

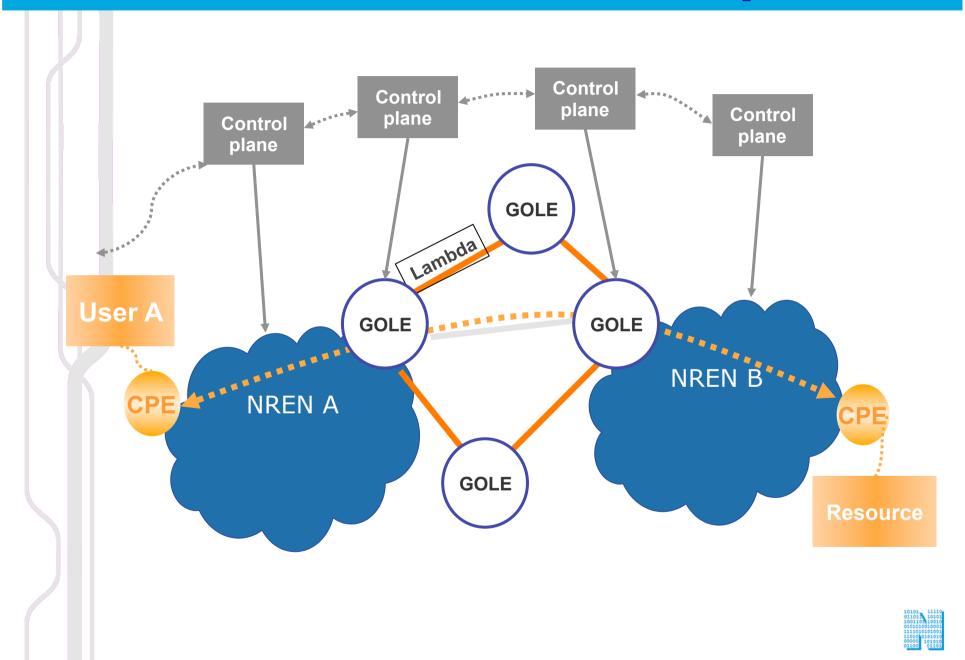
LINK POLICY A Problem Statement

Lars Fischer
Winter GLIF
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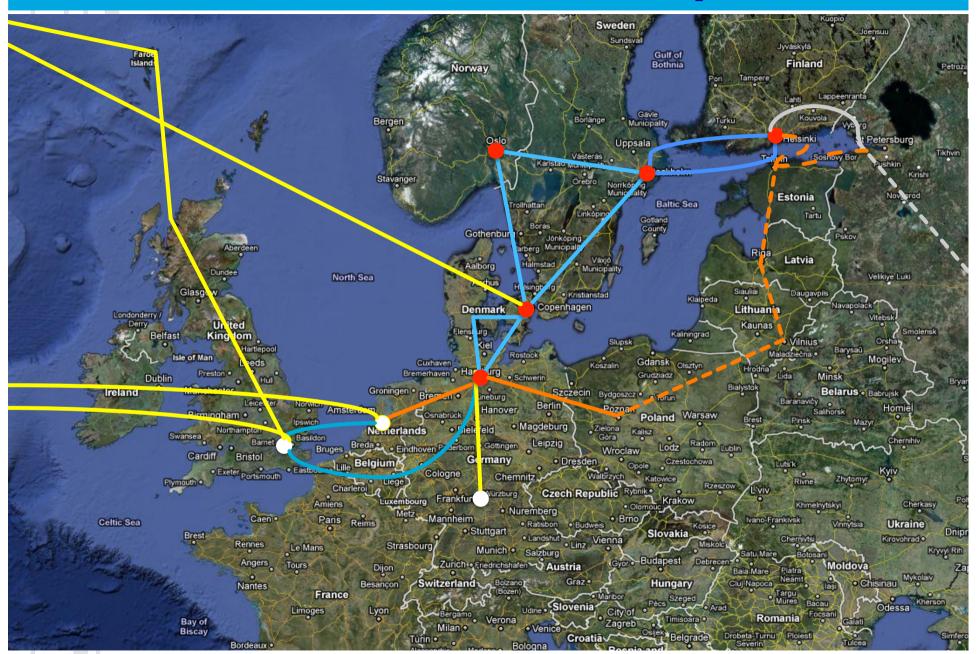


GLIF model – Policy Free



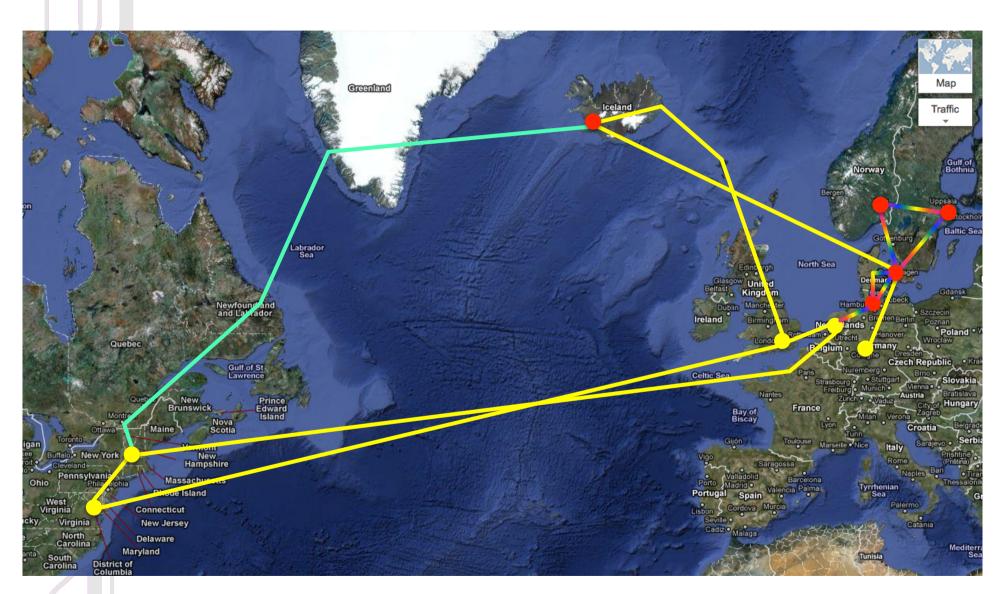
NORDUnet Nordic infrastructure for Research & Education

NORDUnet Europe 2012



NORDUnet Nordic infrastructure for Research & Education

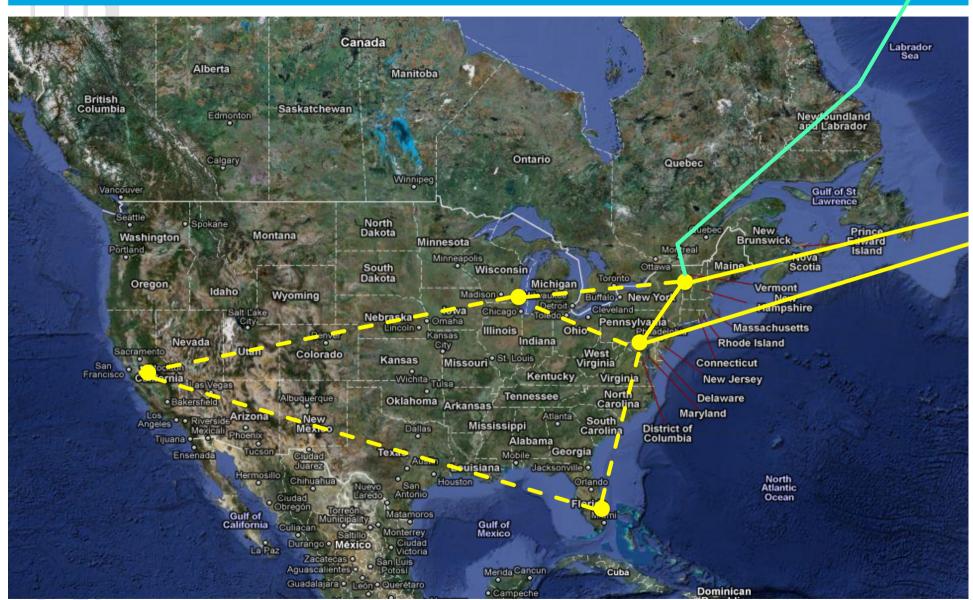
NORDUnet Atlantic 2011





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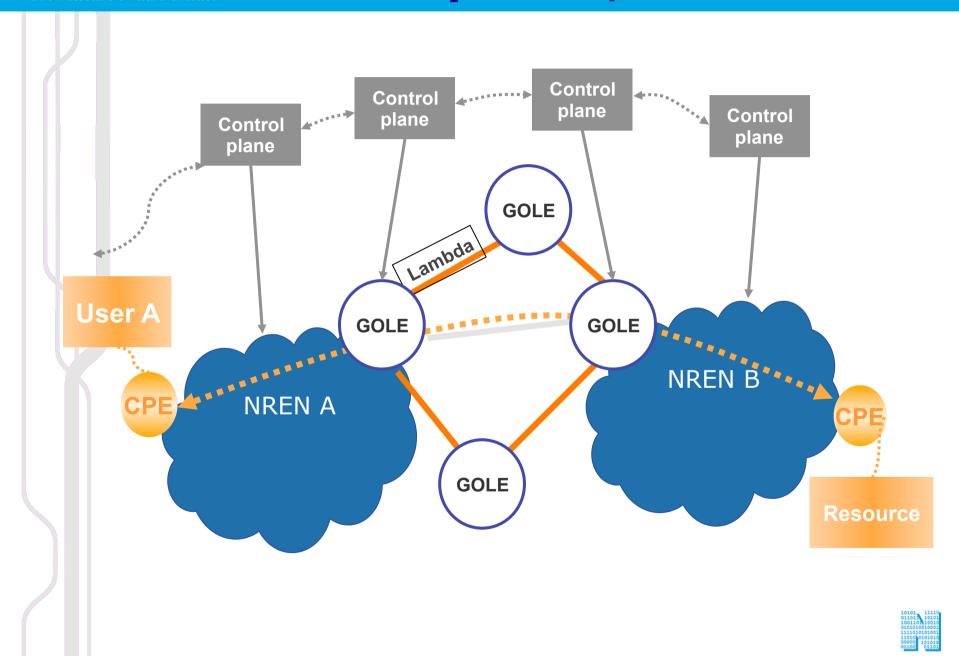
...however, we do have policy

- Cannot afford policy-free links
 - Cost
 - Links acquired to serve specific projects, science disciplines
- (GLIF) Policy description today
 - Informal, often not in writing
 - Not in a computer-parseable description language
 - No system of policy exchange
 - Typical policy is "good sense judgment", enforced by telephone. The "ask me" policy.
 - This does not scale. And will not work for automatic provisioning.
- We need a way to describe, publish, exchange, discover policy
 - ...and enforce it





Policy: Links, not GOLEs





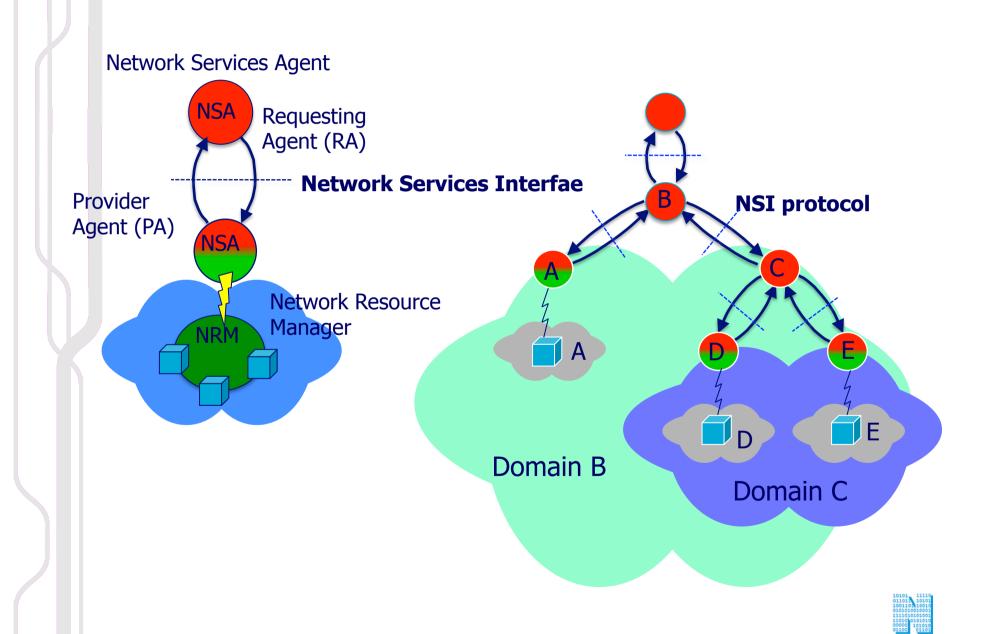
Link Resouces

- More inter-GOLE links being put in place
 - ...and more GOLEs
 - by NRENs, Regionals, Continental networks
 - by projects, discipline-specific efforts
 - Distributed GOLEs (that are not networks?)
 - Even efforts to provide continent-wide exchanges – Internet2, GÉANT
- User communities starting to use GOLE model
 - LHCONE
- This is great
 - ...but from a policy (description & enforcement) point of view, it's getting worse



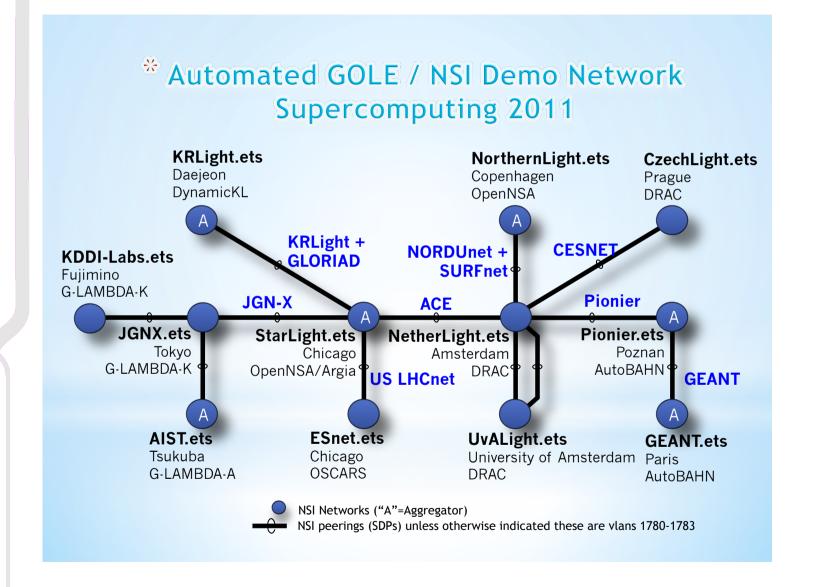


AutoGOLE – Link Policy





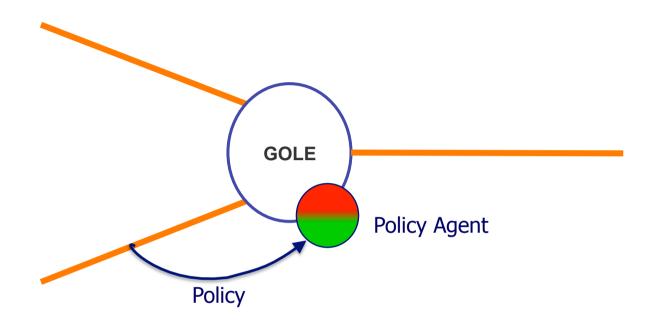
Policy-aware path-finding?







Policy enforcement at GOLEs



- GOLE as the guardian of the link resources connected to it
 - Policy-aware GOLEs
 - Is this only a AutoGOLE issue, or general?
- If we can't have automatic policy enforcement, we're defeating the whole point of doing AutoGOLE in the first place





Policy Description

- Objectives
 - So we can understand it
 - So it can be enforced by GOLEs
 - So it can be communicated to those looking for resources
 - So it can be understood by path-finders
 - GOLEs can guarantee correct use of resources
- Implications
 - GOLE functionality
 - AutoGOLE connection service, path-finding
 - Topology exchange
 - (GOLE) Service Description





Thank You

Lars Fischer lars@nordu.net http://www.nordu.net

