NML Outreach Session
OGF 31, Taipei, 2011 March 22

Slides by Freek Dijkstra
Presented by Cees de Laat
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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.
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 (draft is now outdated)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

E2E Monitoring Point

- Topology (config files)
- Link status (mysql)

Poller

Link status information
Topology Information

E2E Monitoring System
E2E-mon new architecture

Multilayer E2E Monitoring Point

Link status (database)

Poller

Multilayer E2E Topology Service

Topology (config files for now)

Poller (later extension)

Multilayer E2E Monitoring System

Link status information

Topology Information
Q&A

• Questions?

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