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Broadband Forum: We're more than DSL

by Stephen Hardy

Overview

Last year's name change signals that the former DSL Forum now has a role to play in promoting the use of optical access technology, a spokesman asserts.

After starting life as the DSL Forum, the Broadband Forum (www.broadband-forum.org) adopted its current moniker last summer. And the group wants the fiber-optic communications community to know that the new name represents much more than a cosmetic change.

"We have always followed the requirements of the industry. It's always been very much an activist kind of organization," explains Robin Merish, the Broadband Forum's chief operating officer. The forum comprises approximately 200 members, including both vendors and service providers. Says Merish, "As those service providers have been transitioning their networks and looking at high-speed services and the gradual transition to fiber and other technologies—and then maybe you take on top of that the migration from ATM backbones to Ethernet—we have followed that path and the work has followed that path."

Therefore, optical communications is nothing new to the group, Merish asserts. "We've been working in fiber-related technologies and in fact generally access-agnostic technologies at least for the last two years," he says.

Technical and marketing reports

Last year's name change was the second time the forum has altered its identity. Originally called the ADSL Forum, then later the DSL Forum, the group formed in 1994 to promote the adoption of high-speed access technology. It originally focused on transport issues but broadened its scope to include network management and digital home considerations in the form of a body of work entitled BroadbandSuite.

The forum's work can be roughly divided into technical and marketing efforts. The latter falls under the jurisdiction of three working groups:

- Strategic Communications
- Summit and Best Practices
- Ambassador Speaking Program

These educational efforts help explain how to apply the forum's technical work and disseminate best practices, usually in the form of Marketing Reports, Merish says. A report on best practices for IPTV is in the works, he mentions as an example.

However, the forum devotes most of its energies to the technical aspects of access networking. This effort also falls under the domain of a variety of working groups:

- Architecture & Transport, a group for which its title says it all.
- BroadbandHome, which develops technical specifications for digital home devices designed to aid the deployment and management of broadband services.
- Operations & Network Management, which issues recommendations for operations, network management, and process.
- Testing & Interoperability, which develops functional and performance test plans to promote cross-vendor interoperability.

These working groups develop specifications, recommendations, and the odd best practice, Mersh says. The results take the form of Technical Reports (TRs), which cover everything from protocols to test procedures. Mersh points out that references to several of these, in particular the media-agnostic TR-69, "CPE WAN Management Protocol" out of the BroadbandHome group, regularly appear in service provider RFPs.

Mersh says that much of the Broadband Forum's optical work builds on existing TRs, in particular TR-69 and TR-101 ("Migration to Ethernet Based DSL Aggregation"). For example, the group released TR-156, "Using GPON Access in the Context of TR-101," out of the Architecture & Transport working group this past December. The forum recognized that carriers might require further instructions when trying to implement TR-101 in a GPON. The report enumerates how to use the GPON standard's configuration arrangements to implement the VLAN architecture options contained in TR-101. It also provides specifications to enable carriers to use GPON attributes to provide multicast; quality of service (QoS); operations, administration, and maintenance; and network management in accordance with TR-101.

Similarly, TR-142, "Framework for TR-069 Enabled PON Devices," adapts an existing set of specifications for PON-fed home devices. It describes how an auto-configuration server can remotely configure, troubleshoot, and manage a PON ONT with Layer 3 capabilities using the protocols set forth in TR-069.

The forum has other fiber-specific reports in process. WT-167 (in-process TRs are called "working texts," or WTs) will address PON-fed DSLAMs; in addition, Mersh reveals that the forum's Asian members have begun looking into EPON versions of some of the existing GPON-related TRs. Mersh also points to WT-145, "Multi-service Broadband Network Functional Modules and Architecture," as a potentially significant work for the FTTX space, as well as for access networks in general. The effort aims to establish reference architectures for multiservice broadband networks, define high-level network requirements, and specify functional modules to meet these requirements. Other working texts, particularly WT-178, will specify related broadband network nodal requirements.

Finally, WT-201, "Generic Requirements for P2P Ethernet Access," should address optical infrastructure based on Active Ethernet, as well as other FTTX architectures.

Mersh expects WT-167 and -145 to be completed in 2009 or early 2010. WT-178 work could be completed in 2010 as well.

Challenge from Ofcom

The role the Broadband Forum might play in shaping future FTTX deployments was illustrated last month when Chinyelu Onwurah, the head of telecommunications technology for Ofcom, addressed the forum's quarterly meeting in New Orleans.

Ofcom, the UK's telecommunications regulatory authority, issued a statement March 3 outlining its intention to stimulate the deployment of "super-fast broadband." At the meeting, Onwurah urged the forum to champion the specifications necessary to make such deployments possible in an efficient manner.

Mersh says that Ofcom is particularly interested in security, QoS, multicast, flexible CPE, and flexible interconnection. He says that while some gaps do exist, the forum's TRs address many aspects of these functions. Onwurah encouraged the forum to analyze the UK organization's consultation document on the subject, compare its points to the existing TRs, and develop specific recommendations on how the TRs could be applied to the UK's needs and those of other countries.

The forum will follow through, Mersh asserts. He says the group may have to create a report that ties together multiple TRs or explains how they interact. Addendums to the existing TRs also may be needed.

Regardless of the outcome, however, Mersh expects that current and future Broadband Forum work will continue to follow network evolution—including the trend toward increasing use of fiber in the access.

"People very often would look at us and sort of think, 'You're DSL—why would I need to be interested in this?'" Mersh says. The work of the DSL Forum may have been irrelevant to much of the fiber-optic community, but the Broadband Forum's efforts should become increasingly germane, he predicts.

Stephen Hardy is editorial director and associate publisher of Lightwave.

One-CLICK LINKS

Broadband Forum: *Technical Reports*

<http://www.broadband-forum.org/technical/trlist.php>

Ofcom: *Delivering Super-fast Broadband in the UK*

http://www.ofcom.org.uk/consult/condocs/nga_future_broadband/statement/statement.pdf

IEC'S SOFNET 2008: *Executive Perspectives—Robin Mersh*

http://www.iec.org/online/exec/sofnet_08/mersh/

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