

INTERNET
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*Global
Infrastructure
Update*

Why Global?

- Responding to the requests of our membership.
 - Their needs for global connectivity grow as Science and Education becomes more globalized.
- Our members have expressed the need to deliver the same campus services anytime and any place.
 - That requires a consistent architecture.

Vision



This is a conceptual/ideal vision not a plan and not intended to indicate any specific activity.

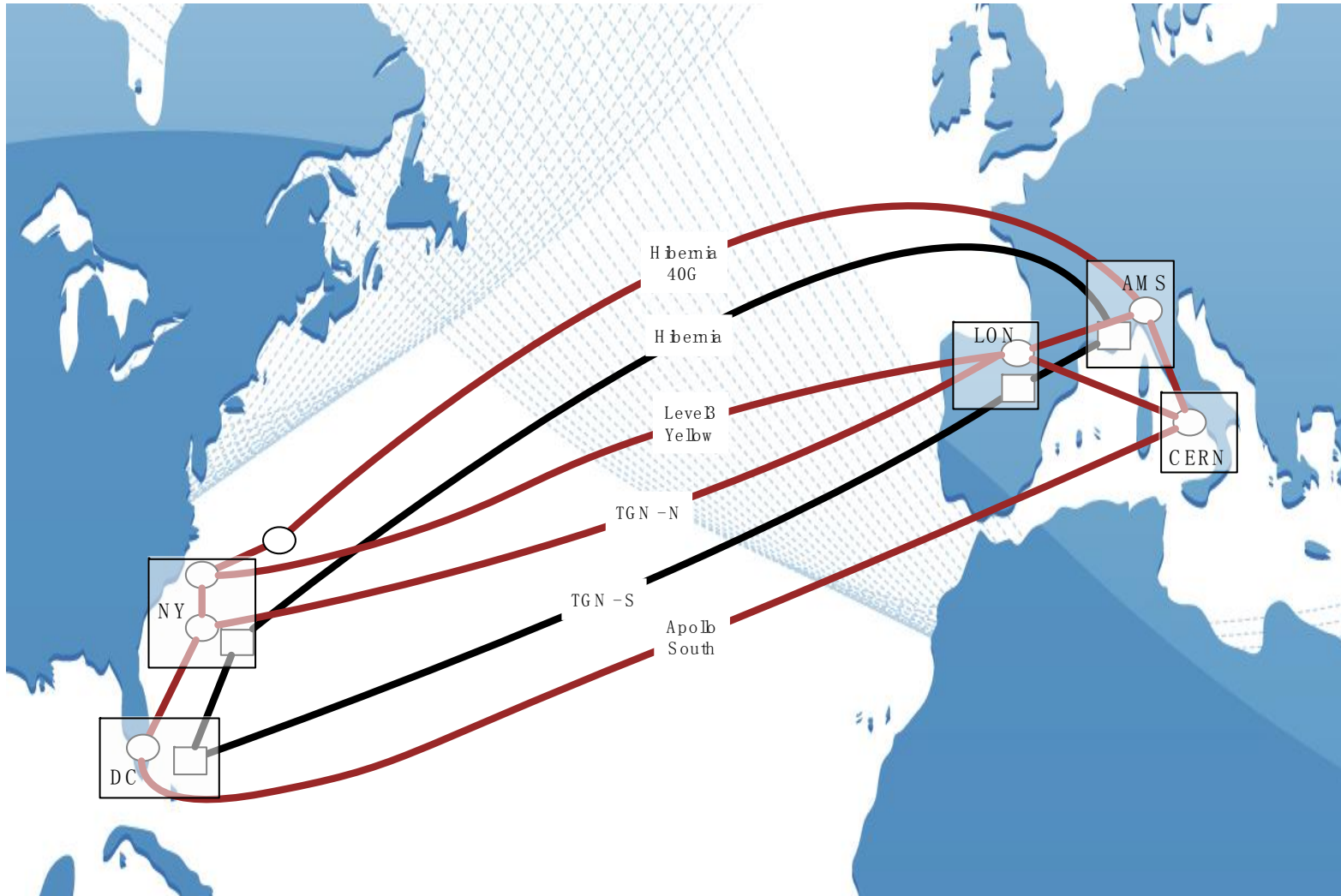
Global Network Architecture

- The Global Network Architecture (GNA) community is looking to coalesce global connectivity around a small number of interconnected Open Exchange Points.
- However the goal is not just to have best-effort activities based on layer-2 Ethernet,
 - Rather increasingly to look for the ability to extend dedicated, reserved and advanced capabilities across multiple exchanges.
- The goal is Deterministic delivery of services, independent of location.

OPEN EXCHANGE POINT Principles of Operation:

- *Open AUP: Ability to interconnect with any R&E Entity*
- *Open AUP: Support for non-R&E based Traffic*
- *Production Quality Operations Regime & Community Engagement*
- *Measurement capabilities*
- *Open Statistics*
- *Insure Privacy of Data*
 - *Use of Network Flow Data and Packet Capture limited*
- *Performance Assurance Node and perfSONAR*
- *CoS / Queuing Support*
- *Open Access to colocation, cross-connects and Carrier Facilities*
- *Timeliness of Service Support and Service Delivery*

Current Atlantic



○ ESnetRouter
□ Open Exchange

— EEX circuit
— ANA circuit

Current Middle East



Singapore Connections

