

Challenges:

- To formulate, and implement a fast, reliable and weather-resistant solution to the residents of Xinjiang
- To combat lack of connectivity by introducing wireless connectivity, data transmission, and mobile service even to those living in rural areas of Xinjiang
- To standardise two Gigabit Ethernet ports and an SFP fibre interface into China Mobile's network practice

Solutions used:

- InfiLINK XG 1000 Point-to-Point (PTP) solution

Benefits:

- Improves China Mobile's 4G connectivity in rural areas
- Helps deliver optimum capacity over long distances of over 100km
- Eliminates the need for additional converters and third part interfaces
- Provides major cost savings to China Mobile, allowing money to be spent on improving services elsewhere
- Allows for voice and data transfers across China Mobile's legacy 2G and 3G networks, and its newer 4G platform
- Offers high capacity of up to 1GB per second
- Quicker and sharper phone calls and transmission of data in otherwise hard-to-reach areas now possible
- China Mobile has the flexibility to operate multiple services at the same time

China Mobile selects InfiNet Wireless solution to overhaul its network used to connect remote 4G base stations

Due to the success of the project, plans are being drafted to integrate the company's solution across the entire network infrastructure

A vast region of deserts and mountains, the Xinjiang province in North-West China is best known for the ancient Silk Road trade route which passes through the area linking China and the Middle East. Yet, with a growing population of more than 21 million people spread across the autonomous territory to serve, China Mobile — the world's largest mobile phone operator — was struggling to deliver optimum capacity over the long distances due to the remote locations of its 4G base stations.

China Mobile realised it needed to deploy a solution which could ensure seamless connectivity between each base station and guarantee performance in adverse climate changes. The infrastructure previously in place was simply not able to deliver seamless and zero downtime performance that the mobile phone operator required.

After successfully conducting a number of Proof of Concept trials (PoC's) in various challenging environments, China Mobile worked closely with Xinjiang Yingsheng Information, InfiNet's partner and a key Chinese integrator to find the best solution. InfiNet's **InfiLINK XG 1000** Point-to-Point (PTP) was selected thanks to the flexibility it provided China Mobile with to operate multiple services simultaneously, including voice and data transfers across its legacy 2G and 3G networks, as well as its newer 4G platform.

The vast mountainous areas of the Xinjiang province were also an ideal setting for an entirely wireless platform based on InfiNet's solutions. A satellite-based alternative would simply not have been able to meet China Mobile's requirements, while a fibre-based solution would have been extremely expensive to deploy, if even possible.

Sixteen of InfiNet's industry-leading InfiLINK XG 1000 Point-to-Point (PTP) solutions were deployed in July across 16 major cities in the Xinjiang province, including its capital, Urumqi, and a number of more rural areas to ensure seamless connectivity between base stations spread across the country. The selected solution was also able to provide major cost savings to China Mobile by eliminating the need for additional converters and third-party interfaces. InfiLINK XG 1000 PTP is also the most powerful PTP solution available on the wireless market today, and was found to be far superior to competitor's offerings during benchmarking activities undertaken by China Mobile

Now thanks to the phenomenal success of the project, future plans are already being discussed between all parties to integrate InfiNet's solution across the entire network infrastructure. The solution's high processing power and consistent performance now seamlessly maintain extremely low latency figures while delivering a high capacity speeds of up to 1GB per second.

Mr Wang Songtao, General Manager at Xinjiang Yingsheng Information said: *«We are always ready to implement the most complex of solutions and we have continued to prove this through our latest project with InfiNet Wireless. Easy to install, configure and manage, the wireless PTP solution was a major technology upgrade from the previously installed microwave technology and was a cut above the competitors who also took part in the PoC phase of the project. We are delighted to be working with InfiNet and to provide a solution to enable China Mobile, offering them the best connectivity they can possibly have access to today. We look forward to working on the future plans to continue expanding and maintain connectivity across China.»*

