

### **NML Outreach Session**

OGF 31, Taipei, 2011 March 22

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# **Group Description**



 The purpose of the Network Mark-up Language Working Group is to combine efforts of multiple projects to describe network topologies, so that the outcome is a standardised network description ontology and schema, facilitating interoperability between different projects.

# Network Markup Language



NML = Network Markup Language

#### Goal

 Create a network description ontology and schema

- 1. Ontology (Terminology, Schema) (UML)
- 2. Syntax (XML and RDF)

### Scope



#### In Scope

- Logical Network
  Infrastructure
- Multi-layer networks
- Configuration
- Capability

### **Out of Scope**

- Physical Network Infrastructure
- Policy
- Authentication

# Status up to OGF 30



- Consensus on Terminology
- Ties with related work (ITU, TMForum, IETF)
- Lot's of (academic) discussion on data model ("Can we model everything as an abstract relation?")

### Recent Discussions



- Serial Compound Relations
  - = Single layer network connections
- Syntax

### **Document Status**



- Translating From DCN to NDL and Back Again by Jeroen van der Ham (finally) published as GFD.175
- Delegation of urn:ogf in IETF and description of urn:ogf:network: in progress
- Made good decisions on last two OGFs, but need writers to put this in *NML base* schema draft! (draft is now outdated)

### **Applications!**



- First application in progress: monitoring
- Second application in planning: path provisioning

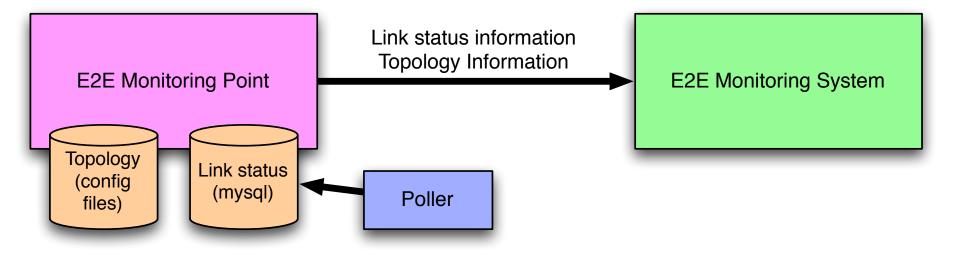
# **Monitoring Application**



- PerfSONAR based
  - E2Emon tool revised, splitting topology service from monitoring service
- Involvement
  - European GÉANT3 (Roman Łapacz)
  - North American Internet2 (Jason Zurawski)
  - Where's Asia?
- Agreement on protocol sequence
  - Implementation expected in a few months

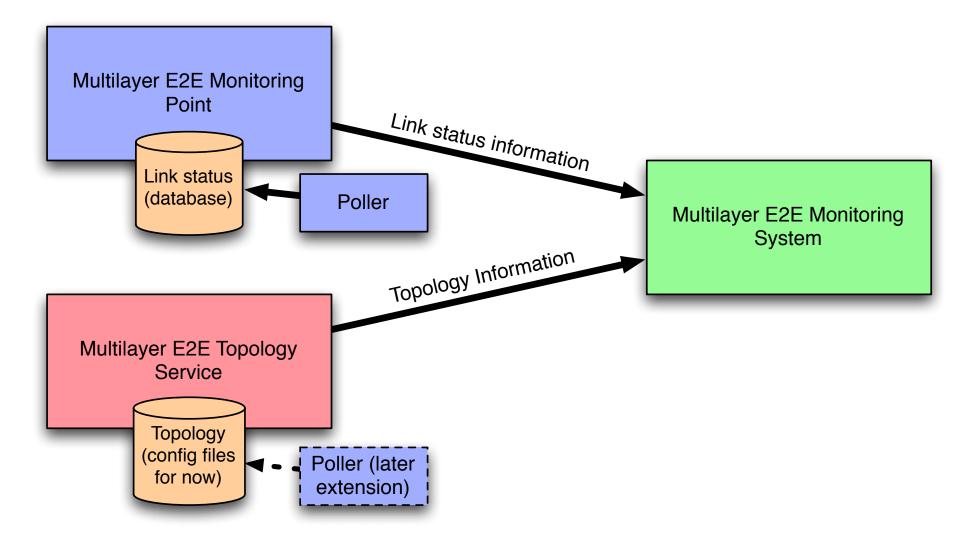
# E2E-mon previous architecture Open Grid Forum





### E2E-mon new architecture





### Q&A



### Questions?

http://www.ogf.org/gf/group\_info/view.php?group=nml-wg