

Connectivity across the Atlantic

Dale Finkelson
October Jet Meeting
10/16/18

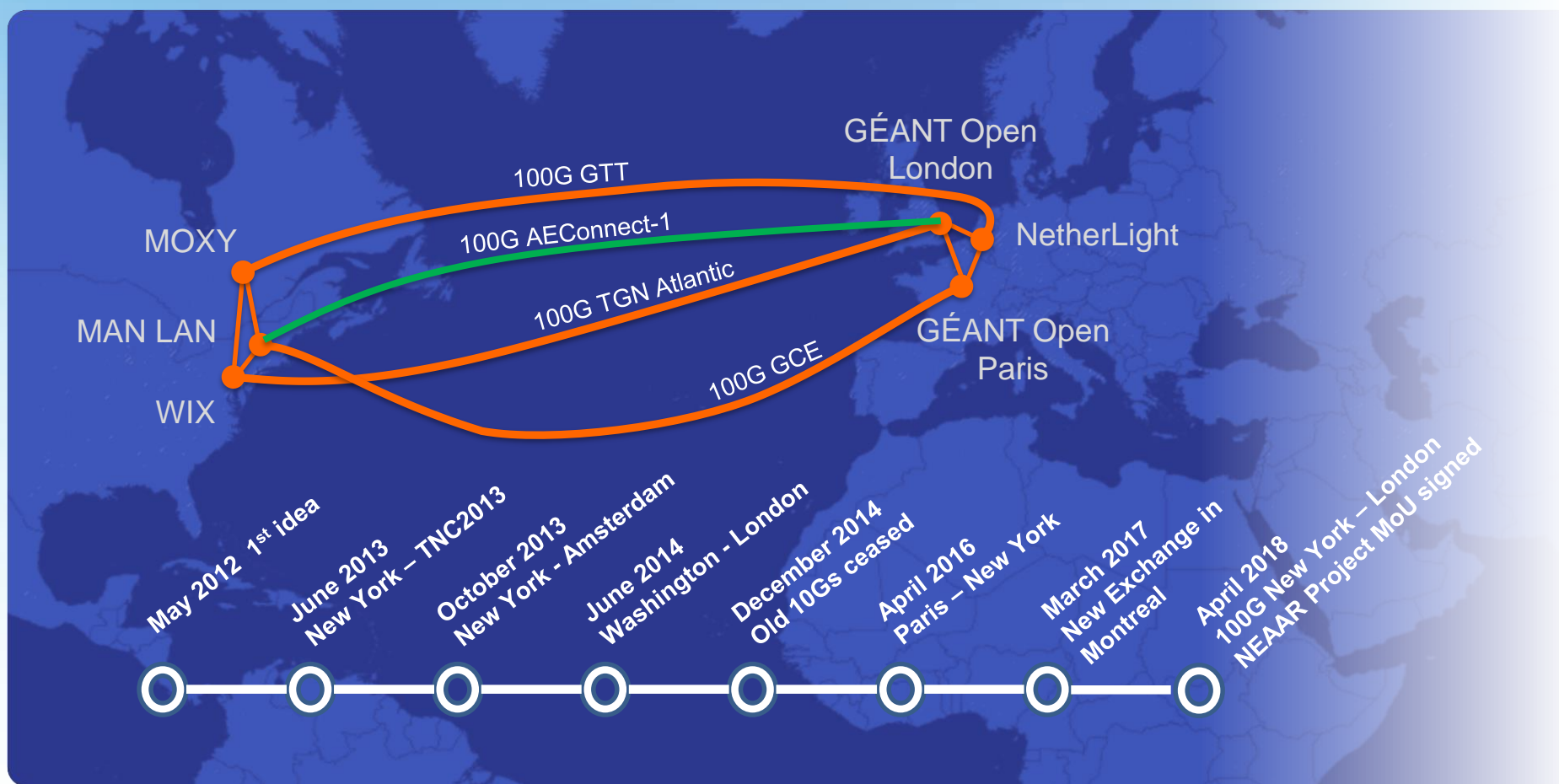
ANA activity

- ANA has continued to grow since last we talked.
- NEAAR is a part of the system now.
 - ANA-300G + NEAAR
- SINET will be a part of it in 2019.
 - ANA-300G + NEAAR + SINET
- This will create 500G of capacity available on the ANA system.
 - Redundant capacity.
- Plus the cooperative agreement with Esnet provides for each system backing up the other.

Moving Forward

- The ANA Operations group continues to work on improving the coordination between the partners.
 - Keeping information up to date, incorporating MADDASH and improving ticket handling.
- An engineering group led by Alexander van den Hil from Surfnet is working to make the ANA system NSI compliant.
 - Most components are already.
 - Goal is to make this a production activity not just a trial.

ANA-300G + NEAAR = 400G R&E bandwidth



NORDUnet
Nordic Gateway for Research & Education

INTERNET²

GÉANT

canarie

SURF NET

INTERNATIONAL
NETWORKS
at Indiana University

Mutual back-up with

ESnet
ENERGY SCIENCES NETWORK

NORDUnet
Nordic Gateway for Research & Education

INTERNET²

Collaboration with ESnet & NEAAR: 800G



NORDUnet
Nordic Gateway for Research & Education

INTERNET²

ESnet
ENERGY SCIENCES NETWORK

Ψ

canarie

GÉANT

SURF NET

INTERNET²

Who Does ANA provide connectivity to?

- NORDUnet
- SINET
- NKN via MANLAN | I2-S57864
- UbuntuNet
- KACST
- GEANT
- Oman Research and Education Network (OMREN)
- ANKABUT
- Tenet

Who Does ANA provide connectivity to?

- CAnet-Toronto
- CAnet-Montreal
- TWAREN
- GEANT(AMS)
- GEANT (Frankfurt)
- SURFnet
- QATAR
- TWAREN

Other activity:

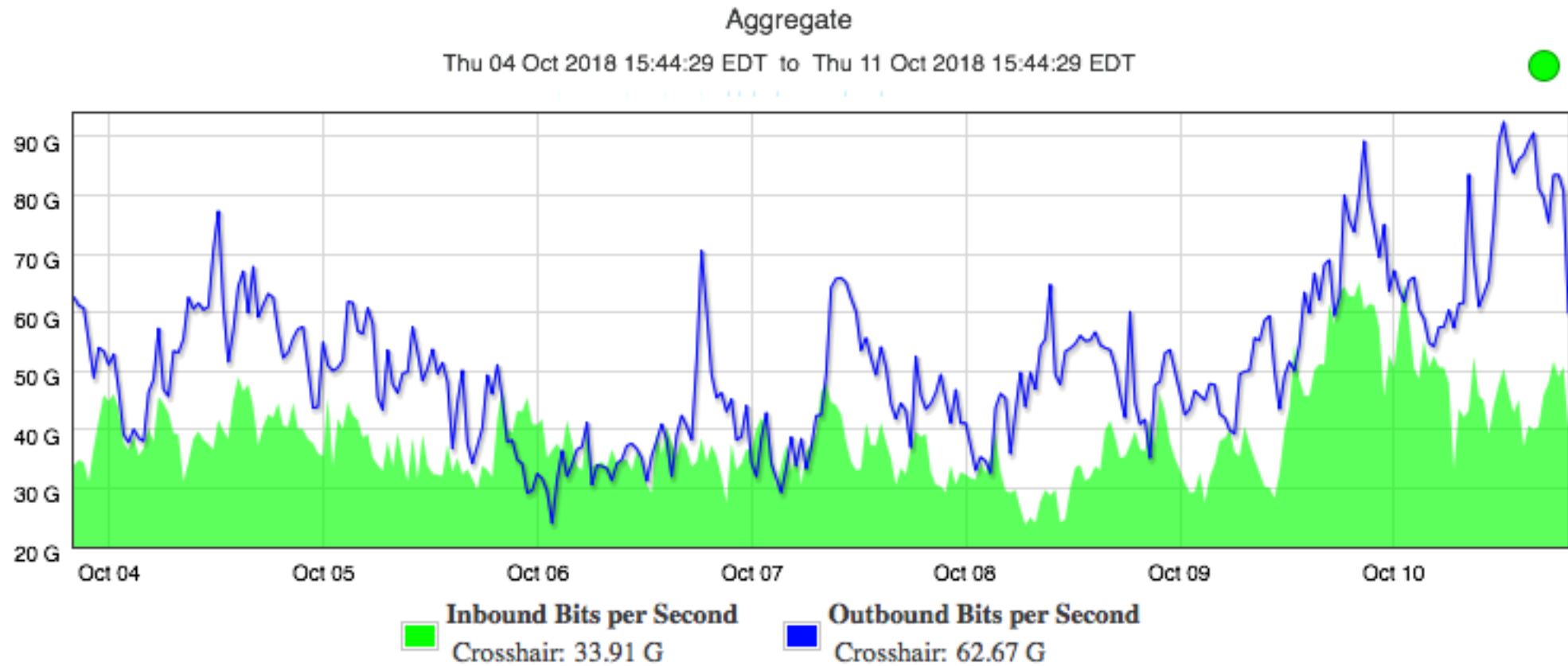
- The first 2 EU-Asia 100G circuits are expected in early 2019:
 - Tokyo- Amsterdam - SINET
 - Singapore- Europe - AARNET, GÉANT, NORDUNET, SingAREN, SURFnet, and TEIN*CC
- The BELLA Consortium (GÉANT, RedCLARA, DFN, CEDIA, DFN, FCT, GARR, RENATA, RENATER, REUNA, RNP) is working towards direct Europe-South America connectivity.
 - Anticipated for end 2020

Possible AsiaPac-Europe System

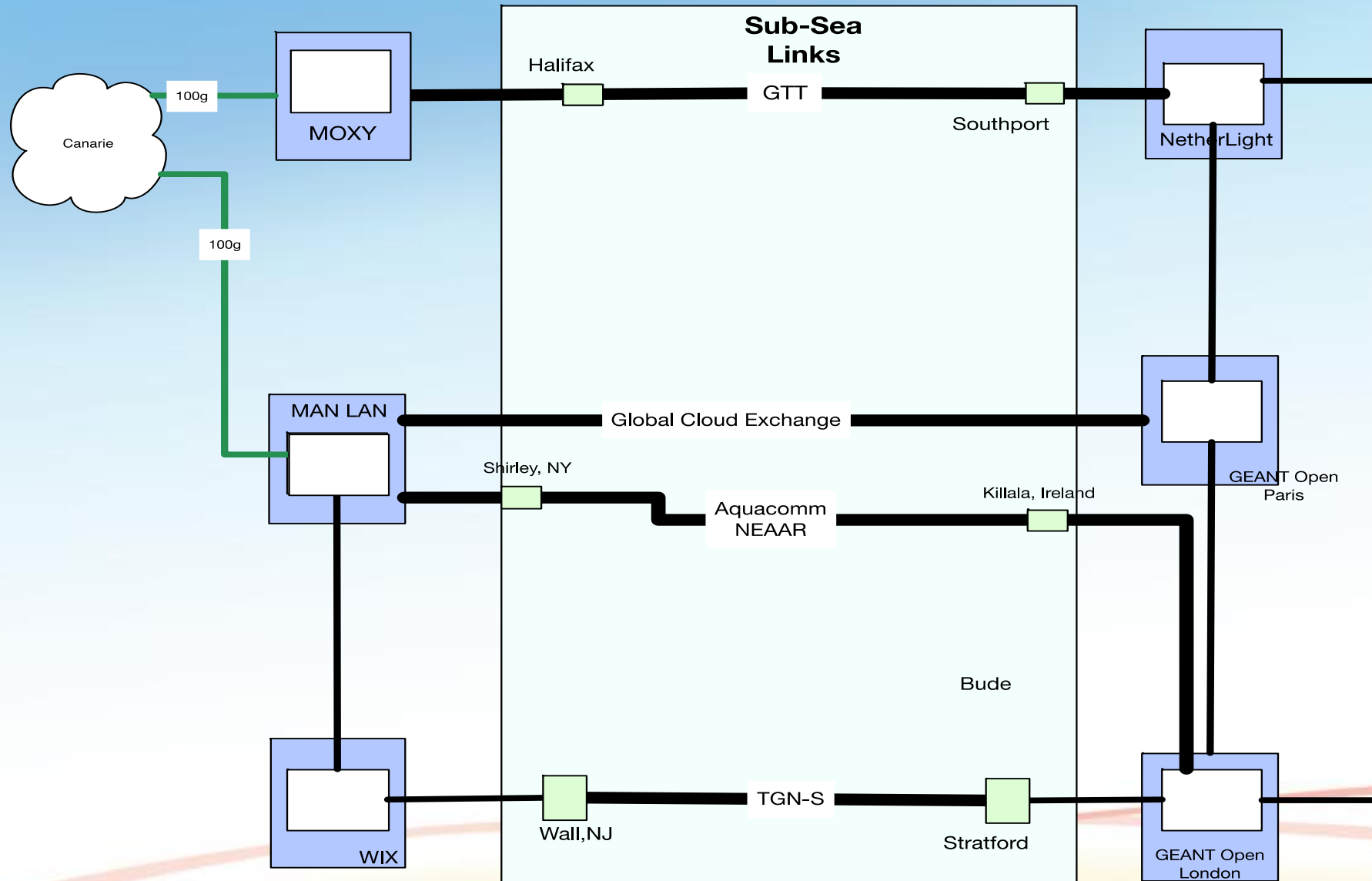


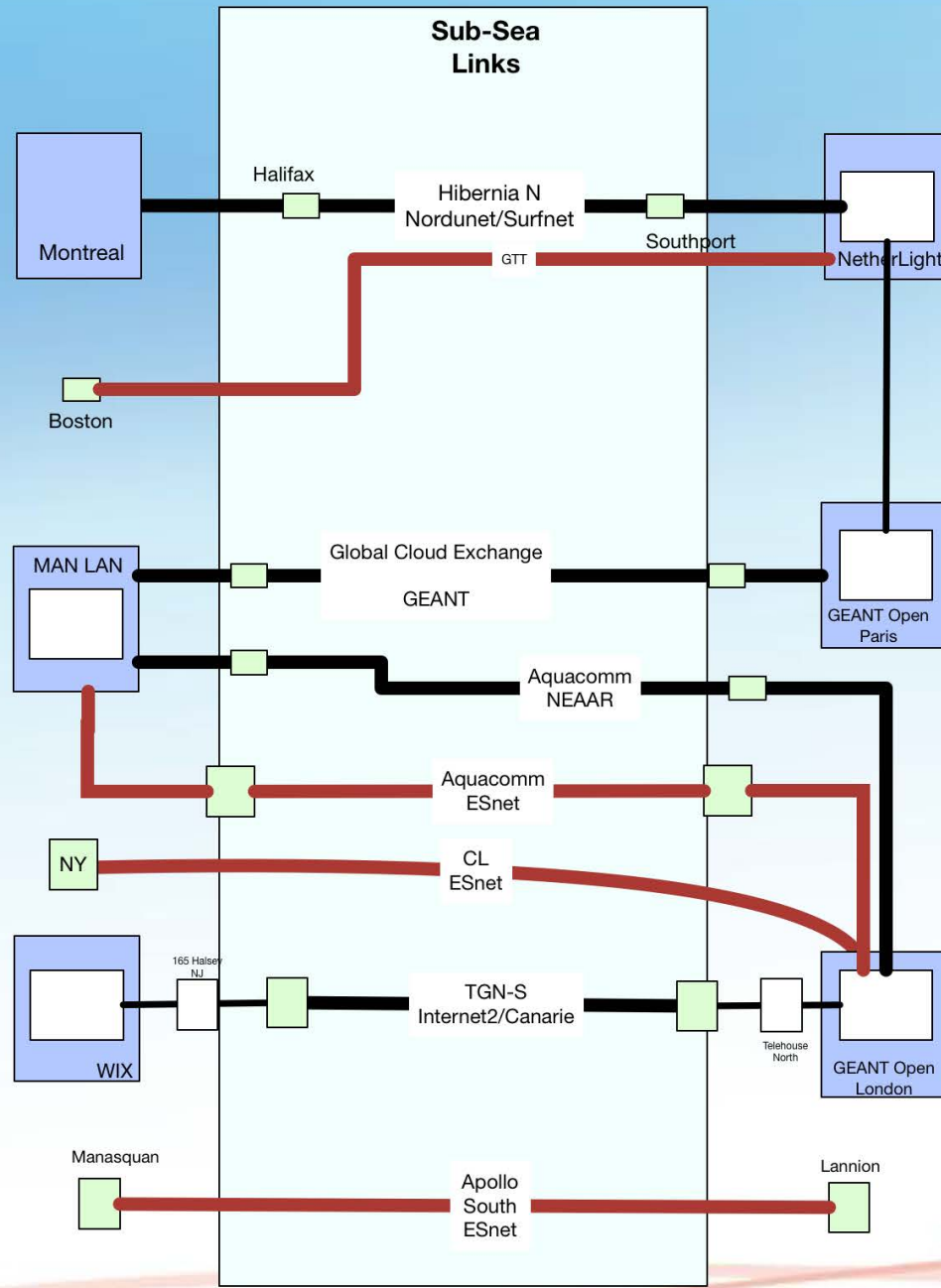


Activity



ANA System





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