

Cable providers must gear up now to power the next-generation of broadcast

Remember the days when TV came only through the rooftop antenna? The signal would fail with monotonous regularity, signalling the departure of someone for the roof or terrace. The rooftop warrior would spend the next ten minutes adjusting antenna direction and orientation, punctuated with shouts of 'is it clear now?' and 'not yet!'. Or when the whole country tuned in to the same show at 10am on a Sunday morning.

These incidents are only topics of nostalgia posts on social media now. Broadcast technology has come a long way: over half of the population now has a television and 475 million people view TV daily, according to the Broadcast Audience Research Council¹.

The launch of Digital TV in the early 2010s has driven viewership further by offering higher quality broadcasts of popular programming. Digital also caused a boom in the number of channels available to the end user as operators were able to access greater bandwidth. To reach the next generation of consumers and offer more immersive and interactive viewing experiences, Internet TV (or IPTV as it is sometimes known) has been touted as the next watershed technology.

However, the TV experience is only as powerful as the telecoms infrastructure that supports it. Legacy infrastructure has limitations in number of viewers, number of channels as well as the extent of interactivity possible.

Public internet infrastructure cannot handle widespread TV viewing

To understand how cable and satellite providers can harness the power of next generation broadcast, it is important to understand that delivering high-quality, reliable TV services over the internet isn't as simple as just making this content available on a website.

Current broadband infrastructure was designed to transport small packets of data to allow people to access email, shop online and provide access to text and image-led websites. It is usually delivered to the home through a central exchange point, which 'splits the signal' and distributes it to all locations in the area. As a result, the bandwidth delivered to each home depends on not only the quality of the infrastructure but the number of locations it is divided by and the volume of data other people are using. For those still using copper connections, quality can also be compromised by the distance to the exchange.

Pockets of high usage, therefore, tend to have issues related to high demand whereas in rural areas distance is the main problem. Either scenario isn't conducive to a high quality, stable connection that can deliver even low resolution video – let alone the HD productions that are now on offer.

Legacy or public internet infrastructure simply cannot handle widespread use of high-bandwidth services such as video. Networks will become overcrowded, and image and sound quality will suffer. Customer experience will be compromised, leading to customer erosion and lost revenues.

Next-generation TV needs next-generation infrastructure

Many markets around the world have addressed this issue with Layer 2 Multicast technology, which has been developed specifically for this purpose. Layer 2 Multicast (L2 Multicast) delivers broadcast services by copying the source feed to each destination with the quality of a one to one connection. Video content transmission is performed through a network link that establishes a tree-like network diagram, connecting the source with multiple locations. Ensuring the feed retains its original high quality with no degradation, no matter how many households have signed up to it.

As with all digital services, monitoring, reporting and analytics is built in to the platform; allowing providers to assess usage, monitor quality of service and troubleshoot much more easily than before.

Using this new technology cable and satellite companies looking to embrace next generation technology can differentiate on the basis of quality and customer service and protect the customer-base from the threat of new providers entering the market.

¹<http://blogs.economictimes.indiatimes.com/et-commentary/media-penetration-a-sneak-into-households/>