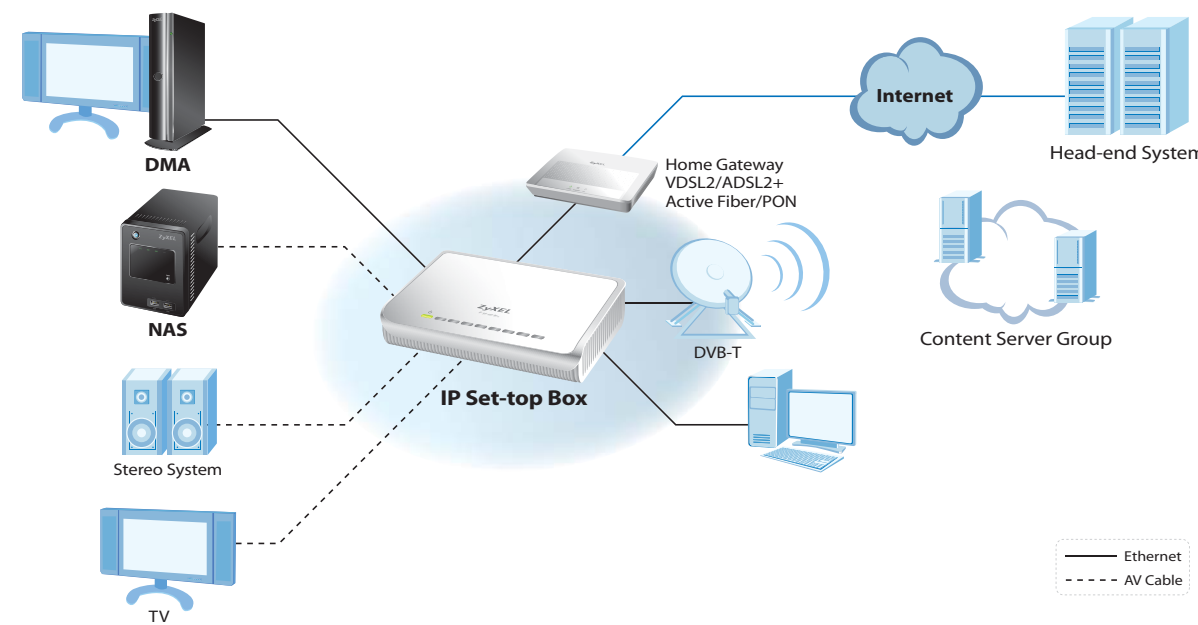




Product Feature Matrix

Model Name	STB-1001H	STB-2101H	STB-2105	STB-2110T
Product Photo				
Target	IP-STB (HD)	IP-STB (HD)	IP-STB (PVR)	Hybrid
Target customer	Content Provider/ISP	Content Provider/ISP	Content Provider/ISP	Telco/Cable
Browser	Yes	Yes	Yes	Yes
IPTV	Yes	Yes	Yes	Yes
VOD	Yes	Yes	Yes	Yes
HDD/PVR	-	-	Yes	Yes
DVB-T/S/C	-	-	-	Yes
DMP/DLNA	-	-	Yes	Yes
Gaming	-	-	Yes	Yes
Resolution	720p, 1080i	720p, 1080i	720p, 1080i, 1080p60	720p, 1080i, 1080p60

Scenario



Future Prospects

Digital Convergence: Telcos that are pleased with the achievements from deployment of IPTV services are now planning for Next Generation Network (NGN), the next evolution in digital convergence. Customer demands and expectations in mobility, seamless interconnectivity and high performance levels mean that an advanced and reliable network is now more critical than ever. ZyXEL is continuing to lead the development in a comprehensive IP-based NGN, focusing on providing cost-effective solutions, products and services to IPTV Service Providers. IPTV services, video communication and fixed mobile convergence to home or business customers will continue to increase users' satisfaction with the best using experiences ever.



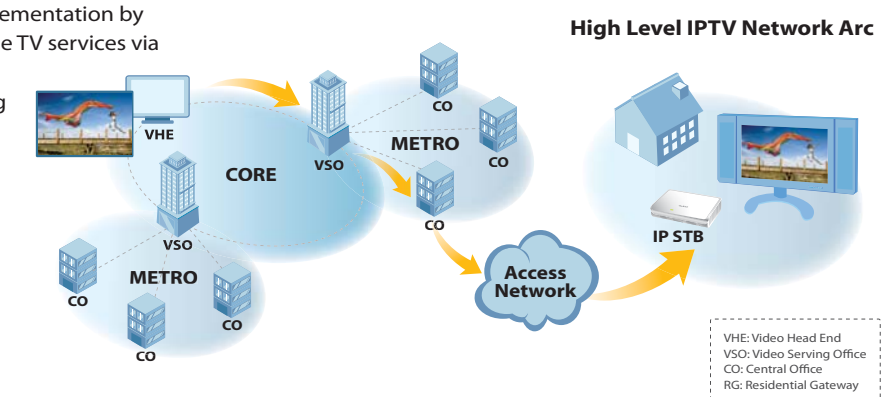
The New Media Experience to Come IPTV Product Overview

More Bandwidth, More Fun

Many cable TV companies today offer "triple-play" services to users: TV, Internet access and voice. Although ADSL Internet access with 20 Mbps bandwidth was good enough for past years, the upcoming application boom urges Internet service providers to look for new revenue-generating possibilities over existing copper wire that provides 30 Mbps on average.

provides more freedom and choice for living room entertaining, and can also simultaneously serve as a media platform for interactive services. With user-centric technologies, Telcos can provide new experience to subscribers via TV program management according to personal schedules and the ability save programs in the video-on-demand IP set-top box (STB).

With mature broadband technologies and wide implementation by service providers worldwide, Telcos must now provide TV services via the Internet along with voice and Internet access. It delivers more than just the television programming that people used to get from cable or satellites: IPTV



For more product information, visit us on the web at www.ZyXEL.com

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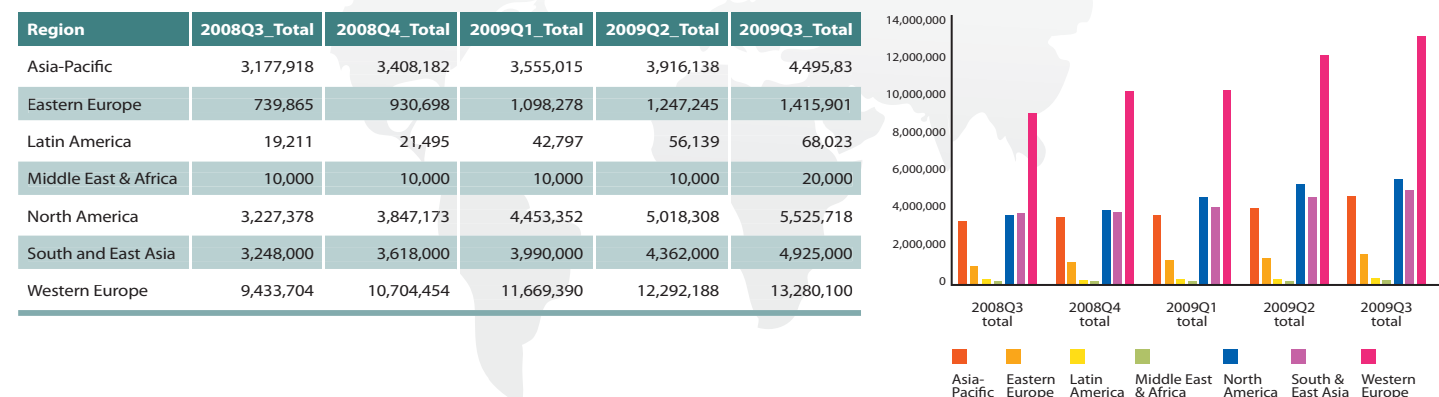
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Market Trend

IPTV is a global phenomenon. The latest forecast indicates that the number of global IPTV subscribers will grow from 28 million in 2009 to 83 million in 2013, a compound annual growth rate of 31%. (IPTV Global Forecast –2009 to 2013, MRG 2009)

Worldwide IPTV Subscribers 3Q2008 ~ 3Q2009 (by Region)



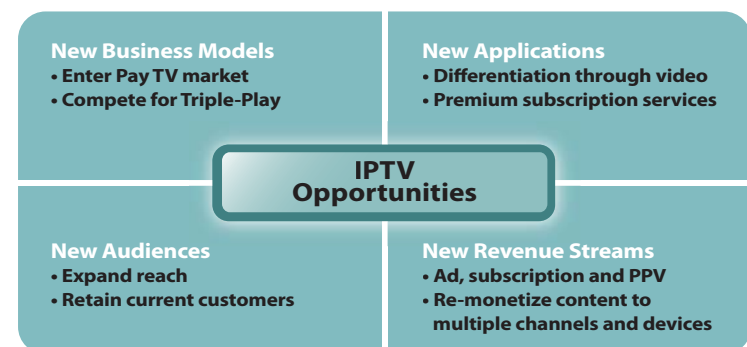
We use computers for Internet access at home, enjoy Pay-per-View HD movies from our service provider, and listen to Internet radio while simultaneously chatting with friends on Facebook. Digital network services are an integral part of our lives—and a fast growing necessity taking over for aerial and cable TV services, telephone services, radio broadcasting, mail services and more—with exciting new services introduced every day.

IP technology provides two-way connectivity for new breeds of entertainments such as IPTV that merge interactive content and digital media in both software and hardware. In fact, the IPTV STB is delivering high potential for home networking platforms; it provides better interaction and premium entertainment through remote control and EPG (Electronic Program Guide) which allow easy navigation, quick program information, PIP (Picture in Picture) and almost unlimited channels from various media sources (terrestrial, satellites, broadcast and IP, etc.)

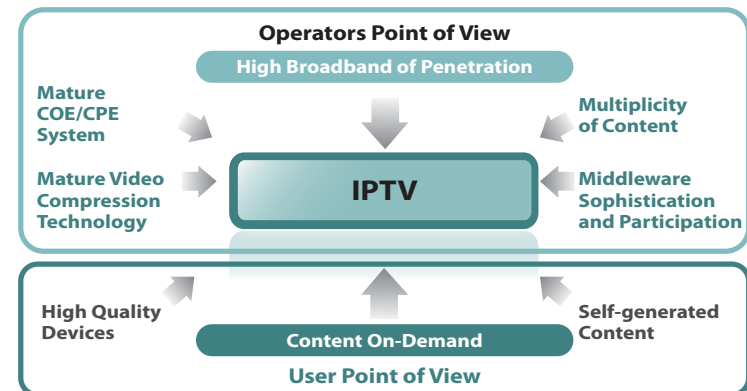
From an ISP's point of view, the focus today has changed from competing for market share as a pure Internet access provider to focusing on increasing the average revenue per user (ARPU) and becoming profitable, as many markets worldwide experience broadband saturation.

Benefits of IPTV

IPTV Opportunities for Operators



Why IPTV?



Telco Point of View: Converged Media and Entertainment

New Business Models

Enter Pay TV market:

It is a new era that Telcocs can enter that has been successful deployed worldwide for years. It could be integrated with different format media from various sources over the IP.

True Triple-Play:

By offering voice, Internet access, data exchange and now video, Telcos are the best choice for true Triple-play services.

New Applications

Service Differentiation:

e-Learning, e-Shop, Pay-Per-View, e-Voting, e-Payment, and Web2.0 marketing activities, it would be much easier to success with existing infrastructure and networking platform leveraging TV in the living room through IPTV and value-added interactive services over IP which might be difficult from Terrestrial, Satellites, Cable TV.

New Audiences and New Revenues

- Generate subscribers for IPTV for as long as broadband services
- Retain current customers from new advanced service
- Advertising, subscription and PPV (Pay-Per-View)
- Re-monetize content to multiple channels and devices

How can ZyXEL help you

IPTV is an emerging and new revenue-generating solution for carriers, offering benefits to bundle access services, VOD, advertisement, gaming, and more interactive services and widget applications to contribute potentially significant aggregating revenue.

ZyXEL supports different IPSTB (IP Set Top Box) solutions for both carriers and service. An IMS-oriented IPSTB solution is designed for carriers, and a Widgets-oriented IPSTB solution is designed for service providers. The application diagram below and required product list illustrates a "Widgets-oriented" IPSTB application.

Advanced Video Coding

The ZyXEL set-top box (STB) offers IP video services, such as Video-on-Demand and IPTV, based on various video compression technologies to reach a wider audience or achieve a higher density of service, and thus increases bandwidth efficiency. This enables Telcos to expand their subscriber base and offer two or more video streams per household, where only one was previously possible, to create opportunities for substantially increased revenues and faster return on their IPTV investments.

High-Definition Video Quality

The ZyXEL STB supports high-definition displays at 720p and 1080i resolutions. High-definition video offers exciting and dramatic viewing enjoyment with extraordinary realism and detail, especially on large displays. It comes complete with digital audio outputs for an even more exciting home theater experience.

Support for Content Security Solutions

The ZyXEL STB is compatible with a wide range of leading content protection and Digital Right Management (DRM) solutions with or without Smart Cards. The Conditional Access (CA) feature of the ZyXEL Set-Top Box can also be applied to terrestrial and satellite broadcasts, with which Service Providers can freely select any combination of appropriate security methods for themselves.

Sample GUI Screens

Location At CO Site

Location At Subscriber Site

ZyXEL End-to-End IPTV Solution

Video Server: Bitband
CA Server: Verimatrix
Nordija Middleware Server
STB-2101H (Web Browser: Opera)