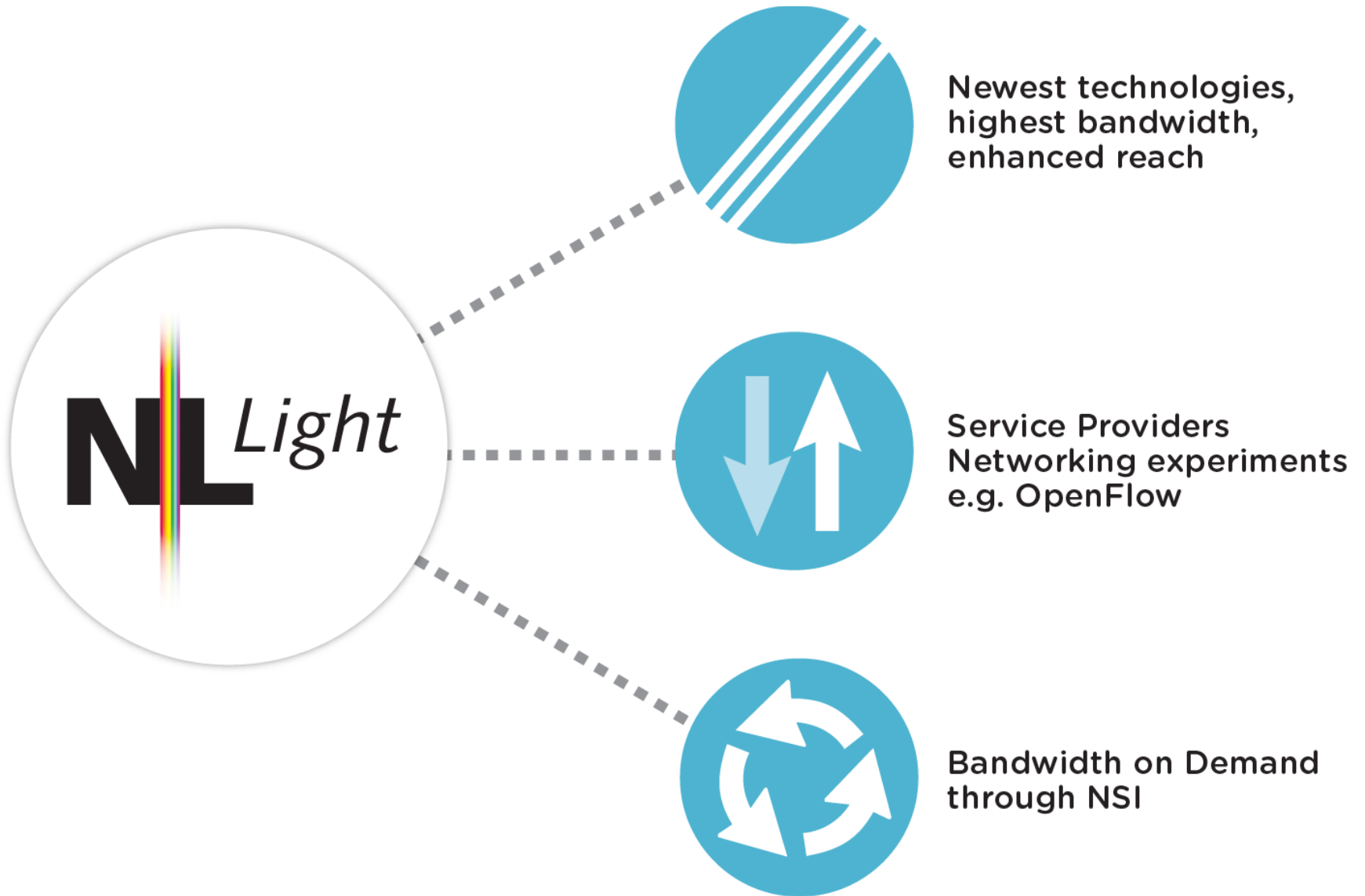


NetherLight GOLE Update

Gerben van Malenstein

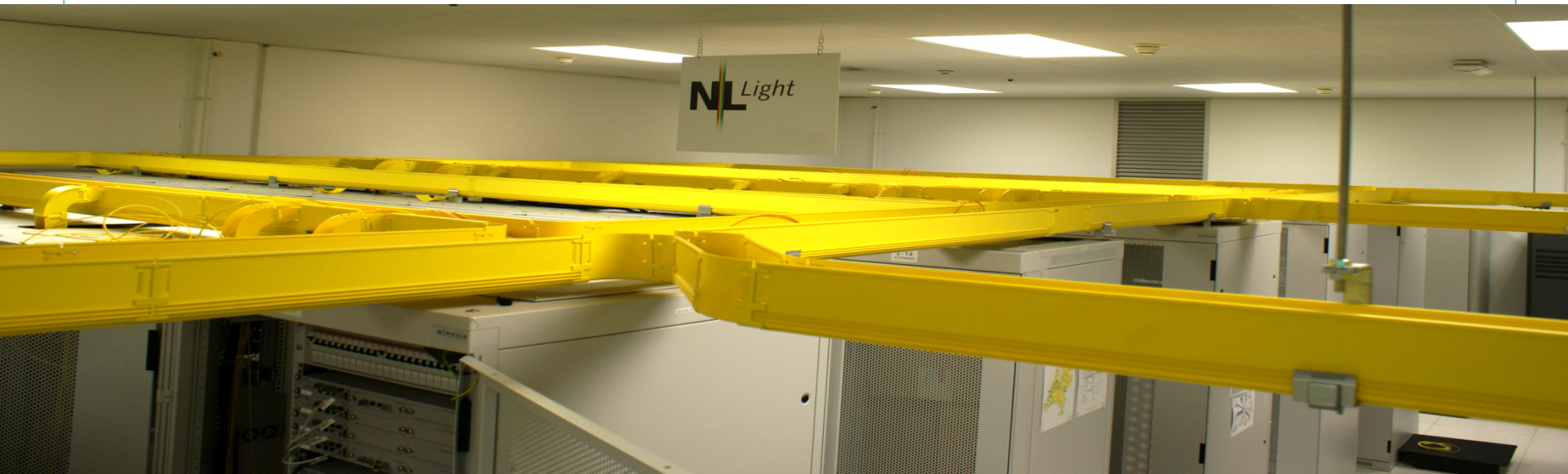
3 October 2013 – Nanyang Technological University, Singapore

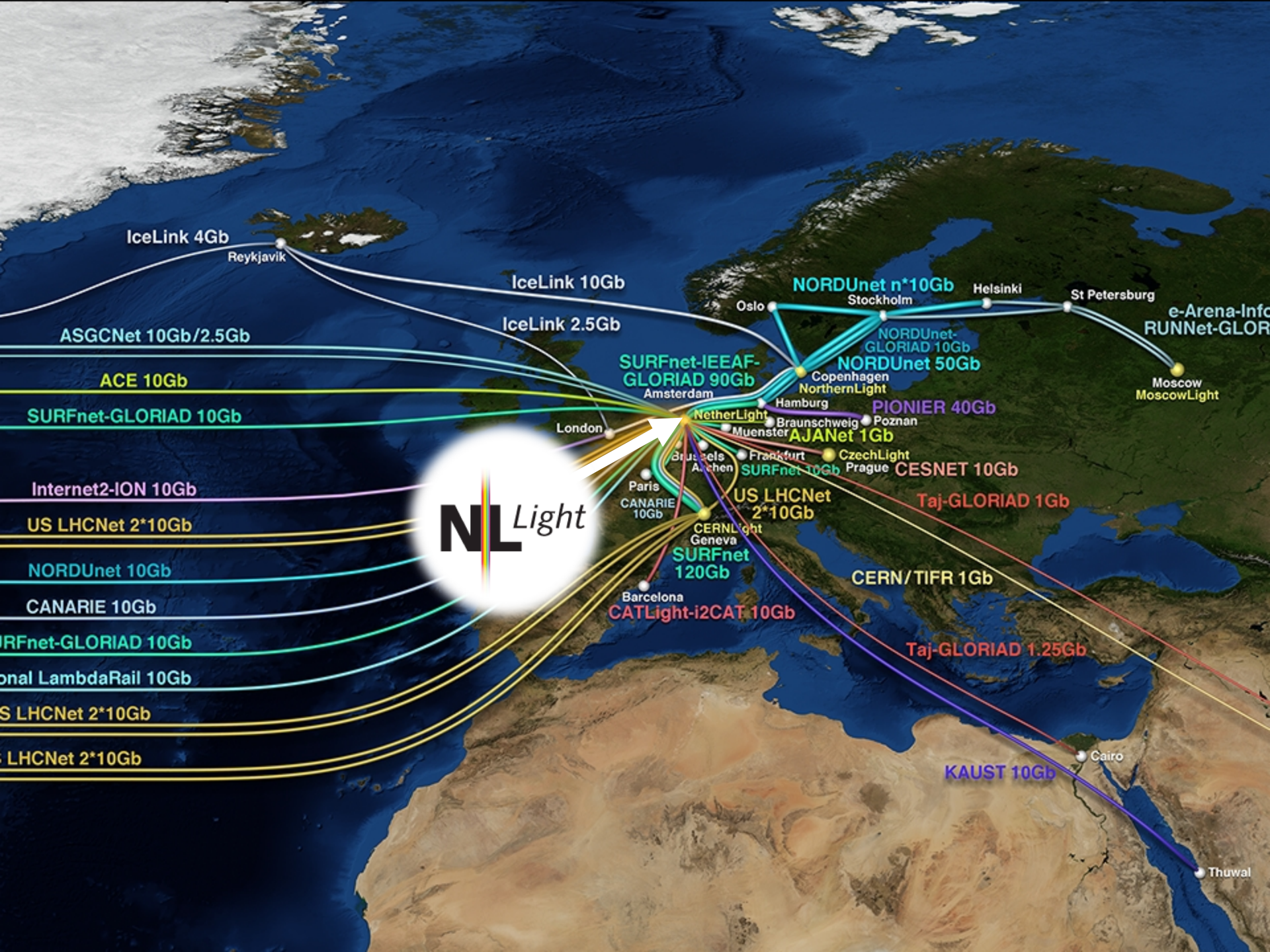


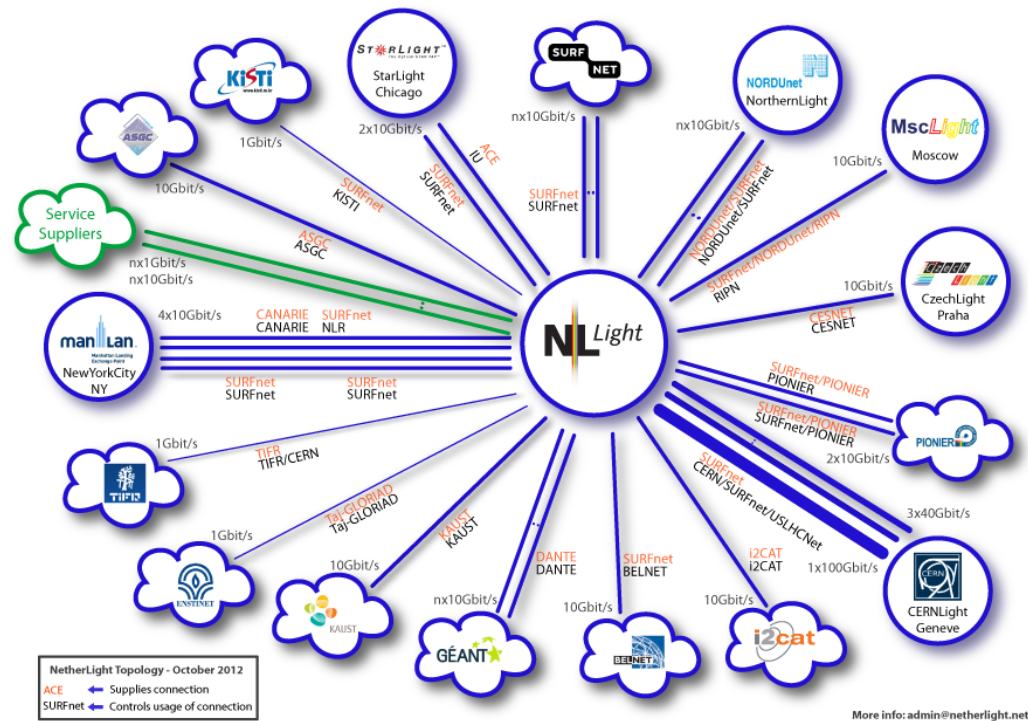


NetherLight

- GLIF Open Lightpath Exchange operated by SURFnet
- Located at Vancis, Amsterdam Science Park
- <http://www.netherlight.net>



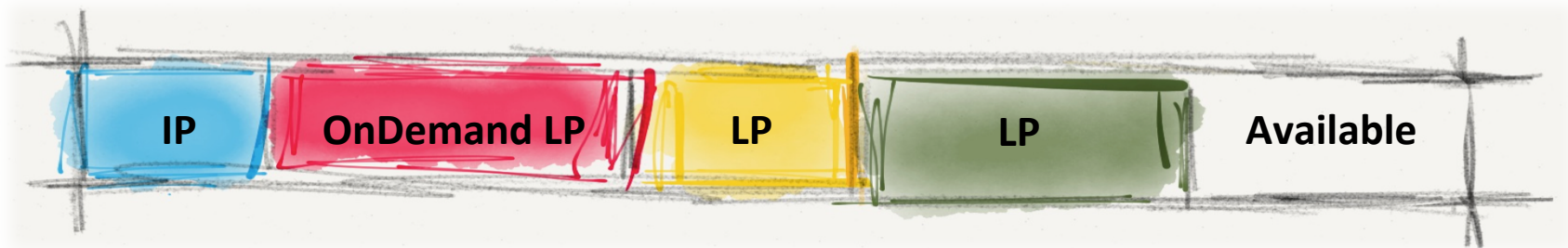




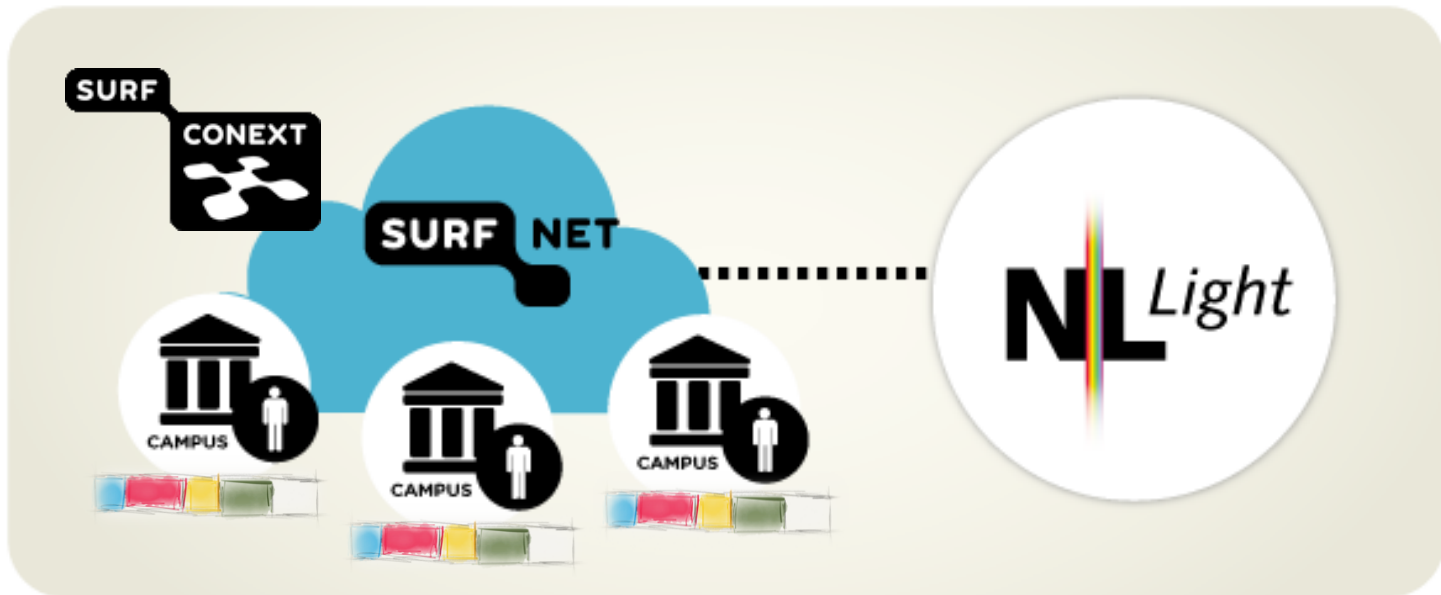
- **AMS-LON Dark fiber with NORDUnet (2x100G from the start)**
- **Second 100G to Geneva live soon**
- **Trans-Atlantic 100G – Demonstrated at TNC2013**
- **Second STM-4 to Egypt live since beginning of January**
- **10GE Amsterdam – London in service since August 2012**
- **Dark Fiber Maastricht (Netherlands) – Hasselt (Belgium) in service since April 2012**

NetherLight & SURFnet7

- **Carrier Ethernet**
 - NetherLight Ciena 5410 fully in production
- **Multi Service Port**
 - Delivering all types of network services
 - via **one physical interface**
 - Ethernet trunk port with QoS

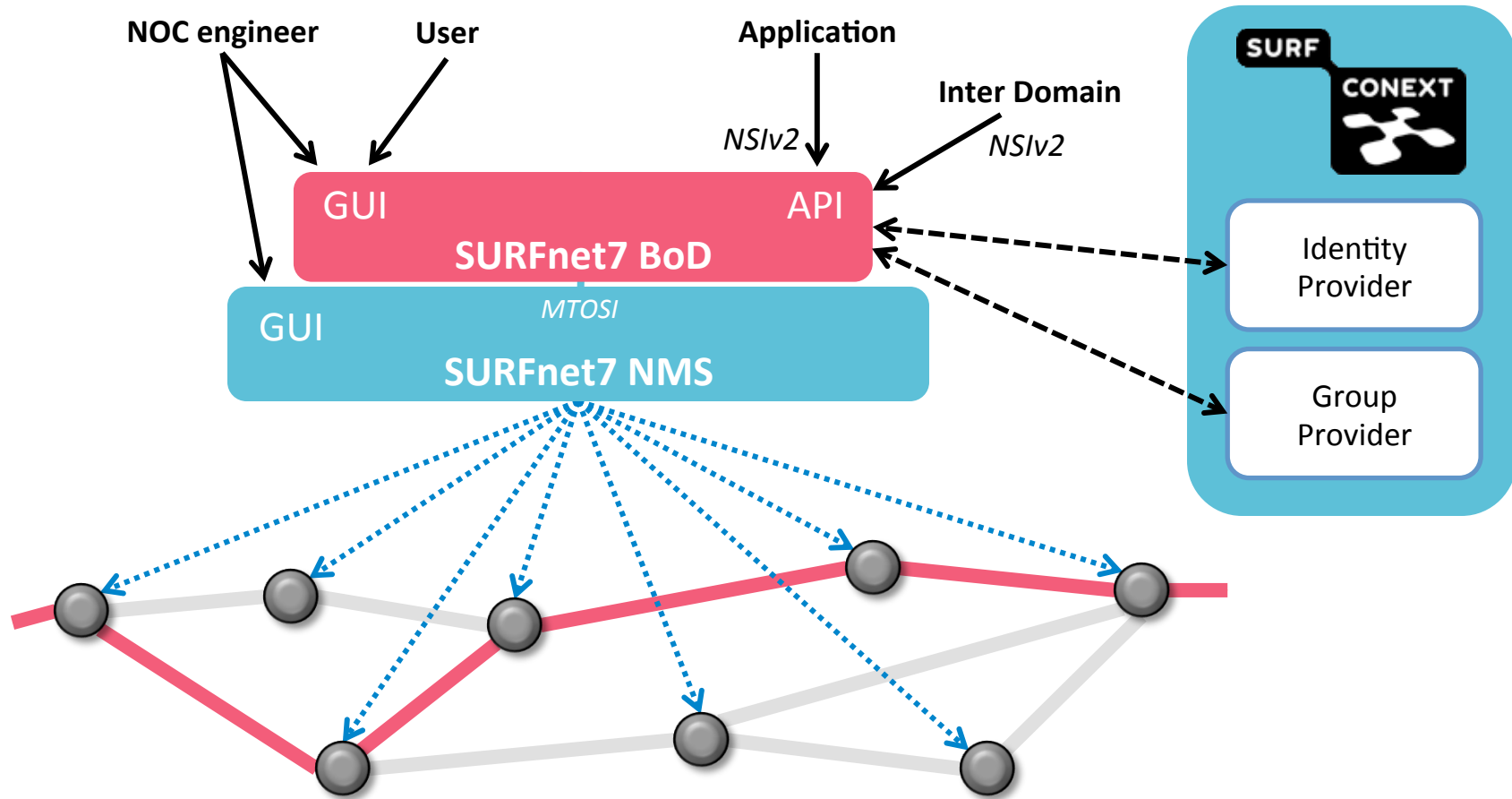


Connection Model



- **Flexible, fast and efficient through Multi Service Ports**
- **Short time to market for new services**

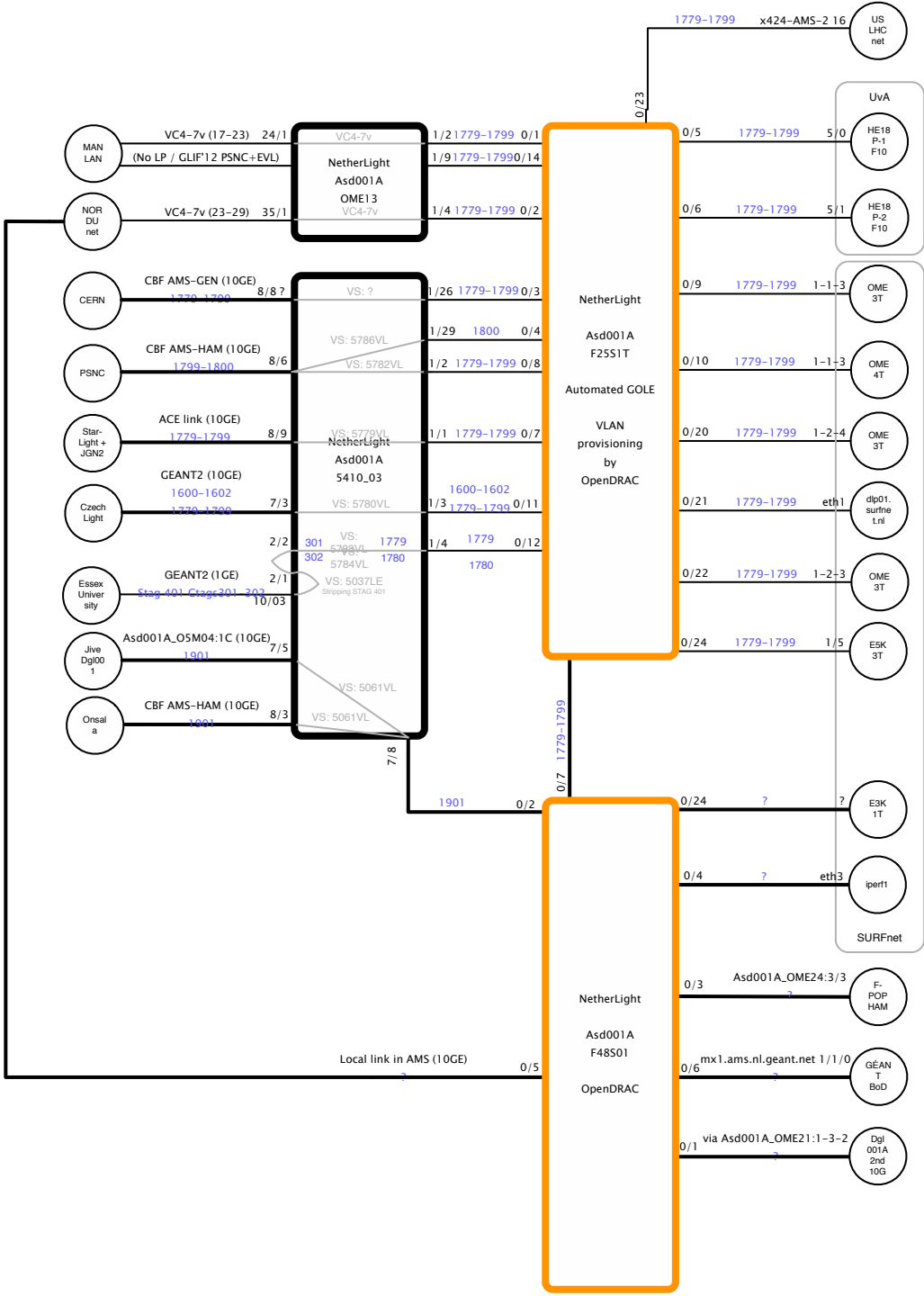
OnDemand Lightpaths



NetherLight 2013

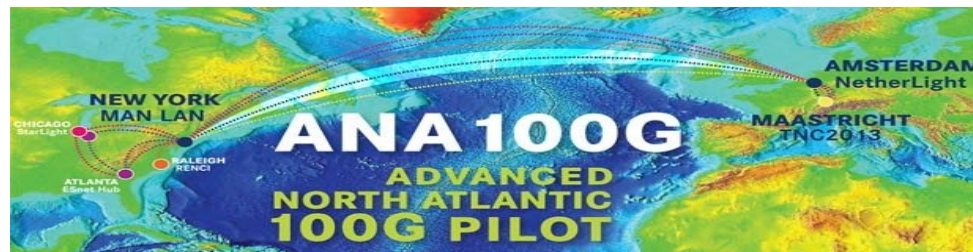
- **Second location**
 - also in Amsterdam
 - offering redundant services for service suppliers
 - Ciena 5150, upgrade to Ciena 5160 in 2014Q1
- **Connectivity**
 - Trans-Atlantic 100G
 - 2nd 100G Amsterdam – Geneva
 - NSI-CS v2.0 in Automated GOLE
- **OpenFlow testbed**
- **Enlighten Your Research 4 & Global**

Automated GOLE at NetherLight



100G Trans-Atlantic

- **Consortium members**
 - ESnet, Internet2, NORDUnet, CANARIE, DANTE, SURFnet
- **Demonstration at TNC2013**
- **First inquiries to connect at 100GE received**
 - Various demonstrations planned already



Commercial Service Suppliers

- **Connecting various types of service providers:**
 - VoIP
 - Storage
 - Compute
 - Conference venues
 - ...
- **Current commercial connectors:**
 - KPN (4G)
 - Tele2 (4G)
 - OneXS (VoIP)
 - Vancis (Storage)
 - Kentis (Data center)
 - Previder (Data center)
- **OCX document in GÉANT**
- **Connecting more service providers will be focus in 2014**





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