

## **Challenges**

In a land claimed in part by the varied Andes mountain range, in part by the semi-tropical Yungas forests and temperate valleys of the eastern mountain slopes, and in part by the Amazonian tropical lowlands that swathe country's eastern and northern regions, Bolivia's uncertain terrain means that achieving widespread connectivity is no small feat.

Bolivia's fixed broadband services have historically been the slowest and most expensive in South America and, as a landlocked country, it is not able to utilize other commonly used access technology such as subsea cabling. Equally, providing terrestrial links through neighbouring companies is expensive and not always practical. Furthermore, a sizeable proportion of the population lives in remote valleys and areas where telecoms infrastructure has been chronically neglected. As a result, the penetration of telecom services is low.

The Bolivian government's National Broadband Plan – which aims to increase the availability of broadband to both businesses and homes – intends to connect 50 per cent of households to an internet service by 2020 – a goal that can

only be realised with the right technology. Bolivia's national space agency, Agencia Boliviana Espacial (ABE), recognized that satellite provides the best means to circumvent the geographical restrictions to provide broadband access. Satellite is a versatile and profitable technology that can be utilized for access hard-to-reach areas with effective connectivity.

Combined with good local infrastructure, state-of-the-art technology and efficient service providers, satellite solutions have the potential to provide countries like Bolivia with fast and cost-efficient Internet. Crucially, ISPs can keep costs low as large-scale investment in infrastructure isn't needed.

## Solution

ABE partnered with ST Engineering iDirect to deploy its multiservice platform, Newtec Dialog® allowing the extension of access to residential broadband.

The service is delivered through ABE's Ka-band Túpac Katari 1 satellite and ST Engineering iDirect is working with the agency to effectively respond to Bolivia's crucial broadband needs. Our two-way, high throughput MDM2210 DVB-S2X IP Satellite modem, which supports a wide range of IP services

including Internet/intranet access, Voice over IP (VoIP) and multicasting services, is also utilized. Its ease of installation, high-performance modulation techniques and integrated Wi-Fi enable network operators to offer IP broadband services in a cost-effective way over Ku- and Ka-band networks.

## Result

At least six thousand new users will be connected in Bolivia thanks to the project. They will receive affordable rate of entry plans ranging from 4Mbps download speeds to 1Mbps upload speeds and will mirror the similar cost of residential broadband access in found in urban areas.

The Dialog hub will enable ABE to offer services according to their requirements yet to keep costs down without any compromise on performance or flexibility and will enable the Agency to connect even more of the Bolivian population in the future.

