



## **Q&A: IP Television 2.0 & the Connected Home**

*The following conversation is an excerpt from a panel session held at NAB 2009 entitled: "IPTV 2.0 & the Connected Home: What Applications will Drive IPTV Penetration beyond PVR and VOD".*

*Mauro Bonomi, CEO of Minerva Networks, answered questions posed from the panel moderator, Colin Dixon, Practice Manager Broadband Media with The Diffusion Group.*

### **Q1: What is the role of Minerva in the Television marketplace?**

Minerva is focused on the middleware and application layer of IP-connected television delivery systems. Over 170 operators around the world are using our platform to deliver a better television experience to hundreds of thousands of subscribers.

### **Q2: There is a lot of talk about next-generation television services. Which new features should we expect from Television 2.0?**

Consumers are looking for access to a broader set of content and a more personalized and socially engaging Television viewing experience. Next-generation media delivery platforms which support the convergence between Internet content and legacy Television programming will enable the kind of compelling services consumers are now expecting.

### **Q3: There is a growing array of content to be had from the Internet. Many companies are turning their attention to bringing video over broadband directly to the Television. From an operator's point of view is Internet video a threat or a friend?**

High speed broadband access and advances in compression technology are enabling better and better quality Internet video. The hot trend is now the delivery of Internet content to the Television set "over-the-top", bypassing the operator's managed network.

Mainstream consumers, while interested in Internet video, are not keen to give up their managed video services and they resist investing in a new device or service simply to access Internet media from the television.

I believe that operators (particularly those offering IP-connected television services, like IPTV) are in a unique position to enhance their offering by adding Internet content and services to their legacy Television programming.

### **Q4: What are some of the issues an operator would face when combining traditional Television services with Internet video on a single STB in a single entertainment environment? Are today's IPTV software and hardware platforms up to the task?**

The blending of broadband media with legacy television programming impacts both the STB and the middleware/application platform.

The STB has to handle both traditional broadcast content (mostly delivered in MPEG-2 or MPEG-4 AVC formats) and Internet content which today is primarily available in Adobe Flash or Microsoft Silverlight formats. Fortunately the new processors powering next generation IP-connected set-top boxes will soon support high quality Adobe Flash decoding.

Accessing Internet content and services, typically designed for PC consumption, from the TV set also requires a TV-centric navigation interface. This is a challenge and opportunity facing middleware and application software companies like Minerva.

**Q5: Can you give an example of how such “TV-centric” experience could be enjoyed while accessing Internet video from the Television set?**

Many people use their PC to access and stream from the Internet recorded episodes of their favorite shows. Imagine if they could scroll their Electronics Programming Guide (EPG) back in time, find the show they have missed, select it and stream it from the Internet directly to their TV set.

**Q5: The managed network provides great video quality and fast channel change for broadcast channels. How about on-demand content? Netflix, Amazon and others are now offering movies over the Internet. With all this on demand content available on-line why should an operator build its own video-on-demand (VOD) system?**

Many operators claim that video-on-demand is a must-have service needed to differentiate the offering, but it is not a source of significant profits. The collaboration between companies like Netflix or Amazon and IPTV operators could actually result in a win-win partnership. Service providers could leverage their managed networks (possibly enhanced with edge caching technology), and their IP-connected STBs to offer subscribers a superior experience when accessing “over-the-top” content. The monthly fee subscribers would be willing to pay for this service would likely exceed the profits most operators currently generate from their managed VOD offerings.

**Q6: Home networking is exploding around the world. In the US by 2015 70% of broadband homes, some 70 million homes, will have a home network. What opportunity does this present for the network operator?**

Besides access to more content, consumers want a more flexible and personalized television viewing experience. High-end STBs with embedded storage for personal video recording (PVR) are becoming pervasive. Home networking enables all sorts of connected devices within the home, including low cost STBs without a hard drive and personal computers, to access media stored in a single shared PVR box. Home networking also enables the seamless discovery and delivery to the television set of a variety of media assets, like music, pictures or home videos, stored on personal computers or other connected devices.

**Q7: Consumer appetite for the TV content is clearly not confined to their television. Younger viewers would like to enjoy the same programs they currently view on their Television on their personal computers. Can an operator afford not to provide these services?**

Personalization is not only about PVR or Time Shifting, but it is also about Device Shifting. People want to enjoy TV services, including traditional broadcast services, on their PC. Offering all of the TV programming available on the managed network to a PC is actually very appealing, not only to subscribers, but also to operators.

As media companies have gained more trust in software based content protection, it is now possible to make this happen. The PC will become just another authorized playback device in the home connected to the operator's back-office. Operators could then offer entry level services without investing in a STB or truck roll and young consumers could watch their favorite shows while multitasking on their personal computer.

**Q8: Facebook has grown to 200 million subscribers. Do Web 2.0 applications have a role in driving the evolution of Television?**

As I mentioned earlier, consumers demand a more socially engaging television viewing experience. Hundreds of millions of people already use social networking sites to share personal media and recommendations. The TV could become a preferred device to enjoy pictures or slide shows posted by MySpace or Facebook users. As the pool of available content increases, the ability to discover it through your friends' recommendations becomes more and more appealing.

Widgets are emerging as effective tools to deliver relevant Internet data, including data from social networking sites, to the TV. A simple Widget could allow a Facebook subscriber with a single click of the remote to recommend a show to his friends. The same Widget could enable those friends to view the recommendations and, if desired, tune into the recommended program, set a reminder or schedule a recording.

**Q9: How will operators profit from next-generation Television applications and services?**

Better TV services will lead to higher market penetration and reduced churn. New services will also contribute to increase the average revenue per subscriber.

A currently untapped revenue source will come from targeted advertisements. New widgets, applications and services will present unique opportunities for the insertion of relevant advertisements.

**Q10: What is Minerva doing to enable operators to take advantage of the trends we have discussed today and pave the way for Television 2.0?**

More than 170 service providers are already using our platforms to deliver compelling services to hundreds of thousands of subscribers.

Their ability to target consumers with unique offerings, to deliver a broad set of applications and to enable subscribers to enjoy a highly personalized viewing experience, while minimizing capital and operating expenses, is the key behind their success.

Their insights and feedback are driving our product roadmap. Our upcoming fourth generation platform will include advanced features and technologies (like a powerful Widgets engine and a Flash player) which will enable the seamless integration of legacy Television services with Internet media. Television 2.0 is on its way. Stay tuned!

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**About The Diffusion Group**

TDG is the leading voice in the digital video ecosystem providing market planning and research services to keep our clients In Front of the Curve.™ Since 2004, TDG has helped more than 250 technology leaders, media companies, and service providers to master the quantum shifts

impacting how consumers access, navigate, distribute, and consume broadband media - whenever and wherever they may be. [www.asktdg.com](http://www.asktdg.com)

**About Minerva Networks**

Minerva Networks is the leading provider of open-platform, carrier-class solutions for the delivery of IP-connected television services. More than 170 network operators worldwide use Minerva IPTV solutions to deliver next-generation entertainment and communications services. For more information, visit [www.minervanetworks.com](http://www.minervanetworks.com).