

Networking with the Clouds

Objective:

Quantify network capabilities of major Cloud providers and compare to what's available through Nautilus

Observations:

- Bulk transfer networking performance of Cloud comparable to Nautilus
- Direct client, single stream network performance of Cloud disappointing
- A couple Cloud regions had unexpectedly poor connectivity with Nautilus

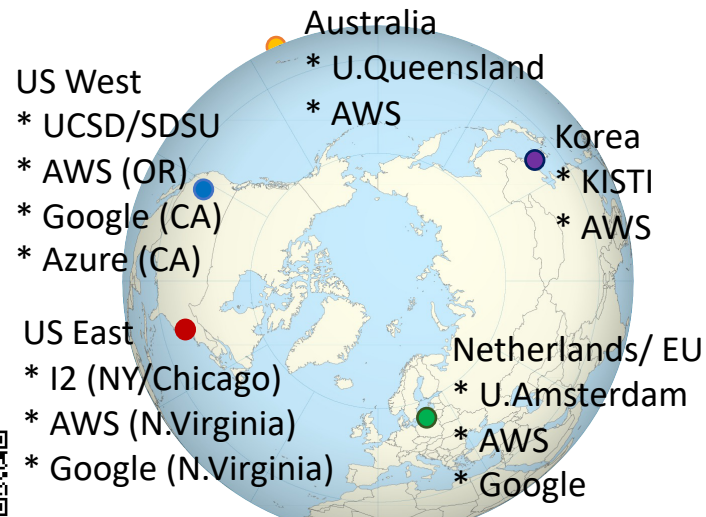
Acknowledgements

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Infrastructure Setup:

All on-prem accessed through Nautilus, using `hostNetwork: true`
 Cloud resources created manually and logged into via ssh

All details at: <https://github.com/sfiligoi/tnrp-net-tests>



In-zone own domain

Nautilus	US W
Callback	13
Multi-client	43
Client	17

globus-url-copy Throughput in Gbps

AWS	EU	US E	US W
Callback	13	14	13
Multi-client	30	30	30
Client	12	6.2	6.2

In-zone between Cloud and Nautilus

AWS	EU	US E	US W	KR	globus-url-copy Throughput in Gbps
Callback	11	11	9.3	10	
Client	2.1	2.2	0.43	3.5	

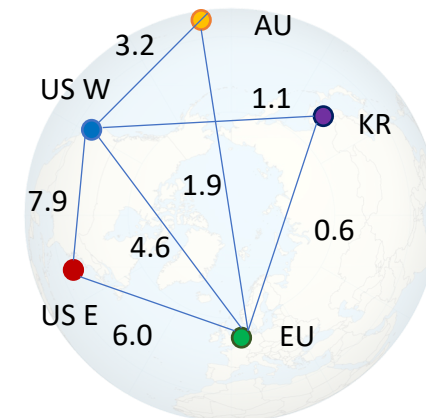
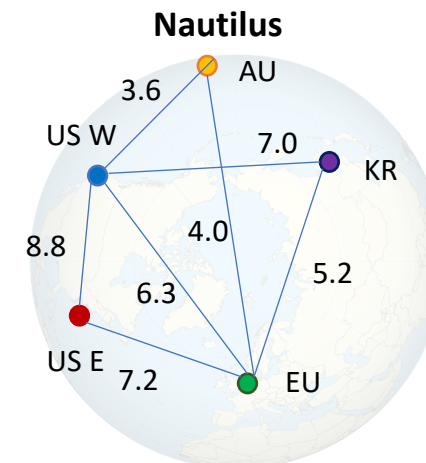
Google	EU	US E	US W	Azure	US W
Callback	7.6	1.2	7.8	Callback	11
Client	6.3	1.2	7.6	Client	2.3

WAN using own domain

Callback
 Multi Stream
 i.e. `-fast -p #`

globus-url-copy
 Throughput
 in Gbps

Client
 Single Stream
 i.e. default



AWS

