

# Jaipur Metro Railway, India

## Hytera TETRA Solutions Serve India Metro

**User**  
Jaipur Metro Railway, India

**Market segment**  
Metro

**Project time**  
2015

**Products**  
CZT802H&GDT801 Train borne  
Customized Dispatch Work System,  
Network Manage System,  
Centralized Digital Recording system



### Background >>

DMRC (Delhi Metro Railway Corporation) was founded in 1995 and located in New Delhi, India. As an India state-owned enterprise, they built the first city Metro Light Rail Project in India. After that, as the direct leader, they carried out many construction projects of urban subway light rail in various states of India, including over 213KM light rail and railway, more than 160 subway stations. DMRC usually uses TETRA technology for the wireless communication.

JMRC (Jaipur Metro Railway) is a state-owned company located in Rajasthan belonging to DMRC. Hytera began to cooperate with their urban Metro Light Rail project at the beginning of 2010. In June, 2015, Jaipur Metro was in formal operation. The communication need of the subway is essential. All the drivers, train inspectors and station commanders need to maintain close communication with the command center.

### Customer Challenges >>

JMRC required a wireless communications solution based on EADS TETRA System, including:

1. Customized devices fitted in the Metro train cab and Metro station, providing humanized interoperability;
2. Dispatch system, interconnected with ATS, PA, PSTN and providing integrated voice solution for the metro system;
3. Reliable recording system providing seamless and stable recording for at least one year;
4. Integrate network manager system which can collect and indicate the error happened in Tetra system and Hytera solution.



Trainborne





## Hytera Solutions

According to the customer's requirements, Hytera provided customized Train borne radio, RAU (Radio Access Unit), RCP (Radio Control Panel), DWS (Dispatch Work System), CDRS (Centralized Digital Recording system) and NMS (Network Manage System). For the train communication, Hytera provided 20 train borne radio with customized interface and train fit design.

For the dispatch requirement, Hytera provided DWS digital dispatch system with plug-in design, providing remote dispatch and management capabilities. Via the DWS, the urgent notice and command can be sent quickly and effectively to the target, whose status is displayed in the DWS. And the dispatch server deals with the Radio system and ATS. DSS is responsible for getting the location information, sending the information to the train borne radio & dispatcher, receiving the alarm signal and sending it to the ATS system.

For the recording requirement, Hytera provided the CDRS system featuring multi-feature search and providing remote dispatch and management functions. Via the CDRS, the voice communication going through the system could be recorded for future research.

For the network manage requirement, Hytera provided the NMS system featuring plug-in design and providing remote management capabilities. Via the NMS, our client could manage the entire device relevant to communication network with one terminal.

## Benefits

With Hytera customized Tetra solution based on the existing network, the Jaipur Metro Railway achieve the seamless call among the control center, vehicle, and the station. Dispatcher, drivers and the station managers can use computer terminals, mobiles, and hand-held units to maintain close communication to guarantee the safe operation of the train.

At the same time, recording and network management system can guarantee the system's data is recorded in a timely manner, as well as the base station alarm for more accurate and intuitive analysis.



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