

Global EOS:

exploring the 300-ms-latency region Luca Mascetti (CERN/IT-ST), David Jericho (AARNet), Asa Hsu (ASGC)



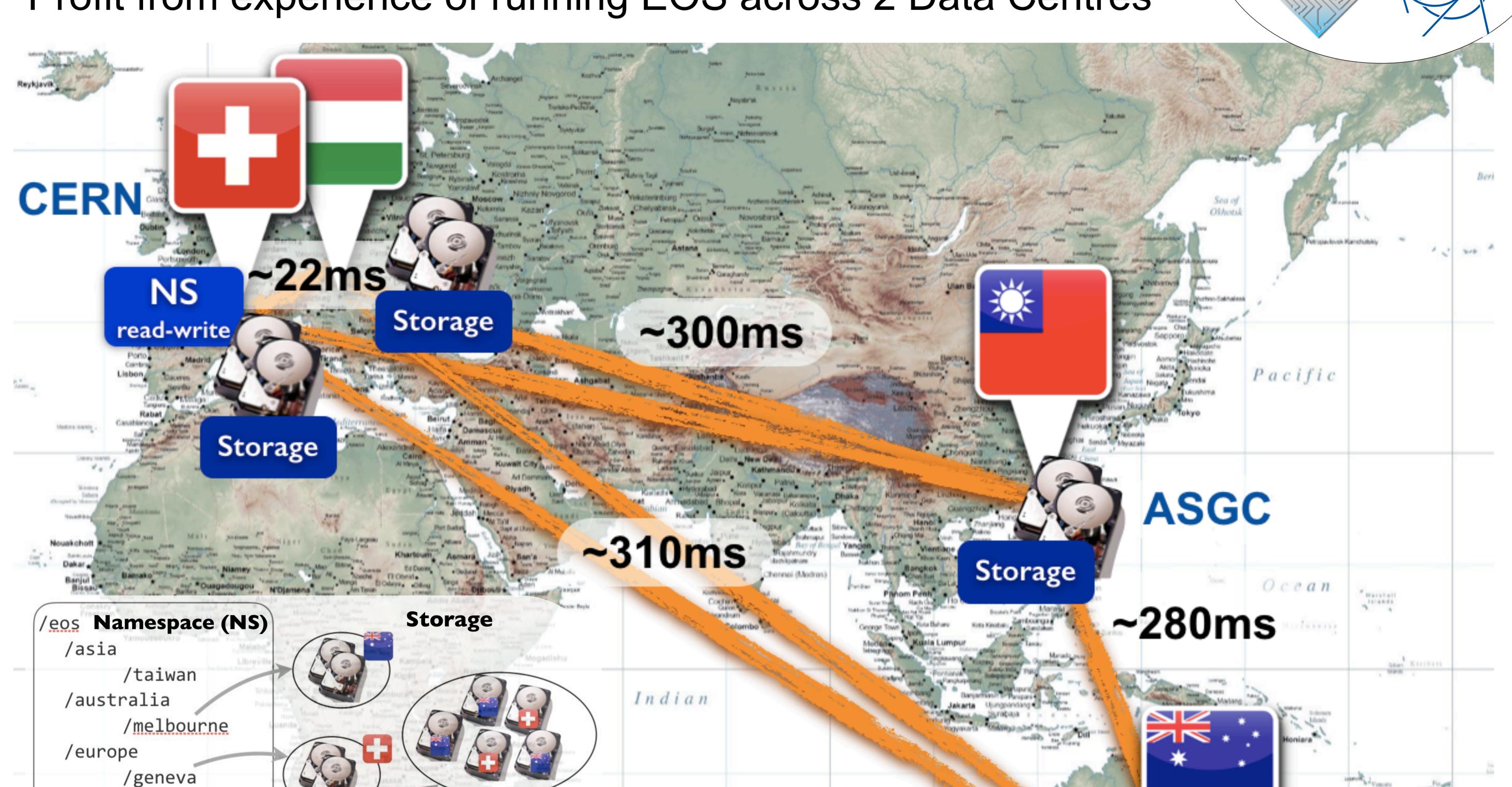
aarnet

and Research Network

Open Source Storage

Overview

- R&D in collaboration with AARNet and ASGC
- Take advantage of wide-area distributed installations
- Profit from experience of running EOS across 2 Data Centres



Data replication in storage pools

Storage pools were created with filesystems from all four sites. Files were replicated according to the different configured policy (e.g. 3 replicas: MEL-GVA-TPE).

Ocean

Network Topology

/budapest

/gva-bud

/mel-bud

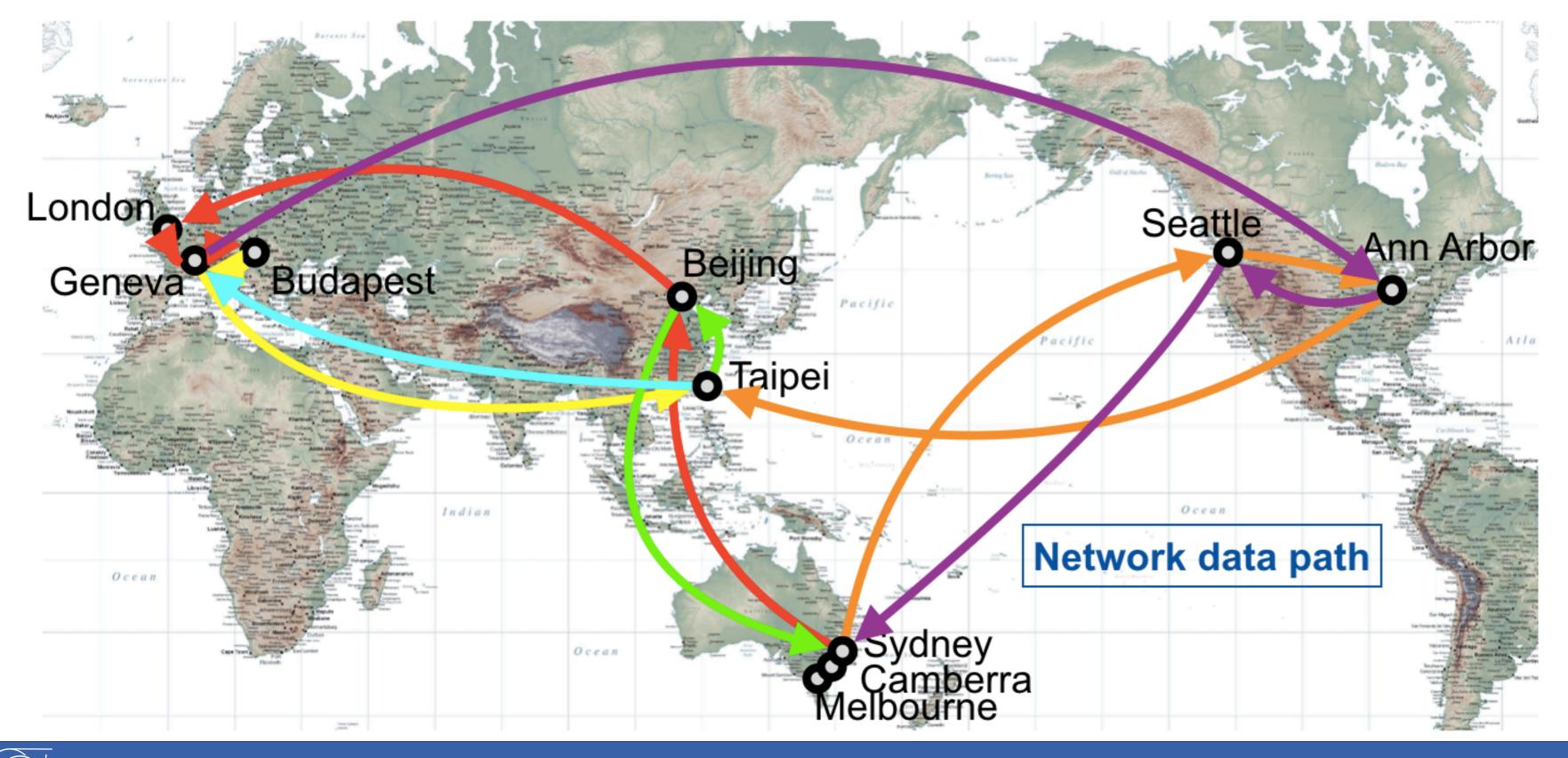
/mel-gva-bud

/mel-gva-tpe

/dualcopy

/triplecopy

The network data path are not dedicated, they change over time and are not symmetric.



Observations

Storage

EOS confirmed its capability in correctly handling multiple sites even with very high latencies.

NS

Performance using native clients were dictated by the connectivity status of the sites.

Authentication (for read or for write) was affected by the latency to contact the closer namespace.