

East Japan Railway Company
Aquabit Spirals Inc.
Sony Imaging Products & Solutions Inc.
Dai Nippon Printing Co., Ltd.

~Expanding experiences that lead to services with just a touch~
Technical verification for the use of NFC tags

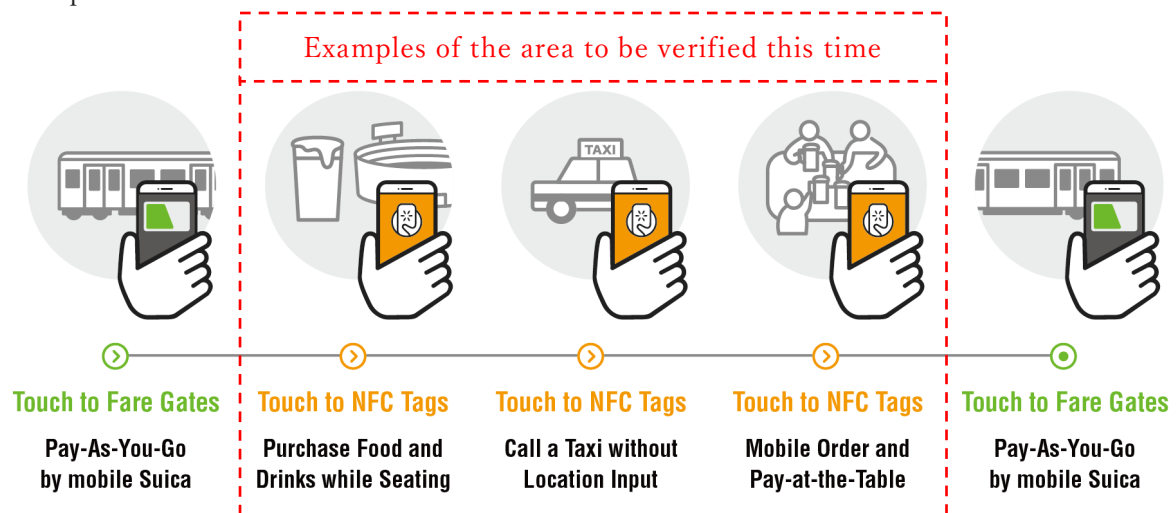
- East Japan Railway Company, “JRE”, (President and CEO: Yuji Fukasawa), Aquabit Spirals Inc., “ABS”, (CEO: Tomohiro Hagiwara), Sony Imaging Products & Solutions Inc., “Sony”, (President: Shigeki Ishizuka) and Dai Nippon Printing Co. Ltd., “DNP”, (President: Yoshinari Kitajima) jointly agreed to conduct technical verification for the use of NFC tags*.
- We will focus on further possibilities of NFC*, which is a short-range wireless communication technology. We will expand the places where various services can be used just by touching them, focusing on transportation and payments, and aim to connect experiences combining them with existing touch services.

What you can do with NFC tags

- NFC tags are thin, small paper and sticker shapes that can be affixed and placed in stores and facilities to introduce services such as cashless payments without the need for payment terminals. Users can use the service by simply touching the smartphone with the NFC tag, without selecting and launching the app and launching the particular functions. Service providers can easily introduce it, and users can use it easily and conveniently, so we are expecting to expand in various situations including transportation and payment.

About this technical verification

- We assume this technical verification in a usage scene where tickets can be confirmed and paid by simply touching a smartphone to the NFC tag. This utilizes technology that reads information in the NFC tag by the reader / writer mode*, which is one of the NFC functions of smartphones.



Note: Use scenes and designs in the illustrations are examples.

The roles of each company are as follows.

Company	Role
JRE	JRE will lead technical verification and identify the problem and improvement points to launch this services, assuming that NFC tags will be used in the last / first one mile transport scene which is important in MaaS services.
ABS	ABS will utilize SmartPlate* technology, cultivated by the company, to propose safe NFC tag operation methods and verify technical issues.
Sony	As part of promoting the “Just tap” lifestyle of cards and mobile phones through FeliCa technology, Sony will investigate technical specifications that will be highly compatible in cooperation with related standardization organizations so that various operators can share the new use of NFC tags.
DNP	DNP will consider new services for NFC tags using the know-how related to security technology, software development and system development cultivated through IC card business.

We will actively work to expand NFC services to a wider traffic area and improve the usability of payments based on the results of this technical verification.

*NFC, NFC tags, reader/writer mode: NFC (Near Field Communication) is a short-range wireless communication technology using a frequency of 13.56 MHz and a communication distance of about 10 cm. About NFC, there is the “NFC Forum”, which JRE, Sony and DNP are participating, as a global standardization industry group that develops specifications for realizing compatibility between devices and services, establishes certification programs, and promotes awareness raising activities. Technical specifications such as “NFC tag” with contactless IC chip and technical specification of “reader / writer mode” for reading this tag with smartphones, are standardized by the NFC Forum. Unlike QR codes, NFC tags have security advantages such as being unable to be copied by shooting.

*SmartPlate: A battery-free information delivery device with a built-in cloud-managed NFC tag. Without installing a dedicated app, you can access various information and services just by holding your smartphone.

*The company names and product names listed are trademarks or registered trademarks of the respective companies.