

Automated GOLE update



Gerben van Malenstein

June 7, 2013 – Maastricht, Netherlands



Automated GOLE Fabric



Objectives

- **Implementation of a standard: NSI**
- **Playground**
 - The best practice is by iteration
 - Gaining experience on multi-domain dynamic services
 - Connection, discovery, topology and monitoring services
 - Interdomain BoD authentication and authorization testing
 - Performance verification possible
- **Proving and improving new services**
 - Across heterogeneous domains
 - With real users and applications
- **Creating a collaborative “Invented here” syndrome**

Connectivity

- **Additional exchanges**
 - AMPATH & RNP, GÉANT production
- **Link capacity**
 - Trans-Atlantic, GÉANT
- **Applications**
 - 4K (demo), LHCONE (?)

Milestones

- **Milestones 2013**

- Showing simple topology exchange at TNC2013
- “NSI workshop” (APAN)
- GLIF Singapore and SC’13:
 - NSI-CSv2.0 interop
 - Topology exchange
 - Application demo

Demos at GLIF and SC'13

Demo 1: Path finding

- Showing multi-domain pathfinding protocol
- NSI modify primitive
- Partners

Demo 2: 4K video

- Source/sink
- Protocols
- Hardware
- Partners

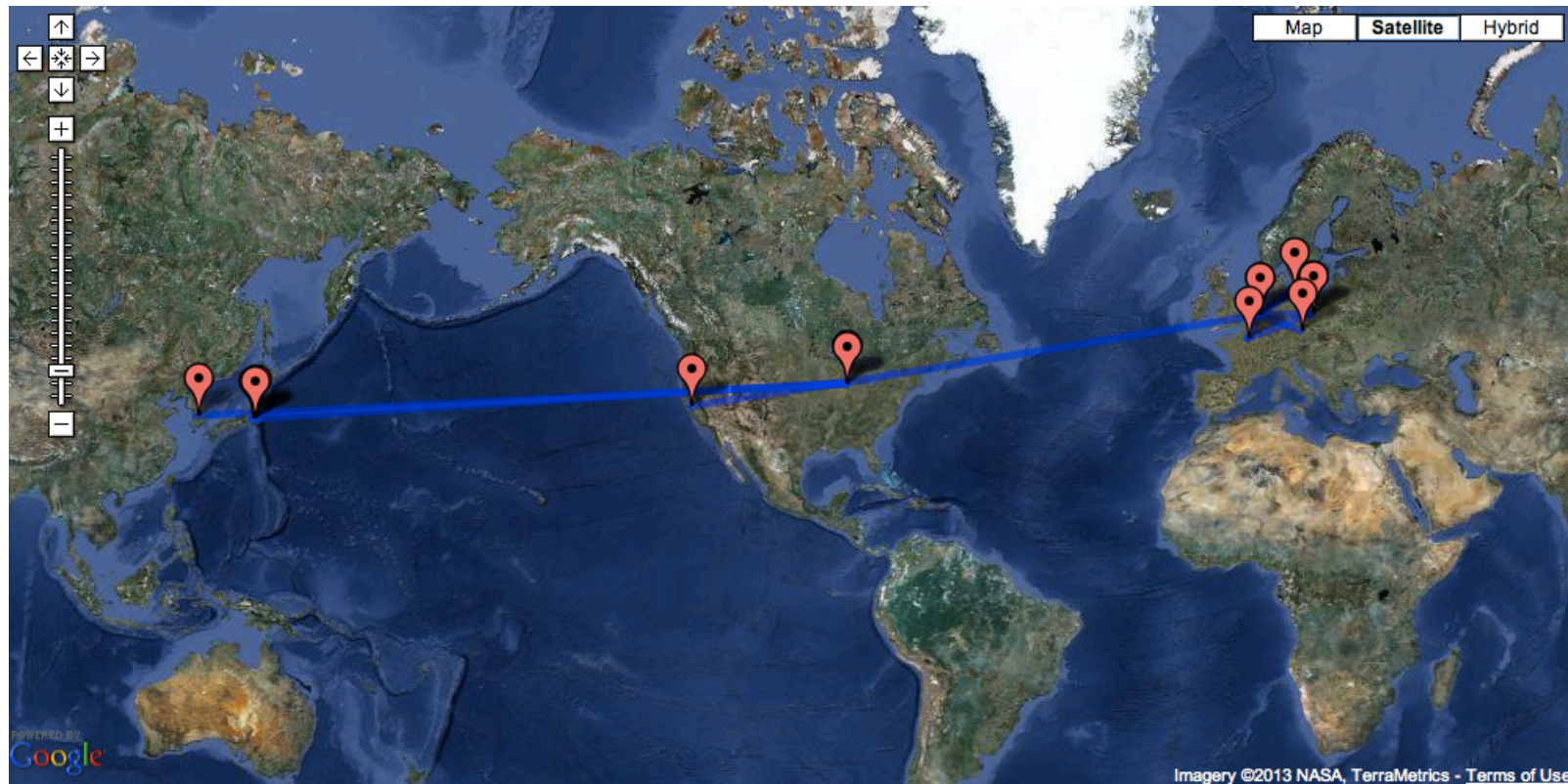
Demo 3: ...

- Showing ...
- Protocols
- Hardware
- Partners

Demo substrate: Automated GOLE

- NSI-CSv2.0
- Topology Exchange
- 1G lightpath connectivity to SingAREN

Topology Exchange



- <http://staff.science.uva.nl/~vdham/googlemap.html>

Longer term

- **Expanding** what has been built so far
 - Domains, applications
 - Of course implementing new NSI functionality
- **Some options** for SDN and multi-layer:
 - OpenFlow within some domains?
 - Multi-layer (SDN-T)?
 - Probably these options need researching first

Get involved!

- **Join** our bi-weekly conference calls
- APAN36
- GLIF Singapore
- SC'13



gerben.vanmalenstein[at]surfnet.nl



www.surfnet.nl



+31 30 2 305 305



Creative Commons “Attribution” license:
<http://creativecommons.org/licenses/by/3.0/>

