

# nimoca IC Fare Card Service of Nishi-Nippon Railroad Co., Ltd.

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## Start of nimoca Card Service

The nimoca IC fare card service operated by Nishi-Nippon Railroad Co., Ltd. (Nishitetsu) started on 18 May 2008 at 61 stations on the Tenjin Omuta Line (Fukuoka to Omuta, 95.1 km) and on 152 buses of some bus routes in central Fukuoka. An e-money wallet service using nimoca also started at about 500 shops including three department stores, station commercial facilities, supermarkets, station kiosks, and convenience stores centred on the Tenjin district of central Fukuoka where the rail terminus is located and along the Tenjin Omuta Line.



nimoca IC card



nimoca commuter pass

## Overview of nimoca service

The nimoca IC card uses the same standard as JR East's Suica and the PASMO card issued by other private railway and bus operators in Tokyo (see pp. 6 to 17), so the service is basically very similar, as summarized below:

- Fares are deducted automatically just by bringing the card close to a card reader when passing through ticket gates at railway stations and when boarding and exiting buses. This eliminates the need to check the fare and buy a ticket. However, unlike the Suica and PASMO cards, travellers using nimoca earn points that accumulate and can be spent for either transport or shopping.

- The prepaid cards are environmentally friendly because stored fares of up to ¥20,000 can be replenished over and over, eliminating the wastage of conventional cardboard tickets and prepaid magnetic cards.
- Bus and train commuter pass functions can be added and fares for use outside the pass zone are paid automatically.
- Registering the card allows the card to be reissued if it is lost or stolen as well as cancellation of the missing card.
- Cards with added credit card functions can be used for normal payments at shops as well as for automatic top-up of stored value.
- The e-money function can be used at participating merchants and points are earned too.
- Earned points can be used for both transport and shopping.
- nimoca is much more convenient to use than previous magnetic prepaid card services. For example, commuter passes can be included on the same card and the card can be used while in a wallet or purse, eliminating the trouble of taking the card out and putting it back. The fast passage through gates speeds up passenger flows, while the elimination of mechanical gate ticket mechanisms cuts maintenance costs.

## Features of nimoca cards

nimoca can be used as a bus zone commuter pass with railway interoperability. Its usefulness for buses is enhanced by printing both the bus and railway information on the card surface; through travel on other lines is supported too. Bus and rail interoperability are supported because buses are the mainstay of Nishitetsu's business, making interoperability imperative.

To issue cards, Nishitetsu established Nimoca Co., Ltd. as a fully owned subsidiary. Nishitetsu's buses and railways are affiliated merchants of Nimoca Co., Ltd., which also serves to increase the number of e-money affiliated merchants.

Right from the start, introduction of e-money was positioned on an equal footing with transport tickets and using a subsidiary company to operate nimoca makes it easier to expand the number of affiliated transport operators and merchants. The idea behind this is that convenience

for card holders will not increase—so the number of card holders will not increase—until more transport modes and shops are supported.

As a result, it was decided to add the unique system of accumulating points like some store cards to increase transport and commercial tie-ups and contribute to more active use of public transport and regional commerce.

### Future schedule

Future deployment plans include full introduction of the system on about 1500 buses throughout the Fukuoka urban area in FY2008. The 2009 goals are to start service on all bus routes in the Kitakyushu urban area along with the Chikugo and Chikuho districts as well as on highway buses in Fukuoka Prefecture. Full introduction on all routes will allow Nishitetsu passengers to use nimoca IC fare cards on all Nishitetsu's 3000 or so buses. The introduction in each district will also see the start of commuter pass services introduced with the start of nimoca for railways.

On railways, nimoca will be introduced on the Kaizuka Line (Kaizuka to Shingu, 11.0 km) in conjunction with the start of interoperability with Fukuoka City Subway in spring 2010.

Efforts are being made to popularize nimoca as e-money for small purchases in shopping centres, supermarkets, convenience stores, and other retailers alongside bus routes as well as train lines. Use will be broadened to vending machines and coin lockers along with station shopping districts and other locations. At the same time, nimoca will be deployed in taxi, car parking, and other transport uses.

Targets call for a total of 1 million nimoca cards in use within 5 years; Fukuoka Prefecture has a population of 5 million, so the goal is 20% usage.

## Overview of Nishitetsu

Nishitetsu is headquartered in Fukuoka City, Fukuoka Prefecture, and has business operations centred mainly on bus and railways. The company is celebrating its 100th anniversary this year and the group is composed of more than 90 companies employing about 17,000 people with consolidated operating income of ¥360 billion. Nishitetsu's operations base is mainly in Fukuoka Prefecture and its bus and railway terminals along with major commercial facilities are concentrated in the Tenjin area of Fukuoka City. While it has close ties to Kyushu, and Fukuoka in particular, the company also runs hotel and travel businesses across Japan, international air freight businesses in locations around the world, and more.

### Railway business

Nishitetsu's railways encompass three lines: the Tenjin Omuta Line (Fukuoka to Omuta, 95.1 km, 260,000 passengers/day)

and Kaizuka Line (16,000 passengers/day) with terminals in Fukuoka City and the Chikuho Electric Railway Line (Kurosaki to Nogata, 16.0 km, 16,000 passengers/day) with a terminal in Kitakyushu City. The Tenjin Omuta Line in particular is a major artery connecting the south part of Fukuoka Prefecture with Fukuoka City. The Tenjin terminal along with the bus terminal in Fukuoka City boasts Kyushu's largest commercial centre.

### Bus business

Nishitetsu's city bus business is deployed across all of Fukuoka Prefecture, but is centred mainly on major cities. The company also has highway bus services connecting major cities in Kyushu; it owns about 3000 buses, making it the largest bus operator in Japan, and carries about 780,000 passengers a day.

The company is working to provide services that stimulate demand, such as the Hundred-yen Bus, Grand Pass 65 zone-free pass for senior citizens, Ecole Card zone-free pass for students, and Afternoon Pass zone-free pass for off-peak hours. Other pioneering ideas include introducing Bus Navi to provide city bus location information to mobile phones, a reservation system, Bus Navi for highway buses, and SUNQ Pass 3-day free passes for the Kyushu region.

### Main businesses and earnings

Revenue for 2007 came from railways: ¥26 billion; buses: ¥67 billion; taxis: ¥6 billion; shopping centre operations/commercial businesses/office building leases: ¥22 billion; condominiums/homes and other housing development/subdivisions: ¥20 billion; international air freight: ¥76 billion; shops: ¥81 billion; hotels: ¥18 billion; and travel: ¥7 billion.

## Nishitetsu nimoca Card Development Concept and Future Deployment

### Development concept

The nimoca development concept had four pillars:

- Stimulate public transport
- Stimulate regional commerce
- Stimulate region by linking commerce and transport
- Make transport open and easy to use by anyone at any place and any time

### Status of regional municipal public transport and commerce

Outside densely populated areas like metropolitan Tokyo and Osaka, regional public transport is facing hard times with increasing private vehicle ownership, greying society, and depopulation. In areas without good rail and bus services, there is a trend away from public transport towards private vehicle use. Similarly, easy access to cities by private vehicles is making congestion a fact of life in central cities, which decreases the convenience of buses, and hence

the convenience of city centres themselves. As a result, customers are increasingly driving to suburban shopping centres so shopping districts alongside railway lines and bus routes are declining. The vicious circle of stagnant business in local shopping districts leads to further declines in ridership on public transport serving them.

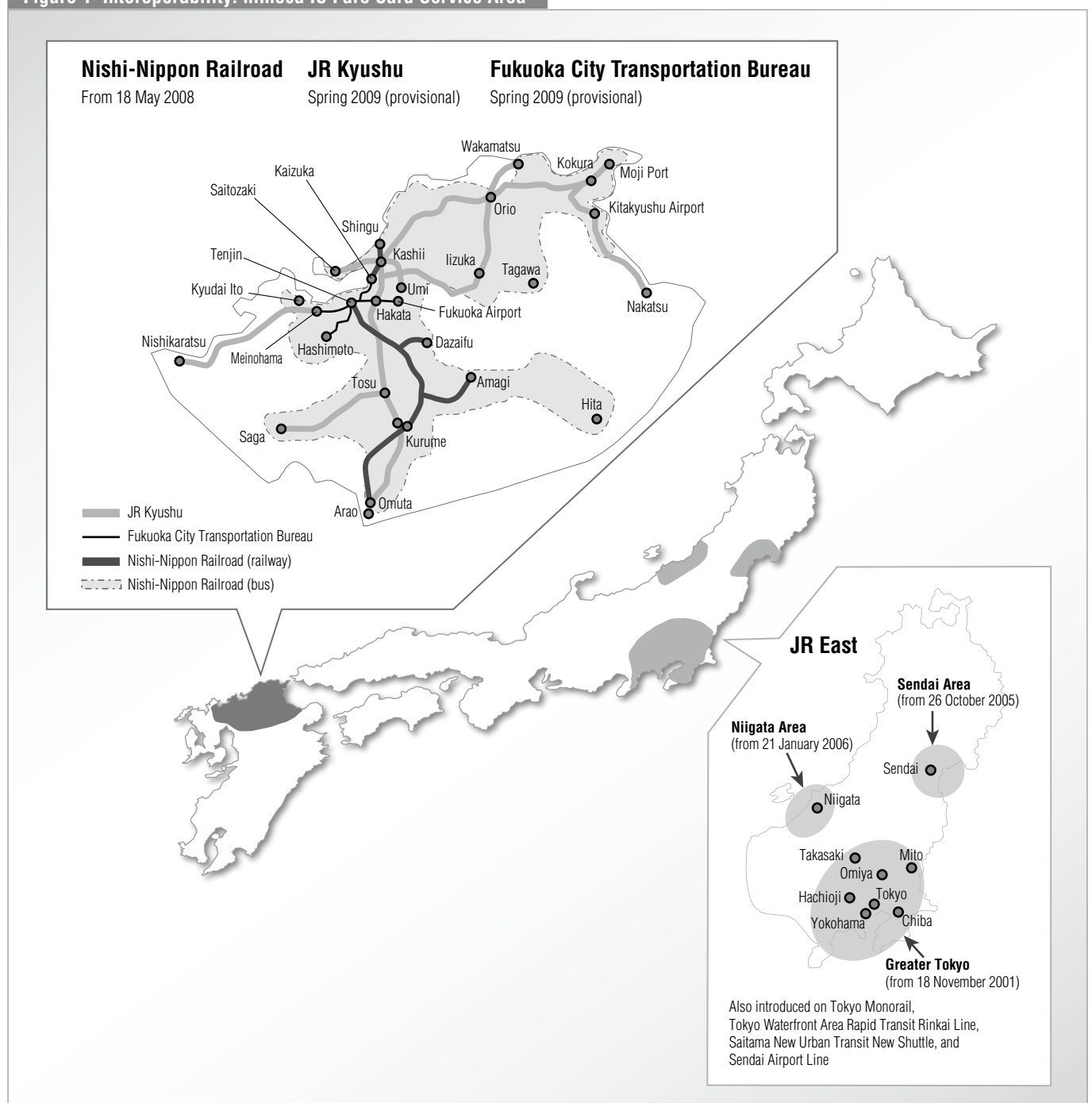
### Approach to interoperability in public transport

The convenience of IC fare cards alone was sufficient to popularize their use in Tokyo and other urban areas. However, it would probably be difficult for Nishitetsu to stimulate

demand by introducing an IC fare card alone in its regional area. The first objective had to be promotion of interoperability between regional public transport modes.

Nishitetsu had previously issued two types of prepaid magnetic fare cards: the Bus Card that could be used only on Nishitetsu group buses; and the Yokanet Card for use on buses, Nishitetsu trains, and the subway. At the same time, Fukuoka City Subway and JR Kyushu had the Wai Wai Card with interoperability between the two companies. However, there was no common card that all three companies could use and the goal was to achieve an IC fare card with full

Figure 1 Interoperability: nimoca IC Fare Card Service Area



interoperability. In 2005, Nishitetsu decided to use the Suica system, which is the standard foundation for interoperability of railways in Japan.

March 2008 saw the conclusion of an interoperability agreement starting in 2010 between Nishitetsu, Fukuoka City Subway (which will introduce the IC fare card in spring 2009), and JR Kyushu. Preparations are currently underway and it has also been decided that interoperability with Suica in Tokyo will start simultaneously. (See the map.) Interoperability between public transport modes is critical to increasing the convenience of IC fare cards and interoperability between the four companies will enable operators to provide convenience to passengers that could never be achieved using conventional magnetic cards. For example, new demand is expected from business and leisure travellers from Tokyo and other cities using their Suica or other IC fare cards for transport and shops in Kyushu. Likewise, regional interoperability as well as the ability to use nimoca in Tokyo is an added attraction for card holders. The ability to use the cards as e-money at affiliated merchants recruited by individual card operators is also expected to lead to an increase in the number of card holders and increased use in commercial facilities alongside bus routes and rail lines.

### Preparations for expanded interoperability

Nishitetsu is trying to expand future interoperability with other transport operators in Kyushu. For example, Nagasaki, Miyazaki, and Kagoshima prefectures have each introduced their own unique IC fare card systems mainly for buses. There is no interoperability and they cannot be used on railways or as e-money. The goals are to achieve interoperability between railways and buses in the various regions to allow one card to be used in Kyushu's various cities, interoperability for intercity travel on highway buses as well as railways, and expanded e-money applications. The goal in broadly expanding nimoca interoperability outside Kyushu to PASMO (see pp. 16 to 17) and services other than Suica is to increase the number of cards for transport as well as commercial use. Japan has a melange of both prepaid and post-paid e-money services, so it is important to use interoperability to increase the number of cards supporting both transport and commercial uses.

### Non-bus and non-rail tie-ups

Competing with the convenience of personal vehicles is difficult using railway and bus services alone and it is important to form tie-ups with taxis, car parking, bicycle parking, car rental companies, and other transport modes to build a seamless transport service.

Public transport must devise door-to-door modal combinations that can replace private transport. These efforts must go beyond tie-ups with other railways, and extend to other industries, such as park & ride and fringe parking lots. It is also

very important for e-money use to expand to these fields too.

### Stimulation of commerce and tie-ups with transportation (e-money)

From the start, the goal of nimoca has been linking of convenient transport and commercial uses. Convenient public transport and local commerce are important partners in stimulating regional economies and e-money holds a key position in creating the link. For example, nimoca eliminates the need to buy a ticket every time public transport is used and to handle small change when shopping. With more people using these cards, public transport will become easier to use, generating more passengers visiting shops alongside rail lines and bus routes.

### Points

The unique points service featured by nimoca but not other IC fare cards was born of the idea of enhancing the link between transport and commerce. Earning points each time transport is used or e-money is spent helps promote usage and the saved points can be used for both transport and shopping. In addition, commercial businesses can use points as promotions, enhancing links between trackside commerce and transport to the benefit of both.

### Open deployment instead of customer retention

With nimoca, Nishitetsu is imagining a strategy other than simply retaining customers for its own lines and group companies. Limiting use to Nishitetsu group companies would reduce the convenience for users. Instead, the goal is to popularize the card in the region as a whole. In addition to nimoca cards, Fukuoka City Subway plans to issue its Hayakaken and JR Kyushu its SUGOKA cards. Both will be interoperable with nimoca and will support a variety of services. The reasoning is to provide the greatest opportunity to raise interest in public transport and revitalization of existing shopping districts will hopefully be the result. ■



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Mr Yamaguchi was a manager in the IC-Card Planning Department of the Business Development Division at Nishi-Nippon Railroad Co., Ltd as of this writing. He joined the company in 1979, after graduating from Kyoto University. Prior to his current position, he was on loan to an affiliated advertising agency.