IPTV Monitor—Issue 4

Produced by Accenture and the Economist Intelligence Unit

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The IPTV Trends Tracker

Written in cooperation with the Economist Intelligence Unit

The IPTV Trends Tracker, produced by Accenture and the Economist Intelligence Unit, summarises major trends at work in the global IPTV industry and provides selected examples from around the world to illustrate them.

Western Europe's operators now lead the world in IPTV rollout as they seek to retain customers in saturated broadband markets and offer audiovisual content as part of a triple-play package.

- In Western Europe, established operators dominate the IPTV market: France Telecom, Telefonica, Swisscom, TeliaSonera, Deutsche Telekom, Telecom Italia and Belgacom are among incumbent operators to have launched IPTV services.
- An IPTV pioneer, PCCW's subscriber growth is slowing in the small and competitive Hong Kong market; nevertheless the operator boasts around 750,000 IPTV subscribers.
- France Telecom nearly tripled the number of its IPTV subscribers—from 200,000 at the end of June 2006 to 590,000 across Europe by the end of December 2006, of which 577,000 were in France—partly by simplifying branding and pricing for its triple-play offer.
- Indian operator MTNL has ordered IPTV equipment with plans to eventually offer a television service for its four million broadband in New Delhi and Mumbai.
- In the United States, meanwhile, AT&T and Verizon continue their nationwide IPTV and fibre network deployments.

As the number of companies moving into online content delivery grows, so competing offers to IPTV are becoming more sophisticated.

- Two start-ups whose founders have venerable histories—Babelgum, headed by Silvio Scaglia who started Italy's Fastweb, and Joost, begun by Niklas Zennstrom and Janus Friis of Skype fame—plan to introduce free online video services that are delivered to PCs but are designed to resemble the experience of watching television.
- Most online alternatives to IPTV have the disadvantage of being delivered to a PC. However, the latest iteration of Microsoft's operating system, Vista, and its X-box can act as an intermediary between the PC and TV and enable content companies to deliver online content to television sets. Liberty Media Corp, CBS and Viacom will be the first to do so.

Question marks hang over operators' ability to ensure quality of service and scale network operations to increasing numbers of viewers, but commoditisation can only help reduce operators' costs.

- Rising numbers of IPTV viewers and orders are helping cut the price of set-top boxes. MPEG2 boxes have fallen to the level of around €50.
- Operators face the challenge of scaling and engineering their networks to cost-effectively cope with the increased traffic that successful IPTV deployments will generate, while maintaining a high quality of service.

Getting content management right

Written in cooperation with the Economist Intelligence Unit

Key points:

- **Securing compelling content is arguably the most serious challenge that IPTV providers face. A small but increasing share of operators, however, believe the content part of their IPTV model is now ready, and a majority think it's on the way to being so.**

- **Content providers are testing new online distribution models which bypass IPTV, but most are unlikely to cut ties soon with network operators who still deliver much of their content through broadband channels.**

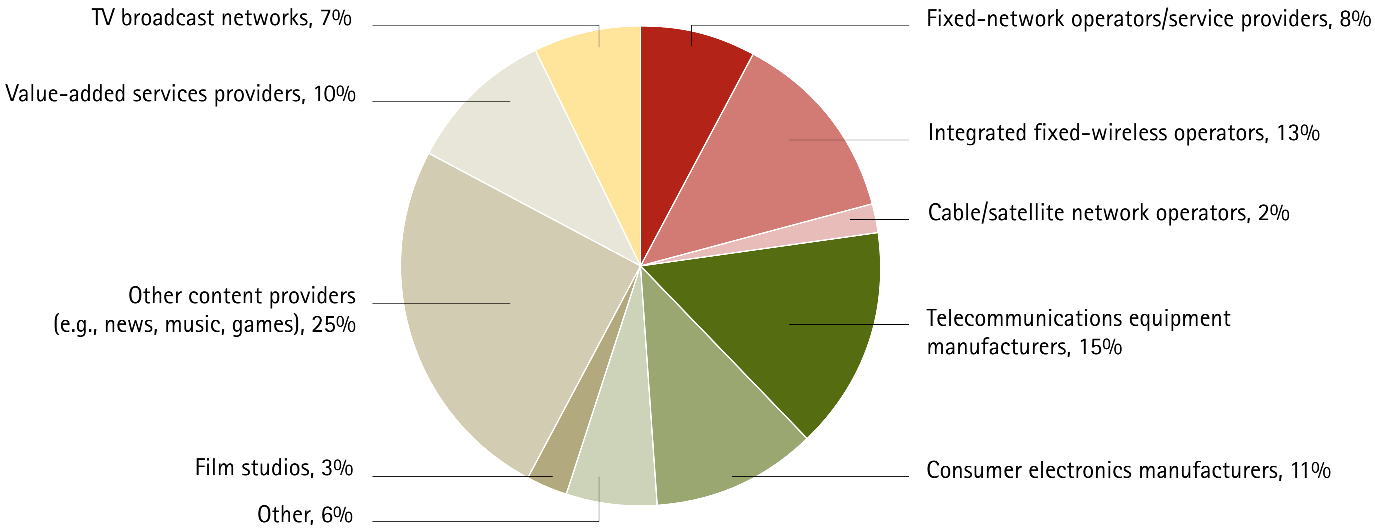
When Belgacom secured rights to broadcast Belgian championship football in May 2005, one month before its launch, its IPTV service became the talk of the country's national television sports programs. (The telco has the fifth largest IPTV customer base in Europe, with just over 100,000 subscribers.) Operators know that acquiring high-profile content can be a virtuous circle: it raises their IPTV service's profile, thereby ideally attracting customers, who in turn draw more content providers and advertisers in their wake.

Content acquisition has been a notorious struggle for telcos launching an IPTV business, as the small scale of their nascent services push them off the radar of large content distributors.

And content provision remains a concern. Of 339 executives of telecoms, media and broadcasting firms polled by Accenture and the Economist Intelligence Unit in October 2006—their second semi-annual IPTV survey—45% (and 62% of network operators) say developing working relationships with content and other partners remains the single greatest operational challenge they face in piecing together a viable IPTV business.

About the survey

In October 2006, Accenture and the Economist Intelligence Unit conducted their second semi-annual IPTV survey (the first having been conducted in May 2006). Participating in the most recent poll were 341 executives of technology and media firms that are involved in or close to the IPTV business. The survey covered 46 countries in three regions; 35 percent of respondents were based in Europe, 33 percent in the Americas and 32 percent in Asia Pacific. The types of firms represented in the survey are detailed below:



In addition to being cosmopolitan, our survey sample was very senior. 46 percent of respondents were C-level executives such as CEOs, CIOs and CFOs, and the other 54 percent consisted of senior managers such as heads of business units and directors of marketing or planning. Participants also came from a range of company sizes, with 51 percent reporting annual revenue of over US$500 million, and 22 percent over US$5 billion.

Yet the survey results also reveal that a growing proportion of network operators—18% in the latest survey compared to 7% of operators surveyed six months earlier—are confident that content provision is ready. A further 63% of telcos believe the content delivery side of their business is at least under development, even if it remains incomplete.

Nevertheless, telecoms operators consider content provisioning to be their greatest variable expenditure, with 28% expecting it to be the most difficult type of cost to control over the next 12 months, compared to 21% of all executives surveyed. This should come as little surprise.

The industry remains in disagreement over how to structure content pricing agreements. Revenue sharing with content owners will be their principal model for content sourcing over the coming year, according to 31% of operators, with only 24% believing this will be the case three years from now. Content providers, however, have opposing expectations: 23% see revenue sharing as the principal model for content sourcing in the coming year, rising to 28% in three years time. At this point 45% of telcos and 32% of content providers expect to have moved to a more sophisticated approach that combines revenue sharing with content distribution, with or without rights ownership.

Which of the following models for content sourcing will be used most widely by IPTV providers?

	Over next 12 months		In three years	
	Total sample	Network operators	Total sample	Network operators
Content distribution (without rights of ownership)	30%	29%	11%	14%
Revenue sharing with content owners	22%	24%	22%	26%
Blended model featuring two or more of the above strategies	20%	14%	42%	41%
Content rights acquisition and distribution	16%	19%	13%	12%
In-house content development	12%	14%	12%	8%

Source: Accenture/Economist Intelligence Unit survey, May 2006

Crucially, content providers' own business models are in flux, as they test new online distribution models.

Peer-to-peer video exchange sites, and software such as BitTorrent, have already simplified downloading programming to PCs, both legally and illegally. Now new technology from Intel, Microsoft and Apple makes it easier to transfer downloaded programming from PCs to television sets. In the US, Liberty Media's Starz, CBS' Showtime and Viacom's Nickelodeon in January 2007 announced deals with Microsoft to offer web-based programming directly to TV sets via the latter's X-box or a PC equipped with its new Vista operating system. Nickelodeon, for example, will be the exclusive provider of children's programming to run on Vista.

However, many content providers still rely on revenue from network-based distributors of content and may think twice before cutting cable, satellite and now IPTV providers out of the delivery loop.

For although 52% of content providers believe targeted advertising will be the principal source of revenue for those in the IPTV industry, 37% also foresee subscription fees for premium content providing a major source of income, as do 41% of network operators. Yet for many telecom operators IPTV's initial purpose is not to increase revenue. Instead it is both a defensive measure to stem the defection of customers to alternative broadband access providers and a means to increase sales of broadband access.

What do you think will be the principal revenue sources for IPTV?

	Minor source of revenue	Moderate source of revenue	Major source of revenue
Network access fees	44.58%	39.94%	15.48%
Subscription fees for basic content	32.83%	40.36%	26.81%
Subscription fees for premium content	15.55%	44.21%	40.24%
Pay per view or action	19.06%	52.50%	28.44%
Advertising-mass market	30.51%	39.88%	29.61%
Advertising-targeted	16.11%	37.39%	46.50%

Given the right market conditions, selling audiovisual content may be able to boost average revenue per user for broadband services. Free in France reported that its ARPU had risen to €34.50 per month, excluding VAT, by the end of 2006, up from €32.20 per month at end-2005, thanks to sales of video on demand and other audiovisual content.

Whatever market they enter, IPTV service providers want to keep costs down. Commoditisation in the equipment market should help them do that.

Rising hopes for IPTV technology

Written in cooperation with the Economist Intelligence Unit

Key points:

- Network operators and other players are gaining confidence in the ability of new set-top-box and other technology to support IPTV delivery.
- Concerns nevertheless remain about the effect of technology problems on consumer IPTV adoption, at least in the short term. Operators place them at the top of their list of obstacles to IPTV adoption over the next 12 months.

Given the telecoms industry's tendency to first develop and promote new technologies and then look for services to deliver over them, one could expect it to try and clear IPTV technology hurdles before any others. This is certainly the case, according to industry executives surveyed by Accenture and the Economist Intelligence Unit.

However, there has been a marked increase from the previous survey in the number of executives who consider transport network equipment, software and video platform technology, and set-top boxes ready to support an IPTV business. In the first IPTV survey, for example, not a single network operator and only 6% of consumer electronic companies found set-top box (STB) technology completely ready to support IPTV delivery. Half a year later, 19% of operators and 53% of consumer electronic companies judge STBs ready. And only 9% of survey respondents estimate that costs related to the procurement of network equipment and STBs would be difficult to control over the coming year.

As technology matures and order numbers rise, the production of hardware such as IPTV STBs is being commoditised, thereby bringing down prices. This has particularly been the case for MPEG2-compliant STBs, as IPTV service providers start to equip customers with more recent MPEG4 boxes. Commoditisation of customer premise equipment is good news for operators planning IPTV services. After all, since it remains unclear where IPTV revenue streams will flow from, operators want to build their new business as cheaply as possible.

How ready are the following aspects of the IPTV business to enable the delivery of IPTV services by network operators, in your opinion?

	Not ready	Developing, but incomplete	Ready
Content provision	16.82%	57.06%	26.13%
Development of unified standards	40.79%	46.22%	12.99%
Marketing and pricing strategy	37.61%	47.76%	14.63%
Operational capability	23.12%	53.45%	23.42%
Transparent regulation	56.46%	36.04%	7.51%
Customer understanding of product proposition	48.19%	40.36%	11.45%
Access and head-end technology	20.18%	55.72%	24.10%
Set-top box technology	15.81%	53.19%	31.00%
Transport network technology	15.36%	48.19%	36.45%
Software and video platform technology	13.90%	51.36%	34.74%

But even the big hitters in STB provisioning, such as Motorola, may find life getting harder as new consumer giants enter the fray. As we saw earlier, Microsoft is enabling its X-box 360 to operate as an IPTV set-top box. It is not clear that operators, who typically subsidise STBs at least partly, will be willing to pay a premium to offer customers an X-box over a white-label STB. However, Microsoft already has established strong ties with many IPTV service providers, which use the company's middleware for their IPTV systems.

Growth in IPTV subscriber rates and network deployments may have the happy effect of lowering equipment prices, but success comes at a price: namely, increased strain on both core and access networks.

Even as the industry clears technological hurdles, concerns about performance linger. Fully 32% of network operators and 26% of equipment vendors worldwide believe quality-of-service issues will be the single biggest obstacle to IPTV adoption over the next year. Operators appear to feel technology problems will ease in the longer term, but 23% of vendors believe they will still be a major obstacle to adoption in three years' time.

What do you view as the single most important obstacle to IPTV adoption by households over the next 12 months?

Insufficient availability of compelling TV programming or other entertainment content (e.g., games)	13.91%
High subscription fees due to the high cost of network access and/or equipment	19.53%
High subscription fees due to the high cost of content and services	10.65%
Quality-of-service issues (inadequacy of technology: e.g., low bandwidth, picture distortion)	25.44%
Increased competitiveness of offers from alternative TV providers (e.g., cable, DTH)	10.65%
Poor customer service and technical support	5.92%
Satisfaction with current services	11.54%
Other, please specify	2.37%

In three years' time, what do you expect will be the single biggest obstacle to IPTV adoption by households?

Insufficient availability of compelling TV programming or other entertainment content (e.g., games)	12.09%
High subscription fees due to the high cost of network access and/or equipment	9.73%
High subscription fees due to the high cost of content and services	12.68%
Quality-of-service issues (inadequacy of technology: e.g., low bandwidth, picture distortion)	14.45%
Increased competitiveness of offers from alternative TV providers (e.g., cable, DTH)	34.22%
Poor customer service and technical support	7.67%
Satisfaction with current services	7.08%
Other, please specify	2.06%

After all, IPTV networks promise to be the most bandwidth-intensive that operators have ever run. And, given the size of today's IPTV deployments, there is no commercial proof that IPTV networks can scale to millions of users without service degradation. Even the world's largest IPTV service provider has a subscriber base of only approximately 750,000—a far cry from the several million voice and broadband customers served by the world's largest telcos.

While subscriber numbers remain low, operators can use bandwidth to underpin IPTV service quality. As IPTV takes off, however, operators will need to carefully engineer networks to both ensure quality of service and optimise bandwidth consumption.

How much bandwidth will be needed, and where, depends on whether service providers offer capacity-hungry services such as high-definition TV, as well as when and how quickly content needs to be downloaded. A successful video-on-demand service, for example, is likely to create strain during peak viewing times on the network between video-on-demand servers and edge network devices.

Operators can engineer core networks to deliver downstream IP packets in line with their local access network capabilities, but some are going further. In France, where IPTV is an established part of the service landscape, operators are also beginning to invest in fibre to the home networks.

Operations challenges

Written in cooperation with the Economist Intelligence Unit

Key points:

- Managing partnerships with content and technology providers remains the toughest operational challenge facing operators seeking to establish a viable IPTV business. Developing creative marketing strategies and effective customer service are other major operational hurdles.

- Many telcos are recruiting new talent to manage IPTV content and marketing, but they will also need to implement some measure of cultural and organisational change to enable new staff to work effectively.

With over a hundred years of experience in providing voice communication services to entire countries, one thing the telecoms industry can claim to understand is large-scale service deployment.

The era of mass entertainment may be giving way to consumption of personalised content, but operators investing heavily in national network upgrades and set-top box development for IPTV still need large economies of scale to pay off investment costs—even if no two customers are watching the same programme.

But even if customers were clamouring for IPTV services (not quite the case yet in most markets), considerable operational hurdles have to be cleared before multi-million customer deployments could even be feasible.

The industry recognises that good content is essential if an IPTV business can get off the ground, but it also has to ensure that content is easy to access and view.

However, as discussed in our discussion of technology, problems with quality of service, such as low bandwidth and picture distortion, will remain the greatest obstacle to IPTV deployment in the coming year, according to survey respondents.

Whereas high subscription fees or mediocre content may deter potential customers, poor quality of service can deal a much harder blow in the form of bad publicity and runaway customer support costs.

Selling IPTV content means re-training sales staff and distributors to persuade customers that content is an attractive addition to operators' existing voice and broadband offerings. IPTV is a particularly hard sell in countries that already have successful cable and satellite alternatives. Executives in the survey recognise it is not easy to get customers to pay for television, especially while IPTV service providers are still piecing together their content portfolios.

IPTV industry executives, particularly network operators, clearly view the development of working relationships with content and technology partners as their top operational challenge, for the reasons cited in the previous two articles. Next comes the development of creative marketing strategies. Executives in North America are the most questioning of their firms' ability to sway potential customers; fully 39% estimate that the development of creative marketing strategies represents one of the greatest operational challenges they face, compared to 35% of their peers surveyed in Asia-Pacific and 24% in Western Europe.

The answer, according to France Telecom, is to include IPTV and video-on-demand services in a simply priced and presented triple-play offer. Six months after France's incumbent operator started marketing IPTV under the Orange brand, as part of a package priced at €29.90 for broadband access, unlimited voice and 35 TV channels, it managed to nearly triple its IPTV subscriber base. The number of Orange's domestic IPTV subscribers rose from 200,000 in mid-2006 to 577,000 by the year's end. Once Orange has equipped homes with its IPTV set-top box, which it provides free of charge, the company argues it will be better able to sell additional pay TV and video on demand. In this way the operator can hope to raise ARPU in the same way as its domestic competitor, Free.

In addition, the advocates of triple play contend that if they can tie customers into a collection of voice, broadband access and audiovisual services delivered over networks they control, customer retention rates will skyrocket. In the last quarter of 2006, Free, which largely uses unbundled DSL networks, reported a churn rate of 1%, its lowest ever. French operators, however, have the good fortune to operate in a market where cable competition has been unusually weak. Their peers in other countries may find IPTV a harder slog.

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