Network

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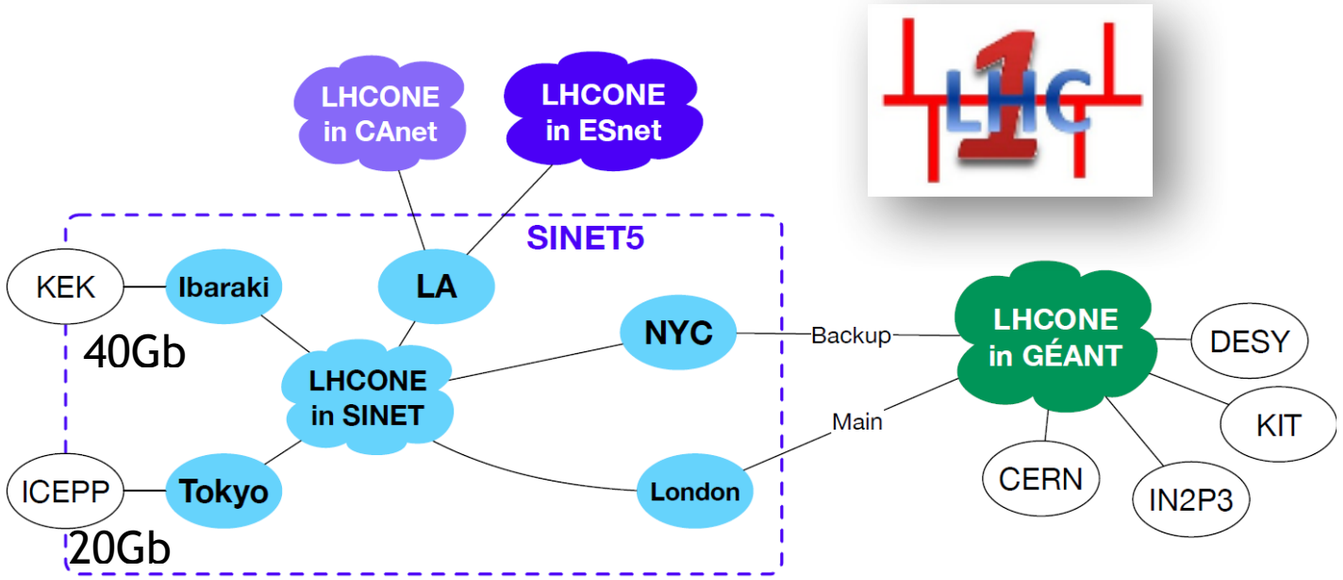
LHCONE status

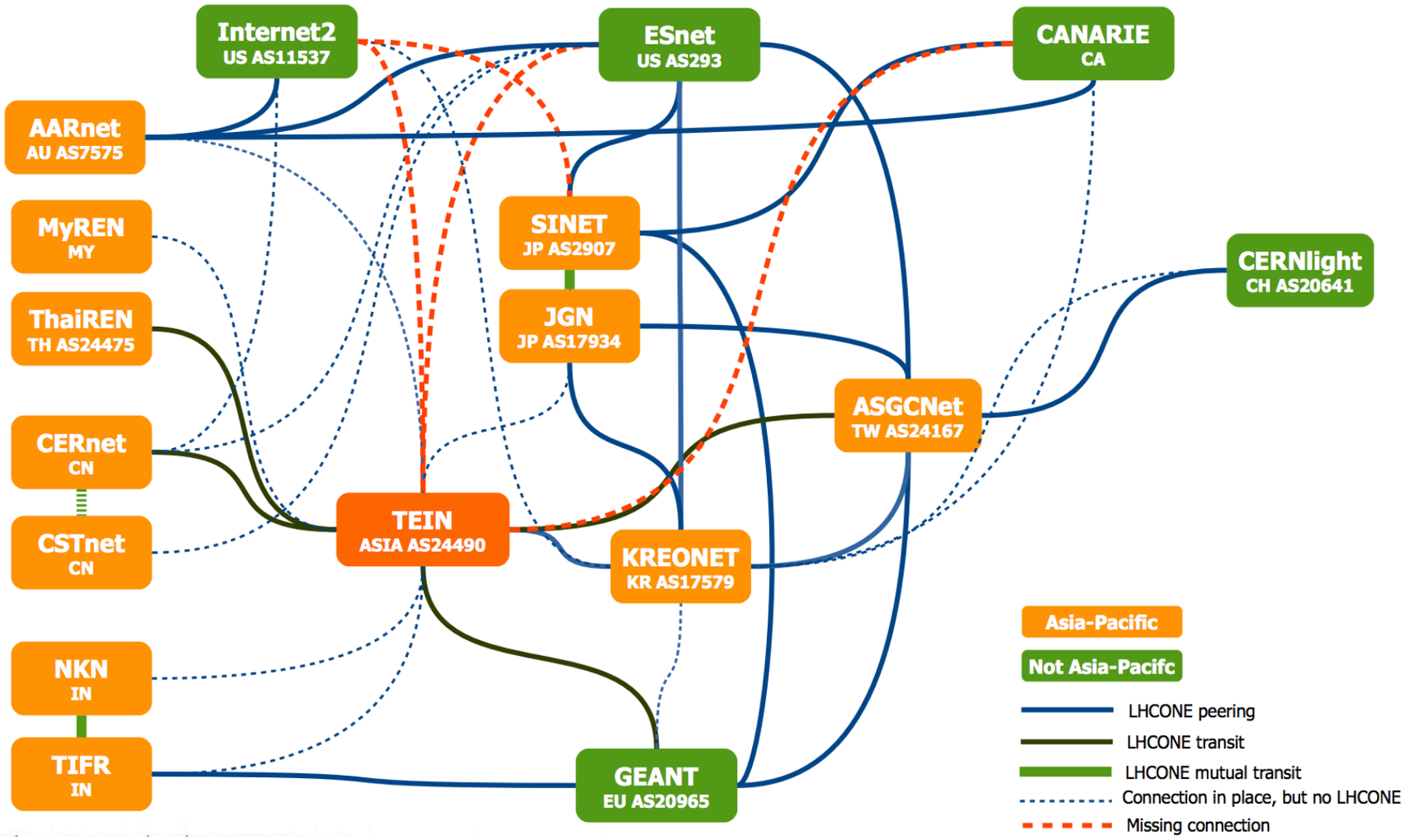
- ✓ SINET5 is a NREN in Japan
  - 2016 Mar. : **20 Gbps for London and 100 Gbps for LA** become available
  - 2016 Apr. : LHCONE peering for EU sites
    - ICEPP⇆CERN latency improved by 30%
  - 2016 Sep. : LHCONE peering for US sites



ICEPP and KEK use common LHCONE VRFs in SINET since 2016 Sep.

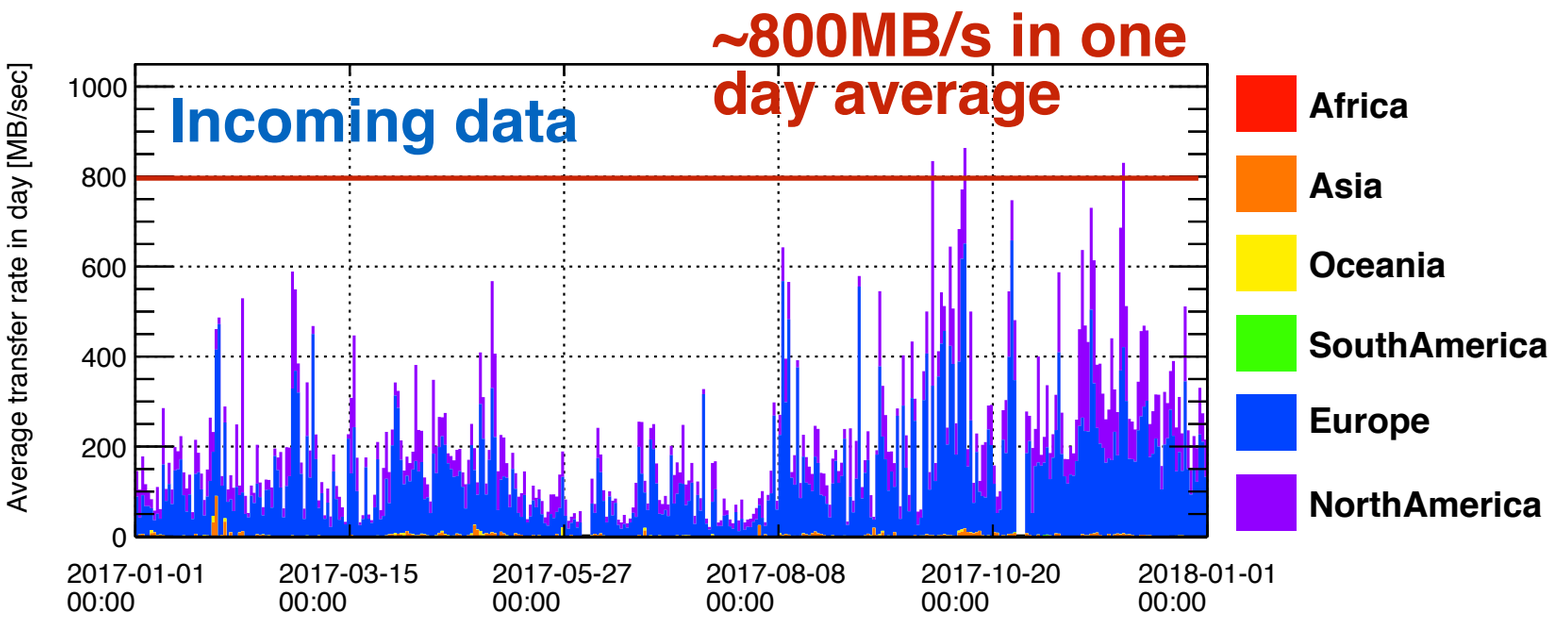
LHCONE status

- 2017 Sep. : LHCONE peering for ASGC, KREONET2 and TEIN via JGN-X VRF in HongKong
  - TOKYO ⇄ Hongkong is 100 Gbps



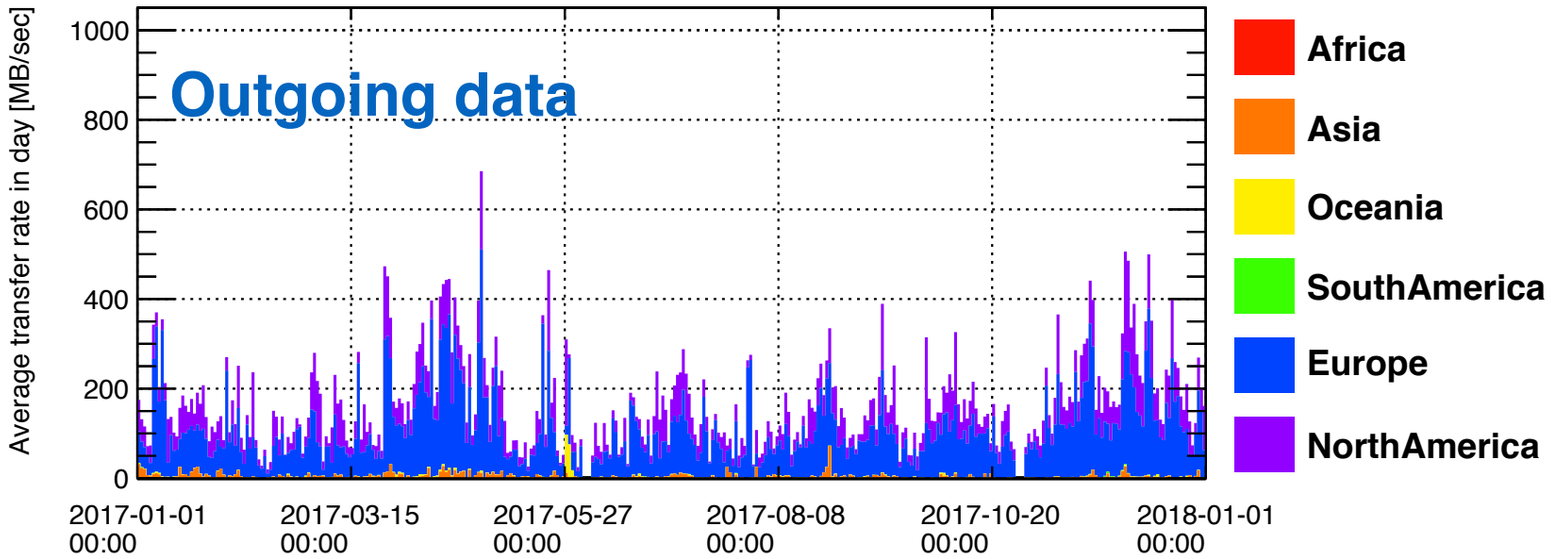
SINET: Operated by NII under Ministry of Education, Culture, Sports, Science and Technology
JGN: Operated by NICT under Ministry of Internal Affairs and Communications

Data transfers to/from outside



Total transfer volumes last year

Europe: 4.2 PB (67 %)
North America: 2.0 PB (32 %)
Asia: 94 TB (2%)



Europe: 2.6 PB (64 %)
North America: 1.3 PB (31 %)
Asia: 206 TB (5%)

- ICEPP ⇄ SINET is 20 Gbps bandwidth

Future Plan

◆ SINET International Links will be renewed in March 2019 for next period of 3 years.

- JP-EU link will be upgraded to 100G
  - Russia route to keep 180ms latency
  - EU end point may be moved to Amsterdam (to reduce latency)
  - Considering how to back-up the single (unstable) 100G JP-EU link
    - Atlantic route via US?
- JP-NY link will be upgraded to 100G hopefully
  - LHCONE peering with ESnet will be made then
- JP-SG link may be upgraded to 100G
  - Depends on budget (requesting to government)

Slide by M.Nakamura (NII)

◆ Discussion how to join the GNA (as Japan)