Report on the CANMOD BOF
(Comparing Approaches to
NETCONF Modeling) at IETF-71

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Drafts Covered

Requirements:
- draft-linowski-netconf-dml-requirements-01.txt
- draft-presuhn-rcdml-03.txt
- draft-xiao-evaluate-dml-01.txt

Impact of Requirements on Proposals:
- draft-chisholm-netconf-model-08.txt
- draft-bjorklund-yang-requirements-00.txt
- draft-ersue-netconf-kalua-dml-01.txt
- draft-mahy-canmod-dsdl-01.txt
- draft-johansson-netconf-owl-00.txt
My View of Core Issues

1. Modeling language as a language
   a) Emphasize “Usability” or “Readability”? 
   b) Priority of building on existing standards

2. Metamodel

3. Model re-use and revision

4. Expressive power
   a) Constraints
   b) Relationships
   c) Avoiding Semantic drift
Proposals in a Nutshell

- **DSDL** – RelaxNG & Schematron, doesn't nail down metamodel
- **Kalua** – XML-based, emphasizes its specific metamodel
- **OWL** – W3c Web Ontology Language, uses OWL metamodel
- **XML Schema** – XML Schema, defines a specific metamodel, interesting approach to versioning
- **Yang** – textual, hints at conventions for using a metamodel
The Hums

- Are the requirements adequately understood? YES
- Is there a need for this work? YES
- Is there sufficient agreement on the requirements to permit progress? YES
- Should an IETF working group be formed? YES
- Would additional time spent on requirements gathering and analysis be well-spent? NO
The Aftermath as I See it

- Yang, DSDL, and XML Schema have the most interest and support

- No “killer argument” has emerged to trigger strong consensus on a single approach

- ADs should pick one as starting point for work

- Yang might be the most palatable from a “could I live with this?” perspective

- Value of nailing down a metamodel is becoming clearer
Follow-up

- A small group of proposal proponents and the design team that wrote the requirements draft will craft a WG charter proposal within two weeks, to be given to our ADs

- The deliverables might be:
  - a standards-track operator-friendly model definition language for normative use in model specifications, using the Yang draft as a starting point;
  - an automated, lossless mapping to a standards-track tool-friendly language, probably based on DSDL;
  - Include essential elements of a meta-model to facilitate the use of the operator-friendly language