

The Blood Vessel of Central Asia

Hytera MPT Trunking Facilitates the China-Asia Cross-border Gas Pipeline

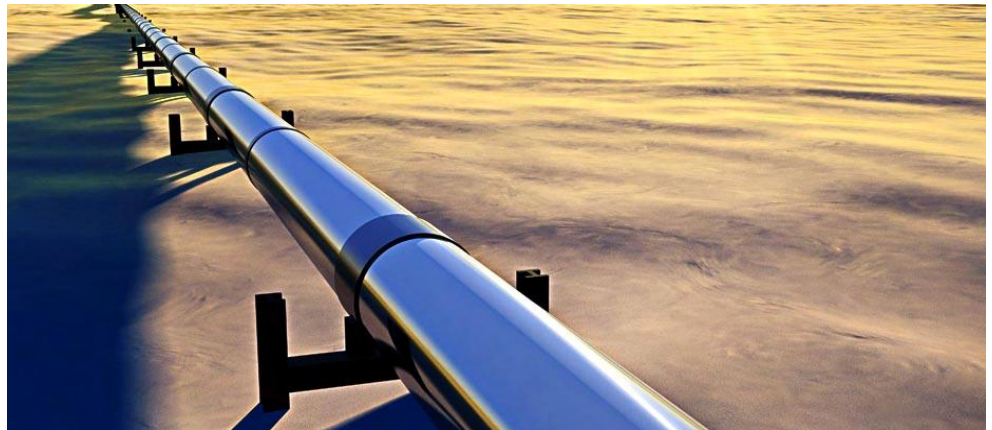
User
China-Asia Gas Pipeline

Market segment
Oil & Gas

Project time
2011

Products
TS-8600 Mini Trunk System
QH-1327 MPT Trunking System
RD98X Repeater

- Benefits**
- The only vendor that satisfy the customer's requirement with vehicle mini trunk system.
 - Ensure the compatibility between the system and radio, which can provide more confidence to the customer.
 - Powerful real coverage (12km) of each site, as the technical requirement only need 5km coverage, brings more benefit to the customers.
 - Easy transfer from analog to digital systems.



Background

The China-Asia Gas Pipeline, the longest natural gas pipeline all over the world, which is from the border of Turkmenistan and Uzbekistan, through central Uzbekistan and southern Kazakhstan, then enters into China. The total length of the pipeline is more than 10,000 kilometers. Annually stable transfer about 300 billion cubic meters natural gas to China, which is equal to half of China's domestic natural gas production in 2007. China National Petroleum Corporation had invested more than 7 billion USD to construct this pipeline. The pipeline has important strategic significance for Chinese government and economic development.

In order to ensure the project run well, a comprehensive solution was needed, including the GSM solution, the GE compressor solution, video monitor solution, TRS(Trunk Radio System) solution and many other solutions. Hytera took part in this project as the subcontractor of Trunk Radio System provider.

Customer Demands

As we all know, the working surrounding for the gas pipeline is dangerous, so the user cares about the system safety at most, therefore the explosion-proof IIC class radio is necessary and its output power must be lower than 1W. Also the comprehensive dispatching and management function is in need; the detailed customer requirements are as below:

- > 95% coverage, > 99% onetime call termination rate.
- Interconnection between the TRS with PSTN/PABX: the radio under the vehicle should call to the radio under each Base Station through the voice exchange network.
- Can use conventional radios under Trunk system.
- Take future expansion into account and be ready to upgrade into Digital era.
- Turnkey project, calls for comprehensive engineering capability.
- Data application: besides the basic voice dispatching, the SMS and status message function is also needed.

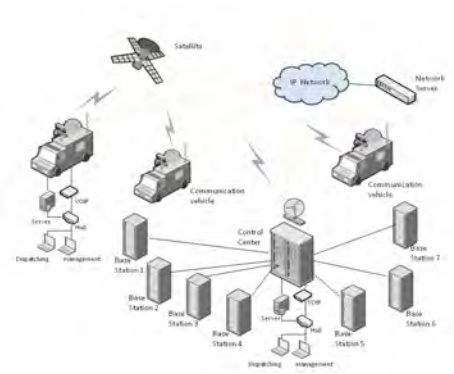




Hytera Solutions

After analyzing the technical requirements, we designed the specific solution which includes:

- 1 control center
- 7 base stations
- 3 TS-8600 vehicle mini trunk system TS-8600
- 40 RD98X repeaters
- 180 portable radios compatible with hytera system
- System management for terminals and dispatchers



Solution Highlights:

- IP over satellite to realize communication between mini trunk vehicle and fix trunk system.
- Provide outsourcing IIC low power radio, proving system's compatibility.
- Enlarge coverage by adjusting 1 RD98XM to repeater mode under every base station.
- Excellent site planning and product performance helps to achieve 1 time call access.
- Realize TRS connect with PSTN/PABX by 2-time dial up.
- DMR oriented RD98XM supports analog system while makes it possible for future upgrade to digital system.

Besides providing equipment, Hytera assisted customer in many other aspects:

- System installation/ commissioning.
- Tower purchase/ installation/ frequency application.
- Tailored solutions for customer, like special-size-made MPT base station.

Voice from Customer

"Hytera was well in line with our work and provided us a lot of help, no matter in documentation provided, technical communication, or delivery support, Hytera performed as a experienced international company, we were so happy to cooperate with Hytera and hope we will still have opportunity to cooperate in the next stage of gas pipeline project."

— Eric Liu, Project Manager from China National Petroleum Corporation

"Thanks for all the help Hytera provided to Huawei, we are glad to find so excellent subcontractor and I am sure you will provide us more help in project deliver, I am sure we will have nice cooperation through the whole project and we will try to find more cooperation opportunity!"

— Peter Zhang, Design Manager from Huawei



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