

Virtual worlds, virtual services

The concept of 'virtual' is quickly gaining currency throughout the world of IT and telecoms, whether in the other world of Second Life, virtualised computer resources and the concept of the virtual telecoms network operator.

The latter's success has not gone unnoticed by service operators in other industries, most notably broadcasting and even more specifically IPTV service providers. That is to say, service providers trying to set up IPTV services on a virtual model a la Virgin Mobile, which uses spare capacity on T-Mobile mobile phone network. Such a model has been investigated already, but the bottom line issue is that anyone trying to offer IPTV on a virtual model will face a number of issues to address both in terms of technology and in business.

First let's look at the component elements of a virtual service such as that offered by the mobile phone companies. Companies like Virgin Mobile are known as MVNOs, mobile virtual network operators and the concept is creating a whole value chain of companies. However, there is a new important market development taking place involving a new breed of mobile player, the Mobile Virtual Network Enabler (MVNE), which acts as a link between MNOs and mobile providers that do not have their own network.

According to analyst Strand Consult, many MVNEs believe that based on their greater volume they can strike favourable deals with the mobile network operators and simply take their place in the value chain, and the research firm feels strongly that this kind of thinking would only make them an expendable middleman. To justify their existence in the value chain, Strand believes that MVNEs must actively seek to add extra value, and areas that could be

Joe O'Halloran sees some compelling arguments for the establishment of virtual IPTV operators, but says the proposition will be more difficult to achieve compared to their mobile counterparts

explored include providing counselling, guidance and market intelligence. It is such a set up that many feel could be replicated in the broadcasting world, especially when it comes to adding value.

The QoS equation

The one key difference between a virtual operator in the mobile telecoms world and broadcasting is that an MVNO really only needs to concentrate on delivering a voice (and attendant text) service on a best effort basis, whereas in IPTV the demand is much greater as the operator

has to ensure that end-users receive not only video but also internet and telecoms services as well.

Such a service could well be provided by a portal provider but the key challenge for them, and anyone wishing to establish a viable business, is to control the quality of the broadcast from play out all the way to the end-user. For some, there exists a received wisdom that video quality is merely a function of last mile bandwidth but those in the know, however, acknowledge readily that there's a lot more involved in offering a successful

Among the first of the virtual set ups is the joint venture between KPN Global Carrier Services and Narrowstep.

In essence the two firms will provide a wholesale internet TV offering to mobile and fixed network operators, ISPs and content parties. Narrowstep has developed the internet TV platform that can deliver long-form programming running over KPN's network infrastructure which the two companies say can be used to give audiences a true TV-like viewing experience over the internet.

Explains Gert-Jan Huizer, VP Portfolio Management within KPN Global Carrier Services, "The combination of [Narrowstep's technology] and our International IP Network and global customer base will enable us to offer the first comprehensive, end to end, whole-sale internet TV service on the market".

KPN will offer a bundled service to its customers that will enable them to potentially monetise video content and sell bandwidth on a non-commodity basis. The new service will launch in October 2007, and as part of the deal, Narrowstep will use KPN's global network infrastructure to extend its Content Distribution Network.

"By continuing to develop and invest in our internet TV platform, we can deliver the most comprehensive and scalable solution to world-class carriers like KPN," Adds, David McCourt, Chairman and CEO of Narrowstep, "Our relationship with KPN will allow us to offer our platform to customers in new markets who are serious about managing and monetising professionally produced video content over the internet."

“We need to make sure that the model works on IP with the interactivity and engagement that the customer expects on their systems.”

virtual service, especially in terms of the infrastructure needed to support an acceptable quality of end-user service.

There are many who say that the virtual operator can use the existing public internet - with the Joost service being a great example - but the issue of quality of service still needs to be addressed. That is to say, there are concerns as to how well the public internet could cope with the added traffic once IPTV takes off. And it is not just a case of getting the right last mile bandwidth; the capacity of the internet has to grow to keep pace with the extra usage because otherwise end-user quality of experience will suffer and that will be fundamentally business threatening.

Andrew Wilding, European MD of Vividas, has no sympathy for telcos who flag this as a problem. “Recently we've had telcos saying that we have so much video traffic travelling over the internet and that it is really too much and that someone needs to pay extra for it. I don't sympathise very strongly; these are the same people who persuaded us to upgrade to 8 Mbps broadband services so we could watch video. So the second we all watch video, it is wrong for them to complain as we are doing only what they marketed to us.”

Barak Bar-Cohen, head of corporate communications at Narrowstep, is comfortable with the idea that a virtual IPTV service can exist but lays down a few qualifiers before anyone should think of making money. “First of all, the key component of doing TV over the internet has to start with a

robust technology platform. We are in the business of launching TV over the internet and providing professionally produced content. You need a very robust technology platform that can support all the different elements of the monetisation cycle - such as subscription processing technology capable billing, archiving, pay per view etc - and if you can't do those things or encode video at very high rates and if you don't have the capacity to support high level simultaneous usage and can't deliver it at HDTV and DVD quality levels, then moving forward you're not going to be able to support what the consumers want. The second key component is to be able to distribute this very high quality video at affordable rates.

The third component is having a focused and well thought out business model.”

The business model

And this business model is a complicated thing for any virtual operator to consider, as it may include virtual operators preparing a revenue model where they charge a set amount for a licensing fee with a bandwidth component layered on top of that. This part works like a mobile phone price plan where customers get a certain number of minutes for a certain price number of pounds and then you move up with your usage plans. On top of these, revenues could well be targeted advertising and sponsorship.

For David Price, VP of product



“The virtual model has been investigated already.”

marketing and marketing communications at Harmonic, the latter two elements represent huge opportunities for the virtual players, especially in the context of

smaller broadcasters wanting to reach a local or niche audience. He believes that the biggest challenge is making the virtual model work from a business standpoint. “The key to that is the ability to insert local programming and local advertising. So if you are in a 10,000-subscriber business and someone owns the local shops etc, they want to advertise locally and provide a neat way to provide local ads into the local community and be able to deliver them,” Price suggests.

He adds that the power of IP can be harnessed for such benefits. “You can now say ‘see all of those IP addresses, I am going to send all of the advertising information direct to specific IP

addresses’ and that is a tremendously valuable thing to do. Getting local insertion is something that we are going to see a lot of work on in the next year or so.”

But there's another element to add: operators need to find some differentiation; why would people change to an IPTV service from one of the alternatives otherwise? Elements such as personalisation and a great user

experience count for a lot, but the first thing is to get subscribers attracted to the service, so it has to be different.

Allen McCaskill, principal consultant at Ascent Media Consultancy Services, would go further by arguing that suppliers need to examine business models and service attributes at the point of building out networks. “We need to make sure that the model works on IP with the interactivity and engagement that the customer expects on their systems. It is going to be a few years yet that PCs will be the lounge delivery mechanism for the TV experience. The exciting part about advanced advertising and targeted content is that it demands a lot of new processes and technologies and techniques to incorporate it in the supply chain for broadcasters.”

Either by use of the public internet or private networks, virtual IPTV looks to have potential. But let's not get ahead of ourselves; IPTV in general is hardly diffuse and needs to establish itself before anyone can make any certain predictions about how it will evolve. Concludes McCaskill: “That is fascinating, but let's get IPTV right first and then target advertising right.” **CSI**

In June this year, SES AMERICOM made a splash in the US by making commercially available an end-to-end and turnkey IPTV solution for telecommunications companies.

The service, IP-PRIME, had undergone what the firm says was extensive technical trials with large, medium and small sized telcos across the United States and on successful completion and is now available to any American telco looking for a cost-effective means to offer their customers an IP-based television service.

SES AMERICOM's basic pitch is that telcos will find that IP-PRIME minimises the risk of a complex technical integration, simplifies difficult program acquisition challenges and lowers telcos' financial risks for launching and deploying a television service by saving capital and operational expenditures when

compared to the costs of building a service.

IP-PRIME is claimed to offer telcos and private network operators everything they need to deliver a fully-featured television service over existing network infrastructures. This includes a complete array of programming channel options, a carrier-grade headend, a choice of consumer set top boxes and multiple middleware solutions.

The MPEG-4 solution is attributed with improving video quality together with greater bandwidth efficiency over the MPEG-2 standard. It adds that an MPEG-4 offering makes IP-PRIME particularly ideal for enabling networks to accommodate numerous applications and features, as well as accommodate the explosive growth in HDTV channels.