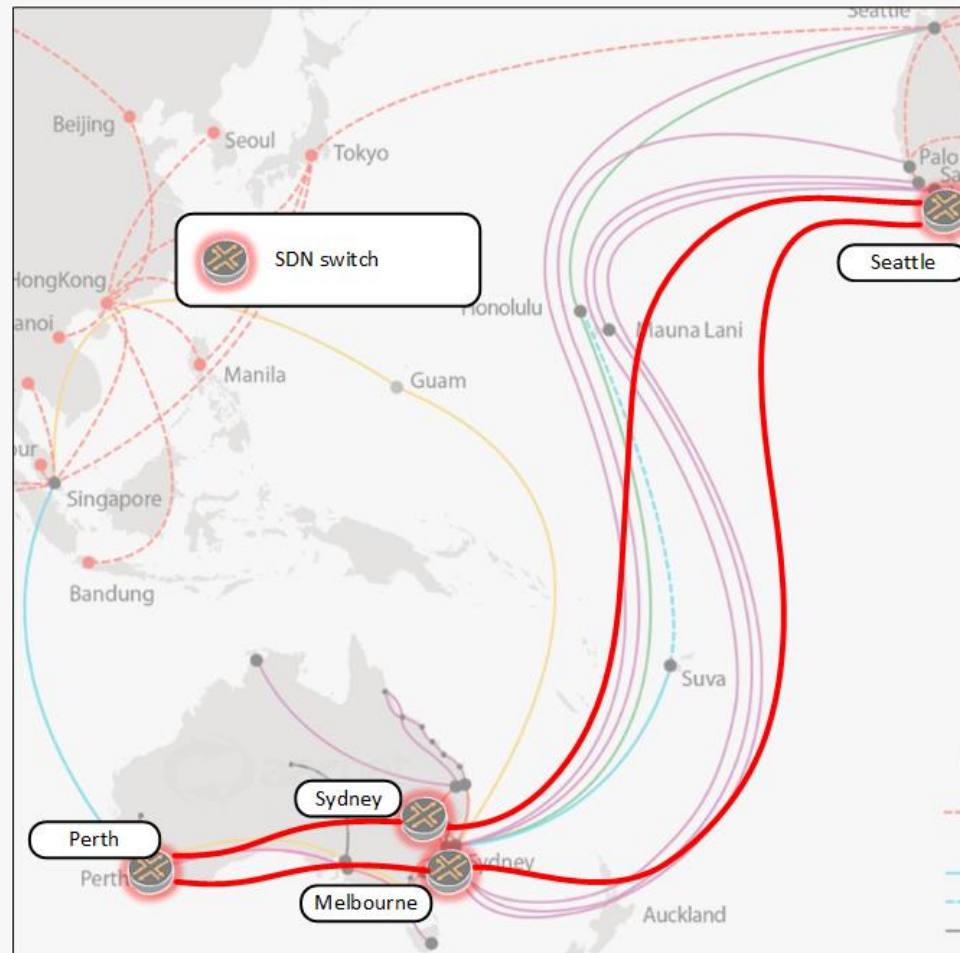
Networking, part of a wider ecosystem





GLIF AS PATHFINDER

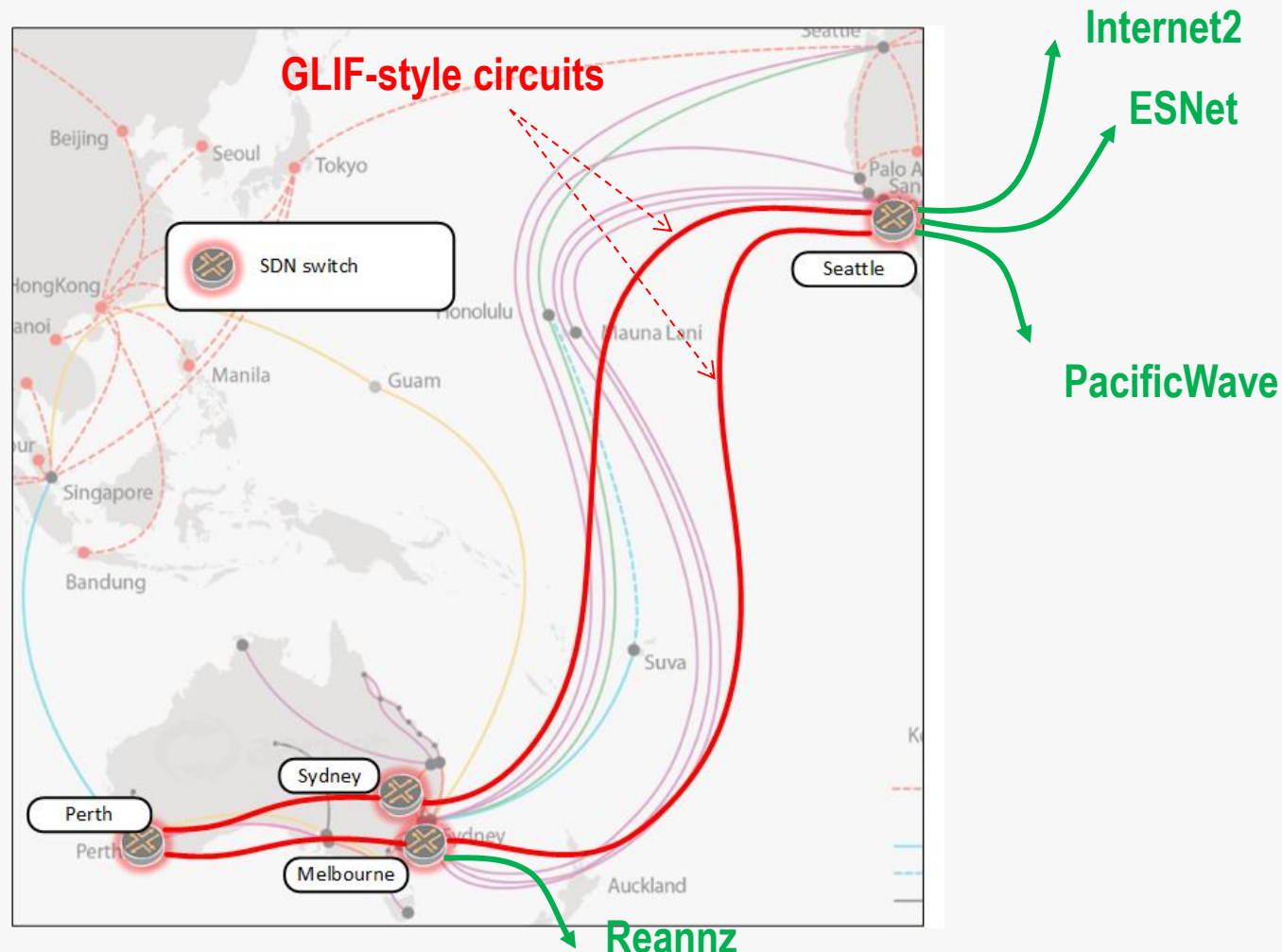
Use case: AARNet SDN testbed



Use case: AARNet SDN testbed



GLIF opportunity: convert L2 circuit to SDN



Use case: AARNet SDN testbed



ON.LAB

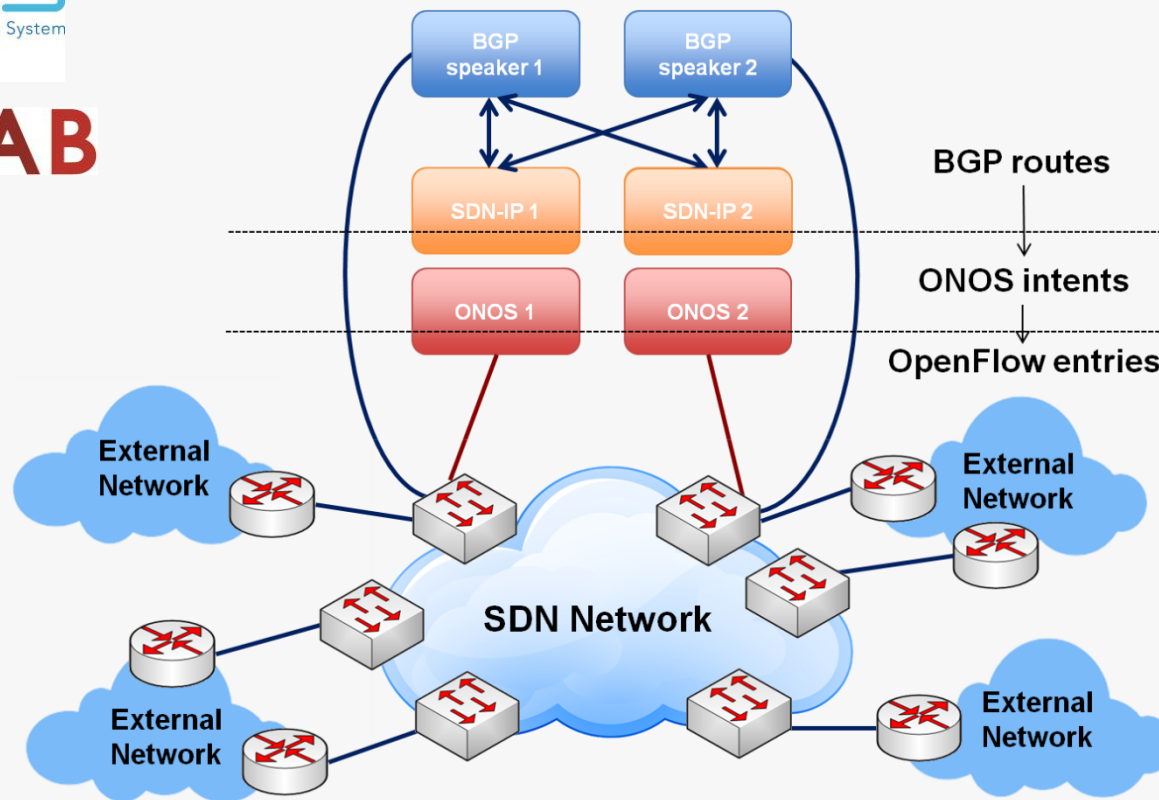
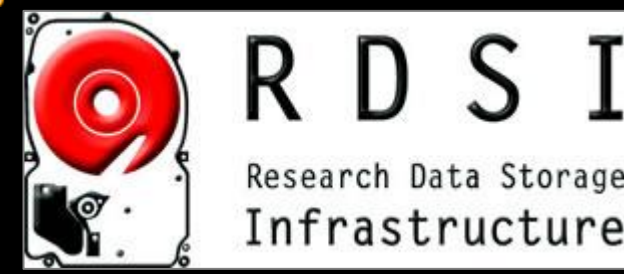
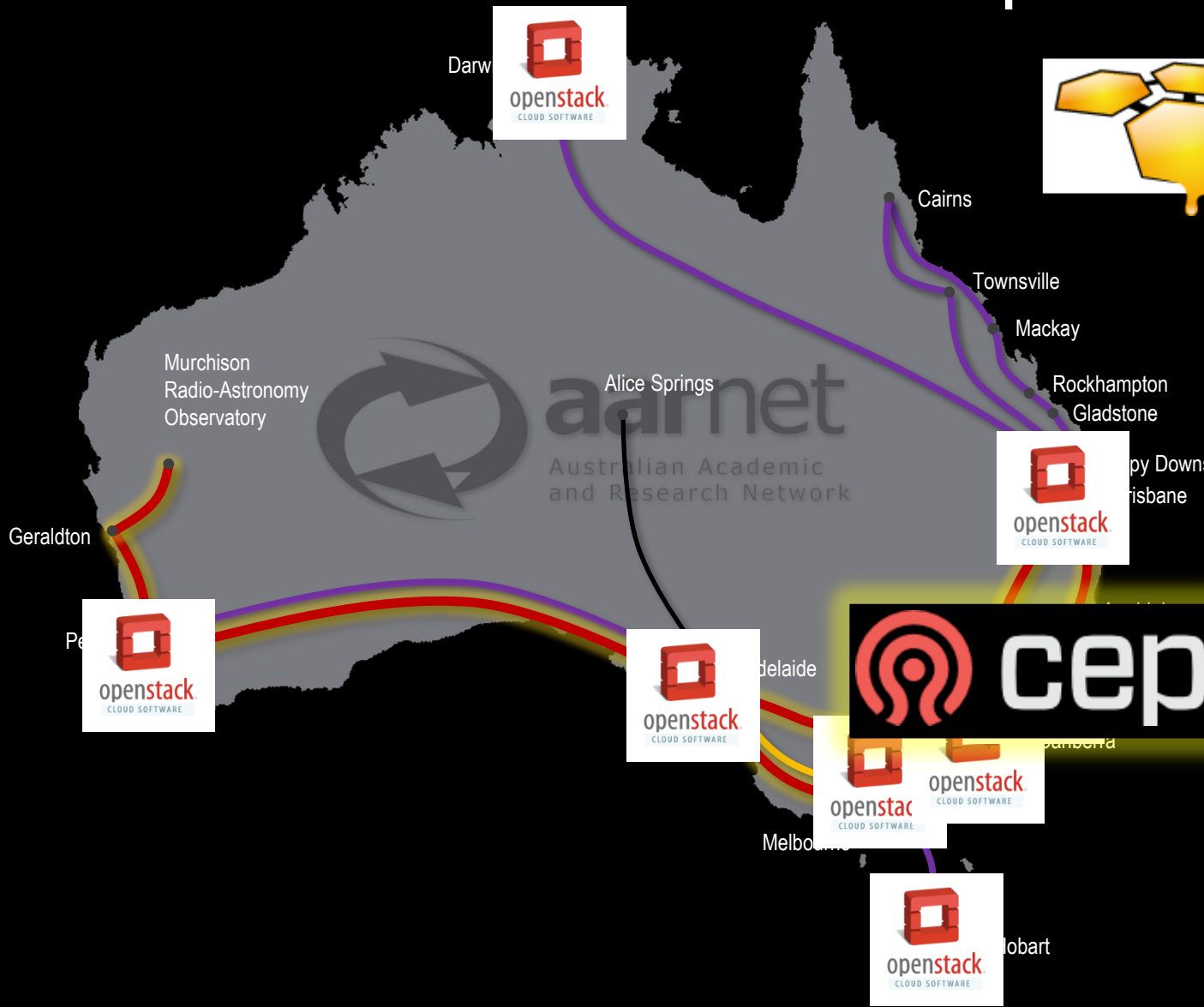


Image: <https://wiki.onosproject.org/display/ONOS/SDN-IP+Architecture>

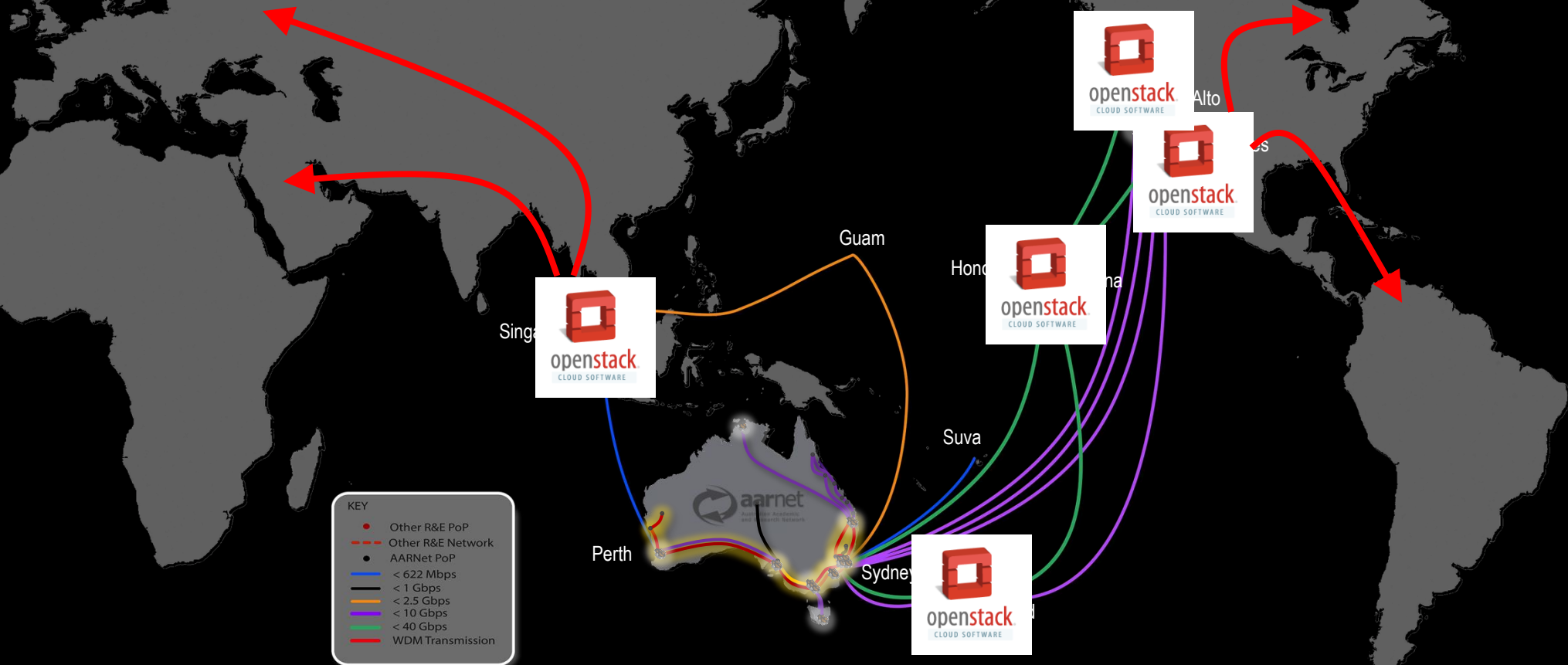
Use case: international Openstack



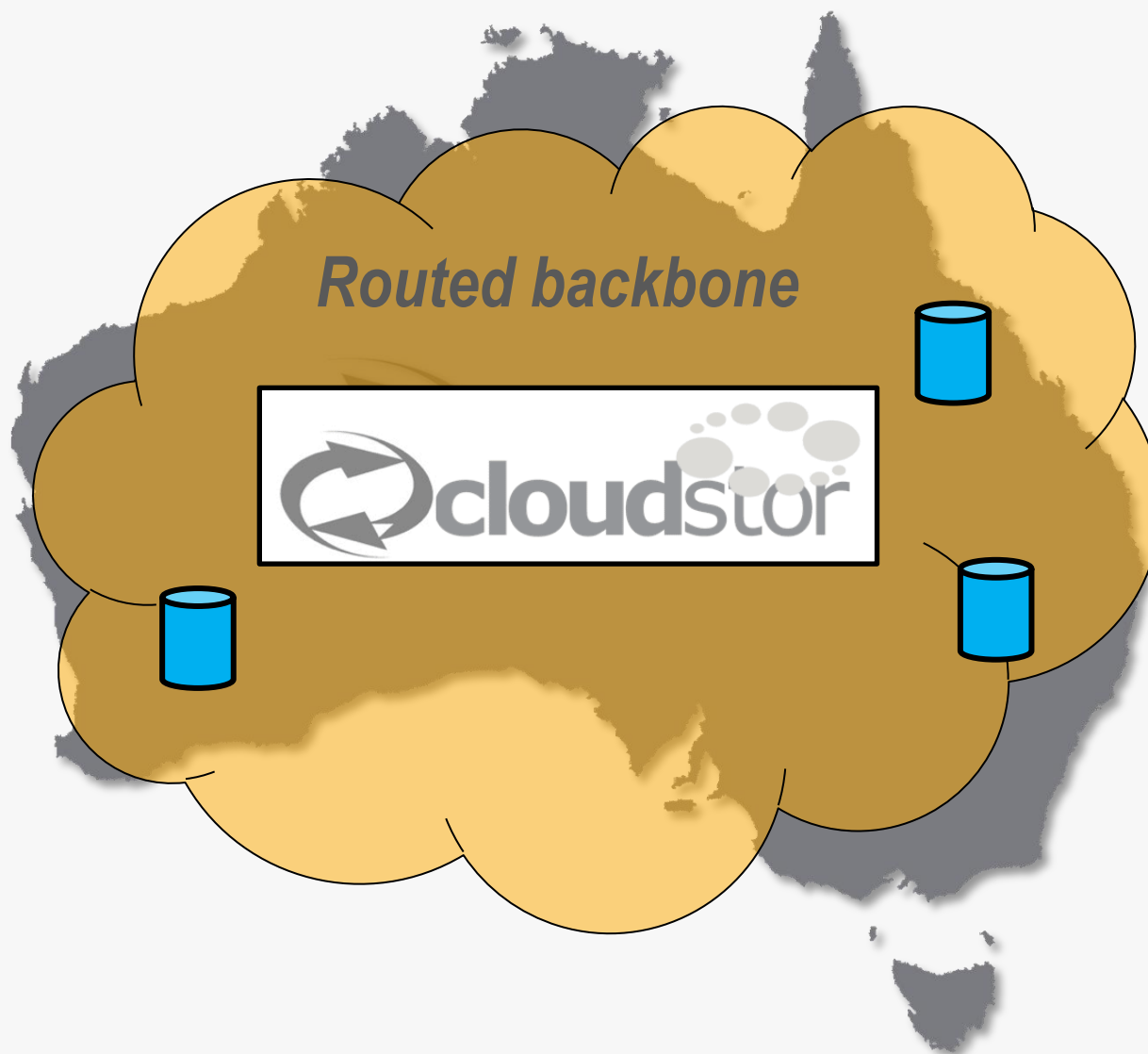
Use case: international Openstack



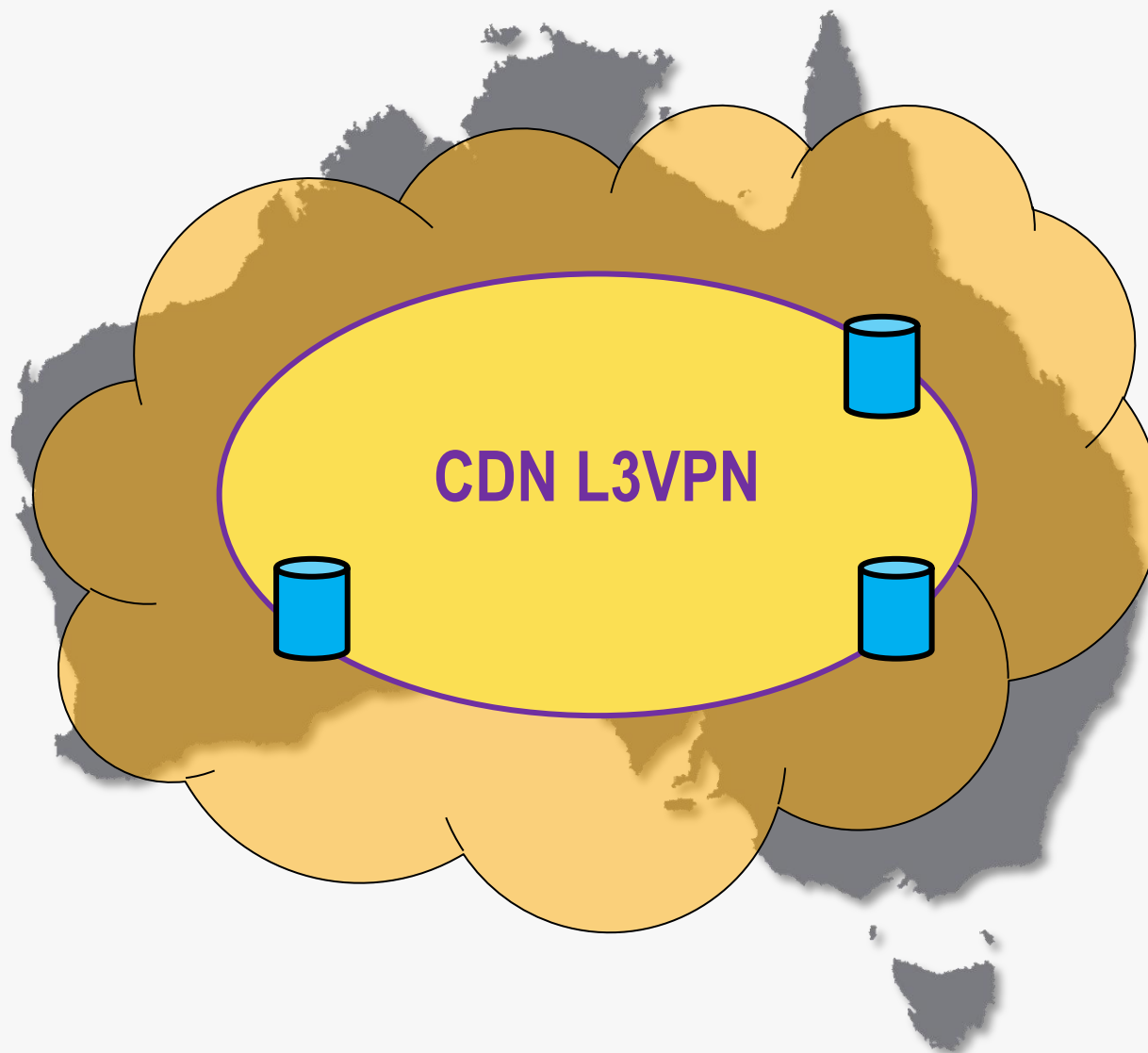
GLIF opportunity: integrate network with Openstack



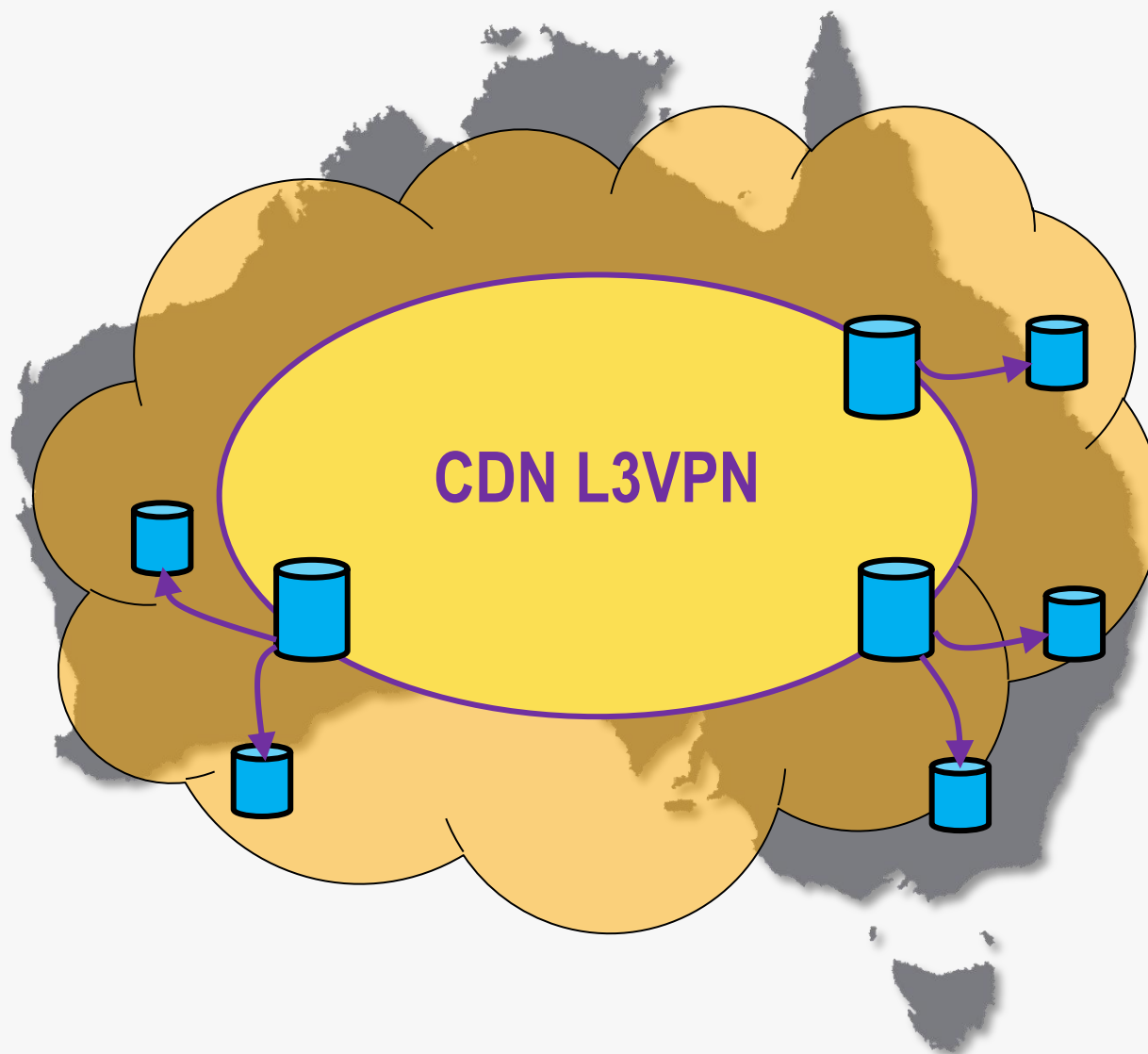
Use case: CDN & cloud storage



Use case: CDN & cloud storage



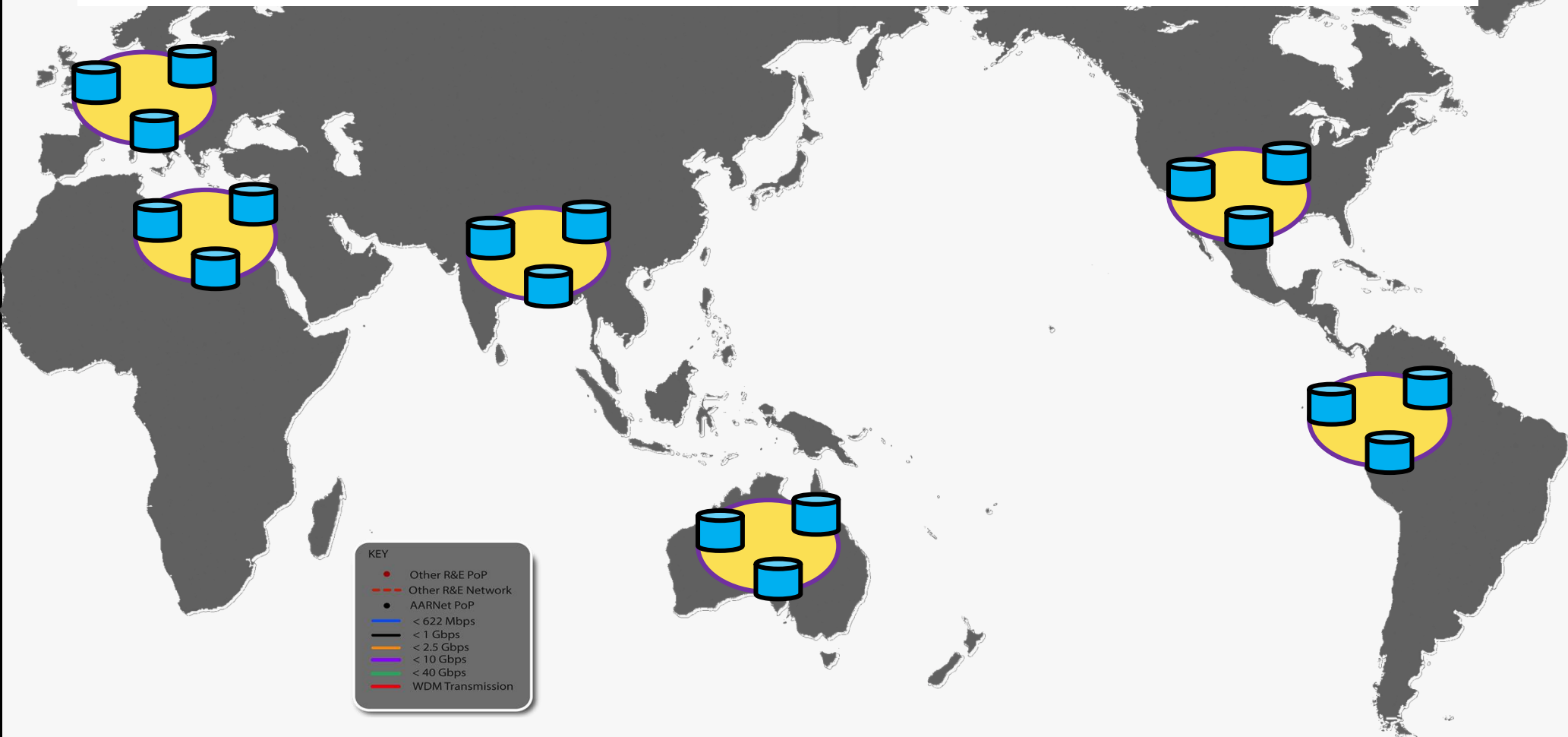
Use case: CDN & cloud storage



Use case: CDN & cloud storage



GLIF opportunity: expand globally





Global Network Architecture

GLIF AS PATHFINDER FOR GNA

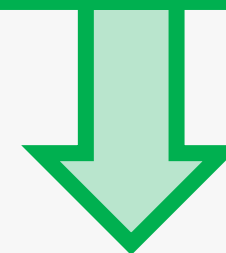
GNA use cases....

- L2 point-to-point, multipoint
- L2 overlays

GLIF

- L3 overlays
- Testbed-as-a-service
- Content peering
- Global peering/transit

- L3 overlay with compute + storage
- Caching, CDN
- DDoS mitigation



**Collectively build
on GLIF as pathfinder
for future production projects.**



Thank you

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