

Wi-Fi Bridges Connect Villages in e-Government Project

In developing countries, governments are beginning to allocate budgets for rural development, particularly rural ICT development, to support e-Government projects. Bringing the benefits that urban residents enjoy, such as online bill payment, submitting official documents and broadband Internet connectivity as well as delivering e-Learning and telemedicine to rural residents aids economic development and progress as well as improving the lives of rural populations.



An airClient Nexus PRO TOTAL enables broadband connectivity for the rural residents

ISP Computers, a smartBridges Channel Partner, used **Nexus PRO TOTAL** access points and client devices in a rural ICT project. The aim was to connect villages and provide e-Government services in education and healthcare. The pilot phase of the project saw three villages being connected with broadband Internet. The program plans to expand the network to connect 30 more villages in the province in the future.

Sonam Bhutia, smartBridges Sales Manager, Middle East, said, "We believe that Iran is one of the biggest growth markets in the Middle East in the wireless space. This growth is not only being pushed by forward looking government policies but is also being pushed by discerning customers. smartBridges has the right mix of features as well as pricing to cater to Iran in specific and Middle East in general."

Background

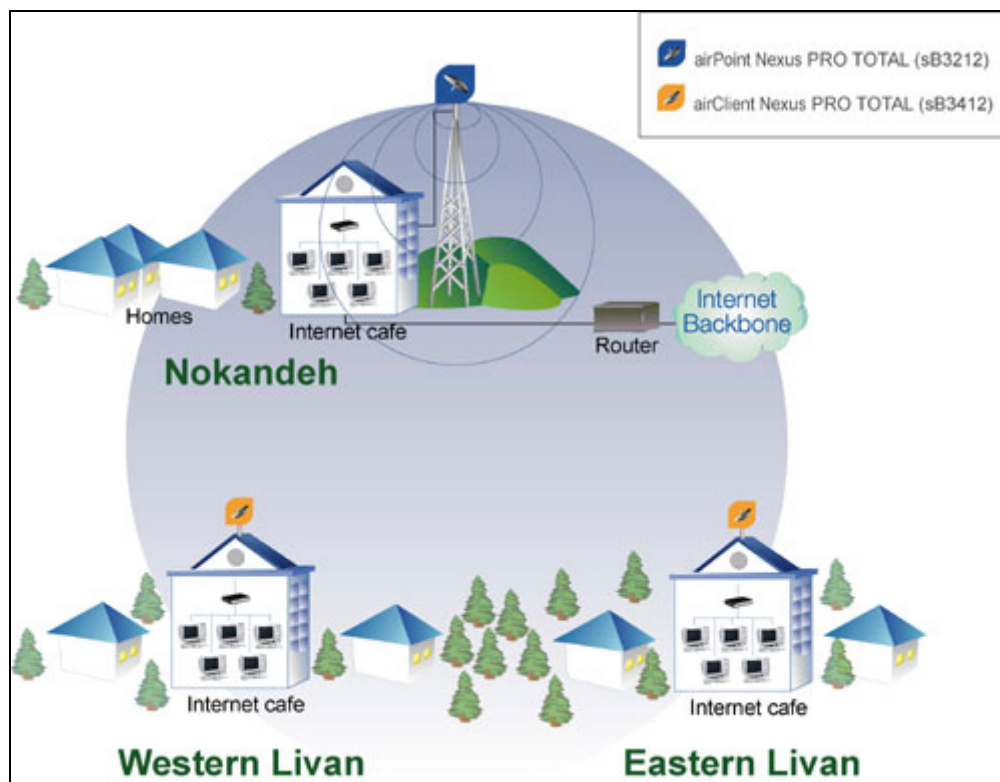
With wide experience in implementing wireless ICT networks, ISP Computers was chosen to deploy the pilot project to bring connectivity to villages around Gorgan, the capital city of Golestan province in northern Iran. Golestan province has a population of 1,426,288 and a

temperate Caspian Sea climate with high humidity. The area is also covered with many forests and hills that pose a challenge to Line of Sight (LoS) deployments.



Rural communities in Golestan province currently have no access to the Internet

After obtaining the necessary permits from the local telecommunications authorities, three villages were chosen as stations for the network: Eastern Livan, Western Livan and Nokandeh, which is a small town with an Internet backbone.



The wireless network currently connects 3 villages with plans to include 30 more

The **airPoint Nexus PRO TOTAL**, the Nexus access point, was installed on a 115 ft (35 m) tall tower at Nokandeh. Two **airClient Nexus PRO TOTAL** client devices were installed at Eastern and Western Livan where Internet cafes were set up to allow people to work on a computer and access the Internet. At these two stations, 16 ft (5 m) tall towers were mounted on the roof of the Internet cafes.



*The airPoint Nexus PRO TOTAL
was installed at the top of a 115 ft (35 m) tower at Nokandeh*

The distance between Nokandeh and Eastern Livan is 3 miles (5 km) and between Nokandeh and Western Livan is 3.7 miles (6 km). As both the airPoint Nexus PRO TOTAL and airClient Nexus PRO TOTAL come with integrated internal antennas, there was no need to buy and mount separate antennas, cutting costs and installation time. Both clients receive throughput of between 4.5 Mbps and 5 Mbps. With broadband Internet connectivity available at the two villages, residents are now able to access e-Governance initiatives such as e-Learning and telemedicine.



Residents in three villages can now access government services through the wireless network

Ali Dashti, Business Development Manager for ISP Computers, said, “I will say that the Nexus radios are the best and most suitable for outdoor use. They work well in harsh environments while providing a real good throughput and are very reliable. The radios are multi-band, giving you the flexibility and option to set them on whichever frequency you need and they support the newest encryption coding.”



Testing the links in the pilot phase

After the initial pilot is proven successful, the network will be expanded across the province to include up to 30 villages to connect them with Internet access. Approximately 10 villages will get service through the Nokandeh station access point. Ali added, “The pilot phase will undergo testing for one month and then the project expands to efficiently cover and link more stations in rural areas. The vision of the program is to cover all the villages in the province by Wi-Fi and equip them with Internet access.”