

# NETCONF Status Update and Outlook

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# NETCONF Charter

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produce protocol suitable for network configuration

- ☐ Uses a textual data representation (XML)
- ☐ Supports network wide configuration transactions (locking, rollback)
- ☐ Is extensible enough that vendors will provide access to all configuration data on the device using a single protocol
- ☐ Has a programmatic interface (no screen scraping and formatting-related changes)

# NETCONF Charter

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specify requirements for supporting data models

- ☐ identification of principals such as user names
- ☐ mechanism to distinguish config from other data
- ☐ XML namespace conventions
- ☐ XML usage guidelines

# NETCONF Status

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All four WG documents in WGLC

- ☐ draft-ietf-netconf-prot-04.txt
- ☐ draft-ietf-netconf-beep-02.txt
- ☐ draft-ietf-netconf-soap-03.txt
- ☐ draft-ietf-netconf-ssh-02.txt

So will we be done when those are published?

WG docs mostly treat XML configs as black boxes  
Authorization etc. relegated to future data model

# Possible next steps

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- Take up data model work in NETCONF WG
  - But to what extent?
- Declare success and charter data model WG
  - We already had a BOF last time ("netmod")
- Moratorium on NETCONF data model work
  - Use this to collect experience
  - And/or leave to some other standards organization(s)

# Is there any low-hanging fruit?

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- "Everybody at least use XML Schema 1.0!"
  - Even this may be contentious
  - (see schema vs. RELAX NG discussion in EPP)
- Define a few standard XML data types
  - IP addresses etc.
- Leverage existing frameworks
  - But which one(s)? SMIv2, SMIng, CIM, WS-Management...
- Access to SNMP (SMIv2) MIBs via NETCONF
  - For configuration or just read-only access?

# Random thoughts

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Some people LIKE their programmatic interfaces close to the CLI

We don't want to standardize CLIs (do we?)

Have a look at RFC 3535 (IAB NM-WS report)

- ☐ Contains the rationale of NETCONF's formation
- ☐ Mentions "network-wide configuration schemas" as standardization candidate
- ☐ Maybe that's an easier one to start with...