



DVB-I UI COMPETITION: EXPLORING THE FUTURE OF TV DISCOVERY

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DVB Native IP enabling smart DTH in Peru

Smart DTH roll-out proceeds in Peru, enabled by DVB-NIP

Bart Van Utterbeeck (ST Engineering iDirect)

It was on a visit to NAB, Las Vegas that Wilfredo Baro Fanola Merino first learned about the new DVB-NIP standard. As a professor of telecommunications, he has a special interest in the latest technological innovations, especially those that help to connect rural communities.

Wilfredo is from Peru, a country where the digital divide is still very real. Though the government of Peru has had success in increasing access to digital services, this is still a significant problem, especially in many remote areas. For these communities, where daily life revolves around planting crops and herding livestock, there is no access to information, entertainment or educational television content for adults, children and young people.

RURAL CONNECTIVITY

Satellite is often the only method of connectivity that works for these communities, located in mountainous and difficult-to-reach areas of the country. Operators are reluctant to extend reach to these areas due to their location and low purchasing power. It therefore falls to the Peruvian state to at least provide them with broadcasting and other information.

The DVB-NIP standard bridges the gap between IP and broadcast networks, paving the way for a truly converged media distribution solution. It uses the efficiency of broadcast networks for large-scale content distribution to modern IP devices, fully integrating broadcast technologies with those used in broadband networks. Smart DTH (direct-to-home) technology also features the capabilities of a VSAT (very small aperture terminal) return for two-way communications when needed.

“I was particularly struck by the possibility of creating a new kind of television that incorporates smart devices,” said Wilfredo. “This technology allows not only the broadcast of a single channel but also a list of TV channels, radio stations and digital data services such as VoD.”

The National Institute of Radio and Television of Peru (IRTP) is working to offer state broadcasting to the entire country and adopted the DVB-NIP standard through its Smart DTH technology initiative that was implemented in 2023. The technology, pioneered by DVB members Eutelsat, SES and ST Engineering iDirect, will eventually replace use of outdated satellite and single channel analogue television repeaters.

EDUCATIONAL INSTITUTIONS

At present, there is no government initiative to deploy Smart DTH technology. Instead, there has been collaboration between several educational institutions including

Colegio de Ingenieros del Peru (CIP) through its Chapter of Electronic Engineering, Universidad Pontificia Católica del Peru, and Universidad San Martin de Porres, to begin deployment and fundraising efforts to extend the reach of Smart DTH services. The goal is to distribute 800 satellite kits and to cover the entire district of Toraya, one of the rural areas lacking connectivity. The institutions are pursuing legislation to make this technology the go-to solution to bridge the digital broadcasting and data gap.

CIP has developed a cost-effective server linked to a satellite kit's set-top box that stores television and VoD content as well as transmitting digital data. This functions as a content server, providing access for multiple smart devices. Through implementations such as these, the quality of content and number of channels can be recognized by regional authorities. This is a cost-effective way to democratize basic access to information services and close the digital divide.

To date, CIP and its partners have installed more than 240 terminals in the Tumbes region, 50 in Apurimac, and 10 in the Ayacucho region.

To other countries considering this technology, Wilfredo would give this message: “I’m eager to speak with you. For countries with such rugged terrain as Peru, and with many remote population centres, I believe this is the only way to deliver information, especially across multiple devices.”



DVB-NIP is providing rural families in Peru with access to information, education and entertainment



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