FCC BEGINS INQUIRY INTO
BI-DIRECTIONAL CABLE COMPATIBILITY

On June 29, 2007 the FCC released a *Third Further Notice of Proposed Rulemaking* (Third FNPRM) soliciting comment on proposed standards to ensure bi-directional compatibility of cable television systems and consumer electronics equipment.

In the Communications Act of 1996, Congress sought to provide consumers with the opportunity to purchase competitive navigation devices (set-top boxes) from sources other than their Multichannel Video Programming Distributors (MVPDs). The FCC, in 1998, adopted rules which required cable operators to make available by July 1, 2000 a security element separate from the basic navigation device (also referred to as the "host device"). Cable operators were allowed to continue providing equipment with integrated security until January 1, 2005, so long as modular security components, known as point-of-deployment modules ("PODs" or "CableCARDs"), were also made available for use with host devices obtained through retail outlets.

In April 2003, in response to a request from cable operators, the FCC extended the effective date of the integration ban until July 1, 2006. Then, in 2005, the Commission extended that deadline again to July 1, 2007. (On June 29, 2007 the FCC denied NCTA's request for a further extension of this deadline - that order is here: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-07-2920A1.pdf.)

In September 2003, the FCC adopted an interface standard in the so-called *Plug and Play Order*, which adopted an agreement between the National Cable and Telecommunications Association (NCTA) and the Consumer Electronics Association (CEA) that specified technical standards for a one-way system. (See *TV TechCheck* from September 15, 2003). Products based on this agreement can receive and decode encrypted digital cable signals but have no upstream or bi-directional capabilities and thus do not support services such as Electronic Program Guides (EPGs), Video On Demand (VOD), Pay-per-View (PPV) or other interactive features.

The FCC states in the Third FNPRM that consumers have not shown significant interest in one-way services. They further stated that while the cable and consumer electronics industries have attempted to negotiate an agreement on how to achieve bi-directional compatibility, the industries have made little progress and it does not appear that an agreement is imminent.

The Third FNPRM seeks comment on two proposals for bi-directional cable compatibility, one from the cable industry and one from the consumer electronics industry.

In November 2005, NCTA proposed a two-way solution based on the use of OCAP which is a middleware software layer based on Java that allows developers to create applications and programs that would run on any OCAP-enabled device. (For background on OCAP, see *TV TechChecks* from December 16, 2002 and September 22, 2003). The NCTA proposal recommends that the Commission adopt a regulatory regime that includes:

(1) Technical requirements for cable systems;

(2) "Limited but necessary" content protection requirements for navigation devices;

(3) Testing and certification/verification procedures to prevent harm to the cable network and

services; and

(4) Consumer education mandates.

NCTA's proposal is here: http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-07-120A6.pdf.

On November 7, 2006, CEA, along with twelve consumer electronics and information technology companies, proposed a two-way plug and play solution that asks the FCC to do the following:

(1) Adopt an enhanced CableCARD approach for basic interactive services, based largely on existing standards;

(2) Provide oversight with respect to OCAP development, or allow consumer electronics companies and information technology companies to participate fully in the OCAP development process;

(3) Direct CableLabs to approve all output technologies that the Digital Living Network Alliance ("DLNA") approves, and require cable providers to provide digital set-top boxes that are fully compatible with DLNA networks;

(4) Adopt testing requirements for two-way devices that are similar to the existing testing requirements for one-way devices (*i.e.*, initial device testing and certification with subsequent self-certification), and require that the cable industry provide consumer electronics manufacturers any new OCAP applications for testing at least sixty days before widespread deployment; and

(5) Permit consumer electronics devices to use a cable path for software upgrades equal to the path that cable operators use for their software upgrades.

CEA's proposal can be found here: http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-07-120A3.pdf.

The FCC seeks comments on both proposals. The Third FNPRM asks for comment on the impact that the proposals would have on consumers, content providers, consumer electronics manufacturers, large and small cable operators, other MPVDs, and on the transition to digital television. In addition the Commission wants to know if either of these proposals offer a reasonable and quickly implementable approach, and what specific rule changes would be necessary. The FCC also seeks comment on any other proposals or rule changes that should be considered in order to permit the development of two-way digital cable-ready devices.

Finally, the Third FNPRM asks whether any rules adopted in this proceeding should apply to non-cable MVPDs and whether there are technological solutions that are network agnostic and deployable across all MVPD platforms (e.g., cable, Direct Broadcast Satellite ("DBS"), Internet Protocol ("IP") or hybrid Quadrature Amplitude Modulation/IP ("QAM/IP")).

The Third FNPRM is available on the FCC Web page at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-07-120A1.pdf.

ATSC Digital Television 8-VSB Transmission System Fundamentals & Measurement Seminar
Thursday and Friday, August 9 &10
Hilton Orlando/Altamonte Springs, FL

A 1½-day seminar will be presented on the ATSC's digital television (DTV) vestigial sideband (VSB) transmission system *fundamental concepts* & *measurement methodologies*. This seminar, a combination of the original VSB Fundamentals seminar and the new VSB Measurements seminar, is aimed at broadcasters, broadcast consultants, equipment manufacturers (broadcast, consumer, & test), translator/LPTV operators, and cable operators. The seminar will help you develop a basic understanding of 8-VSB transmission system basics as well as measurement techniques in the *laboratory*, at a *transmitter* site, and at remote *field* test sites. Practical test equipment information such as features, options, specs, & other performance requirements will be covered. For additional information contact Gary Sgrignoli, Meintel, Sgrignoli & Wallace at (847) 259-3352 or Gary.Sgrignoli@IEEE.org or Cheryl Hartline, WKMG-DT, (407) 521-1263 or chartline@wkmg.com.