



*Amino, the IPTV platform supplier, has announced the release of its newest high definition (HD) product, the Personal Video Recorder (PVR/DVR) enabled AmiNET530. Photo courtesy of Amino.*

## Enhanced viewing experience

With an estimated 20 million homes worldwide expected to subscribe to IPTV services by the end of 2008, Satellite Evolution looks at what IPTV is and why it is expected to be the next big thing in home entertainment.

**IPTV represents an enhanced viewing experience** for the consumer. It is a system where a digital television service is delivered using Internet Protocol over a network infrastructure that usually includes a broadband connection. For example, it may use existing fibre or cable lines that we already use to access the Internet and to get voice services. It is basically television content delivered to the customer through the technologies used for computer networks.

Users often receive other services such as Video on Demand (VoD) or Internet services and Voice over Internet Protocol (VoIP). This is known as 'triple play' – adding mobile devices to this will become 'quadruple play'. As well as using IP delivery to residential users, it may also be used for corporate purposes too.

ABC's World News Now was the first programme to be broadcast over the Internet. Nowadays, following a phenomenal take-up

in broadband connections (80 percent of computer households are expected to have a broadband connection by 2010), IPTV is gradually becoming more and more popular. Most of the world telecommunications providers are hoping that IPTV will be a new revenue opportunity for them and that it will help them fend off the cable TV providers. By offering popular services such as news on demand, video on demand, weather on demand, time-shift TV and interactive TV they will augment their service and their revenue stream. However, the main problem facing the growth of IPTV across the world is the fact that it must be as easy to use as conventional TV and should not make viewers feel that this is a seismic move away from what they are used to. The comfort zone occupied by consumers must not be underestimated.

### Why should I opt for IPTV?

IPTV integrates TV with the Internet, VoIP and also mobile devices. A switched IP network allows for more content to be delivered to the consumer. An IP network will allow a customer to decide what they wish to watch and that content only will be sent to their home, unlike a satellite TV or cable connection that constantly streams the content to the user and the user selects what they want to watch through their set top box. This frees up precious bandwidth and therefore reduces restrictions that the size of the pipe would normally cause.

The ability for the customer to interact through IPTV is also an attraction. This helps create a personalised feel to the service. The viewer can access information on their chosen programme, their fa-



avourite sports team – they can even decide which camera angle should be used. The addition of Video on Demand (VoD) also means that the viewer has the opportunity to browse an extensive catalogue of movies and make a choice which is delivered to them immediately. Another new feature of IPTV that is slowly being introduced is that of caller ID capabilities where calls may be received through the TV set and handled using a remote control. In theory, this can be extended to other devices such as mobile phones giving a truly converged service.

### What can IPTV do for my business?

In terms of business, IPTV offers several benefits. The first has to be the fact that IPTV uses the existing infrastructure to deliver its services via either copper or fibre lines. Therefore it is relatively cheap to deploy and easy to manage. The network is also scalable so is very easy to augment. The digital nature of IPTV means that there is no noise or signal interference on the line and it always delivers high quality sound and picture. It will also work on PC and Mac desktops and will distribute pictures to projectors, plasma screens and LCD displays for marketing or corporate purposes. Unlimited channels may be distributed and IPTV can also support widescreen picture format. Distribution is cost effective and high definition is supported.

In terms of advertising, IPTV offers a unique opportunity to businesses whereby they can put out advertisements to their target audience. IPTV is able to record who watched what and when and therefore can build up a detailed demographic giving businesses important information on the type of person who would watch a certain type of programme, a certain age group who would like to receive a certain product. Then, like direct mail, advertisements may be sent out to these target groups in the hope that it will drum up further business.

### What is on the market?

BEE MediaSoft, a subsidiary of DMX Technologies Group introduced a new Microsoft Windows CE based Vision TV Middleware Client at CommunicAsia 2007.

Running on Windows CE based set top boxes, the new Vision TV WinCE Client not only features enhanced TV services and interactive value-added services of other client releases, but also allows access to the .NET ecosystem.

Vision TV WinCE Client is designed to facilitate Internet TV service providers, who adopt Microsoft's Windows Media and DRM technologies to deliver multimedia content and services to PC users; to expand its customer base to households that are connected with set top boxes.

To guarantee long-term success and a sustainable business, it is critical for TV service providers to run a middleware that is highly flexible in adapting to various service environments and incorporating new services. TV service providers can now enjoy the unparalleled feasibility offered by Vision TV with a wide selection of pre-integrated CPEs. Besides, they can expand their service delivery media and service portfolio with minimal effort as they can apply the same solution to different service and delivery environments. Hence, their customer base and profitability can be maximised enormously.

Digital service rollout is just the beginning. By providing attractive value-added services that satisfy the needs of subscribers in their daily lives, TV service providers would remain competitive and thus be able to secure customer loyalty.

### About Vision TV

Vision TV is a comprehensive, tightly integrated middleware solution designed for TV service providers to offer enhanced digital video services through broadband, cable networks, satellite and terrestrial broadcasts. The highly portable architecture and open framework allows quick and easy deployment at a broad range of CPE whilst allowing rapid new service deployment. Vision TV also makes all the functions and back office services transparent to viewers in a user

friendly and intuitive user interface.

Vision TV offers a complete range of advanced and interactive TV functions including:

- Full function interactive video programme guide for viewers to browse and view broadcast TV programmes, schedule TV programmes to be recorded or retrieve recorded programmes for the personal library at their fingertips;
- Supports full trick-play TV-on-Demand service including TSTV, PLTV and nPVR services;
- Unique synchronised experience that allows remote management of TV-on-Demand services via devices like PCs and wireless devices such as mobile phones;
- Enables innovative interactive services such as gaming, TV shopping (T-Commerce) and bill enquiry through the user interface on the TV; and
- Offers a unique comprehensive back-office system including Asset (content), Service, Programme Management as well as a Content-Re-purposing Platform.

### AmiNet530

Amino, the IPTV platform supplier, has announced the release of its newest high definition (HD) product, the Personal Video Recorder (PVR/DVR) enabled AmiNET530. The AmiNET530 is a fundamental component of a service provider's multi-play strategy, by offering cutting edge, high quality on-demand, IPTV, PVR, gaming and HD services to end-user consumers using MPEG-2/4 codecs. Amino have already taken their set top boxes to French hospitals where patients can access Video on Demand services at their bedside!

The AmiNET530 is a next-generation IPTV Set-Top Box that provides the ability to decode low bit-rate MPEG-4 video streams and is capable of supporting HD video and graphics. With PVR functionality, the AmiNET530 can act as a hub for all the services and applications used for playing, recording and streaming video - it also includes Amino's cross-platform IntActTM client software that ensures compatibility with an extensive range of middleware and conditional access systems.

The AmiNET530's video on demand feature gives consumers the ability to select and view video content in an interactive, real-time setting. This feature, combined with the product's PVR capabilities, meets the ultimate demand from consumers today - freedom to make their own choices.

The most notable features of the AmiNET530 are:

- **PVR functionality** - The flexibility of features such as pause and play of live TV, instant record and instant replay are key buying requirements for consumers and a significant factor for service providers seeking to reduce churn. The AmiNET530 also offers the ability to schedule recording of multiple HDTV streams simultaneously, unlike traditional cable or satellite PVRs which are restricted by the number of tuners they include;
- **High definition** - The support of HD video offers an exciting and dramatic viewing experience, with greater realism and detail especially in large display formats. In addition to HD video the AmiNET530 also supports HD graphics, which offers the service operator the ability to display more information on the screen. The AmiNET530 provides the opportunity to add value to the consumer and create new revenue streams with personalised services such as weather forecasts, stock quotes, or targeted advertising;
- **More channels to more people** - The support of low-bit rate advanced video codecs provides operators with the opportunity to grow revenue generating services while maximizing maximising the efficient use of network bandwidth, creating the ability to reach a greater number of subscribers, increase the number of available interactive and multicast channels, and enhance the viewing experience with HD channels;



- **Low cost deployment** - The AmiNET530 uses high performance single chip technology for economical deployment of leading edge services;
- **Proven reliable platform** - The AmiNET530 leverages the established and proven wide range of integrations with industry leading partners, on Amino's proven IntAct IPTV client software platform. Amino will use its established partnerships with leading technology providers to accelerate the growth and profitability of evolving IPTV services; and
- **Flexible platform** - The AmiNET530 plays a pivotal role in home entertainment system. Its flexibility will ensure it meets consumers' future requirements.

Amino's customer base has grown steeply - its set top boxes have been deployed and trialled in over 80 countries worldwide and Amino's expanding footprint continues to grow in emerging markets worldwide.

### Irdeto's security platform

But what about security? This is surely an intrinsic part of the IPTV system. Customers need to know that they will be secure especially when using a new and unfamiliar system.

At CommunicAsia 2007, Irdeto, the expert in content security for digital TV, IPTV and mobile networks, announced that they have been selected by worldwide systems integrator and manufacturer, ZTE Corporation as the preferred content security partner for its end-to-end IPTV system that will be marketed and sold worldwide.

According to the agreement, ZTE will incorporate Irdeto's secure content delivery platform in its IPTV ECO system, an end-to-end solution specifically designed for employing multimedia services over an IP network.

"A secure DRM/CAS (digital rights management/conditional access system) platform is extremely critical to the success of an IPTV deployment because it helps to protect the service providers' revenue stream and the rights of the content owners," said Mr. Yu Yifang, General Manager of ZTE Multimedia Product Lines. "The strategic, long-term partnership between ZTE and leading DRM/CAS vendor Irdeto is therefore significant as it enables carriers to provide an ultra secure solution which will give content owners the assurance that their intellectual property is being safe guarded. Key to this is

the recognition that the Irdeto content security platform has received from leading content owners around the world."

"The agreement with ZTE marks another major step forward in our efforts to expand our relationship with system integrators," said Doug Lowther, Vice President of Sales and Marketing for Irdeto. "The IPTV market is primarily channel-driven, and this partnership with ZTE puts us in an even stronger position to address the opportunities in this space."

The Irdeto IPTV solution provides a full video product and service offering, including IPTV, VOD and PVR/DVR security. Within the Irdeto IPTV security framework, content is securely stored and distributed across any broadband IP network and the corresponding content rights are managed on an individual subscriber and/or device basis. Irdeto IPTV is flexible and supports secure content storage for video servers, set top boxes (STB) and PVRs/DVRs. It also offers a choice in either a 100 percent software based solution, Irdeto SoftClient, or a smart card based solution with over-the-air addressable smart cards to download new content security solution to provide new services or security updates.

### Power to the consumer

It is an emerging technology at present but IPTV is gaining momentum. The Asia-Pacific has already embraced the idea of IPTV and Europe and the rest of the world is sure to follow. Already, more and more attention is being focused on the idea of a new, converged form of entertainment where everything may be accessed through one point.

New services such as Skype have already dented telecommunications company's revenues and it is imperative to them that they find new ways of generating revenue. Empowering the consumer and giving them the freedom to choose what they want to watch and when is sure to appeal but issues of price and ease of use must be addressed. There are many, many new services, new collaborations, new middleware and systems on the market and coming onto the market that are bound to offer countless enhancements of our viewing experience.

One thing is for sure, the demand for broadband and the fact that demand is expected to increase is sure to secure IPTV's place in technological history and perhaps it is the next logical step in our entertainment evolution. ■



Photo courtesy of Microsoft TV.