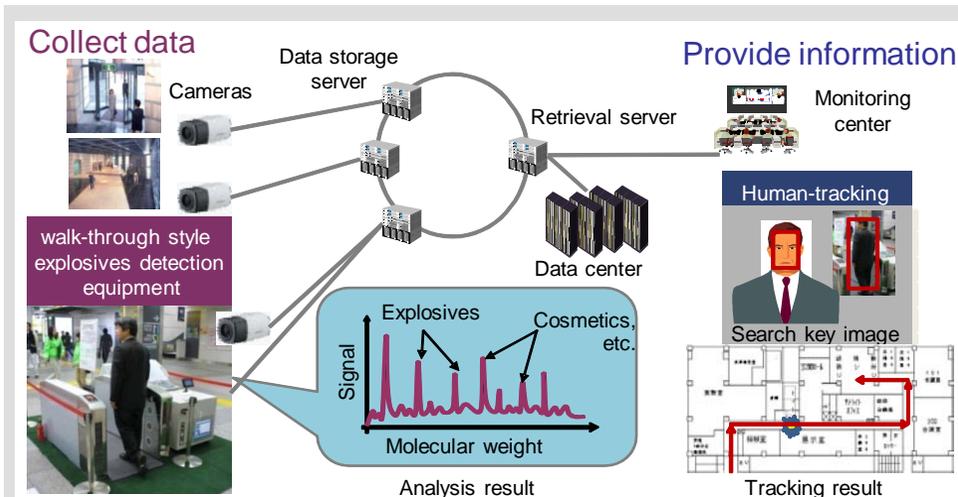


## Development of real-time human tracking technology by linking walk-through style explosive detection equipment and surveillance camera network



Technology was developed to track the real-time movement and current location of a person from whose clothing or baggage explosive compounds have been detected, using a walk-through style explosive detection equipment and surveillance camera network.

When homemade explosives are detected, the image previously obtained when the person passed through a walk-through style explosive detection equipment is used as a key image to search images received from surveillance cameras located throughout a facility to establish the person's route & current position.

Hitachi has been participating in the MEXT "Project on Science and Technology for a Safe and Secure Society" to pursue the development of a walk-through style explosive detection equipment since 2007.

### ■ Characteristics

A walk-through style explosives detection equipment capable of detecting explosives within 3 seconds of passing through a gate was combined with high-speed similar image retrieval technology. A new search algorithm which repeatedly searches for images of the person from whom explosive compounds were detected, among data from surveillance cameras was developed.

### ■ Applications

This technology is expected to contribute to the achievement of a high-level of security in facilities frequented by a large number of people, such as stations and event halls, without disrupting the flow of people.

### ■ Conference presentation

The results of this research was presented at the IEICE Pattern Recognition & Media Understanding Workshop held at Yamaguchi University, Japan, from 9<sup>th</sup> - 10<sup>th</sup> December 2010.

### ■ A word from the development team

Building on the results of numerous field tests, we hope to increase the usability of the equipment with the aim of contributing to providing safety and security in public transportation and facilities such as commercial buildings, and stadiums.