India’s cable operators should embrace new technologies to grow

India’s cable industry is unique and complex. A plethora of operators at the regional, city and state level deliver double-play services to consumers (Cable TV and Internet connectivity). With state-run Doordarshan serving as the only terrestrial telecast option there are hundreds of other channels delivering content via satellite.

An explosion of content

Until 2014, cable was delivered directly into the consumer’s television set. Digital set-top boxes made an appearance in 2014 with the Information and Broadcasting ministry mandating that all satellite TV content must be delivered over them. Hard on the heels of this development came a massive expansion of regional and local channels delivering niche content. Leading to a virtuous cycle of market expansion, as more and more consumers began to tune in to watch local language programming and extremely localised content.

Cable operators are now beginning to struggle to deliver this content effectively to their customers. Older networks are getting overloaded and proving unequal to the task of delivering huge volumes of high quality, high-definition content without delay or degradation, leading to customer dissatisfaction and complaints.

Danger of newer players capturing market share

There is the danger of newer entrants with faster networks and more modern infrastructure capturing market share with a quality of service-based offering. There is also an external threat that operators face: internet TV, delivered via the ISP service to the customer’s TV, bypassing their bespoke setup entirely. Internet TV, and high-definition content on internet video hosting sites, could seriously impact cable TV revenues.

In order to stay relevant cable operators need an accessible way to up their game through the delivery of high quality content. On the other hand establishment of new hubs in every locality is prohibitively expensive. Real estate costs, satellite dish costs, the laying of new local ring networks, software, ongoing maintenance and upgrade costs, and more.

A more efficient model is needed

An efficient model would be to establish zonal hubs to access satellite content and then connecting that hub through a high-speed fibre network to different towns, cities and localities. Last mile delivery can then be tailored to the regulations prevailing in each locality. Using fibre optic cabling and highly efficient broadcast technologies such as Layer Two Multicast, modern networks perform at extremely high levels and are efficient to run.

The cost of laying and managing a proprietary fibre optic network is a barrier to deployment of such a solution solution. An effective way to get around this is to lease capacity from providers operating national fibre networks that spans the country, interconnecting the major metros and thousands of towns and cities, for longhaul transmission. Cable operators just need to receive the transmission at the hub, boost
the signal, and place it on the network for transport. The signal is then delivered to the destination, where the operator once again takes charge of the signal to deliver it locally.

**High-quality multicast networks offer a number of advantages**

Using fibre and multicast technology for the transmission, apart from the last mile, makes signal delivery near instantaneous. Another major advantage of this approach is that it requires minimal additional capital expenditure from the cable operator, and no installation or upgrades at the consumer end. It is compatible with existing network infrastructure to a great extent and works smoothly with digital set top boxes to receive and decode transmissions.

It allows cable operators to also place their own feeds on the network and piggyback on its bandwidth to transmit to other cities or regions: allowing local events to be streamed live or the placing of specific content on default channels.

The advantages of L2 multicast for cable transmissions are many. Speed, quality of transmission and efficient use of network bandwidth lead to higher quality services, satisfied customers and more loyalty. Using a high-speed network on a service basis avoids network rollout, management and maintenance expenses, instead presenting a monthly fee that can be scaled up or down easily with business demands. The other key advantage of L2 multicast is its ability to accept customer inputs, making it suitable for teleshopping, polling and a host of other futuristic scenarios.

Cable operators need to upgrade now to reap the benefits and remain ahead of the curve.