

グローバル ラムダ R&Dネットワーク



東京大学 大学院 情報理工学系研究科

WIDEプロジェクト

江崎 浩

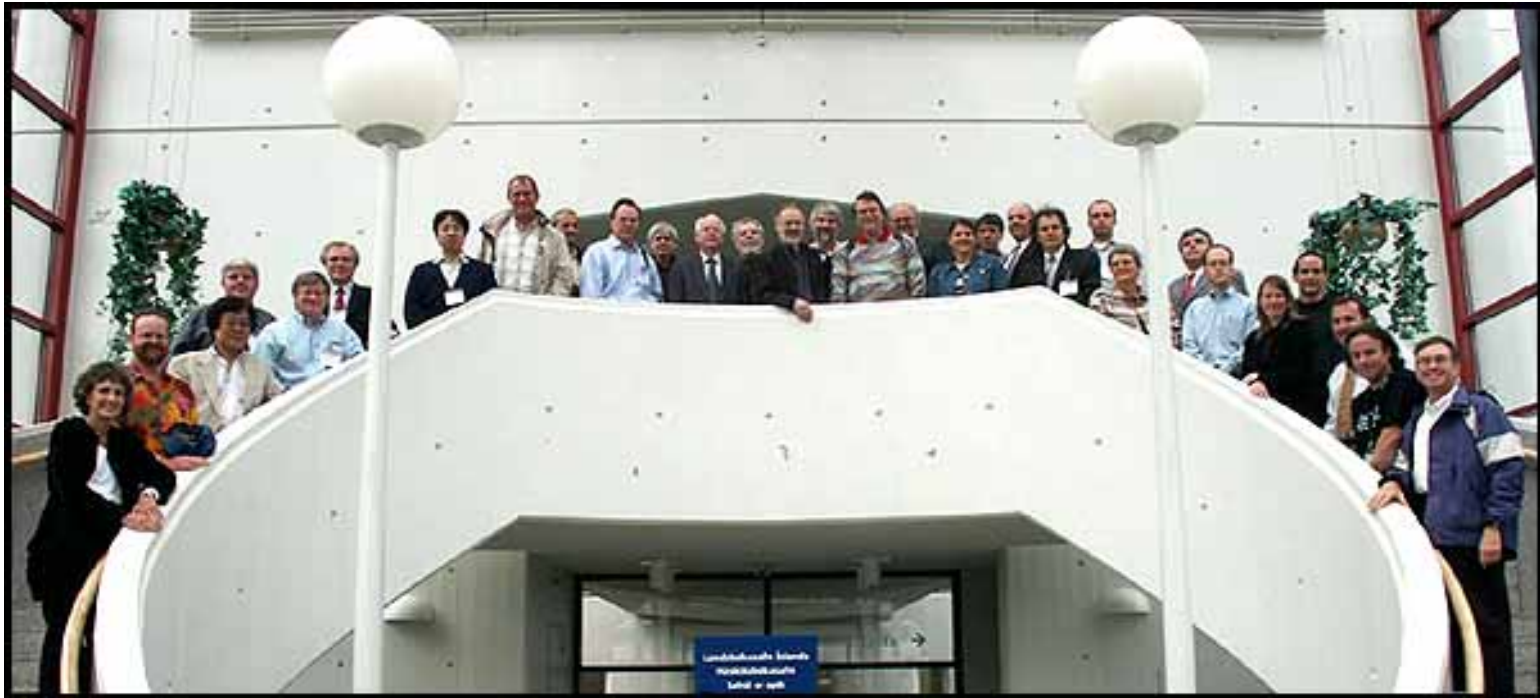
ラムダ ネットへの取り組み

- GLIF (Global Lambda Integrated Facility) & IEEAF
 - <http://www.glif.is/>
 - <http://www.ieeaf.org/>
- カナダ
 - CANARIE
- オランダ
 - SURFnet
- 米国
 - STAR LIGHT
 - PacificWave
 - SURA(Southerneasten Universities Research Association)
- 日本
 - T-LEX <<http://www.t-lex.net/>>

GLIF, Global Lambda Integrated Facility

- GLIF, the Global Lambda Integrated Facility, is a collaborative initiative among worldwide NRENs, consortia and institutions with lambdas
- GLIF was established by invited participants at the 3rd annual Global LambdaGrid Workshop, held August 27, 2003 in Reykjavik, Iceland
- <http://www.glif.is/>

GLIF Founding Members



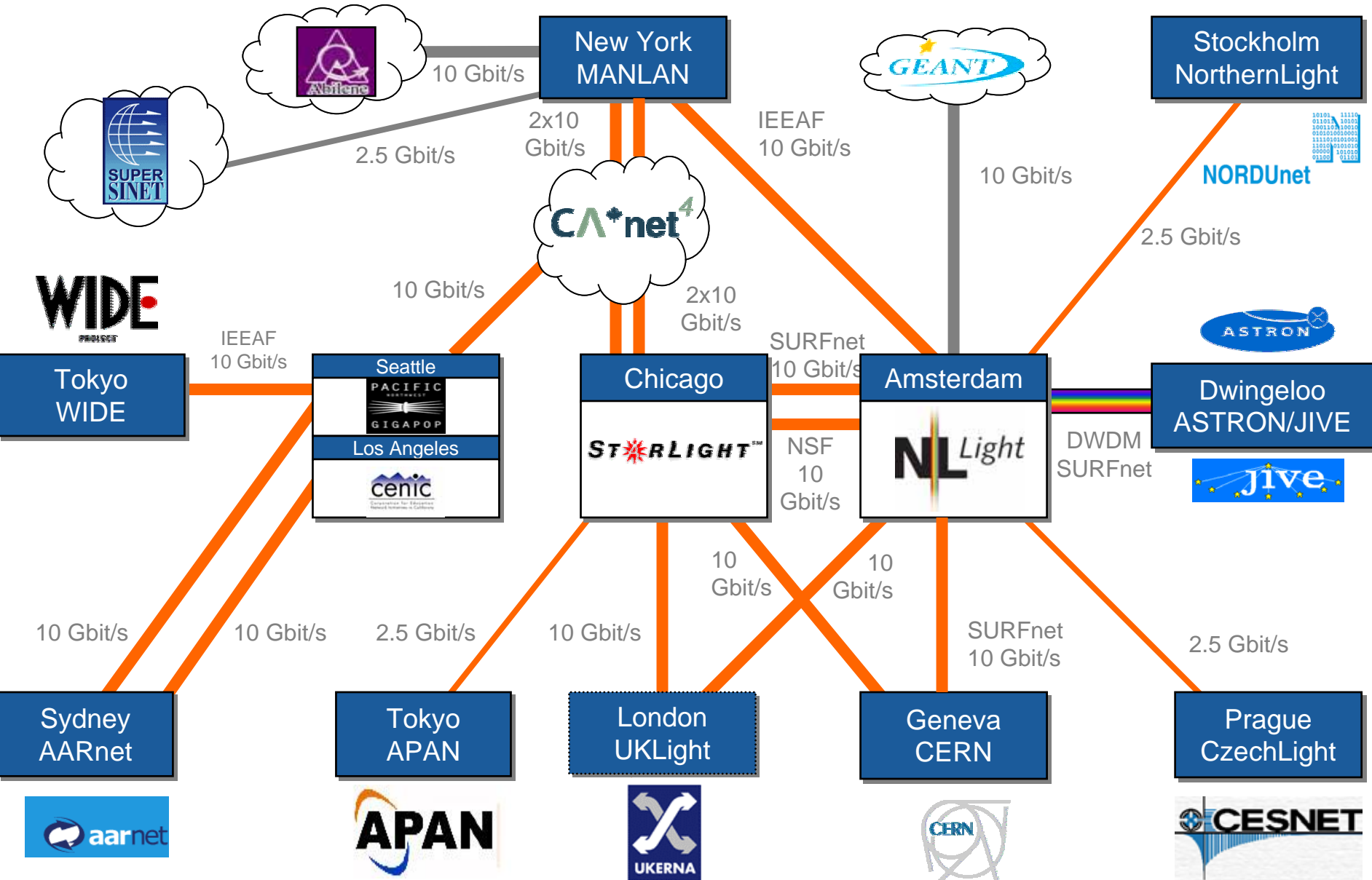
What is GLIF

- GLIF is a world-scale Lambda-based Laboratory for application and middleware development on emerging LambdaGrids, where applications rely on dynamically configured networks based on optical wavelengths
- GLIF is an environment (networking infrastructure, network engineering, system integration, middleware, applications) to accomplish real work

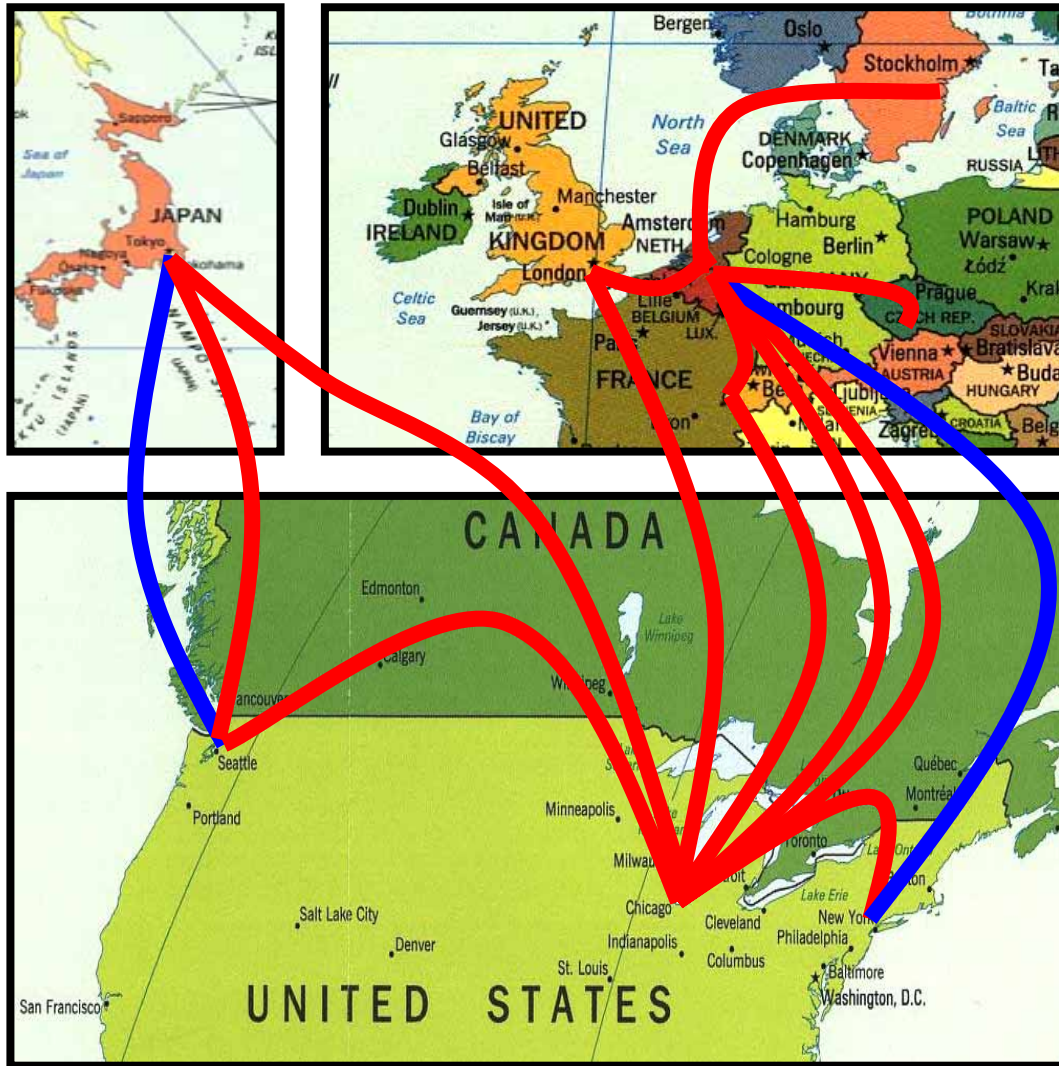
GLIF vision

- GLIF community shares a common vision of building a new grid-computing paradigm, in which the central architectural element is optical networks, not computers, to support this decade's most demanding e-science applications.

Global Lambda Integrated Facility 2Q2004



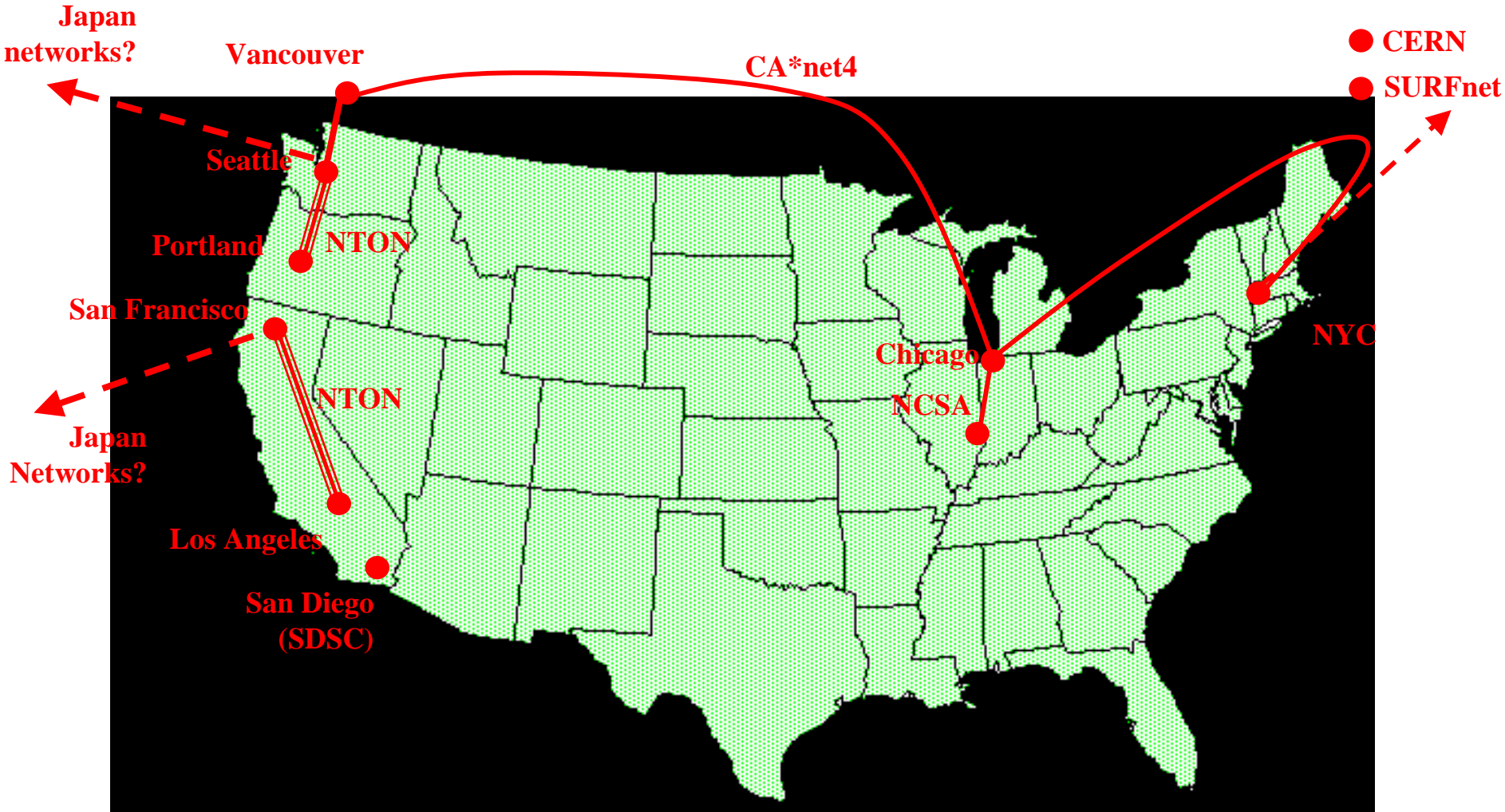
IEEAF (Internet Education Equal Access Foundation)



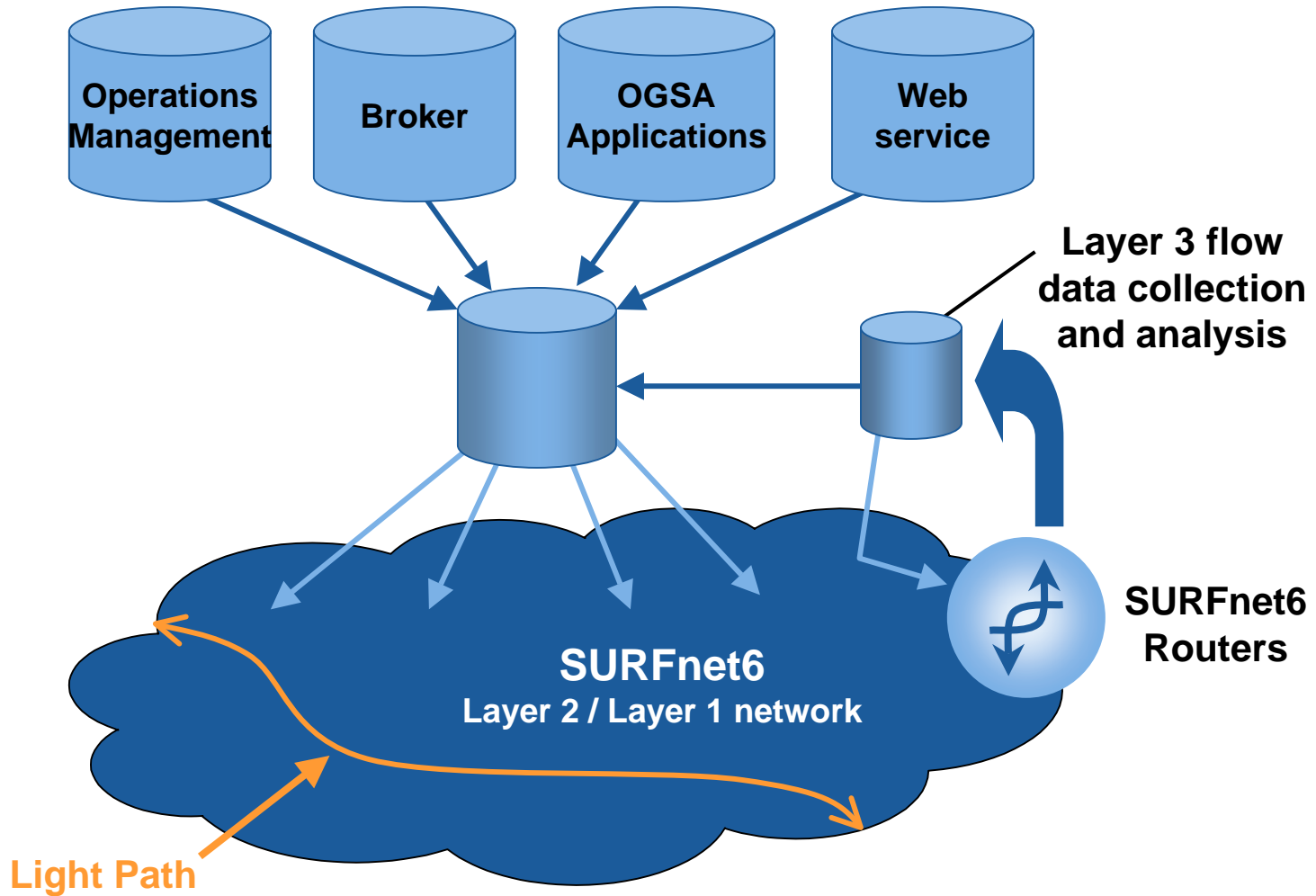
Red Lines:
TransLight
Lambda Links,
Funded

Blue Lines:
TransLight
Lambda Links,
Donated

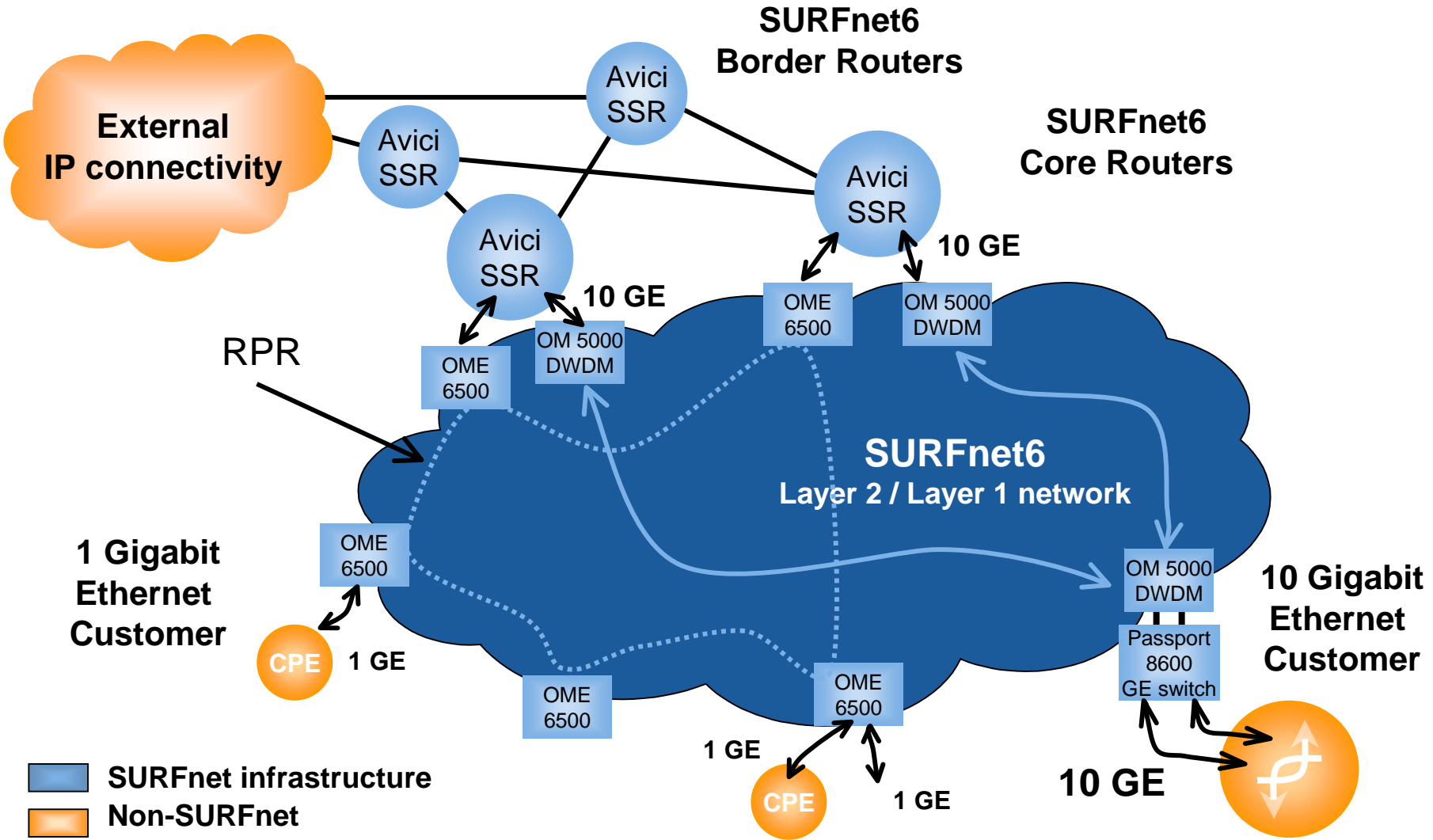
Potential STAR LIGHT Optical Network Connections



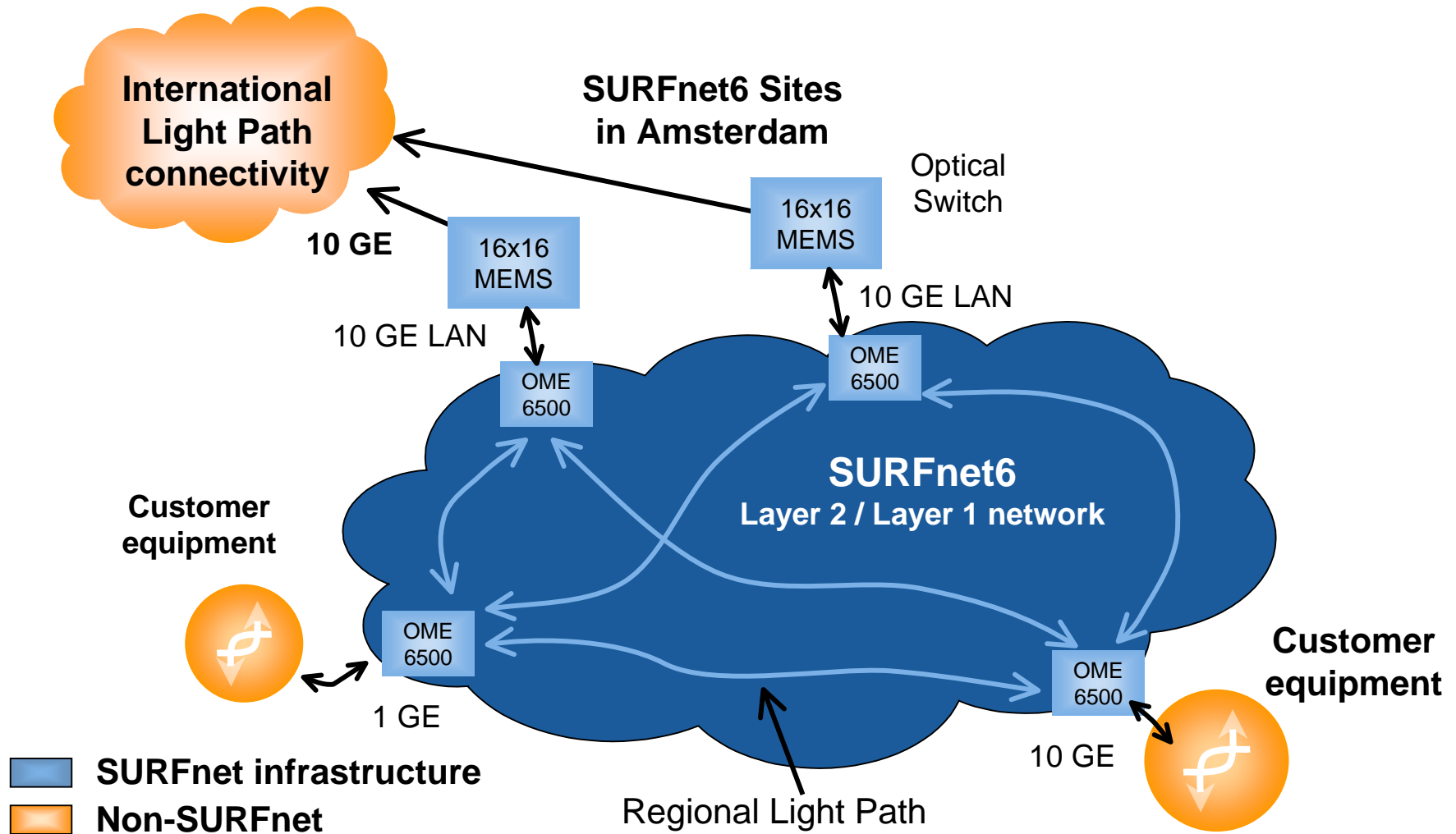
Light Path Provisioning



Provisioning of IP Services



Provisioning of Light Paths



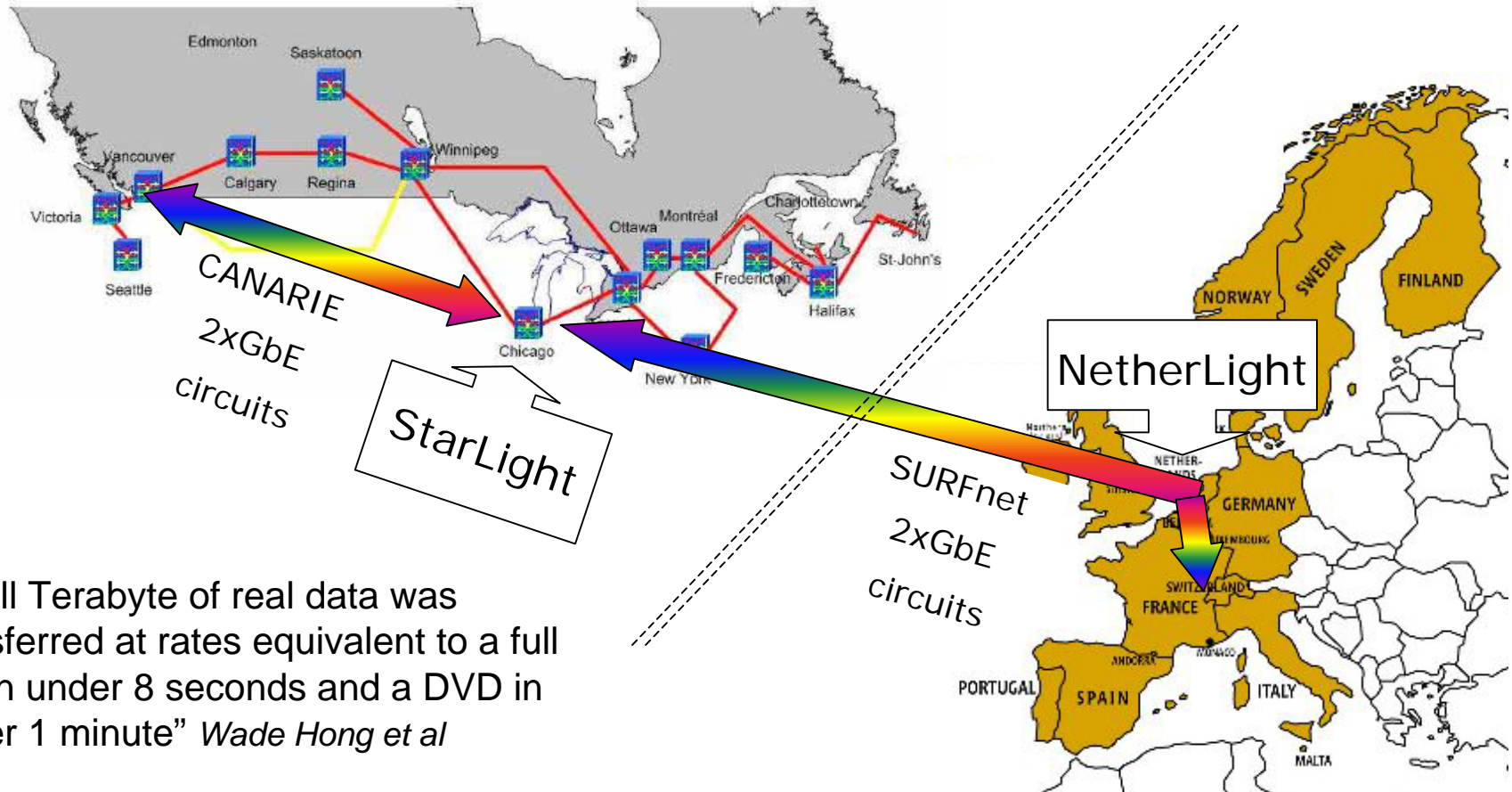
Managed Dark Fiber in the Netherlands



April 2004: over 4000 km of fiber pairs, 15 year IRUs

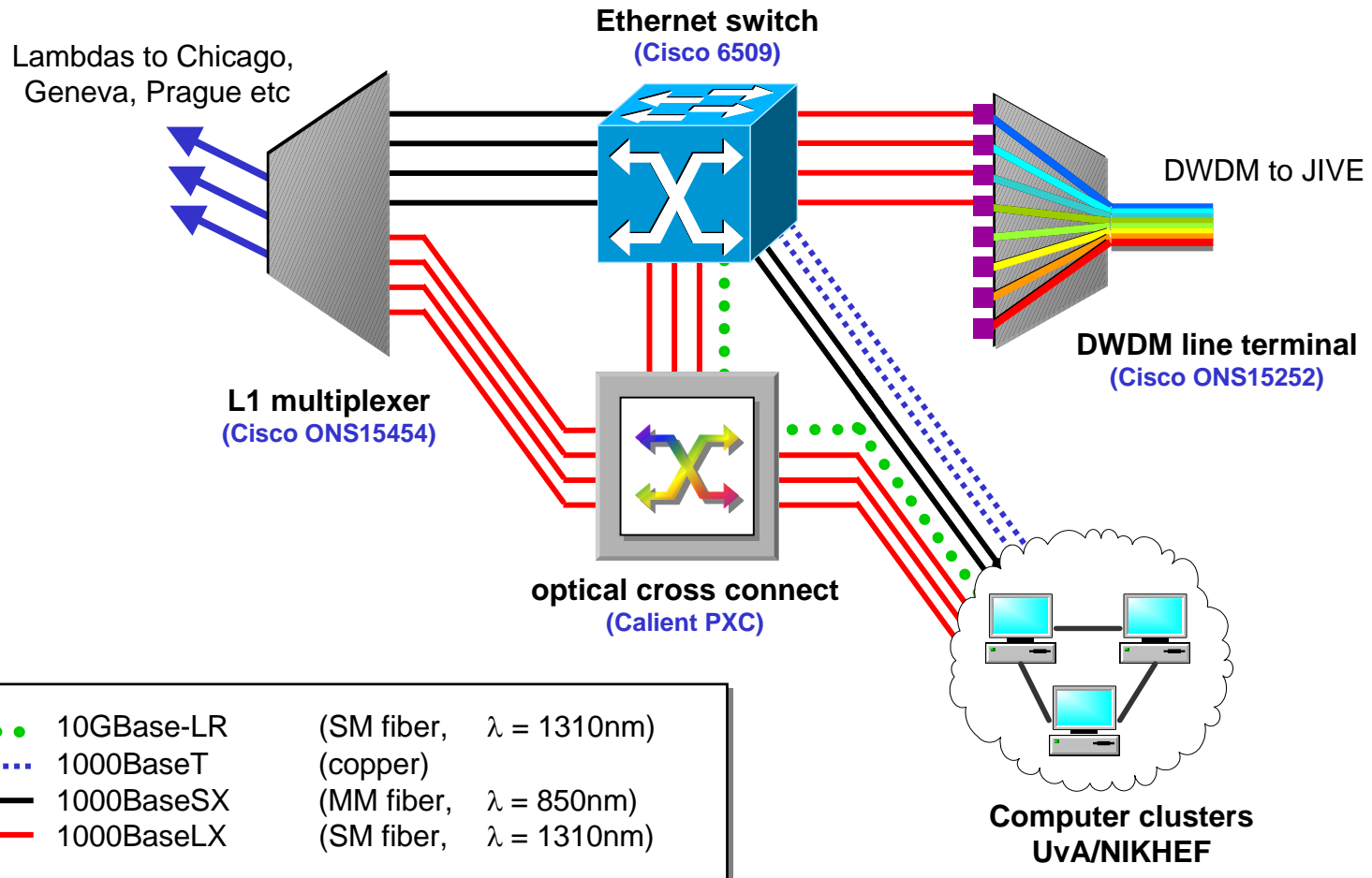
ATLAS Canada Lightpath trial

TRIUMF Vancouver \leftrightarrow CERN Geneva



“A full Terabyte of real data was transferred at rates equivalent to a full CD in under 8 seconds and a DVD in under 1 minute” *Wade Hong et al*

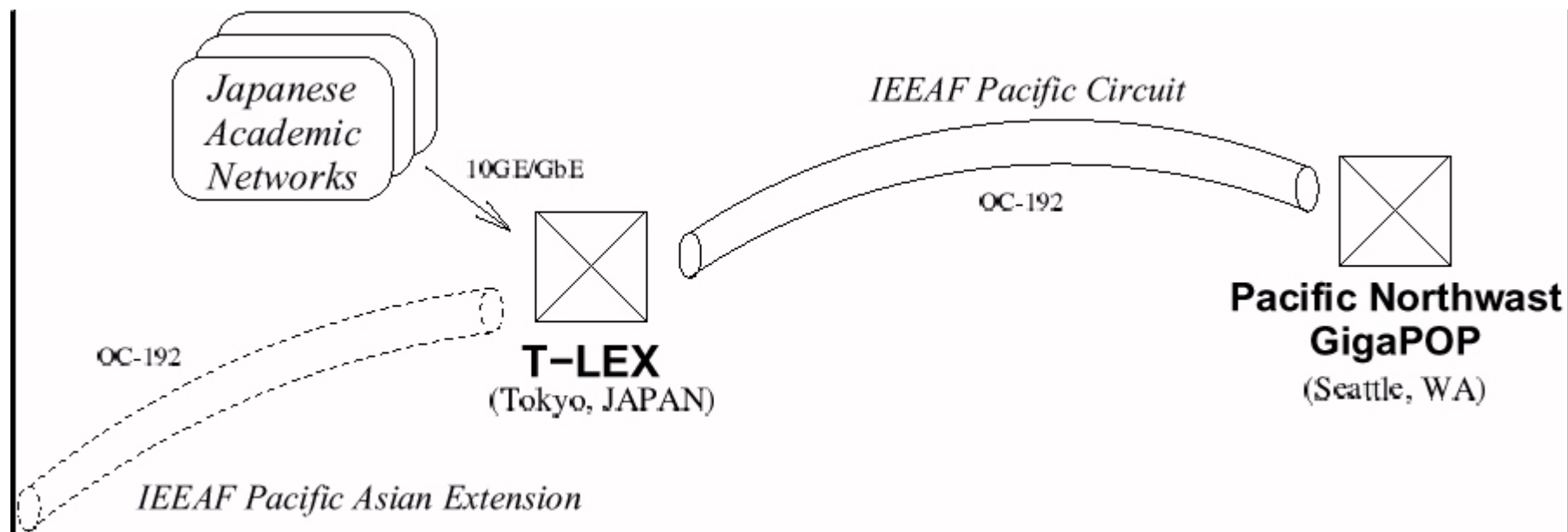
NetherLight setup at SARA

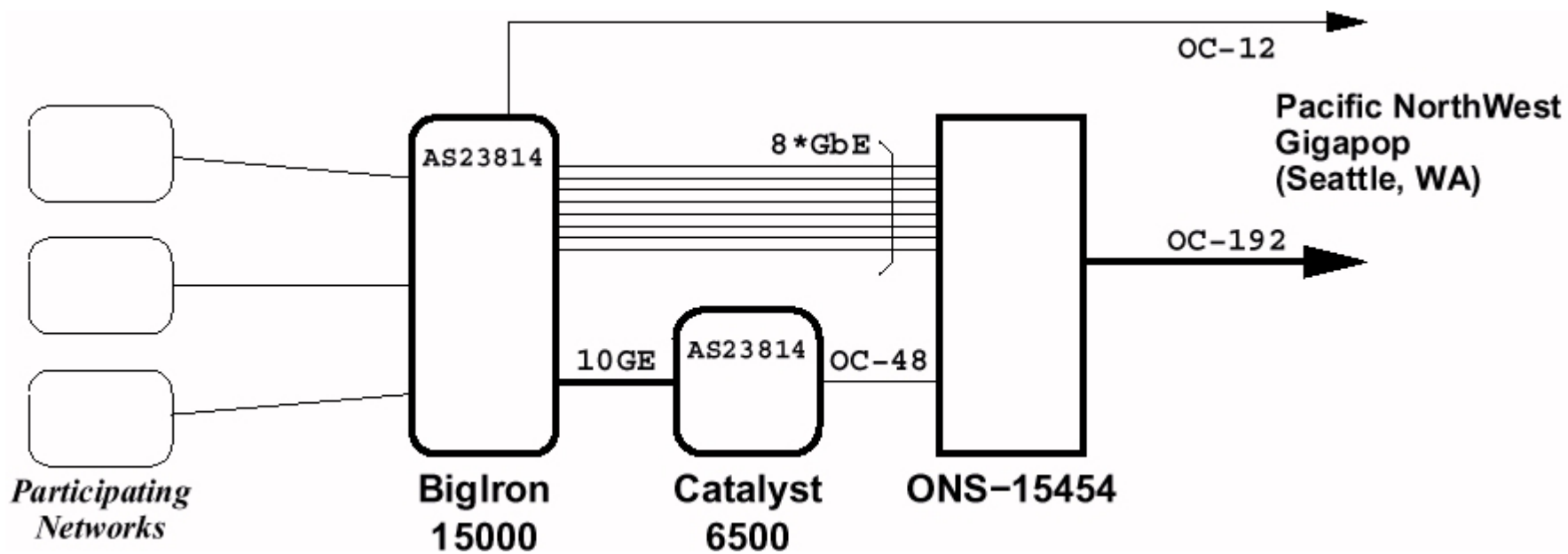


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