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From:

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Liaison Communicated By:

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Date: September 3rd, 2010

Subject: New Root data model in TR-069 family of specifications

The BroadbandHome Working Group has recently completed work on a new Root data model (Device:2) with the publishing of TR-181 Issue 2, which can be found at the following link: http://www.broadband-forum.org/technical/trlist.php. Device:2 provides an enhanced alternative to the two older Root models, defined in TR-098 (InternetGatewayDevice:1) and TR-106 (Device:1). In the new Root data model, significant additional functionality is enabled as a result of the decision to model network interfaces using the "Interface Stack" concept from RFC 2863.

As important partners of the Broadband Forum we wish to ensure that your organization is aware of the reasons for the publication of this new Root data model, and the details of the actual changes.

This work was necessary for several reasons:

- Managed gateway functionality has increased since the original InternetGatewayDevice:1 Root model was defined seven years ago. The inflexibility of the original structure made it difficult to provide new functions and meet new requirements.

- Having two Root models (InternetGatewayDevice:1 in TR-098 and Device:1 inTR-106) created duplication and was becoming a maintenance issue.

- There was missing functionality in the previous Root models, including support for MoCA, HomePlug, multi-SSID WiFi, IPv6, VLAN termination, enhanced bridging and QoS, DSL Bonding, and tunneled interfaces such as IPSec, 6rd and DS-Lite for IPv6 transition. Because of the overall design, this functionality was difficult to add to add to the existing Root models.

- The TR-106 document structure was not clean as it contained both data model template information and the Device:1 Root model.

The work undertaken can be summarized as:

- Re-designing the network interface related parts of the data model, inspired by the "Interface Stack" concept from RFC 2863.

- Converging the Device and InternetGatewayDevice Root models.

- Separating TR-106 data model template information and the Device Root model:

    o TR-106 Amendment 4 contains the TR-106 data model template information

    o TR-181 Issue 1 defines Device:1 (previously in TR-106)

    o TR-181 Issue 2 defines Device:2

This work does not:

    o Touch the existing Service data models (such as TR-135 for STBs, TR-140 for Storage, TR-104 for VoIP or TR-196 for Femtocell Access Points).

    o Reduce functionality.

    o Eliminate hierarchy in the data model.

    o Touch the existing Component data models TR-143 (Throughput Performance Testing) and TR-157 (TR-069 Component Objects).

    o Alter parts of the data model not related to the network interface stack.

    o   Alter the CWMP protocol as defined in TR-069 Amendment 2.

This is a new Root model, so devices wishing to implement the new functionality such as IPv6 will need to implement this new Device:2 Root model. In practice this means that manufacturers will need to migrate away from InternetGatewayDevice:1 or Device:1 towards a Device:2 implementation. This also means that ACS vendors who wish to manage devices based on the new Root model will need to understand the Device:2 data model.

Please note that TR-181 Issue 2 will be the basis of future developments and enhancements to the Root model for all devices. Although it should be noted that the existing Device:1 and InternetGatewayDevice:1 Root models are still valid, they will be unable to support the new features mentioned above and, except in extraordinary circumstances, it is not expected that any new functionality will be added to TR-098 (InternetGatewayDevice:1) or TR-181 Issue 1 (Device:1).

Many of our liaison partners have, in cooperation with the Broadband Forum, developed specifications relating to TR-069, and we are happy to organize detailed review sessions to discuss the impact of the work we have completed and how it affects any related specifications produced by the Broadband Forum or anyone else.

Additionally, a useful general overview of TR-069 Deployment Scenarios, and other related specifications, may be found at: www.broadband-forum.org/marketing/download/mktgdocs/MR-230.pdf

We look forward to further discussion and to continuing our successful collaboration.

Sincerely,

Gavin Young
Broadband Forum Technical Committee Chair

CC:
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Date of Upcoming Broadband Forum Meetings

DATES	LOCATION
20th – 24th September, 2010	Hong Kong, China
6th – 10th December, 2010	San Francisco, USA

Note: A list of upcoming meetings can be found at http://www.broadband-forum.org/meetings/upcomingmeetingsataglance.php

Attachments: None