

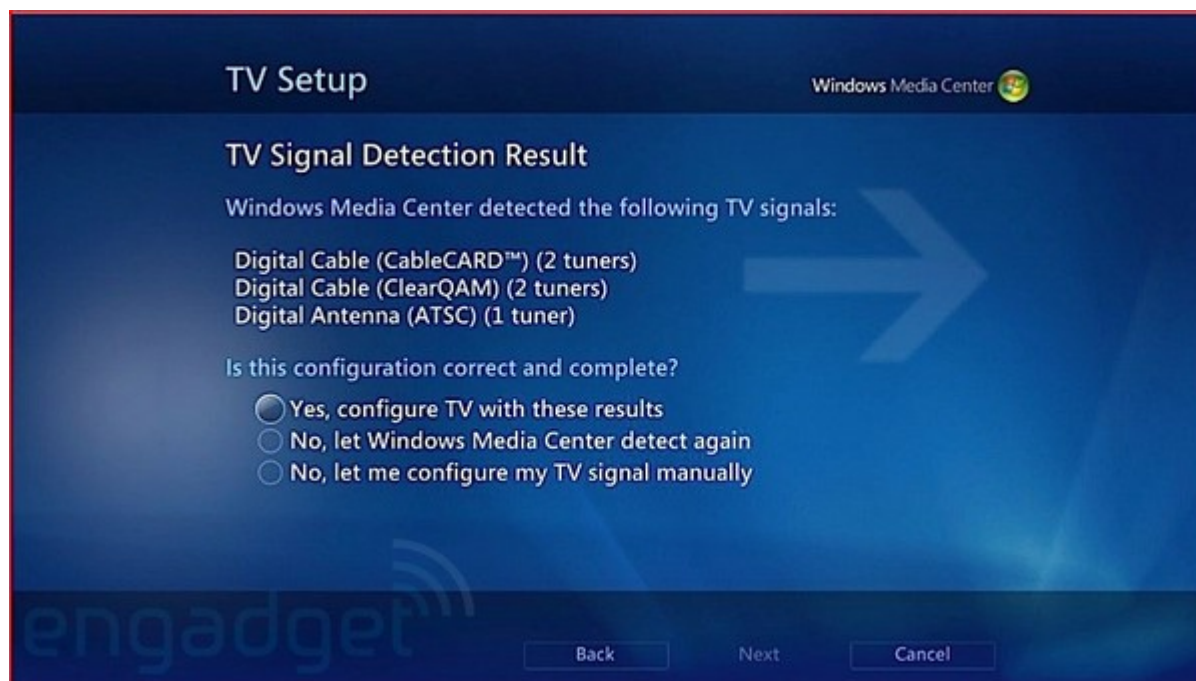


Microsoft Launches New Worldwide Platform for Broadcast TV on the PC

On September 12, 2008 at IBC2008, Microsoft Corporation announced that the Protected Broadcast Driver Architecture (PBDA), Microsoft's new worldwide platform for broadcast TV on the PC, has been delivered to the marketplace. The announcement is being touted as the first time the platform enables the PC-TV hardware ecosystem to integrate virtually any free or premium TV service into Windows Media Center, while also satisfying the TV industry's requirements for strong content protection. Among the companies announcing support for PBDA at the show were AVerMedia Inc., Buffalo, Hauppauge Computer Works Inc., I-O Data Device Inc., NEC Electronics Corp., NXP Semiconductors and ViXS Systems Inc.

The PBDA platform enhances and supersedes the existing Broadcast Driver Architecture (BDA), which has been Microsoft's standard for digital video capture. PBDA technology was referred to as the path forward back in April 2005. The extensions to the previous Broadcast Driver Architecture work by setting up a secure channel between the hardware tuner device and the Windows Media Digital Rights Management (WMDRM) system. In turn, the WMDRM system releases content to recording, playback, and other authorized applications. Microsoft's view then was that WMDRM is viewed as the most robust component within the system to control conditional-access content, by holding onto and protecting keys through a variety of ever-growing technologies. This allows the Protected BDA device to trust the system to which it is delivering content by getting trust directly from WMDRM. WMDRM then enforces proper downstream behavior by entrusting components with access to the data through a revocation and a renewability system.

This underling technology is used in the Media Center TV Pack, which provides a general purpose user interface. An example of a TV setup screen (Vista version) is shown below, showing that a diversity of delivery and content control systems can be accommodated.



Note that over-the-air ATSC is treated equally along with pay-service content sources. For more screens and a review, see <http://www.engadgethd.com/2008/08/06/hands-on-with-the-vista-media-center-tv-pack>.

From Microsoft's press release:

For the first time, we're enabling those in the PC-TV community to build tuners and integrate almost any broadcast service into Windows Media Center themselves regardless of geographic location or television standard — we've removed a major roadblock by delivering one consistent platform for the industry," said Geoff Robertson, general manager for Windows Media Center at Microsoft. "The tremendous response we're already seeing for the platform means PC OEMs, broadcast service providers and tuner-makers can now collaborate and embrace the PC as a first-class citizen for delivering more high-quality free or pay content to consumers in their local markets. This is a major milestone for us and our partners as we continue our efforts to deliver the highest-quality, personalized TV-watching experiences available to people everywhere." The momentum behind this new platform from Microsoft is already being evidenced by the launch of PBDA-based tuner solutions in Japan, Germany and the U.K., including Hauppauge's first-ever Freeview-certified PC-TV tuner solution and AVerMedia's tuner solution for protected digital terrestrial television in Japan.

In addition, leading chipset providers NEC Electronics, NXP and ViXS Systems are announcing that they have all completed their implementations of PBDA and are now ready to support their PC-TV tuner partners in taking PBDA-based solutions to multiple markets around the world.

"We are excited to be a launch partner for Microsoft's PBDA platform," said Allan Yang, Ph.D., president of AVerMedia. "PBDA has enabled us to quickly and cost-effectively bring to market A320, a PC-TV tuner solution for Windows Media Center that meets the Japanese broadcasting industry's requirements for strong content protection. The resulting system performance delivers a surprisingly responsive user experience, and the response from our customers, who are some of the most demanding PC OEMs in Japan, has been phenomenal. We are looking forward to building on the very successful launch of our PBDA-based solution beyond Japan."

Microsoft's new digital TV software architecture, PBDA, enabled Hauppauge to deliver the first-ever Freeview-certified TV tuner for PCs," said Ken Potkin, CEO of Hauppauge. "We look forward to 2009, when PBDA will allow us to deliver advanced digital PC-TV tuner products, including PC solutions for pay TV."

"The extended capabilities, which Microsoft's worldwide PBDA platform for pay TV and free-to-air TV brings to Windows Media Center, mirror NXP's commitment to power the TV-viewing experience by enabling access to more content with ever better picture quality anytime, anywhere, in the home and on the go," said Bert van de Wakker, general manager, PC Systems, NXP Semiconductors. "Specifically, PBDA support combined with our new-generation three-in-one PCTV SOC SAA7231 product line, enables PC OEMs to offer 30 million European households the ability to record and view hundreds of free-to-air digital satellite channels on their PC, complementing SAA7231DE's established DVB-T, analog terrestrial and cable support. In addition, PBDA has enabled us to provide a highly integrated, secure and cost-effective solution for protected digital terrestrial television in Japan using our secure Integrated Services Digital Broadcasting (ISDB)-analog reception, SAA7164E SOC."

The PBDA platform is a key component of the Windows Media Center TV Pack, an update released to OEMs worldwide on July 16, 2008, with targeted optimizations for Europe in particular. Some of the other features of this update include native Windows Media Center experiences for digital terrestrial television in Japan (based on the Integrated Services Digital Television-Terrestrial standard), free-to-air satellites services in Europe (based on the Digital Video Broadcasting-Satellite standard), improved guide and playback experience, great personal video recorder auto-extend support, and the flexibility of support for multiple TV standards.

At least one of the partners in the Microsoft announcement also provides hardware for accessing over-the-air broadcast TV in the computer environment. Hauppauge Computer Works has recently announced the WinTV-HVR-950Q (see picture at right) a USB 2.0-based receiver that supports ATSC, NTSC and clear



The Hauppauge WinTV-HVR-950Q

QAM digital cable channels. The unit allows your computer to operate as a DVR, but a word to the wise—Hauppauge says that recording HD programs will typically consume 5 GB of hard drive space per hour, so plan your hard disk management carefully!

For more info: <http://www.engadgethd.com/2008/08/06/hands-on-with-the-vista-media-center-tv-pack> or <http://www.consumerelectronicsnet.com/articles/viewarticle.jsp?id=505965>, <http://www.microsoftmediaroom.com/#>

63rd NAB BROADCAST ENGINEERING CONFERENCE CALL FOR PAPERS



NAB Show will host the 63rd NAB Broadcast Engineering Conference on April 18 – 23 at the Las Vegas Convention Center in Las Vegas, Nevada.

The NAB Broadcast Engineering Conference is a highly technical conference where presenters deliver technical papers ranging over a variety of topics relevant to the broadcast and allied industries. We invite you to submit a proposal to present a technical paper at our conference. The deadline for submitting your proposal is **October 17, 2008**.

To submit a technical paper proposal, [click here and complete the electronic form](#). If you have questions regarding the NAB Broadcast Engineering Conference, please contact [John Marino](#).

NAB365 TV Thought Leadership Series Videos



One of the features of NAB365 is an exclusive series of [video interviews](#) designed to provide you with expert viewpoints on technology's impact on digital media and the world of broadcast content for video, radio, broadband, and more.

With technological advancements arriving at a steady pace, it can be a challenge understanding the creative and financial impact of each technology on the world of content creation, content management, content distribution & delivery, content commerce, and content consumption.

In the latest of the NAB365 Thought Leadership series, NAB's top technical expert, [Lynn Claudy](#), discusses digital media and the competitive media landscape, and NAB's [Jonathan Collegio](#) provides an update on the DTV transition. Enjoy and please feel free to provide us feedback on this series through our [NAB Show YouTube channel](#).

NAB Satellite Training Offers Techniques for Keeping Satellite Transmission Costs Reasonable for DTV

September 29 – October 2, 2008
Washington, D.C.



If you are concerned about keeping your satellite transmission costs reasonable, the NAB Satellite Uplink Operators Seminar can help you. The seminar that will be at NAB Headquarters on September 29 – October 2 can teach you techniques to give you the best performance and keep your station's transmission costs under control. For more information call Cheryl Coleridge at (202)

429-5346 or go to [NAB Satellite Uplink Operators Seminar](#).

ATSC Digital Television Transmission Systems 8-VSB Fundamentals Seminar Wednesday, September 24, 2008 – KNME, Albuquerque, N.M.

The 1-day 8-VSB Fundamentals seminar, conducted by Gary Sgrignoli, will help you develop a fundamental understanding of the digital VSB transmission system and its performance attributes as well as current practical application information. The seminar includes an optional site visit to KNME's DTV Tx site on Sandia Crest. For additional information contact the instructor Gary Sgrignoli, Meintel, Sgrignoli & Wallace at 847 259 3352 or Gary.Sgrignoli@IEEE.org or Jim Gale, KNME-DT, 505 277 2049, jgale@knme.org.

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