

# News detail

## Nick Price on IPTV - 09.04.2008

*Why IPTV makes sense for TV deployment worldwide. Nick Price, Board Member of Swisscom Hospitality Services, examines the value proposition for IPTV.*

There was, as legend has it, a king called Canute who being all-powerful decided to demonstrate to his subjects the supremacy of his realm. Installed on his throne by the sea he commanded the tide to stop rising. According to legend, he drowned. And so it is unfortunately with those who cling to analogue TV and its associated distribution methods. The once all-powerful technology is being replaced, gradually in some places, rapidly in others, by a new rising tide – digital television (DTV) and its newest incarnation Internet Protocol Television (IPTV).

This short article will examine the proposition for IPTV and why it makes sense for television deployment in hotels worldwide.

**Telco deregulation in Europe and Asia**, and also to a smaller degree in the United States, has quickly lead to a grab for market share both geographically – Europe for example is now a three hundred million person (and rising) free telecom market - and also structurally whereby small Telco's, or even the dominant national ones, enter new markets with innovative triple/quadruple play offers, all of which bundle services, including IPTV, around a core Internet offering. France Telecom, BT, Swisscom, Hong Kong's PCCW, Star-Hub in Singapore are just some examples of the many former fixed line Telco's who are paving the route to IPTV and its siblings.

In the US, IPTV has had a somewhat slower start, but things are beginning to move. Verizon with its FIOS service is probably the market leader, but others are not far behind. And, IPTV is not just limited to the Telcos'. Other related distribution methods just about ready for prime-time are IPTV via Satellite and IPTV via the internet itself which today is limited only by last mile bandwidth. Imagine if you will instead of television markets being defined in geographical or regional terms as they have been for decades, markets could be created vertically regardless of where the constituents physically reside. One could easily consider a hotel chain-wide TV service forming all, or just a part of the TV offer, available across all hotels in a chain, even those in far away countries. This vision of the future is not farfetched, it is powered by IP, and it's coming to a TV near you in the not-too distant future.

**So what really is IPTV?** A rather boring answer I'm afraid, but it is just a(nother) digital TV distribution method with some distinct, and I might suggest – unique advantages. There are of course other digital TV signal distribution methods available worldwide. DVB-C and DVB-T, even DVB-M in Europe, for digital video broadcast over cable, terrestrial and mobile, and we have familiar alphabet soup of ATSC and QAM in the US. Asia is creating its own standards or adopting those already created by Europe and the US, although in Southeast Asia at least, regulated digital TV transmission is still some years away.

For the remainder of this article I am going to turn the technology somewhat on its head. I will purposely restrict myself to discussing TV signal distribution within a building – a hotel, using exactly the same technologies as previously discussed. In reality we don't really care how TV signals arrive at our hotels, as long as we can get enough channels with suitable

quality and at acceptable cost. What matters to hoteliers is how those TV signals are re-transmitted to our hotel rooms. Does the technology we use, help or hinder us? Is it as future-proof as possible, and how does it help us fashion a compelling TV offering to light up our new flat panel TV screens and delight our guests - and I mean all our guests, not just those who happen to speak the language of country which they are visiting.

**So what are the advantages of IPTV?** The key issue - and this is really only applicable to new builds or major renovations, is whether to pull coax cable at all. IPTV uses a shared IP infrastructure which hotels will have to install anyway in order to remain competitive over time. True, IPTV does impose some constraints, the need for moderate bandwidth, a multicast capable network and some notion of network quality of service, but these are in reality simple incremental additions to a robust Ethernet based HSIA network. Notice that I didn't specifically mention the need for reliability. To me this is a given in any network design and IPTV imposes no greater reliability constraints than IP telephony for example, which by the way hotels are going to have to buy sometime over the next five years or so as traditional TDM PABX switches disappear from suppliers voice portfolios. And, also by the way, hotels' need for HSIA bandwidth is doubling every year, and of course we all want high definition (HD) video-on-demand, so sooner rather than later they will have to invest in high quality in-building IP networks. So to round out this first part of the argument, you pretty much have to install the network anyway, so why not use it for TV distribution? And of course the reality is that a number of 'early-adopter' hotel companies are already doing just that and building hotels with high quality IP networks and at the same time saving money by not pulling coax.

**There are certainly other advantages to IP.** I list some of them here:

- 1. Ability to carry a large number of channels.** IPTV signal distribution can be much more intelligent than coax based TV distribution in that it doesn't flood the network with channels that are not being watched. The newest technologies allow dynamic signal insertion on demand so you can for example design your network headend to carry eighty concurrent channels but allow a choice from eight hundred or more assuming that you have them available. The signal is only inserted onto the network when the first guest chooses the related channel, and it only stays there as long as someone is watching it. This is a very useful feature for hotels that have differing guest mixes at different times of year or for those hotels serving large groups.
- 2. Different channel mixes.** This same flexibility can create different channel mixes for different guests based on perhaps their own personal preference or perhaps ethnicity, room type, rate plan etc. in fact, you can create as many individual channel line-ups as you choose providing the in-room decoders have the smarts to handle it. The Japanese guest checking in to a hotel in Hawaii no longer has to search for the Japanese channels at the end of the otherwise all American channel lineup. For this guest, and perhaps for him or her alone, and for just the duration of the stay, the Japanese channels can be presented at the front of the lineup. This is quite an advance for guest service.
- 3. Distance.** IP is not distance limited in the way that coax cable - being essentially an analogue technology, is. For resort properties with very large distances between buildings, IP is a very practical and probably less expensive TV signal distribution method than digital cable and associated expensive amplifiers.
- 4. Minimise diversity.** Global hotel chains want, as far as possible, a single global system supplier in order to standardize guest service and brand offerings. In the area of digital TV and

video-on-demand this has always been very difficult to achieve, not least because of the different global television standards:

- a. Digital Cable: US (QAM), Europe (DVB-C), Japan (proprietary), Asia (mostly not yet decided)
- b. Digital Terrestrial: US (ATSC), Europe (DVB-T), Japan (proprietary), Asia (mostly not yet decided)
- c. IP: The same everywhere!!!

So what does this mean for hotels? It means that we can handle the diversity (different national/regional transmission methods, modulations, encoding, decryption etc), at the IP head-end, and not have to export it to every guest room. So we can use the same TV and Set Top Box (and therefore suppliers) everywhere. This is a very big advantage for any hotel chain with international presence or aspirations. If you just operate in the domestic US or a single country in Europe, then clearly you have other options, however for a chain with international presence this is a major benefit.

**5. Ability to deliver high quality digital and high definition TV** in countries where there is (today) mostly only analogue broadcast (China, India, SE Asia, Hong Kong, Singapore, Eastern Europe...). Some hotel companies – such as Mandarin Oriental – have realized the need to supplement local TV broadcast options with additional content more suitable for the guests they serve. They create and stream their own digital HD TV channels to offer guests something more appropriate and intelligible than the local, and limited, TV offerings, and certainly better matched to high definition LCD TV sets (with analogue tuners) that are already installed. IPTV is a key foundation technology enabling this capability.

In closing, let's just once again examine the **alternatives to in-building IPTV distribution**:

a) Digital Cable: Fine if you are in the US and receive all your TV channels from a single cable-TV provider, but impractical if you need to take feeds from multiple satellite, cable, and off-air providers and multiplex them onto a single in-building distribution system. It can be done, but it is expensive.

b) Analogue cable. This is the tried and trusted in-building distribution method used in the majority of hotels today. But there are significant problems with this technology:

- Obsolescence – Analogue switch off (US 2009, Europe 2010-2015)
- Awful picture quality poorly suited to the new digital TV's that many hotels have installed.
- Cannot carry high definition TV programming. HD is no longer “new”, in many parts of the world it has now become a normal guest expectation

So, unless you want to remain with in-building analogue signal distribution (then why did you waste your money buying those expensive flat panel TV sets????)

Or, choose to do some heroic and/or expensive engineering with digital cable, and do it differently in every country that you operate in Or, you operate only in the US

Then, IPTV is not just the only globally available in building digital TV signal distribution method,

It certainly is the most future proof.

It certainly is the most flexible.

And it may just be the cheapest.