



NEWS RELEASE

DSL FORUM ADVANCES BROADBANDSUITE™ RELEASE 3.0, AS KEY IPTV SPECIFICATIONS ARE APPROVED

Focused on enhancing the remote management capabilities in regards to IPTV devices, the DSL Forum today announced the approval of its latest Technical Report, TR-135 *Data Model for a TR-069 Enabled STB* and the amendment of the industry recognized TR-069 - which is set to expedite IPTV rollouts and change the way operators manage their IPTV offering.

Closely following the release of BroadbandSuite Release 2.0, these new specifications are cornerstone to the pending Release 3.0, which will raise the bar to address triple-play augmented via VDSL2, GPON and bonded DSL over a QoS-enabled Ethernet architecture. Release 3.0 will also provide support for multicast to enable IPTV streaming as well as integrated remote management of Set Top Box (STB) and attached storage devices. The full release is tentatively scheduled to complete late 2008.

As a key part of pending BroadbandSuite Release 3.0, TR-135 defines the data model for remote management of Digital Television (IPTV or broadcast) functionality on STB devices via CPE WAN Management Protocol (CWMP) as defined in TR-069 Amendment 2 and TR-106. This report provides the data model for describing STB capabilities such as PVR, IGMP, quality of service, as well as providing a means to enable video service performance monitoring. General use cases are also described in the report, including standard data model profiles that would typically be seen while remotely managing a device of this nature.

In TR-135, the Auto-Configuration Server (ACS) may perform some initial configuration of a newly installed STB, but its main functions are configuration of STB parameters for trouble management and collection of statistics for Quality of Service (QoS)/Quality of Experience (QoE) monitoring.

The goals of TR-135 are as follows:

- Enable configuration by the ACS of those objects and parameters that are not the responsibility of the IPTV Service Platform.
- Enable operational status monitoring and checking of specific parameters of an STB from an ACS.
- Enable performance monitoring of an arbitrary set of STBs, from one to millions, through estimates of QoS and QoE
- Support various types of STB, including DTT and IP STBs, with or without PVR and other optional functionality.
- Accommodate STB devices that are embedded as part of an Internet Gateway Device (IGD).
- Accommodate STB devices that are standalone, i.e. implemented in separate hardware devices.

There are many benefits to be derived from implementations of this specification. The trouble management feature of TR-135 means a trained technician may take control of the STB remotely to do a number of tasks such as upgrading software and performing diagnostics. This will enable faults to be fixed more quickly and effectively, and negates the needs for many IPTV related truck rolls.

Improved performance management will also allow the automatic monitoring of the STB's performance. This will enable providers to produce reports on QoS parameters, such as average bit rate, jitter and packet loss ratio; QoE parameters, including visual quality indicator; and usage statistics, for example, how many STBs are on at a certain time and for how long each of them remains tuned to a certain channel. STB QoS/QoE reporting capabilities will allow measurements to be done at the service level, which is of fundamental importance to any operator.

"The most important aspect of this TR is that all of this management can be done remotely, allowing operators to save both time and resources as engineers will be able to resolve problems without leaving the office. It will also allow operators to monitor how long STBs are being used for and when, enabling them to create product offerings which align with the needs of their customers," said George Dobrowski, Chairman and President at the DSL Forum.

Also approved at the meeting was the update to TR-069, *TR-069 Amendment 2*, which arose from collaboration and input from the Digital Video Broadcast (DVB) organization. The DVB Project required support for Multicast download protocols. Working closely together, TR-069 Amendment 2 was developed and now contains changes that add support for Multicast downloads, including some additional fault codes, and for autonomous file transfers, transfers that were not directly requested by the ACS. These changes define CWMP v1.1, and therefore include some new rules for guaranteeing interoperability between CWMP v1.0, v1.1 and future CWMP versions.

Together TR-135 and TR-069 Amendment 2 provide the first stage of the IPTV evolution. These reports set the bar high for quality delivery and customer experience, and give the service provider the tools needed to customize and dramatically improve their IPTV offerings, while reducing their support overhead on new IPTV implementations.

For more about these technical reports and the progress on BroadbandSuite Release 3.0, check out <http://www.dslforum.org/techwork/releaseprogram.shtml#Release3.0> .

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About the DSL Forum

The DSL Forum tailors broadband to meet the needs of the next generation of multi-media services and the online community. By forging agreements on common technical requirements and embracing new applications, the Forum works to streamline processes, define specifications, and share best practices that set the stage for effective deployments and explosive global DSL growth. Established in 1994, the DSL Forum is an international industry consortium of over 200 leading service providers, equipment manufacturers and other interested parties. Please visit www.dslforum.org for more information.