

Microsoft TV IPTV Edition

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Product Capabilities:

Microsoft TV Solutions is a branch of the Microsoft Corporation that is set up to provide software that will allow developers to create new products and services to enhance the Digital TV viewing experience. MS TV Solutions creates these new products for Cable and Telecommunications companies.

Microsoft TV IPTV Edition can be used to create video on demand (VOD) and digital video recorder (DVR) solutions. The product is designed specifically for delivering video over an IP network. This product utilizes Windows Media 9 for compression of both Standard Definition (SD) and High Definition (HD) video. The trend now is to reallocate bandwidth once reserved for analog signals with digital services such as VOD and DVR.

IPTV will create a highly satisfactory viewing environment for the client in which “virtually limitless programming and on-demand content” is available. IPTV enables the viewer to basically choose only those channels that he or she wants. These channels are the only ones transmitted over the broadband networks. Thus, much of the bandwidth is freed up. Furthermore, the video compression used by IPTV allows for both SD and HD programming to be delivered over the broadband networks.

IPTV also focuses on the viewer navigation which is an important part of the overall viewing experience. The goal, as stated by Microsoft is to “provide a unified user experience” with respect to navigation, broadcast listings, programming searches and the picture-in-picture feature. All content, including HD programming can be purchased with a subscription plan or on a pay-per-view plan. Delay associated with “channel surfing” is now a thing of the past with IPTV because of the nature of broadband IP transmission. Finally, the software allows for DVR services with the use of a hard drive. Because there aren’t any tuners involved in this IP based system, multiple programs can be recorded without the “need for costly hardware upgrades”.

There are also some extra associated benefits with IPTV. For example, the software enables the TV to be a part of a home network so that photos, video and music on a computer can be accessed and viewed with the TV. Also,

caller ID, instant message notification and email information can all be viewed with the TV using the IPTV software.

The IPTV software is flexible in that it can work with system components from such industry leaders as Harmonic Inc, Tandberg Television, Thomson, Alcatel, Intel and Juniper Networks.

Technologies Involved:

IPTV utilizes Windows Media 9, which is an advanced video codec. This codec is much more efficient than the MPEG-2 codec which is currently the primary encoding scheme for cable transmissions. MPEG-2, because of its relatively low efficiency with respect to bandwidth, is severely limited in its versatility and ability to support new services. Video compressed using Windows Media 9 requires only one third as much bandwidth as MPEG-2 and half the bandwidth as MPEG-4. With such low bit rates, services once considered totally impractical such as dual analog-and-digital carriage of basic networks are now feasible.

Moreover, the two-way nature of broadband IP networks will allow greater customer personalization of service, targeted commercials, efficient communication services and other interactive services.

This IP solution for TV will also unify the infrastructure of Telecommunication companies that already offer high speed internet access and IP telephone services. The IP infrastructure that already supports these products will allow for a smooth integration of television services as well. Thus, there will be a resulting economic benefit associated with product implementation. Additional hardware and infrastructure required to support MPEG-2 applications would become unnecessary. Companies would become more streamlined.

The Future of IPTV

There is already talk about IPTV implementation on a large scale. Swisscom/Bluewin, a company based out of Switzerland, announced in 2003 their intentions of testing the IPTV solution via an IP broadband

network. Similarly, Bell Canada recently announced their intentions of testing the solution via Bell ExpressVu digital programming.

As a consumer, I think that IPTV is a remarkable solution. Massive changes would most certainly accompany large scale implementation of this idea. Movie rental stores would most certainly become a thing of the past. Companies such as TiVo will probably either be bought out or go bankrupt. The increased variety of services that will be offered by the cable provider will hurt companies that can only provide one or a few services, albeit well. Customers will be attracted to the vast array of products offered by the cable companies. The winners will be those companies that can capitalize on this massive consolidation of various markets resulting from a complete IP solution for all telecommunications.