

Nationwide deployment of ITS Spots

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(Keywords) Intelligent transport systems (ITS), ITS Spot services

1. Background

Since 2005, the National Institute for Land and Infrastructure Management (NILIM) has been conducting cross-sector joint research and other R&D aimed at achieving in-car environments in which VICS, ETC and other services provided individually until now, as well as diverse other services, can be provided by a single on-board-unit. Demonstration trials on expressways were held in FY2007 and large-scale demonstration trials by a group of related ministries in FY2008. In January 2010, based on the results to that point, NILIM published “Technical Specification for the Spot Communications Services (DSRC Services)” concerning roadside units, the Center’s devices, interfaces between devices, and so on.

2. Developing ITS Spots

In line with these trials and publication of specifications, the Ministry of Land, Infrastructure, Transport and Tourism gradually installed roadside equipment (ITS Spots) in about 1,600 locations in FY2010, mainly on expressways throughout Japan. In advance of this, from autumn 2009 private manufacturers started marketing car navigation systems corresponding to ITS Spots that can use services provided by ITS Spots.

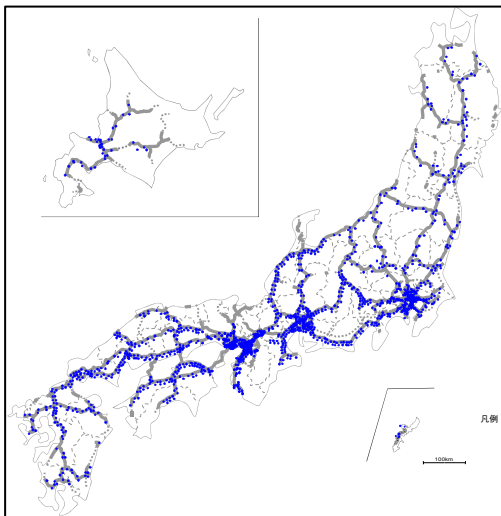


Fig. 1 Scheduled locations of ITS Spots

3. ITS Spot services

Between January and March 2011, the provision of the following basic services and Internet connection services (available with some models only) will start nationwide. The collection of probe data will also start.

(1) Dynamic route guidance

A service using new high-speed, large-capacity road-vehicle communications to distribute wide-area road traffic information exceeding prefectural boundaries (maximum about 1,000km in extended road length) in real time, enabling car navigation systems to choose the optimum route.

(2) Assisting safe driving

A service providing caution in emergencies, using ITS Spots that provide road traffic information in normal circumstances. The service can alert drivers by notifying them not only of fallen obstacles ahead but also traffic jams beyond curves, in other words, at blind spots on the road ahead, preventing them from being startled, causing accidents.



Fig. 2 Example of assisting safety driving

4. Future challenges

In the future, it is expected that the development and expansion of services using ITS Spots will continue to be promoted through collaboration between the public and private sectors.

(Reference: URL of related website)

http://www.mlit.go.jp/road/ITS/j-html/spot_dsrc/index.html