Mobile Solutions

Providing information on the stations and trains that users want to use in JR East in real-time to customer smartphones.

JR-EAST Train Info

“JR-EAST Train Info” is an application to provide useful information for those who use the trains and stations in JR East. Covers station maps for approximately 150 stations in JR East. The necessary running information such as delayed train information is distributed in real-time from customer smartphones. For the Yamanote line, train position information and per-carriage temperature and crowding information can be checked in real-time. It also provides useful additional information when using the railway, such as the weather.

Train Running Information

- List of running information
- Current line position display screen
- “Yamanote Line Train-Net” train position/interior
- “Yamanote Line Train-Net” train interior situation

Station Building and Station Facility Information

- Station platform guide
- Station map
- Platform and exit guide
- Station facility guide

“DOKOTORE”

This service allows you to get running information such as train running positions and delays in real-time from tablets or smartphones.

* Note: Company names and product names are trademarks or registered trademarks of their respective companies.
Pioneering the Delivery of the Optimal Environment and Advanced Convenience of Railway Space and G-spatial Using ICT

Our company is working on improving the safety of railways and increasing work efficiency and quality through utilization of ICT, and is proposing and delivering the creation of the optimal spaces focusing on railways as a pioneer that is improving customer service. In 2000, we started building the “Railway GIS”, which combined plan management together with a maintenance and resource ledger database as an effort to implement ICT for railway spatial information, and in 2004 we completed an operations assistance system that covers all of the approximately 7,500 km of rail lines of JR East. “Railway GIS” delivered increased railway safety, as well as great efficiency improvements and great cost reductions in operations through the entire lifecycle of the railway infrastructure.

In addition, we successfully delivered management of various railway spatial information and G-spatial information through utilization of ICT such as opening the “JRC Cloud Center”, beginning operation of “Crew Tablets” on all trains, and development and operation of the “JR-EAST Train Info”.

In the future, we will continue to implement the optimal environment and highest convenience for railway spaces and G-spatial using ICT and propose ICT solutions for creating the optimal spaces focusing on railways looking towards the 2020 Tokyo Olympics and Paralympics, and also for delivering the high precision positioning society as striven for by the Ministry of Land, Infrastructure, Transport and Tourism.
**Railway GIS Solutions**

Supports a wide variety of work with centralized management of the massive amount of railway infrastructure data and visual management and analysis of railway information.

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**Railway Map Information Service**

A railway spatial information management system offering centralized management of massive quantities of data such as digital railway plans, aerial photographs, and omnidirectional panoramic images. Supports various work such as planning of railway infrastructure, maintenance and management of railway facilities, and establishing disaster planning. Delivers substantially increased work efficiency, increased quality, and reduced costs together with visual management and analysis of railway information through integration with map databases, plans, panoramic images, and ledger information.

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**Construction of 3D Urban Space Models**

Urban spaces have been continuing to undergo complex evolution into the future. This is accompanied by the ever growing railway business. In order to support this, we provide a variety of services by using 3D data such as for improving the amenity of train stations and for planning of the facilities around train stations by constructing 3D models focusing on cutting edge ICT. This delivers advanced services which are easy to understand visually using 3D urban space models, and powerfully supports the construction of stations and the surrounding urban spaces.

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**Navigation Systems**

This system offers real-time navigation with 3D walkthroughs inside complicated station buildings using positioning systems which are able to accurately measure positions inside buildings (inside underground tunnels and station buildings) and construction of 3D models. We are also developing digital content services for transmitting information such as station surroundings and sightseeing spots using tablet devices.
"Cloud Rail" Solutions

Delivering advanced operational management and improved customer service through putting railway information into the cloud and utilizing tablets, etc.

"Cloud Rail" is a platform for using railway information which centralizes, manages, and optimizes a variety of railway related information. Users can obtain cross-sectional information for each of their goals from "Cloud Rail", allowing them to use the information effectively.

Overview of Platform for Using Railway Information

**Customer Services**
- Used for new business
- Used for increasing safety and service quality

**Operational Services**
- Used for increasing the efficiency of work
- Used for research and development purposes at overseas offices

- Internet, Mobile, Wi-Fi

Train Location Service

This system measures train positions using GPS, etc. built into the trains, associates this position information such as with kilometer posts and train numbers to offer an understanding of current positions and provide running information. This delivers more advanced running management and improved customer service through displays such as on management and control screens and station guidance monitors.

- Running train status management screen
- Train position display system
- Running information map display screen
- Station guidance monitor

* GPS (Global Positioning System): A system that uses satellites to accurately determine where you are on earth.

Crew Tablets

This is a system where crews are able to obtain manuals and information according to the status using a tablet that they carry around. This makes it possible to rapidly share information such as running information when there is a problem, and supports appropriate customer guidance and improved travel quality.

**BRT Location Service**

This system determines train position information using matching of the GPS function of the smartphone with a database (GIS) within the main system, and offers real-time management of BRT running information and provision of running information to users.

- Running train status management screen
- Train position display system
- Station guidance monitor

* BRT (Bus Rapid Transit): A bus transport system offering advanced features that is capable of ensuring speed and on-time running with greater transport capacity than regular bus transport systems.