

Rail Communications HUB (RailHUB)

OVERVIEW

The Rail Communications HUB (RailHUB) solution is a 2nd Generation solution that specifically caters for complex Metro operations.

The key objective of the product is to facilitate seamless communications with the various stakeholders as well as the passengers to ensure smooth, safe and efficient operation of trains.

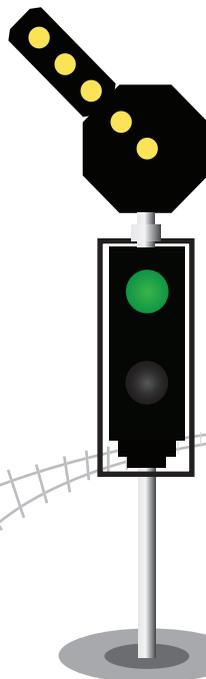


KEY FEATURES

Integrated Train Communications

The RailHUB product caters to Radio based communications to the Driver, Passenger and all other systems on the train and stations. The Control Centre being the nerve centre of operations, it provides the operators the following features:

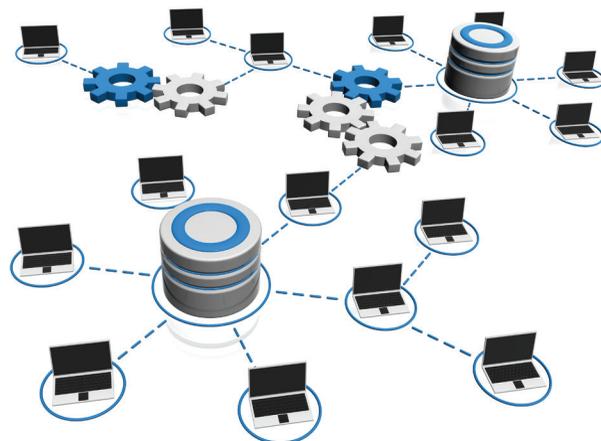
- Identify trains through the Train Run Number (TRN) when it is in revenue service
- Real-time position of trains on tracks achieved through the interface to the signalling system
- Call train through TRN or Cab ID
- Communicate with driver through Voice / Data messaging
- Make a voice call to the train PA system
- Communicate with the passenger through the on-board emergency intercom
- Send messages to the on-board Passenger Information System (PIS)
- Zone, Direction & System Wide Calls
- Monitor train cabs through on-board CCTV
- Use the Radio as a gateway to communicate between other on-board and backend systems such as TIMS (where available), ATC, etc
- Station PA and PIS through centralized PA/PIS system
- Communicate with external agencies through standard telephony (PSTN lines)
- Support automated emergency scenarios
- Supports all standard TETRA features



The key feature that runs through the entire design of the system is seamless intuitive operations.

SYSTEM FEATURES

- Secure login and Access Control
- Area of Control / Zone Control where operators can be assigned an area of control such that incoming calls can be routed automatically to the concerned operator.
- Status monitoring of all interfaces and base stations
- Train Alarm and Event handling
- Radio alarm monitoring & reporting to other external systems through SNMP / GSM or proprietary protocols (optional).



SYSTEM INTERFACES

- Interface to train radio
- Interface to signalling system
- Interface to TETRA systems
- Interface to on-board PA & PIS through Wireless Broadband (if available)
- Interface to Central Clock
- Interface to central PIS & CCTV (optional)
- Telephone Interconnect (optional)



ADD-ON & OPTIONAL MODULES

The RailHUB comes with utilities such as:

- Configuration Manager
- Call & Events Logger
- Centralized Alarm Manager
- Radio Tracking & despatching through GPS
- Others as required

DESIGN FEATURES

- Open plug & play architecture
- Interface gateways to isolate changes and facilitate upgrades
- Configurable screen layout
- Dynamic layout change
- High availability across sites
- On-line help
- Multi-lingual support
- Certified to Rail Safety Standards – En50128 Safety Integrity Level 2

SUMMARY

The RailHUB solution helps operators to do effective and efficient voice, data and video despatching without worrying about the underlying infrastructure. It aids management of emergency situations in an intuitive manner. It has been successfully deployed on several Metro projects in this region.