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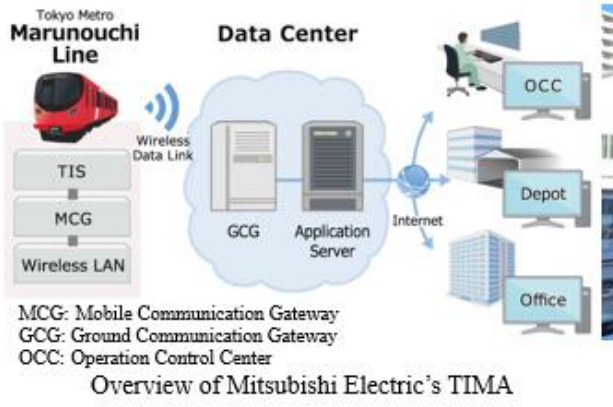
PRESS RELEASE

Mitsubishi Electric Delivers Train Information Monitoring and Analysis System for Tokyo Metro's New Marunouchi Line 2000 Series Trains

Makes full use of IoT and big data to realize safer and more reliable train operations

Ratingen, 19 February 2019 – Mitsubishi Electric has delivered its Train Information Monitoring and Analysis (TIMA) system for new Marunouchi Line 2000 series trains operated by Tokyo Metro Company. From February 23, 2019, TIMA will enable faster responses to operational problems and optimize the timing of inspections and parts replacement. The new system will make full use of IoT and big-data visualization and analysis of information collected from in-service trains for extra-safe and reliable train operations.



Overview of Mitsubishi Electric's TIMA


Tokyo Metro Marunouchi Line 2000 series train

Mitsubishi Electric will support TIMA by providing Tokyo Metro with IoT-based services for monitoring and analyzing train data to optimize the timing of scheduled and condition-based maintenance. In addition, Tokyo Metro is considering to use selected big data collected and stored with TIMA as open data for value-added passenger services delivered via smartphone applications or other technologies.

The Marunouchi Line operates 336 railcars on a 24.2km line spanning 28 train stations. It runs between Ogikubo Station in western Tokyo and Ikebukuro Station in northern Tokyo, passing through central Tokyo and the business district of Marunouchi, its namesake. It averaged daily ridership of some 1.60 million passengers in 2017, according to Tokyo Metro.

Features

1) Visualization of in-service car status by collecting information for data-center processing

- Mitsubishi Electric's latest Train-control Information Management System (TIS) collects information on trains in service, such as location, interior temperature and occupancy, and transfers the information to a data center via a high-speed, large-capacity wireless data

link to help visualize the current status of trains and to make comparisons with stored information if required

- The visualization of the car status including the historical data is achieved by storing the collected information

2) Fast, precise information sharing between train operator and control center personnel to minimize train downtime

- The TIS monitors onboard equipment and quickly provides alerts about abnormalities, such as fault status and train location, to the control center and depots via a data center.

- The train driver's cab screens are viewable at the control center and depots for fast, precise information sharing to facilitate effective counteractions and thereby minimize train downtime.

3) Future capability of analysis of train equipment data to optimize timing of inspection items and parts replacement period

- Train-equipment data, such as current and voltage, collected with TIS can be analyzed to optimize the timing of inspections and parts replacement.

- Realizes optimization of inspection items and part replacement period based on the results of big data analysis collected from onboard equipment

About Mitsubishi Electric

With almost 100 years of experience in providing reliable, high-quality products to both corporate clients and general consumers all over the world, Mitsubishi Electric Corporation is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment as well as air conditioning and heating technology.

With around 142,340 employees the company recorded consolidated group sales of 41.8 billion US Dollar* in the fiscal year ended March 31, 2018.

Our sales offices, research & development centres and manufacturing plants are located in over 30 countries.

Since 1978, Mitsubishi Electric is represented in Germany as a branch of Mitsubishi Electric Europe. Mitsubishi Electric Europe is a wholly owned subsidiary of Mitsubishi Electric Corporation in Tokyo.

** At an exchange rate of 106 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2018*

Further information you find under

http://www.MitsubishiElectric.de

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