

## Xigou Station Enhances Weather Reporting as Telephony System Upgraded to IPSTAR-Based VoIP

China Satcom, one of the leading telecommunication operators in China and partner of IPSTAR, connected a weather station in Xigou to VoIP via IPSTAR. The newly installed satellite-based VoIP enhances the telephony system in the station. Built in 1958, the weather station is situated in the outskirts of Urumqi, the capital city of Xinjiang Uyghur in China.

### The Situation

Before the installation of VoIP, meteorologists in Xigou used terrestrial phone lines to contact other stations to report weather observations. However, the usage of telephone is restrictive or limited due to its expensive service rates, especially for long distance calls.

### Early Warning System via IPSTAR

With the introduction of VoIP this year, meteorologists are able to make unlimited free or inexpensive calls in reporting vital weather observations in Urumqi and nearby cities.

Aside from the VoIP service, IPSTAR also provided satellite broadband Internet for the station. With the Internet installed, any vital weather information in China is rapidly available in real-time and on a round-the-clock basis. Recently, IPSTAR was used by the station to release an immediate readout of a rainstorm that hit Urumqi and its neighboring cities.

IPSTAR proved to be reliable in places prone to unpredictable rainstorms, like Urumqi. The IPSTAR Adaptive Coding and Modulation (ACM) technology prevents outages during rain fade – enabling a seamless communication link between the meteorologists and their instruments in the field. ACM enables the downstream carrier to dynamically change its modulation and coding in response to changing link conditions.



### About China Satcom

China Satcom, one of the telecommunication operators in China, is under the management of the Ministry of Information Industry in China. The member enterprises of the company include China Telecommunications Broadcast Satellite Corp., China Orient Telecommunications Satellite Co. Ltd., China Space Mobile Satellite Telecommunications Co. Ltd., China Posts and Telecommunications Translation Service Corp., and China Telecom (Hong Kong) Chinasat Corp.

### About Xigou

Xigou, an elevated village at 3,543 meters above sea level, is located in Urumqi – the largest city in the western half of China and the world's remotest city from any sea. In 2007, Urumqi was hit by a rainstorm and experienced an average of 63.2 mm rainfall – the worst rainstorm in recorded history. The heavy downpour caused landslides and flood that displaced hundreds of thousands of people and damaged at least 80 million in properties, including telecommunication links in the city.