

WHITE PAPER

IPTV In Australia: Why Broadband Service Providers Need A Plan

Sponsored by: Ericsson

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IDC OPINION

The Australian Federal Government's plan to invest in a National Broadband Network (NBN) represents a significant change to the existing telecommunications/Broadband Service Provider (BSP) landscape. Should the Government's plan come to fruition, in the not too distant future, all BSPs (who choose to access wholesale services via the NBN) will have an equal footing in relation to access speed and reach. IDC believes this will ultimately see current BSP business models around access and download quotas become heavily commoditised and with very low margins. BSPs will need to consider whether to deploy value added services in order to retain or increase ARPU and lower customer churn rates or continue to focus on being a "bit" pipe provider. Because the pipes will allow it, IPTV will undoubtedly be the next killer application in the fixed BSP retail market, but what is the best business model for Australia's BSPs and consumers? This IDC White Paper provides insight into the reasons why Australian BSPs need an IPTV plan. The key points are:

- ☒ IPTV is an appealing service to both telcos and ISPs for two primary reasons. Firstly, IPTV represents an entirely new revenue stream to bundle with their traditional voice and data services. Secondly, it provides an added layer of "stickiness" for reducing customer churn.
- ☒ By the end of 2008, IDC estimates there will be 8 million IPTV subscribers within the APEJ (Asia Pacific Excluding Japan) region. Looking forward, by the end of 2012, IDC conservatively forecasts APEJ IPTV subscribers to reach more than 25 million. Depending on the specifics of each country in relation to broadband capacity, footprint, regulatory issues and business models, IPTV in the APEJ region could very well exceed this number in the forecast period.
- ☒ IPTV technology has rapidly evolved since the initial deployments in the early 2000's to achieve significantly greater levels of quality and functionality. Key to this is the IPTV Service Delivery Platform (SDP) which dictates the functionality and capacity requirements of the service.
- ☒ Due to Telstra's majority ownership of Foxtel, Australia is somewhat unique when it comes to IPTV business models. In most cases around the world (Europe and America in particular), the incumbent telco does not have an ownership stake in the cable TV market. In fact, incumbent telcos are being forced to deliver a media/TV strategy in order to stave off competition from the cable and satellite service providers as they expand their product offering to include both voice and internet data services.

IN THIS WHITE PAPER

This IDC White Paper examines the fast growing global IPTV market. The analysis also discusses the market opportunity in Australia from both the demand and supply side. This study provides:

- ☒ A definition of IPTV and how it differs to Internet TV;
- ☒ An overview of current and forecast global IPTV subscribers as well as examples of successful IPTV deployments in other countries;
- ☒ Key IPTV differentiators to current cable TV offerings; and
- ☒ Discussion of the potential IPTV market opportunities for broadband service providers as a key differentiator, taking into account the National Broadband Network.

Methodology

For this White Paper IDC leveraged its knowledge of the IPTV services market, as well as its understanding of the market's competitive and technology landscapes. IDC's analysis is based on high level, qualitative research combining local expertise and existing research (as at August 2008) of the Australian and International IPTV services markets.

- ☒ A number of data sources were used to analyse the IPTV market requirements, the IPTV market landscape, the competitive landscape and product characteristics. These included IDC primary and secondary researches as well as proprietary information sources to generate market analysis and forecasts for IPTV services in Australia. Proprietary sources include IDC's Australia Fixed-Line Telecom Services Tracker (a semi-annual report, which tracks Australian traditional and IP services, telecom network services as well as Internet access services for business and residential customers) and IDC's Global IPTV Services Tracker (a semi-annual report, which tracks global IPTV services revenues and subscriptions).
- ☒ IDC conducted vendor interviews with executives of VoIP hosted and managed solutions, broadband providers, and telecom carriers to determine their strategies, marketing plans, and future directions. Vendor briefings, press releases, financial statements, web sites, and other publicly available information sources were also used.

Note: Forecasts are made in constant Australian dollars, and no allowance is made for inflation. All numbers in this document may not be exact due to rounding.

SITUATION OVERVIEW

Defining IPTV

Internet Protocol Television (IPTV) is the delivery of video services and live television streams over a managed terrestrial broadband infrastructure which is not tunneled through the internet, but delivered via a service providers' private/closed network using an Internet Protocol (IP). The service is delivered to a Set Top Box (STB) which is then connected to a TV, allowing the user to consume media services in a manner

very similar, but not limited to current cable/satellite TV offerings such as those offered by Foxtel.

Sometimes referred to as Video over Broadband or Telco TV, IPTV is different to Internet TV. Internet TV is essentially video streaming via the public internet (for example YouTube, ABC iView and Joost) to a PC. Although it is possible to get Internet TV content to a TV, typically this is not supported by Quality of Service (QoS) and can not be controlled other than via the PC.

Global IPTV Growth

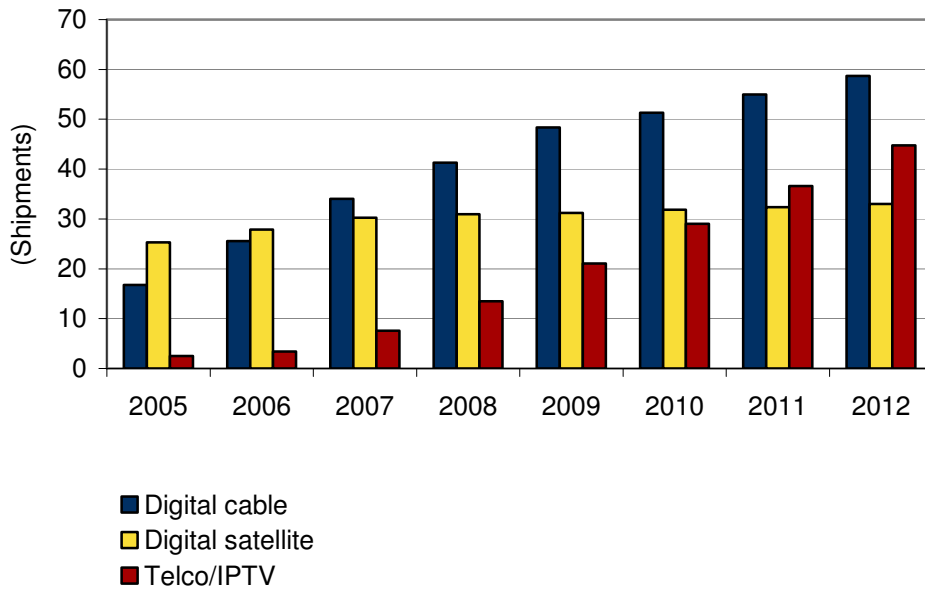
IPTV is a relatively new concept which has been brought about by the pervasive rollout of high speed broadband technology. Western European telcos and internet service providers (ISPs) were the first to deploy IPTV services using ADSL2/2+ broadband services in the early to mid 2000s and has since seen deployments (both small and large) in most developed countries where ADSL2/2+ or better broadband infrastructure exists. In 2007, Verizon and AT&T deployed their IPTV services in the United States, using both fibre to the home (Verizon's Fios) and Very High Speed Digital Subscriber Line (VDSL2) (AT&T's Uverse) technologies to great success.

IPTV is an appealing service to both telcos and ISPs for two primary reasons. Firstly, IPTV represents an entirely new revenue stream to bundle with their traditional voice and data services. Secondly, it provides an added layer of "stickiness" for reducing customer churn via the integration of entertainment and communication services. Although there is currently no true comparison of IPTV deployments in the world which operate over a NBN type broadband access model which is proposed for Australia, it is important to note that IPTV has in a very short time frame become a pervasive broadband service from which Telco's and ISP's are reaping the benefits.

As per Figure 1 below, the current annual growth of IPTV STB shipments illustrates the strong growth of IPTV services globally with a 78% year on year growth between 2007 and 2008. IDC estimates that by 2012, IPTV STB shipments will be greater than that of satellite and be only slightly smaller than cable. This is a phenomenal growth which will significantly disrupt the global pay TV market and will see increased merging of the telco and media markets. From a subscriber perspective, IDC estimates there are currently 12 million subscribers globally, with a forecast 100 million by 2012.

FIGURE 1

Worldwide Digital Pay TV Set Top Box Shipments by Device Type 2005 -2012 (M)



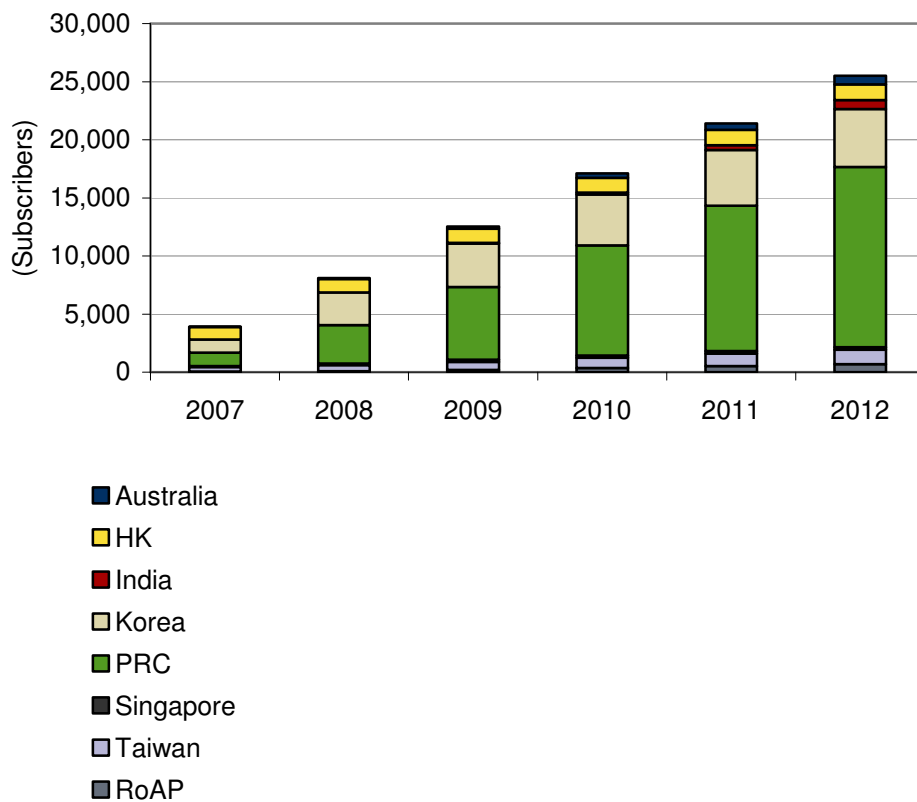
Source: IDC 2008

Within Asia Pacific (excluding Japan, "APEJ"), IPTV continues to make headway. New services have been launched in several APEJ markets and regulatory hurdles have finally been removed in Korea. However, in spite of advances made in key markets — most notably the People's Republic of China (PRC), Korea, Hong Kong, and Taiwan — the uptake of IPTV services in the remaining APEJ markets has been slower than expected as each market faces its own particular challenges in launching IPTV services. Business models have begun to emerge that have started to move away from the traditional pay TV service propositions focusing more on delivering additional and innovative features and services.

By the end of 2008, IDC estimates there will be 8 million IPTV subscribers within the APEJ region. Looking forward, by the end of 2012, IDC conservatively forecasts APEJ IPTV subscribers to reach more than 25 million. Depending on the specifics of each country in relation to broadband capacity, footprint, regulatory issues and business models, IPTV in the APEJ region could very well exceed this number in the forecast period. China and Korea will undoubtedly be the major players, in contrast to Australia which IDC estimates will have slightly less than 1 million subscribers (i.e. households) by the end of 2012.

FIGURE 2

IPTV Subscriber Forecast - Asia Pacific



Source: IDC 2008

IPTV Functionality and Service Capabilities

IPTV technology has rapidly evolved since the initial deployments in the early 2000's to achieve significantly greater levels of quality and functionality. Key to this is the IPTV Service Delivery Platform (SDP) which dictates the functionality and capacity requirements of the service. Most existing IPTV SDPs deliver content in standard definition format which requires download speeds of between 2 – 4 Mbps per channel being streamed. However, as the world moves toward High Definition, the capacity requirements increase significantly to 8 – 10 Mbps per channel being streamed. Apart from doing the obvious (i.e. streaming video), IPTV is generating much interest around the world because of the functionality and service capabilities of the IPTV SDP compared to that of its counterparts in traditional cable and satellite TV offerings. The key areas where IPTV exhibits advantages over its cable and satellite TV counterparts as well as Internet TV are:

- ☒ **Online Gaming** – Currently only available via either IPTV or games consoles with internet connectivity (for example PS3 and Xbox), online gaming is a significant value add to the IPTV product line up which will generate additional revenues very similar to the business model used by ISPs today. Verizon's FIOS is a good example of how online gaming can be deployed via an IPTV service offering.

- ☒ **Interactive/Intelligent Advertising** – Advertising which is embedded into the content programming is a powerful proposition. This is facilitated via an IP backchannel which allows the consumer to gain details about services or products which are being shown on the program (i.e. the sunglasses being worn by their favourite celebrity) and purchase the product. This offers service providers an additional advertisement/sales revenue stream on top of the subscription revenue.

- ☒ **Presence/Communication Capabilities** – IPTV is the perfect platform to bring unified communications into the consumer world by using the TV as the communication interface between two or more groups. Imagine being able to share your viewing experience with a friend or family member who is located elsewhere? IPTV enables users to keep abreast of family and friends movements with presence, voice and video communications capabilities built into the platform.

- ☒ **Customisable User Interface** – Via the single IPTV SDP, service providers can highly-customise their user interface to reflect their company branding or even offer this as a service to their customers for them to customise.

- ☒ **STB Vendor Agnostic** – A point of inconvenience for consumers of pay TV services is being tied to the STB which comes with their service. This means that consumers are essentially locked into using that service provider or face the expense of purchasing another STB. With IPTV, there are several STB vendors that are in the process of agreeing on a common standard so that the consumer can move between service providers and not incur any additional costs. This will eventually see STB thin clients (software based) embedded within the TV itself so that consumers simply need to activate the software to get access to the service.

- ☒ **Three Screen Services** – Because of the flexible nature of IP, service providers of IPTV can offer three screen services to its customers making sure that they have access to content and services via their TV, PC and mobile. AT&T are very active in this space and offer services where a customer can control household appliances via their mobile.

Due to the rapid evolution of IPTV SDP's over the last two years in particular, not all of these services are currently being used (for example the use of presence to create a consumer 'unified communications' environment). However gaming, advertising, three-screen services and customisable interfaces are commercially deployed and service providers are working on bringing the other attributes to the market. In this rapidly developing applications environment BSPs seeking to deploy IPTV solutions should consider all of the points as 'must-haves' – without them IPTV providers will struggle to truly differentiate themselves from their competitors.

Situation In Australia

Consumer Broadband Adoption

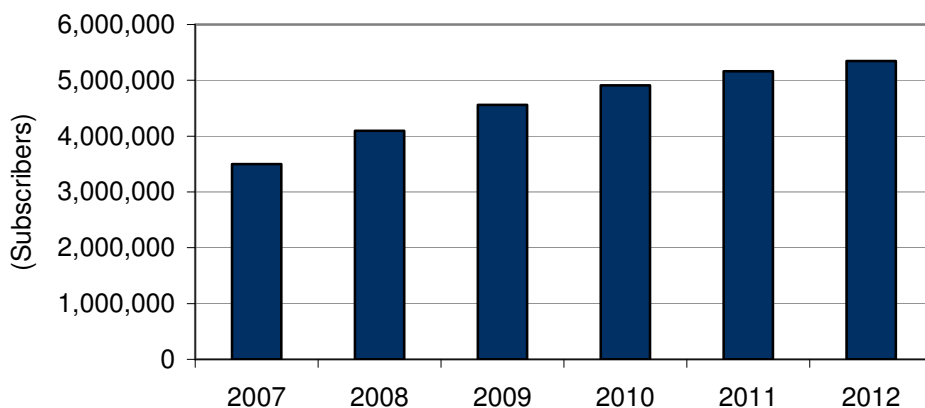
Australians are avid consumers of all things technological and this is no more evident than in the rapid take up of broadband for high speed internet access. Since 2003 consumer ADSL services have grown at a compounded annual growth rate (CAGR) of 77% and are expected to reach over four million services in operation by the end of

2008 (refer to Figure 3 below). As in the rest of the developed world, broadband has changed the lives of many Australians in relation to how we work and play. Broadband has become so important that it became a key election issue in the 2007 Australian Federal Election and when the new government delivers on its future broadband vision, Australia will soon have a robust fibre based broadband infrastructure which is planned to be rolled out between 2009 and 2013.

The National Broadband Network (NBN) proposes to deliver bandwidth capacity in excess of 12 Mbps to 98% of the population. The NBN also represents a potential restructure of the current broadband service provider (BSP) competitive market; where by default all BSPs (who choose to access wholesale services via the NBN) will have an equal standing in terms of capacity, functionality and footprint. Should the NBN deployment occur it will be crucial for those BSPs to be able to differentiate themselves from the competition and they will have far greater capacity capabilities with which to do so. Video on Demand (VoD) will undoubtedly be the low hanging application by which BSPs can differentiate themselves and drive additional revenue. However BSPs can do so much more in relation to sharing all forms of media and integrating with other communication platforms to differentiate themselves. This is what the promise of IPTV represents and the reason why it is growing exponentially at a global level.

FIGURE 3

Australian Consumer xDSL Subscribers



Source: IDC 2008

IPTV In Australia

There are currently only two variations of IPTV available being sold by BSPs in Australia. The first, and best aligned to IDC's previously stated definition of IPTV, is TransAct's pay TV service (TransTV), which it sells to its directly connected customers in select areas of the Australian Capital Territory (ACT). TransTV is a true IPTV offering because it uses a STB and delivers content via a TV. TransTV subscribers can choose from the Family Package available for A\$17.95 per month, Lifestyle Package for A\$12.95 per month, Discovery Package (A\$7.95 per month),

and from the Director's Choice package which allows subscribers to add individual channels to their lineup starting from A\$1.95 each per month.

The other variation is TPG's IPTV offering which has been available since early 2007. TPG's IPTV offering does not use a STB and offers no means to control the service (i.e. change channels) other than via the PC, hence the product is more aligned with Internet TV. IDC believes that this approach does not provide the requisite quality, functionality and flexibility that can be attained via the IPTV STB/device interface approach but is a good first step towards true IPTV. As consumers become increasingly sophisticated in their consumption of media and content, BSPs will need the capability to add more and more value added services. (Refer to the 'Free' IPTV Case Study at the end of this White Paper). IDC estimates that between the two BSPs (TransAct and TPG), IPTV subscriber numbers in Australia at the end of 2007 were 43,000.

As Figure 3 above demonstrates, there are more than enough consumer ADSL subscribers in Australia to warrant the deployment of an IPTV service. Once the NBN has been established there will be sufficient infrastructure to support IPTV service delivery en-mass in both high and standard definition depending on the geographic location (i.e. high definition in metro/major regional and standard definition in regional and rural areas).

To date there is no clear understanding of the exact role of the proposed NBN owner and what services will be provided from a wholesale perspective other than access. Hence, BSP's need to plan how they will differentiate themselves from a services perspective when the NBN becomes active. This brings us to the question of which BSPs are best positioned to deploy IPTV and what is the best overall business model. The answer to this question is based heavily around the current broadband subscriber ownership and their respective existing pay TV alliances.

When discussing Australian IPTV business models, the consumer ADSL broadband subscriber market ownership is best divided into two parts: Telstra and 'Other' (refer to Figure 4 below). Due to Telstra's majority ownership of Foxtel, Australia is somewhat unique when it comes to IPTV business models. In most cases around the world (Europe and America in particular), the incumbent telco does not have an ownership stake in the cable TV market. In fact, incumbent telcos are being forced to deliver a media/TV strategy in order to stave off competition from the cable and satellite service providers as they expand their product offering to include both voice and internet data services.

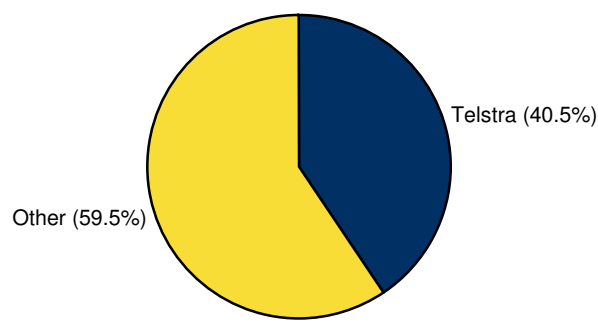
Since its inception in 2004, Foxtel has acquired over 1.1 million subscribers predominantly using the Telstra HFC cable and satellite infrastructure. Over this time there has been a non-compete clause between Telstra and Foxtel which essentially means that neither of the two entities will offer a competing service to their respective core product offerings. This non-compete clause will cease to exist in late 2008 which means there will be no legal reason why Telstra or Foxtel can not offer an IPTV service. Once the NBN has been built, Telstra and Foxtel will be free to consider a range of service and product options in relation to the delivery of IPTV style services. At it's most basic level Telstra or Foxtel may simply offer Foxtel via the new broadband infrastructure without any added features integrating the voice and internet platforms.

IDC believes that in order for the 'Other' BSPs to be successful in their IPTV strategy they will need to offer a service which is at a minimum technically comparable to

Foxtel's STB in relation to DVR and general functionality. However, instead of simply trying to replicate Foxtel from a content perspective, BSPs will need to leverage their Internet heritage and communications platforms as a point of difference. This could come in the form of a dedicated YouTube channel or a interactive social network channel which links in to My Space or Facebook. IDC believes the best business model by which to do this is for the BSPs to combine their resources and create an entity which is dedicated to delivering an IPTV solution for all BSPs.

FIGURE 4

Australian Consumer xDSL Market Share (000's)



Total = 3,501

Source: IDC 2H2007

White Label IPTV In Australia

Taking into consideration the experiences and evolution of IPTV offerings in Europe, it has become very clear that a fragmented model in which multiple or the majority of BSPs deploy their own IPTV SDP for a limited number of subscribers is not the most efficient model. This raises issues with service delivery and support as well as cost effective content acquisition and the ability attract high levels of advertising/sponsorship revenues. As stated previously, IDC believes that the most sensible approach to IPTV in Australia should be via a combined commitment from the 'Other' BSPs, which would essentially be to create a 'white label' or wholesale based IPTV service provider. In this model the white label provider would be responsible for acquiring content, maintaining and delivering the necessary back-end support services for the BSP's so that the BSP's can focus on doing what they do well. Examples of the functions of the 'white label' provider are:

- Subscriber management and authentication systems
- Content acquisition / aggregation
- Content encryption and decryption (using a common content repository)

- ☒ Standardised interfaces for service integration
- ☒ Support of service subscription and bundling
- ☒ Support for multiple service providers using a common portal framework

With the back-end systems and support operations consolidated to the 'white label' provider, the costs for service delivery are amortised across the partners providing for a highly cost effective service. Even more critical to the amortised cost structure is the ability to negotiate for content on behalf of all the partners ensuring that the service offers the latest and greatest content available. Figure 5 following provides an overview of the 'white label' IPTV value chain, which can be grouped into three 'pillars', all of which relate to different aspects of the white label/ BSP environment.

The first pillar combines aspects of Content – specifically creation, ownership, aggregation and management. This is the domain of the White Label service provider. In this area, the entity can achieve far greater economies of scale, sourcing and co-ordination of content as well as oversight of all content activity (for example DRM, advertising, data analysis, etc).

The second pillar supports and enables service management whereby the White Label provider can facilitate different branding, 3rd level technical support, marketing and portal activities for the BSPs. This is a critical area as it is here where BSPs can begin seeking their own points of differentiation from other providers also sourcing from the White Label group.

The final pillar is where the BSPs provide support to its customers. The BSPs provide delivery (access, CPE, 1st and 2nd level support) and an appropriate interface (for example via a STB or a home hub or gateway).

FIGURE 5

IPTV Value Chain



Source: IDC, 2008

CHALLENGES/OPPORTUNITIES

In this section IDC discusses the challenges and opportunities which IPTV represents to BSPs in Australia once the NBN has been established.

Key challenges are:

- ☒ **Desire to Change:** Moving from a pure bit pipe play to a value added services play will be one of the hardest challenges for BSPs. The completed deployment of the NBN will force BSPs to consider new business models - the pure bit pipe play providing basic access with download data quotas will become a commodity product with wafer thin margins. At that point BSPs will face a stark choice – low margin, high commodity or look to value added services like IPTV to grow their business. However, BSPs must be willing to embrace new models early as their ability to manage their environment once the NBN is deployed will be heavily constrained.
- ☒ **Content Sourcing / Pricing:** Many organisations new to the media industry have learnt the hard way that it is not a simple business. To their chagrin telecommunication service providers have also experienced difficulties in understanding the media and content 'rules' and industry dynamics. The sourcing and pricing of content will be critical to any deployment of IPTV. In relation to content pricing, it is fundamentally important to achieve economies of scale replicating the 'studio buying power' to enable the BSPs to achieve cost effective price points. Without this aspect under control the ability for individual BSPs to strongly compete with larger more established media providers (cable, satellite or others) will be limited. This reinforces the need to have a white label entity whose role it is to champion this on behalf of the partners and provide a single body to help achieve greater purchasing efficiencies and control.
- ☒ **Intelligent Networks:** Scalability and reliability with guaranteed QoS will be a challenge for BSPs deploying IPTV services. Service-aware networks are essential to guaranteeing high-quality end-user services. IPTV, multimedia telephony and other real-time services will require multiple layers of QoS and CoS (Class of Service) very similar to enterprise grade IPVPN services today. Broadband networks are typically designed to deliver access to a single service, the Internet, as opposed to a range of managed services. This requires a fundamental shift in network design and capability for broadband service providers wishing to compete in the NBN of the very near future.
- ☒ **Service Deployment:** End-users are becoming more technology savvy and au-fait. However, BSPs will not be able to abdicate responsibility for service setup. Any major deployment which requires the end user to connect a STB to their broadband router and then to their TV will need support – either via truck rolls and/or dedicated phone support. This again reinforces the need of a single white label entity to manage the deployment and set-up of the service.

Key opportunities are:

- ☒ **Advertising Revenues:** BSPs can avail themselves to an additional potential revenue stream – advertising. Advertisers are increasingly aware that technology allows viewers to bypass ad copy (perhaps finally destroying the truism that only half of the money spent on advertising is wasted). IDC believes that BSPs will be in a strong place if they can combine the IPTV viewing and Internet browsing

habits of their subscribers with new IP monitoring applications to provide highly targeted and relevant advertising to discrete IPTV audiences.

- ☒ **New Business Focus:** Many service providers around the world that have deployed an IPTV service have quickly become more focused on the media business model than their traditional offerings. This is especially the case in countries where both voice and access services are commoditised and offer very slim margins. IDC believes that this presents an opportunity for BSPs to expand their growth options.
- ☒ **Unified Communications to the Masses:** A great opportunity and a unique selling proposition to IPTV is the ability to deliver unified communications (UC) to the masses. Presently UC is a service which resides within the business communications market and essentially has no vehicle to be delivered to the consumer. IPTV offers the ability to do this by merging the communications platforms of BSP's with the content delivery platform. Presence, instant messaging and even video calling with people within your "community" will become a reality for subscribers of IPTV. UC via IPTV represents both a value added revenue stream (i.e. premium calling charges for video calling) and a layer of stickiness for BSPs to reduce churn.
- ☒ **Clipping the Ticket:** Most BSPs are having to deal with the issue of their customers downloading copyright protected content via torrent or other similar peer to peer websites. Consumers do this because they want a more advanced TV viewing offering which caters for their needs in relation to time shifting and preference of content viewing. This causes a strain on the BSPs networks and hikes up the cost of being a BSP. By deploying IPTV, BSPs will be able to better understand their customers needs and sell the content to them instead of being (unwilling) bipartisan entities in the global piracy debate.

CONCLUSION

As is the case in the rest of the developed world where ADSL2+ or better broadband infrastructure exists, IPTV offers massive potential for telcos and ISPs to increase ARPU and reduce customer churn.

Once the NBN has been established and all BSPs have an equal footing in terms of service capability, it will be important for the 'Other' BSP market to be able to differentiate themselves or risk being squeezed out of the market once access becomes a commodity.

IDC believes that a "collaborative" approach to the deployment of IPTV in Australia via a separate white label or wholesale entity will prove far more successful than a fragmented approach where each BSP attempts to scope, build, deploy and manage their own IPTV solution. A successful IPTV business model in Australia will rely squarely on the ability to acquire and deliver high quality content with additional interactive communication hooks by leveraging the flexible nature of IP.

CASE STUDY

Free, France

Free started out as an internet service provider in France in 2001 and is a great example of where a Service Provider in a commoditised market has managed to drive subscriber growth and ARPU with an IPTV deployment. Free has been a very aggressive player in the French broadband market and is second to France Telecom in terms of overall broadband subscriptions being 2.8 million at the end of the calendar year 2007 (with 32% year on year growth which is 10% higher than France Telecom).

Free developed its own multimedia STB with the aim of providing value added media services on top of the pipe. Free's offering has since evolved to become a very comprehensive service solution with HD DVR, 802.11 N wireless and USB external hard drive connectivity capabilities (the HD Freebox was launched in mid 2007). Free supplies its "Freebox" STB with all broadband connections which come via both ADSL2+ and FTTH (fibre to the home) technologies. Of their 2.8 million subscribers, over 40% have subscribed to the HD Freebox in the last year. Even more impressive than their CPE gateway offering is the service plan which comes with the Freebox. Below is a summary of the basic Free package which is sold for €29.99 per month:

- ☒ Free National Calls and Free International Calls to 70 destinations
- ☒ Over 30 Telephony services including voicemail and standard PSTN functionality (Free offers number portability and geographic number allocation)
- ☒ Unlimited downloads via a 22 Mbps download / 1 Mbps upload connection
- ☒ Access to 250 TV stations (100 of which are broadcast quality and can be recorded via the DVR)
- ☒ Access to over 1000 VoD movies and various radio and concert streams
- ☒ Unlimited web email and 10GB of personal data storage

Going forward, Free will continue to invest in its access infrastructure with plans to invest US\$1.4 billion in fibre technology. By deploying a media focused strategy, Free have managed to move away from being a commoditised internet access provider to a true value added services player. This is the morphing of business models which IDC believes will be required for Australian BSPs in the near future as a result of the NBN.

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