Broadband Forum (BBF) YANG Activities

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Overview

• Timeline
• Visibility
• Processes and procedures
• Modeling approach
• YANG development projects
• Developing in GitHub
• Will release to GitHub
• Plan to release draft YANG

03-Apr-2016
Timeline

• 2014: due diligence and decision to use NETCONF and YANG for DPU management (DPU = Distribution Point Unit; see BBF TR-301)
• 2015: new project for DPU management YANG
• 2015: VDSL then G.fast models, then xDSL + G.hs, MELT and SELT
• 2015: new project for Access Node YANG (a DPU is a specialized access node)
• 2016: first phase of DPU management nearing completion; 8 modules; many sub-modules
• 2016: second phase of DPU management has already started
• 2016: new project investigating translation of TR-069 CPE management models to YANG
• 2016: new project for G.hn YANG
Visibility

• All work is listed at https://www.broadband-forum.org/technical/technicalwip.php

• Some details can be inferred from http://www.claise.be/2016/03/ietf-yang-modules-statistiques

• For example, the names of module/submodule files; e.g. http://www.claise.be/BBFFASTYANGPageCompilation.html

• Also plan to create public draft releases
## Visibility

- Generated on 02/04/2016 by Benoit Claise: BBF: YANG Data Models compilation from https://github.com/BroadbandForum/WT-355/tree/master/FAST

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Processes and procedures (P&Ps)

• Evolutionary change; currently working within existing P&Ps

• WTs (Working Texts) for “drafts”; TRs (Technical Reports) for “RFCs”
  • ODs (Other Documents) for P&Ps etc.

• OD-360
  • Best Current Practices for developing YANG models
  • Strongly based on RFC 6020bis and RFC 6087bis
  • Additional BBF-specific rules and guidelines as needed
  • Building on IETF and SME SDO YANG modules where possible
Modeling approach

- IETF
  - ietf-yang-types
  - ietf-interfaces
  - draft-entitydt-netmod-entity
  - draft-wilton-netmod-intf-ext-yang (sub-interfaces)
  - More...

- BBF
  - Forwarding, DHCP, QoS
  - Firmware/software management
  - Reverse power feed
  - More...
YANG development projects

• WT-355
  • YANG Modules for FTTdp Management
    • Phase 1: physical interfaces
    • Phase 2: forwarding, DHCP, QoS etc
    • More...

• WT-368
  • YANG Models for Access Nodes in SDN

• WT-374
  • YANG Models for Management of G.hn Systems

• SD-376
  • CWMP (TR-069) Data Model/YANG Translation Rules and Tools
Developing in GitHub

• A (private) repository per project (username = BroadbandForum)
  • WT-355
  • WT-368
  • Etc.

• Separate repositories for new project phases
  • WT-355a1 etc. (a1 = Amendment 1)
  • Not necessary to use separate repository, but simpler

• As for IETF, there is also a text specification
  • This is the Working Text (WT)
  • The YANG is part of the text specification
Will release to GitHub

- All published YANG will be in single (public) repository
  - https://github.com/BroadbandForum/yang
  - Layout modeled on https://github.com/YangModels/yang
  - Anyone can comment via GitHub issues

- Organized into five categories: common, equipment, interface, networking, application

- Includes some docs: README, tree etc.

- Might also upstream BBF YANG to YangModels repository

- Expect first public YANG in 2016 Q3 (early August)

- As for IETF, there is also a text specification
  - This is the Technical Report (TR)
  - https://www.broadband-forum.org/technical/trlist.php
  - The YANG is part of the text specification
Plan to release draft YANG

• Draft area in the same repository
  • Anyone can comment via GitHub issues
• Drafts would expire: timer or on publication
• Drafts would be licensed for evaluation only
Thank You

• Questions?