



CASESTUDY

Community Wi-Fi Connects Students
in Peru to Educational Resources



Customer: Schools in Callao, Peru are tasked with educating students who often lack Internet service at both home and school. Callao parents would purchase cell phones with pre-paid mobile data plans to provide connectivity. However, this approach was costly, and cell service was often slow, especially when many students in a classroom used their phones at the same time.

Challenge: Recognizing that students need access to vital educational content, school administrators would upload materials from USB sticks onto individual classroom tablets and laptops in order to make educational resources available. It was a cumbersome process to update and manage. Schools struggled to provide a wealth of educational content, and students lacked access to information needed to support their education.

Hughes Solution:

- 🌐 School administrators installed a Very Small Aperture Terminal (VSAT) at each campus to bring in high-speed Internet by satellite and paired the connectivity with Wi-Fi access points to create hotspots that connect students to local content servers. Now, students can access educational materials readily without the need for frequent data downloads and the associated costs.
- 🌐 Each school now downloads educational content to an on-site computer acting as a local server. Multiple Wi-Fi hotspots throughout the school buildings enable students and staff to connect devices to the local server.



Of the 11 high schools in Callao [Peru], 10 don't have Internet access. It's because they're in difficult areas like this one.

We are hopeful that the Peruvian government will consider rolling out the solution to other communities so that more children will gain access to robust education materials.

— Father Miquel Ranera,
Tiwinza School System President, Callao



- 🌐 The school system created a database with 60,000 books and over 25 million topics for placement on each local server. Students use tablets, laptops, and computers to access the local server's landing page, which is designed to look like an online search engine. Thirty different bookmarks organize educational topics like history, biology, and math, with content that typically doesn't change.
- 🌐 Local servers can be updated regularly—even on a daily basis, if necessary—to keep content fresh and incorporate new topics.

Combining Hughes satellite Internet and Wi-Fi hotspots proved to be an ideal solution for administrators to manage relatively static content and for students to access it on a frequent basis.

Hughes Technology:

Hughes Community Wi-Fi Solutions deliver essential Internet access at Wi-Fi hotspots serving users around the world.

- 🌐 Satellite-enabled community Wi-Fi service is targeted to geographic areas where many potential customers live in isolated communities far from terrestrial network access points.
- 🌐 Hotspots make Internet service available in schools, libraries, community centers, local government offices, village shops, subscribers' homes or other public spaces where people congregate and where broadband Internet access is often unavailable or too expensive.

Hughes JUPITER™ System technology brings connectivity from conventional or High-Throughput Satellites to each hotspot location, where a Wi-Fi access point provides coverage to users up to 100 m away. Each JUPITER VSAT is capable of 300+ Mbps of throughput and thousands of simultaneous sessions making it possible for many people to access the Internet from the Wi-Fi hotspot using Wi-Fi-enabled, hand-held devices or computers.

For more information, go to: <https://www.hughes.com/solutions/community-wifi>



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