



ISP of Henan Province



Company overview: A telecommunications provider in Henan province

This customer is one of China's largest telecommunications provider, now providing telecommunications and data services in Henan province. With almost 100 million residents, this 167,000-square-kilometer-area is the most populous province in China and is currently seeing a significant expansion of wireless telecommunications service.

The challenge: provide a large enterprise client with broadband connectivity to a remote branch facility in a non-line-of-sight (NLOS) location

As it strives to provide high-speed service to the province's growing enterprise community, this internet service provider is finding that many customers have no fiber broadband access. One particular company tried unsuccessfully to connect its broadband signal with an important county level branch company. Without access to fiber, the company needed a wireless solution. The problem was that the nearest backbone access network was located a significant distance away – 15.2 kilometers, measured point-to-point – in Minzheng Town. In addition, a building 20 meters higher than the company's antenna stood between the two points, which eliminated the possibility of a line-of-sight (LOS) connection. Adding to the challenge was the branch's request for a connection with bandwidth larger than 100 Mbps... and the need to connect as soon as possible.

The solution: a high-speed wireless network with external antennas and increased gain to overcome NLOS signal fade

The internet service provider and its customer faced the considerable challenges of achieving such a large bandwidth despite a non-line-of-sight environment... and of having the solution installed quickly. The ultimate choice was a fixed point-to-point network that solved the technical challenges while meeting each of the branch company's requests. The network features Motorola Point-to-Point products that are able to achieve a maximum data rate of 300 Mbps in line-of-sight situations and well over 100 Mbps in NLOS environments. Equipment was fitted with 0.9 diameter antennas at either end to overcome wireless fading caused by the combination of distance and a NLOS location. Also important was the equipment's easy and fast installation.

Customer Profile

Company

Internet Service Provider,
Henan Province,
Central China

Industry

Telecommunications

Wireless Network Solution

- Point-to-Multipoint Solution
- Point-to-Point 58600 Products

Solution Features

- High-speed, long distance wireless connectivity
- NLOS data link rates in excess of 100 Mbps
- MIMO technology
- Fast and simple installation

Benefits

- High-speed connectivity with branch company
- Effective data rates of over 200 Mbps
- Strong NLOS signals with minimum fading



“Motorola’s fixed Point-to-Point solutions are helping our company attract new enterprise revenues and are delivering very rapid return on investment.”

The benefits: broadband connectivity with branch company, faster NLOS data rates and easy and fast installation

The internet service provider found that Motorola Point-to-Point solutions are virtually the only choice for overcoming the challenges of serious long-distance transmission blockages, thanks in part to their unique MIMO (Multiple-Input Multiple-Output) technology. The system provides two identical yet independent channels and transceivers that overcome non-line-of-sight issues, help eliminate fading and increase reliability by transmitting data in two channels.

Furthermore, the system’s smart design makes the solution easier and faster to install, providing modules with built-in installation and deployment assistance to help simplify every stage of deployment. The result is the ability to deliver installation and time-to-market in a matter of days rather than weeks or months.

The Motorola Point-to-Point solution provided to this customer is meeting the needs of both parent and branch companies. Despite the tall building and other obstacles in the transmission path, the system maintains a 238 Mbps data connection along the 20-kilometer link between the base station and the link in Minzheng Town. This more than doubles the 100 Mbps benchmark originally requested. Bottom line, the solution efficiently and cost-effectively solved the customer’s NLOS, link distance and speed of deployment issues.



MOTOROLA

motorola.com/governmentandenterprise

MOTOROLA and the Stylized M Logo are trademark of Motorola, Inc. All other product or service names are property of their respective owners. ©2010 Motorola. All rights reserved.