The Digital Television Transition And IPTV Growth In The U.S.

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The FCC and US Regulation

- The FCC is an “independent agency”
- It regulates interstate and international communications by radio, television, wire, satellite, and cable
- Five Commissioners, with staggered 5-year terms
- Bureaus process license applications, analyze complaints, conduct investigations, and implement regulatory programs
- I was Chief of the Media Bureau, which regulates radio and television broadcasting, cable television, satellite, and some broadband services
Overview

- The U.S. Television Market – The March of Digital TV and The Increasingly Sophisticated Buying Public
- Burgeoning Opportunities in IPTV
  - One-Third of Worldwide Broadband users will watch TV shows online by 2010.
  - The market for video portable media players will grow to 5 million units by 2007.
  - But Regulatory Issues Remain.
TV Households by Viewing Source

285.2 million Sets
109.7 million TV Households

- 60% Cable Subscriber TVs
- 24% Satellite Subscriber TVs
- 12% Cable & Satellite TVs
- 2% Over-the-Air Only TVs
- 2% No Over-the-Air & No Pay Service Use

Source: Consumer Electronics Association
Digital Surpassing Analog

Source: CEA Shipment Data Reports
Analog Switch-Off

- Now a date certain for the end of analog broadcast TV in U.S -- Feb. 17, 2009
  - Replaces 85% penetration test
  - Auction of 700 MHz spectrum (ie, channels 52-69, except for public safety channels) projected to raise $10-$20 billion for U.S. Treasury.
Content Protection – Broadcast Flag

- Adopted by FCC November 4, 2003
- Provided protection from mass redistribution of content over the Internet
  - No restrictions on home copying
  - No need for new equipment
- New TV sets were to be flag-compliant by July 1, 2005
- April 2005 – Court overturned flag rules; found FCC lacked authority to adopt
- Congress now considering whether to give FCC authority and re-impose flag rules
“One-Way” Plug and Play
- FCC adopted rules for “one-way” cable ready sets in September 2003
  - Based on CE-Cable agreement in 2002
  - Now available in marketplace
  - Includes copy protection and encoding rules

“Two-Way” Plug and Play
- Negotiations underway
- Some CE companies have signed separate agreements with cable
- July 2007 separate security requirement
  - Feasibility/timing of “downloadable security” (software solution rather than CableCard)
IPTV Service Offerings and Strategies – Telephone Companies

- Each of the four major incumbent local exchange carriers — Verizon, AT&T, BellSouth and Qwest have plans to offer some form of video service.
- Each has a slightly different technology and legal theory.
Verizon

- Developing a nationwide fiber optic network dubbed FiOS.
- Major rollout of FiOS over the next 4 years; Verizon expects to deploy service to 20 million homes by 2010.
- FiOS TV is currently available in certain communities in California, Florida, Massachusetts, Maryland, New York, Texas, and Virginia.
AT&T

- Project Lightspeed will deliver video programming over a switched, two-way interactive IP-based network.
- Offering 200 digital channels, including HBO, MTV, ESPN, Discovery Channel and A&E, along with all major broadcast networks and several hours of on-demand programming.
- Initial video service deployment in San Antonio, TX.
BellSouth

- Testing Microsoft's IPTV software and, in conjunction with SES Americom, a centralized, satellite-based video distribution system.
- Will deploy fiber to within 5,000 feet of 50% of customers by 2007.
- Will then use ADSL2+ for connectivity, with Microsoft set-top software and MPEG-4 compression for IPTV.
Mobile Video – DVB-H Standard

- Digital Video Broadcasting-Handheld “DVB-H” technology is modeled after broadcast television, delivering “one-to-many” instead of “one-to-one.”

- The Mobile DTV Alliance advocates use of DVB-H. Alliance members include: Intel, Microsoft, Modeo, Motorola, Nokia, Texas Instruments, Freescale Semiconductor, Harris Corporation, Mediaphy Corporation, MobiTV, Royal Philips Electronics, Silicon & Software Systems (S3), and LSI Logic Corporation.
Mobile Video – Modeo

- Modeo instituted a pilot DVB-H technology program in Pittsburgh --nine transmitters covered the city using the 1670-1675 MHz spectrum.

- Modeo will enter select markets in 2006 with plans for expansion to the top 30 markets during 2007.

- Modeo plans to offer digital quality TV at QVGA resolution at up to 30 fps and will deliver content to cell phones, laptops, portable media players, and PDAs.
Mobile Video – MediaFLO

- MediaFLO holds a nationwide license for TV channel 55. Until the DTV transition is complete, there is some overlap with broadcast stations on channel 55, and the FCC has yet to determine acceptable interference levels for sharing.

- Meanwhile, deployment proceeds in markets without TV interference. Multicast transmitters will be used to provide 30 to 50 times the coverage of regular cell towers. The service will support nearly 100 channels, including 15 live streaming channels.

- Phones made by Samsung and LG included MediaFLO technology at CES 2006, although the companies have said their phones will support both MediaFLO and DVB-H technologies.
Mobile Video – MobiTV

- Once plagued by slow frame rate and lack of network availability, a revamped MobiTV 2 service now transmits up at 15 to 20 fps.
- As more carriers move to high-speed networks, quality is expected to improve to broadcast levels.
- With 500,000 subscribers using Sprint, Cingular or Alltel, it offers 28 channels such as such as MSNBC, Fox Sports, ESPN, Discovery and TLC.
- MobiTV now is offered through WiFi hotspots (previously, exclusively a cellular service).
Internet Video – Google Video

- Offers free and premium videos for download, stream or purchase.
- Plans to build the world's largest online database of videos.
- Film makers, entrepreneurs or anyone will be able to place videos online for purchase, effectively creating a new media marketplace.
- Problems/Disadvantages:
  - Offers only a handful of highly popular shows and a token number of music videos.
  - Only free videos, not premium TV shows or basketball games, can be transferred to portable devices such as iPods or Sony PSPs.
Internet Video – Apple iTunes

- At the cost of $1.99 each, people have downloaded 8 million videos.
- Includes shows from NBC Universal, Sci Fi Channel, USA Network, ABC, Disney television, and Showtime.
- Interface is easier to use than Google and all the videos are portable to iPods.
- Concerns over the pricing structure as all videos, no matter how short, cost at least $1.99 (special videos cost as much as $10).
Internet Video – Yahoo

- A different approach than other internet video providers -- No database for downloading music videos or television shows.
- Yahoo has entered into agreements to show some TV programs in their entirety after they air.
- More ambitiously, Yahoo is planning its own reality show and a weekly football show that will air exclusively online. It will also offer extra content from shows like *The Apprentice*. 
Legal Issues for New Video Entrants

- New entrants in the video marketplace face challenges from incumbents and risks that the FCC or Congress may hinder their entry through regulation or legislation.
The threshold question raised by entry into the video distribution marketplace is whether offering that video service subjects the entrant to regulation as a cable operator or MVPD. Cable operators and LFAs generally contend that the services contemplated by ILECs fall within the definitions of cable and MVPD service contained in the Communications Act of 1934, as amended (the "Act").
Key definitions from the Act

- **Cable Operator**: any person or group of persons who provides cable service over a cable system and directly or through one or more affiliates owns a significant interest in such cable system.
Key definitions – Cont.

- **Cable service**: the one-way transmission to subscribers of (i) video programming, or (ii) other programming service, and subscriber interaction, if any, which is required for the selection or use of such video programming or other programming service.
Key definitions – Cont.

- **Cable system**: A facility, consisting of a set of closed transmission paths and associated signal generation, reception, and control equipment that is designed to provide cable service which includes video programming and which is provided to multiple subscribers within a community.
The following are not cable systems:

(A) a facility that serves only to retransmit the television signals of … television broadcast stations;

(B) a facility that serves subscribers without using any public right-of-way;

(C) a facility of a common carrier … [except] to the extent such facility is used in the transmission of video programming directly to subscribers, unless the extent of such use is solely to provide interactive on-demand services;

(D) an open video system;

(E) any facilities of any electric utility used solely for operating its electric utility systems.
Multichannel video programming distributor: A person such as, but not limited to, a cable operator, a multichannel multipoint distribution service, a direct broadcast satellite service, or a television receive-only satellite program distributor, who makes available for purchase, by subscribers or customers, multiple channels of video programming.
Which Rules Apply?

- The services offered by the new video entrants may subject them to the Title VI legal and regulatory regime. Some of these rules apply only to cable operators, others to all MVPDs, and still others are applied specifically to cable or DBS providers, but not MVPDs generally.
Cable Only

- Franchise agreements, which may include: PEG channels, build-out requirements, franchise fees, customer service standards
- Horizontal and vertical ownership limits
- Commercial limits in children's programming
- Program access rules
- Inside wiring
- Sponsorship identification rules
- Rules affecting contents of basic tier
- Consumer notification rules
- Subscriber privacy requirements
MVPDs generally

- Honoring broadcasters' retransmission consent rights, including good faith negotiation obligations
- Program carriage rules
- EEO rules
- Competitive availability of navigation devices
- Consumer electronics equipment compatibility
- Closed captioning
- Indecency/obscenity
Cable & DBS, But Not MVPDs

- Mandatory carriage of qualified television broadcast stations
- Network nonduplication, syndicated exclusivity, and sports blackout rules
- Recordkeeping and public file requirements
- Cable leased access/DBS 4% set-aside
- Political broadcasting rules
- Compulsory copyright licenses for retransmission of the copyrighted material within broadcast signals
Regulatory Strategy

- New video entrants should seek the regulatory classification that best suits their business plans.

- Entrants that are aware of the regulatory landscape for MVPD services are better positioned to voluntarily adopt policies that may help them to avoid regulatory burdens or take advantage of regulatory benefits.
Classification as cable, DBS, or MVPD may benefit a new entrant:

- Program Access - A new MVPD entrant that seeks to obtain access to programming that is vertically integrated with cable would benefit from the protections afforded by the program access rules.
  - Virtual Digital Cable – Intends to file a program access complaint against C-SPAN, asserting that it is an MVPD.
- Compulsory Copyright - Copyright law provides for compulsory licensing for cable and DBS retransmission of copyrighted material within television broadcast signals, but there is no such license for other video programming distributors. New entrants that do not fall within the statutory definition of a cable system would be required to enter into privately negotiated agreements for the copyrighted material within any broadcast signals that they plan to retransmit.
Regulatory Changes – FCC

- **ILEC Forbearance Petitions** – Each ILEC has requested relief from traditional common carrier regulation of their broadband offerings and/or IP-enabled services.

- **IP-Enabled Services Proceeding** – Examining the regulatory treatment of IP-enabled services, including video services.

- **Local Franchising NPRM** – FCC has proposed rules to facilitate the local franchise approval process for telcos seeking to enter the video programming distribution market.
Congress

- Potential Legislation – But “Net Neutrality” Provisions may be a Poison Pill.

- Copyright Issues Remain Unsettled.
Conclusion

Questions?

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