

Network automation interoperability across industry improved with YANG release from Broadband Forum

Fremont, California, 30 November 2021 – The automation of the control and configuration of access network elements – crucial in making service providers' operations more efficient and cost-effective – has been improved in the latest YANG data model release from Broadband Forum.

[Amendment 4 of TR-383, 'Common YANG Modules for Access Networks'](#) builds upon the existing feature-rich set of YANG data models, introducing improvements to Quality of Service (QoS) that address large scale deployments as well as providing statistics for debugging services.

This latest Amendment also lays the required groundwork for TR-454 ['YANG Modules for Access Network Map & Equipment Inventory'](#) by introducing a set of common YANG modules and types that will be used by the specification. With these modules, service providers can efficiently manage a range of broadband services supported over any access technology, including VDSL, G.fast and Passive Optical Networks (PON).

“With demand for network capacity, particularly fiber deployments, growing consistently, operators are constantly looking for ways to make their operations more efficient and more cost-effective. Automating the configuration and control of network elements is one way of doing this but as a growing concept, ensuring interoperability has been and continues to be a key concern,” said Vice President, Strategic Marketing and Business Development at Broadband Forum, Craig Thomas. “This work addresses the challenge by ensuring interoperability between network components of different vendors to allow effective automation, defining YANG data models for functionality which is common across access network elements supporting various physical layer technologies.

“As well as improving existing modules, it sets up Broadband Forum’s next phase of work in the SDN/NFV Work Area – which represents a significant step towards further interoperability with even more technologies.”

The new amendment leverages IETF RFC 8632, ‘A YANG Data Model for Alarm Management’, to define alarms related to ANCP and optical transceivers. It further adds a set of common YANG types and YANG grouping definitions that will be used in TR-454.



TR-383 defines YANG data models for the management of access network equipment such as DSL Access Nodes, Distribution Point Units (DPUs) or Optical Line Terminals (OLTs) to be used across many deployment scenarios and these can be used for a multitude of other applications. TR-383 forms the core of YANG modules that are used across a broad range of products, including copper-based (VDSL, G.fast) and fiber-based access (G-PON, XGS-PON, NG-PON2).

Common YANG data models afford service providers the ability to leverage detailed end-to-end visibility into the performance of every programmable Software-Defined Access Network (SDAN) element to unlock new levels of capacity, automation, and efficiency.

It is a powerful tool in service providers' ability to maximize network flexibility without burdening the network automation teams with the traditional large development overhead of bespoke and proprietary data modelling methods.

For more information about Broadband Forum, visit: <https://www.broadband-forum.org/>.

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About the Broadband Forum

Broadband Forum is the communications industry's leading open standards development organization focused on accelerating broadband innovation, standards, and ecosystem development. Our members' passion – delivering on the promise of broadband by enabling smarter and faster broadband networks and a thriving broadband ecosystem.

Broadband Forum is an open, non-profit industry organization composed of the industry's leading broadband operators, vendors, thought leaders who are shaping the future of broadband, and observers who closely track our progress. Its work to date has been the foundation for broadband's global proliferation and innovation. For example, the Forum's flagship TR-069 CPE WAN Management Protocol has nearly 1 billion installations worldwide.

Broadband Forum's projects span across 5G, Connected Home, Cloud, and Access. Its working groups collaborate to define best practices for global networks, enable new revenue-generating service and content delivery, establish technology migration strategies, and engineer critical device, service & development management tools in the home and business IP networking infrastructure. We develop multi-service broadband packet networking specifications addressing architecture, device and service management, software data models, interoperability and certification in the broadband market.

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