

Home Gateway Navigation Interface Referenced Standards and Draft Regulation

Advances in home networking make it possible to achieve the goals of Section 629 using industry-developed and widely deployed standards and technologies. A regulation that, as the Congress directed, references these industry standards will achieve Congress's objective of enhancing both consumer convenience and technological innovation. These are now consensus goals. As set forth in the National Broadband Plan and supported by the "seven principle" pledge of the National Cable and Telecommunications Association, a regulation that references IP-based private sector home networking is the best way to achieve a robust marketplace in which consumers can purchase at retail, or lease from MVPDs, devices that can: (1,2) Access all of the video services they subscribe to from MVPDs without a set-top box; (3) access internet-delivered content through both leased MVPD devices and purchased retail devices; (4) navigate easily the huge library of content available from various sources; (5) move and stream content securely between devices; and (6, 7) benefit from innovation and universality.

If MVPD programming and services can be presented to consumer devices through a single standards-based IP interface (directly or through a proprietary gateway device), the goals of consumer choice, device innovation and competition in presenting MVPD programming and services can be finally and fully achieved.

Using a single standards-based IP interface to connect MVPD services to consumers' devices (such as internet-enabled televisions) would provide:

- A clear, well-defined mechanism for MVPD services to be described to and rendered by a consumer's devices, by specifying how services are identified and accessed;
- A ubiquitous single IP-based interface to access MVPD content, internet-delivered (MVPD and over-the-top) content, and home-network content; and
- A market for developing innovative products which access MVPD and other content over a widely-used and widely-deployed network infrastructure, by using IP technology and requiring MVPDs to enable access to content via the IP interface;
- A secure, widely-accepted, content protection mechanism – allowing content and services to securely flow between and among MPVD devices and consumers' devices.

Based on progress in private-sector standards development, this is achievable today, and should be the objective of the FCC's "AllVid" proceeding. A "gateway" or "AllVid" solution can be achieved via reference to private-sector industry standards that are now finished or nearing completion – standards that MVPDs helped develop and have

agreed to support. The draft regulation submitted by the AllVid Alliance provides standards references comprising an IP interface to connect MVPD services to consumer devices. These are reflected in draft amendments to Sections 76.1200 *et seq.* of FCC regulations.

Many of these references draw upon the Digital Living Network Alliance (DLNA) standards which were collaboratively developed, and are already widely supported, by MVPDs, consumer electronics and information technology companies, and media companies. The DLNA-referenced standards and specifications include signal security and content protection requirements and technologies that are already referred to in FCC regulations, approved by CableLabs and by MVPDs, and widely licensed for the retransmission of content within the home. FCC reference to these and other private sector standards is precisely the process intended by Congress in Section 629, which instructs the Commission, in its regulations, to assure the commercial availability of independently sourced navigation devices through consultations with private-sector standard-setting organizations.

A single standards-based interface will enable competition and catalyze innovation. Such a universal interface does not require specific instructions for MVPD support, and does not prescribe how device manufacturers must build consumer navigation devices. An MVPD can use direct IP transmission to support consumer devices or can furnish a proprietary “gateway” device to translate linear programming into the single standard IP-based interface that supports consumer devices. Thus, the regulation provides that an MVPD can choose to support “consumer navigation devices” (*see new*¹ 76.1200(e)) directly through a “navigation interface” (new 76.1200(d)) or by furnishing a proprietary “gateway navigation device” (76.1200(f)).

“Consumer navigation devices” (home retail devices that rely on the navigation interface) may be provided on the open market and can be built into any other device. Just as, today, an increasing variety of devices can fully render and store broadband content through reliance on a standards-based IP interface, consumer navigation devices will, for the first time, render *any* MVPD content with full transparency to consumers *and* full signal security and content protection. Independent manufacturers and retailers will be able to offer “consumer navigation devices” that work on any MVPD service, because they are designed to communicate over the standard IP-based “navigation interface.” (MVPDs are similarly free to offer a “consumer navigation device,” to render programming directly from their own “navigation interface,” from their proprietary “gateway navigation device,” or from the interface or the “gateway navigation device” of an MVPD competitor.)

The draft amendments include the following substantive provisions:

¹ These three terms are defined in the Alliance’s draft amendments to Section 76.1200 *et seq.*, in Section 76.1200.

- New Section 76.1205B(a) adds an obligation, after a specified date, for MVPDs to support consumer navigation devices, either directly through the navigation interface, or via proprietary gateway navigation devices. It specifies a date after which any newly fielded MVPD device must be either a gateway navigation device or a consumer navigation device.
- New 76.1205B(b) and (c) extend to products acquired under new 76.1205B the protections against economic discrimination, for consumers who choose competitive products, that became effective this year for CableCARD-reliant navigation devices.
- New 76.1205B(d) sets the date when MVPDs must deliver their programming and services to consumer navigation devices using the navigation interface.
- New 76.1205B(e) defines the functionalities of consumer navigation devices that must be supported by the navigation interface.
- New 76.1206 references the standards and guidelines comprising the navigation interface and functions. The references are to widely available standards that are well understood by all potentially affected industries, such as those already referenced by DLNA, Universal Plug and Play (UPnP) Forum, the International Standards Organization (ISO), the Internet Engineering Task Force (IETF), and the Consumer Electronics Association (CEA). These standards address essential protocols for networking and connectivity; discovery and control of devices connected to the network; media management and transport; delivery of electronic program guide data; device interoperability; technological protection of the content over the home network; purchasing video on demand content; and emergency alerts. The regulation also specifies the mechanism for delivery of several standard data elements for the electronic program guide that identify information such as program, channel, scheduled start and end time, and content ratings, in a standard format.

Relevance to NCTA “Seven Principles”

In response to the goals stated in Section 4.2 of the National Broadband Plan, the National Cable and Telecommunications Association, in a letter to Chairman Genachowski, pledged adherence to seven principles toward fulfilling the FCC’s obligation as set forth in Section 629. A standard IP-based interface as set forth in the Alliance’s draft regulation is the only proposal or development that promises to actually fulfill these principles

1. Consumers should have the option to purchase video devices at retail that can access their multichannel provider's video services without a set-top box supplied by that provider.

The Alliance draft regulation is the only proposal that gives this option to any consumer, for any MVPD service, without the MVPD being obliged to provide a set-top box. Other existing or proposed implementations are proprietary to particular devices / services / programming.

2. Consumers should also have the option to purchase video devices at retail that can access any multichannel provider's video services through an interface solution offered by that provider.

Only the Alliance draft regulation allows a single device purchased by a consumer to access programming from *any* MVPD.

3. Consumers should have the option to access video content from the Internet through their multichannel provider's video devices and retail video devices.

Only the Alliance draft allows a product purchased by a consumer to *integrate* Internet video content with MVPD offerings on a single menu.

4. Consumers should have the option to purchase video devices at retail that can search for video content across multiple content sources, including content from their multichannel provider, the Internet, or other sources.

The Alliance draft fully supports this outcome.

5. Consumers should have the option to easily and securely move video content between and among devices in their homes.

DLNA and the other private sector standards referenced in the draft regulation fully and securely support this capability.

6. Consumers should be assured the benefits of continuous innovation and variety in video products, devices and services provided by multichannel providers and at retail.

Only the Alliance draft supports this outcome.

7. To maximize consumer benefits and to ensure competitive neutrality in a highly dynamic marketplace, these principles should be embraced by all video providers, implemented flexibly to accommodate different network architectures and diverse equipment options, and, to the maximum extent possible, serve as the basis for private sector solutions, not government technology mandates.

Only standards-based references in FCC regulations can or will support this outcome with respect to the other six principles as reviewed above.