

Turn to another channel

Positioning telecoms companies for success in IPTV

Innovate don't imitate



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Foreword

Digitisation is driving a new wave of convergent business and entertainment services, all of which are dependent upon telecommunications services and access to networks. Yet telecoms companies, despite their indispensable role in delivering these services, are struggling to cash in on the opportunities. Although new offerings such as Internet Protocol Television (IPTV) could not exist without broadband networks, the price for high speed internet access continues to tumble. This leaves telecoms companies with a stark choice. They must either find a way to make the traditional access-based business model work, or create new services that capitalise on their networks to create sustainable competitive advantage.

This report focuses on the latter approach. Using IPTV as an example, it argues that telecoms companies must innovate – rather than imitate – in order to succeed in the convergence battle.



David Tansley
Partner
Deloitte & Touche LLP



Executive summary

Digital convergence is redrawing the battle lines between technology, media and communications, and fixed-network operators are caught in the crossfire. Although they provide the essential infrastructure to enable and deliver convergent services, when it comes to profiting from the convergence they often find themselves on the outside, looking in. For example, the internet has become an important new channel for selling and distributing music, but most fixed-network operators don't receive any incremental value from the transactions. At the same time, they find themselves being squeezed from both sides as mobile telephony and Voice-over-IP (VoIP) steadily encroach on their traditional business.

To capitalise on the convergence trend, fixed-network operators must establish a position in the value chain that allows them to capture their fair share of the rewards. That means developing new services and business models that put broadband networks at the centre of value creation, and leveraging their existing capabilities to own and control the customer relationship.

IPTV – using broadband networks to deliver TV programmes and related services to a television set – presents an immediate opportunity for operators to put this new strategy into action. For consumers, IPTV can combine the advantages of the internet – including global reach, a highly interactive user interface, and a vast repository of content – with the relaxing 'lean back' viewing experience that has made television so popular. Unfortunately, most IPTV services to date are little more than clones of traditional TV offerings, and don't provide consumers with anything that is particularly new or compelling.

For IPTV to be viable, fixed-network operators must improve the reach and richness of IPTV services. IPTV's reach is constrained by the number of people with broadband connections and the necessary hardware to receive IPTV programming (e.g. a set-top box, or a PC linked to the TV set). To improve this reach, operators may need to offer subsidies that make the initial equipment purchase more affordable in exchange for long-term contracts – an approach that has been proven effective in the mobile phone industry.

To improve IPTV's richness, fixed-network operators could position the service as an affordable way for traditional and non-traditional content providers to deliver content to the masses – without the network middleman. This value proposition would appeal to major media companies that want to deliver content directly to consumers in a highly targeted and affordable way. But it might be even more attractive to niche content providers that lack the scale to use traditional mass distribution channels. The growing popularity of websites such as YouTube.com, which offers a wide variety of short video content contributed by individual users and other non-traditional providers, proves that consumers are interested in this type of unconventional material.

Reducing the barriers to entry for consumers and content providers would help create a critical mass of viewers and content for IPTV. It would also enable fixed-network operators to capitalise on their core capabilities in areas such as customer management, billing and fulfilment – capabilities that most content providers currently lack. This central position in the IPTV value chain would allow fixed-network operators to capture a share of every transaction, and would prevent their critical network infrastructure from becoming a commodity.

Introduction

Conventional wisdom suggests the retail fixed-network business is in decline. Whilst technology companies such as Google and Yahoo! have been able to cash in on digital convergence by converting clicks into revenues, retail fixed-network operators find themselves saddled with inexorably declining prices, increased competition for customer ownership due to local-loop unbundling, and categorisation as slow-growth utilities. In fact, a number of market trends – including increased adoption of VoIP, and mobile phone calls gradually replacing fixed calls – are forecast to cause fixed-network operators to suffer a net loss from the move toward convergence.

One way that fixed-network operators are responding to this challenge is by launching IPTV services: using broadband data networks to deliver television programmes and related services to a television set. Their goals are to increase broadband customer retention while creating new sources of revenue growth from TV-related offerings. However, this strategy places them in direct competition with traditional TV satellite, cable and broadcast companies, who are all busy targeting the same customers and revenue opportunities. In order to capitalise on IPTV, fixed-network operators must take advantage of their unique strengths and market position to secure a favourable place in the IPTV value chain.

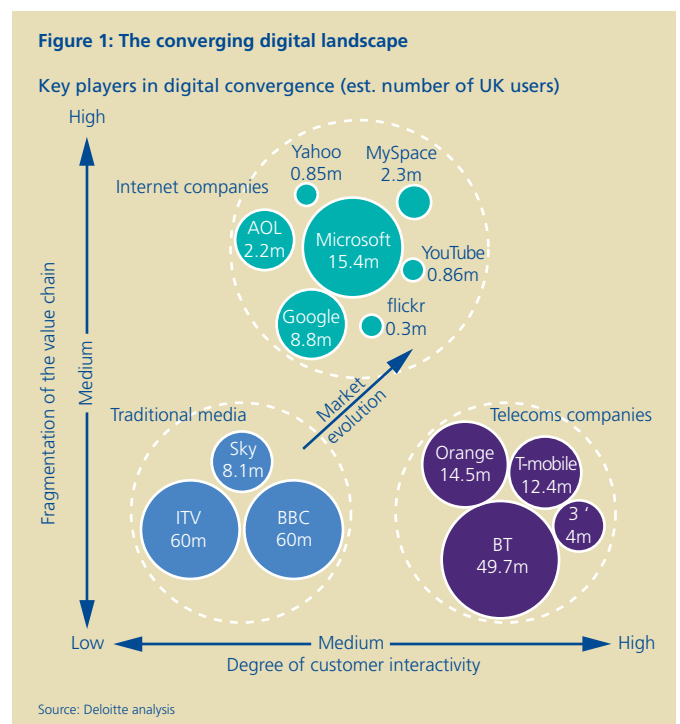
Fixed-network operators getting squeezed

The market for providing digital communication and media services is becoming increasingly crowded. In the past, telecoms, media, and technology companies operated in relatively independent environments. But now, the combination of value chain fragmentation and increasing demand for customer interactivity is forcing these companies into direct competition for ownership of the customer (see Figure 1).

The main problem for telecoms operators is that the value of network ownership is expected to decline in the years ahead. Forecasts predict that the combined share of network-related revenue captured by fixed and mobile network operators in the UK will fall from 28 percent today to 20 percent in 2012. A detailed analysis of these forecasts suggests that fixed-line network operators will be hardest hit by convergence (see **Show me the money** on page 4). Their total addressable revenues are already in decline due to increased competition and substitution of fixed calls by mobile, and are expected to be cannibalised even further by VoIP services.

Telecoms companies are adopting a two-stage strategy in response to the threats from convergence.

- The first stage is to establish and reinforce their position as the providers of choice for all of a customer's communication needs. Examples include the recent moves by mobile operators into the fixed line and broadband space, and the trend towards 'free' broadband propositions.
- The second stage of the strategy is to offer entertainment services – both to PCs over broadband and to TV sets via IPTV – enticing customers with triple or even quadruple-play service bundles. By providing interactive media to television sets, telecoms companies hope to open up the television market to internet-based service delivery.



Show me the money

Convergence is creating new financial threats and opportunities for companies across the technology, media, and telecoms landscape. By analysing industry forecasts from across this landscape, it is possible to build a consensus view of what the revenue impacts are likely to be, and where they are most likely to occur.

Convergence threatens traditional business models by giving consumers greater control over the media and communications they use, often at a lower cost. Some convergent services, such as video-on-demand (VOD), are largely **additive** – increasing the size of the total market. Others, such as digital downloads and VoIP, are largely **cannibalistic** – replacing current offerings with cheaper substitutes that reduce overall revenues. According to our analysis, convergence is likely to hit fixed-line operators the hardest, with VoIP steadily eroding the market for traditional fixed-line communications (see figure 2).

Figure 2: Show me the money industry forecasts

UK telecoms and media consumer revenues '05 and '12 (£bn)



Note on categories:

Fixed line: Traditional – fixed calls and access, dial-up internet and broadband; Convergent – VoIP.
 Mobile: Traditional – voice/sms; Convergent – mobile content.
 Filmed entertainment: Traditional – TV license fee and subscription revenues, box office receipts, DVD/VHS retail and rental; Convergent – IPTV revenues, PPV and VoD.
 Recorded music: Traditional – CDs and physical sales; Convergent – online music downloads.
 Video games: Traditional – consoles and software sales; Convergent – online gaming subscriptions.
 Advertising: Traditional – TV including product placement and sponsorship, magazines, newspapers, radio, screen, outdoor; Convergent – online advertising, mobile advertising.

Source: Deloitte analysis based on various 3rd party research

What is IPTV?

The exact definition of **IPTV** (Internet Protocol Television) is still evolving; however, the term broadly refers to television and video services delivered to viewers over a high-speed data connection using Internet Protocol (IP). This report applies a more precise definition of IPTV that focuses specifically on services **delivered to a TV screen**. TV and video services delivered to a PC or mobile device, rather than a television set, are referred to here as **broadband TV** or **mobile TV** respectively.

IPTV can be implemented by connecting home PCs to television sets, or through connecting television set-top boxes to the internet via a high-speed broadband connection. Tivo, a leading provider of PVR services in the United States, offers a service called TivoCast that delivers internet-sourced content tailored to TV sets from websites such as Heavy.com and iVillage. Meanwhile, Apple has recently launched its Apple TV device, which allows wireless access to iTunes' videos on your TV screen.

The distinction between IPTV and broadband TV is important for telecoms companies. With IPTV, telecoms companies will generally own and manage the customer relationship and control the content. With broadband TV, telecoms companies typically just operate and manage the network.

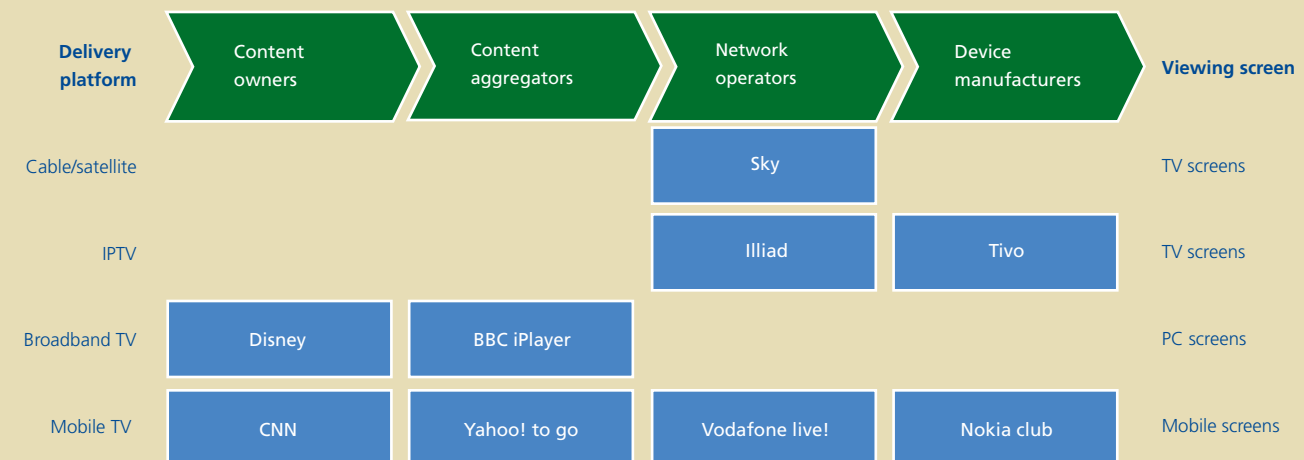
Owning the customer relationship for online content and services is the key battleground for companies across the IPTV value chain. Different service delivery models offer different options for providers to own this relationship (see Figure 3).



Most TV services are currently delivered over closed, proprietary systems such as cable, satellite, or terrestrial broadcasting networks. But as more consumers gain access to these types of services over the internet, traditional operators may be forced to offer a more open and interactive internet-based service in order to remain competitive. The risk with open models such as broadband TV is that customers could ultimately control who delivers and manages their content. Current IPTV offerings fall somewhere in the middle, expanding the variety of content and services that consumers can access through their television sets, while limiting them to selected providers.

Figure 3: Interactive TV delivery models

Examples of content customer relationship owners by delivery platform



Source: Deloitte analysis

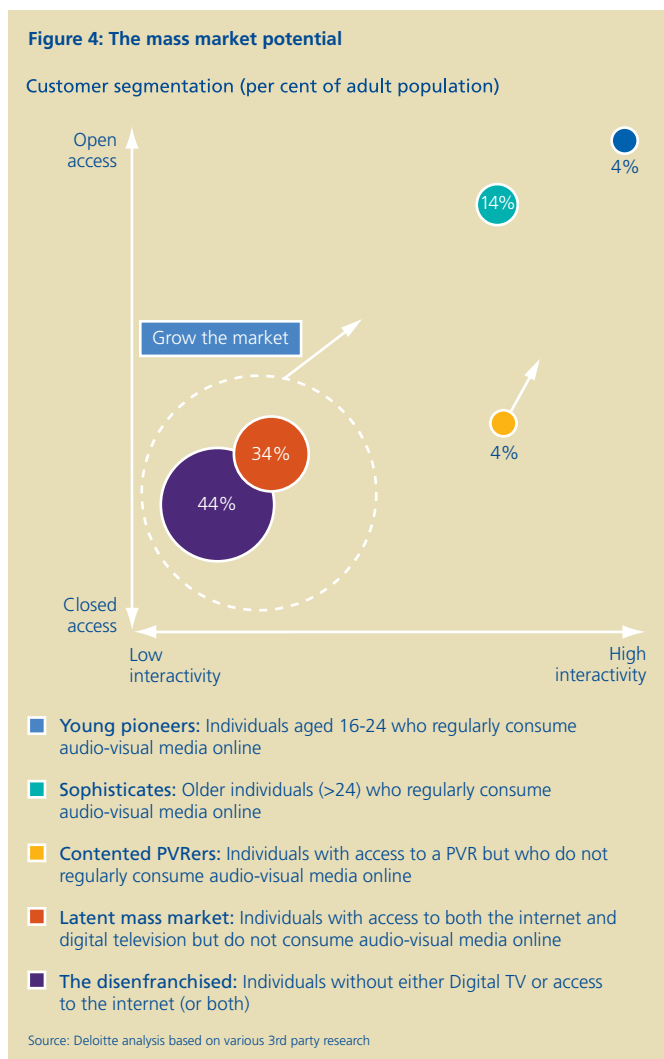
Why IPTV?

In principle, marrying broadband and online content with the television set seems like a winning proposition. It combines the internet's advantages – global reach, a freely interactive user interface, and a vast repository of content – with the relaxing lean back viewing experience that has made television so popular with the masses. Over the long term, as broadband penetration increases and more content is uploaded and distributed via the internet, this attractive combination seems inevitable.

TV and video content is already available on the internet – through PCs – but its appeal is limited. PCs are usually situated in an inconvenient location for TV viewing, and typically lend themselves to a lean forward rather than a lean back viewing experience. Despite this inconvenience, research shows that 1.7 million people have watched live television on the internet, and 1.6 million have downloaded a programme to watch later¹. By the time this report is published, those numbers are sure to be even higher, suggesting a genuine demand for TV content delivered over the internet.

A significant part of this demand is coming from younger viewers (16-24 year olds) who according to a recent Ofcom report are moving away from traditional linear media in favour of online services². Most of these services are currently designed for lean forward PC viewing, but over time it seems likely that many young users could be drawn back to the TV screen – assuming providers offer them the right type of interactive services.

The opportunity for combining the TV with internet access and functionality can perhaps best be described by reference to changing customer behaviour. At the moment, less than 15 percent of the UK population owns a personal video recorder, or regularly consumes audio-visual content over the internet. If IPTV can be packaged and delivered in a simple and compelling way, it could move a whole generation of media consumers into the internet age (Figure 4).



1. Source: The Business 26th June 2006

2. 16-24 year olds spend on average 21 minutes more online per week and over 7hrs less time watching TV than the general population – Source: The Communications Market, Ofcom, Aug 2006

‘Me too’ is not enough

Although the idea of combining TV and the internet seems attractive, the IPTV offerings to date have not been particularly differentiated. Most are modelled after existing TV services and offer a standard set of broadcast channels – equivalent to Digital Terrestrial TV – combined with limited video-on-demand and ‘catch up’ TV services which offer a selection of the week’s popular programmes. This initial value proposition doesn’t appear to offer anything sufficiently new to tempt significant numbers of customers away from traditional TV services.

Established business models are rarely the best mechanism for capitalising on growth from digital convergence. And for IPTV in particular, competing on a ‘me too’ basis against the established

players, many of whom own the rights to exclusive content, is unlikely to succeed. After all, IPTV is limited to broadband-enabled TV households, so it doesn’t have the reach of traditional television. In order to compete, it must take advantage of the interactive broadband connection to deliver content and services that are richer and more personalised than traditional TV offerings.

A number of European telecoms companies have started or are planning to offer IPTV services through either a full DSL or hybrid proposition which combines Digital Terrestrial Television broadcasts (DTT) with a Set-top box (STB) / Personal Video Recorder (PVR) and limited on-demand services via broadband (Figure 5).

Figure 5. Example European IPTV offerings

Company/ product offering	Country	Technology	Special features	Comments
Hybrid				
BT	UK	<ul style="list-style-type: none"> • DTT STB/PVR • VoD services via quality-assured DSL 	<ul style="list-style-type: none"> • VoD – centrally stored library of movies, music, kids shows • Catch-up TV • Communication services: IM, chat, web-control of PVR • Some non-exclusive premiership football 	Freeview hybrid means that revenue streams may be limited to VoD in the short term
Orange/Wanadoo	UK	<ul style="list-style-type: none"> • DTT STB/PVR • IPTV services via broadband 	<ul style="list-style-type: none"> • Catch-up TV • Content line-up tbd 	Wanadoo being rebranded Orange in a new quadruple play
Deutsche Telekom	Germany/ France/ Spain	<ul style="list-style-type: none"> • DTT STB/PVR • IPTV services via broadband 	<ul style="list-style-type: none"> • T-Online/Club internet (France) have announced 1000 VoD and 150 TV channels, and ‘picture in picture’ capability 	Deutsche Telekom is using Microsoft’s IPTV technology in the biggest MS deal to date
Full DSL solution				
Fastweb	Italy	<ul style="list-style-type: none"> • IPTV STB 	<ul style="list-style-type: none"> • Access to live Italian football • Only available as triple play bundle 	EU ruling permits access to BSkyB Italia’s premium content on a wholesale basis
FT Group	France	<ul style="list-style-type: none"> • IPTV STB 	<ul style="list-style-type: none"> • Free access to specialised bouquets of channels • On demand (pay) programmes and movies 	IPTV particularly attractive in France because 40% of homes cannot receive cable or satellite

Source: Deloitte analysis

Making IPTV work by leveraging network operator capabilities

Based on current offerings, some industry analysts expect the uptake and profits from IPTV to be limited³, particularly in light of the significant investments that are likely to be required in network hardware, customer premises equipment, engineer installation, and marketing. For fixed-network operators, the main benefit appears to be reducing churn among existing broadband customers by offering them additional TV services and PVR functionality. Yet even this advantage is being undermined by recent offers of 'free' broadband service, combined with the availability of low-cost standalone Freeview and PVR boxes.

Network operators are already having trouble competing head-on with established television companies. Despite their huge investments in networks and technology, operators seem content to compete predominantly on price, whilst other media and internet companies reap significant returns through competing on value-adding services.

To fully exploit the opportunities in IPTV – and to stimulate sustainable and profitable growth – network operators must take advantage of their strengths by devising innovations that take advantage of their core capabilities in network and customer management to create truly differentiated services.

Next-generation networks, such as BT's 21st Century Network in the UK, offer built-in capabilities that promise to enhance the services which run on the network. These capabilities could include:

- Directory and search.
- Authentication and billing.
- Presence and location.
- Storage and archiving.
- Content ingestion and reformatting.
- Access and security controls.
- Quality of service and bandwidth on demand.

Telecoms operators could develop internet-based TV services that leverage these capabilities, thereby differentiating themselves from their non-network competitors, and creating a wide range of revenue streams from content to advertising to communications to retail.

3. Source: 'Making Broadband Triple Play Profitable', Forrester, 2006

IPTV opportunities for fixed-network operators

Today's television offerings are generally limited by a trade-off between richness and reach. Broadcast TV reaches a huge audience, but the viewing experience is limited and non-interactive. Broadband TV and mobile TV offer a rich and interactive experience, but the audience is limited and highly fragmented. IPTV has the potential to eliminate this trade-off by combining the richness of broadband with the unmatched reach of television; however, for IPTV to achieve the required critical mass, telecoms companies must find ways to reduce the barriers to entry for consumers and content providers alike (see Figure 6).

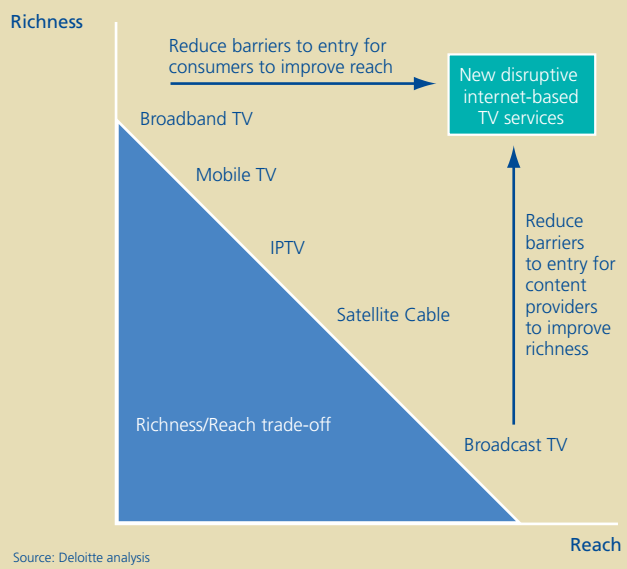
Eliminating the network middleman

At the moment, the only way for traditional TV content providers to develop direct and fully interactive relationships with their end customers is to deliver content to PC screens over the internet. Although this delivery model is growing in popularity, it is clear that many of these content providers would prefer to build direct relationships via their consumers' favourite viewing medium – the TV screen.

Fixed-network operators could use IPTV to offer content providers a direct and managed route to market, in exchange for a share of revenue. They could also leverage their CRM capabilities – such as fulfilment, assurance, and charging for on-demand content on the phone bill – to support the commercialisation of content. Most content companies do not have the processes or infrastructure to support these critical on-demand business functions.

Figure 6: Breaking the richness/reach trade-off

The richness/reach trade-off



Turn to another channel

Positioning telecoms companies for success in IPTV

Creating a new mass medium for non-traditional content

Major media companies are not the only content providers that could benefit from a direct route to the TV screen. IPTV could also be attractive to individuals and businesses that produce niche video content. This emerging category of online video clips ranges from basic home videos to highly professional productions. And though the volume is currently small compared to traditional TV content, the popularity is growing by leaps and bounds⁴ – particularly amongst the youth market.

Companies such as Current.tv are already experimenting with broadcasting user-generated online video clips via traditional TV platforms. However, telecoms companies could offer content providers a similar but more compelling route to the TV screen via interactive broadband. In theory, broadband services to the TV would allow complete fragmentation of the audience, making it attractive to providers of niche content for whom the economics of traditional TV distribution do not make sense.

A company called ITVN is currently offering these types of niche services through a proprietary set-top box solution. Content bundles cater to specific communities of interest (for example, Lacrosse TV for consumers interested in lacrosse). These niche solutions could also be used to serve closed user groups, such as families and friends who want to share personal video clips or make video phone calls.

Other IPTV revenue streams

IPTV could also help telecoms companies access new forms of revenue from network-dependent services such as content, advertising, communications, and retail.

- IPTV providers expect to generate revenue from video-on-demand for mainstream content. These revenues could be bolstered by offering on-demand capabilities to smaller niche content providers as well as traditional large media companies.
- Interactive advertising could be another significant source of revenue from IPTV. Customers could be enticed to provide demographic and life style information in exchange for cheaper access to content and services. This information could then be aggregated and delivered in real time to individual advertisers looking for a greater return on their marketing investments. A company called Narrowstep currently offers advertisers a tailored, interactive service that targets niches of broadband PC users with specific TV content (e.g. Martial Arts TV). These services can garner a Cost Per Thousand (CPM) of \$150, which is more than seven times higher than traditional TV⁵.
- Fixed-network operators could also differentiate their services by offering TV customers new types of communication services – for instance, SMS-style communication accessible via a standard TV remote control.
- Core capabilities in customer management, authentication and billing could also be used to capture a share of the revenue generated by new forms of TV-based retailing. The internet currently accounts for 12 percent of total retail spending in the UK, and some forecasts predict that number could climb to almost 20 percent by 2011⁶. There may be enormous potential in an eBay style home-shopping TV channel that offered video clips of various products and services, and could be personalised to individual tastes and budgets.

“Broadband TV and mobile TV offer a rich and interactive experience, but the audience is limited and highly fragmented. IPTV has the potential to eliminate this trade-off by combining the richness of broadband with the unmatched reach of television.”

4. youtube.com nearly doubled its traffic in May, 2006 reaching almost 13m visitors. Source: comScore

5. Source: “The Dawn of the Narrowcasting Age”, Iolo Jones, CEO Narrowstep

6. Source: Forrester, 2006

The first step: Creating a mass audience for IPTV

The addressable market for IPTV is constrained by internet penetration. In the UK, internet penetration is approximately 57 percent and growth appears to be stagnating⁷. In a recent survey by the Office for National Statistics⁸, the most popular reason given for why UK households don't have internet access is because equipment and access costs are too high.

To stimulate growth of IPTV, fixed-network operators not only need to access content (as discussed above), but they also need to make the service more accessible to price-sensitive consumers. One way to do this would be to subsidise device purchases in exchange for long-term contracts – a technique that has proven very effective in the mobile sector.

Different types of devices will likely appeal to different customer segments. For example, Microsoft's Media Center PC is likely to be an expensive option which would suit those customers who are comfortable accessing both PC and TV functionality over the same screen. A more appropriate model for many households may be to provide a subsidised PC or set-top box, capable of supporting network-dependent TV services and serving them to a TV screen. This could allow for both lean forward and lean back activities and may also improve customer stickiness by turning the PC from a product into a component part of a wider communications and entertainment service offering.

Such an approach might encourage the significant proportion of the UK population who don't regularly consume audio-visual media online to start to access internet-based content. Pay-TV tends to appeal to lower-income demographic households – for many of these consumers, a simple and easy to use IPTV service may be the first introduction to the benefits of internet-based content delivered via broadband.

Growing and protecting broadband revenues is becoming increasingly important as new entrants, media and mobile players compete with the telecoms companies over access to the home. Ownership of this access point is considered strategically vital to offering future broadband and content services.

“A more appropriate model for many households may be to provide a subsidised PC or set-top box, capable of supporting network-dependent TV services and serving them to a TV screen.”

7. Internet penetration grew by only 2 percentage points from 2005 to 2006

8. 'Internet access', ONS, Aug 2006

Conclusion

Convergence is a double-edged sword, offering both threats and opportunities to companies in technology, media and telecommunications. All too often, telecoms companies have found themselves receiving the sharper edge of convergence. And with IPTV, if they continue to pursue a 'me too' strategy, their situation is unlikely to change.

The future of IPTV remains uncertain, and there are many questions yet to be answered. Who will own the home gateway? How will the various technologies fit together? Which customer segments will demand which types of services?

Despite these open issues, one thing is clear. If telecoms operators want to become the leaders in IPTV, they must be innovators, rather than imitators. By putting their networks at the centre of the IPTV value chain, and by taking advantage of their core capabilities in areas such as customer management and billing, telecoms operators have an opportunity to position themselves for success whilst rendering traditional linear TV service models increasingly less relevant.

Contact details and further information

For further information, please contact:

Jolyon Barker
+44 (0) 20 7007 1818
jrbarker@deloitte.co.uk

Ed Shedd
+44 (0) 20 7007 3684
eshedd@deloitte.co.uk

David Tansley
+44 (0) 20 7303 7195
dtansley@deloitte.co.uk

Tony Cooper
+44 (0) 20 7007 7856
tonycooper@deloitte.co.uk

Tim Willey
+1 408 704 5044
tiwilley@deloitte.com

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