

Cards and Payments Services

CAFIS REPORT



NTT DATA Corporation

Cards and Payments Services Division

First Financial Sector

Urban Net Mita Bldg., 4F, 10-1, Mita 3-chome, Minato-ku, Tokyo
108-0073, Japan

TEL : +81-50-5546-8578

URL : <http://solution.cafis.jp/> (CAFIS service, Japanese only)
<http://www.nttdata.co.jp/en/> (NTT DATA Corporation)



With an Eye toward the Credit-card Shopping Age

In the 1980s, credit card holders were increasing in the consumer market year after year. However, the authorization system, essential to credit card transactions, had been based on manual operations; those involved had been demanding a new authorization system for secure, reliable and prompt authorizations.

Under the circumstances, NTT Data, as part of a team with our relevant organizations, developed a network service called CAFIS for real-time credit card authorizations connecting between merchants and credit card companies by telecommunication lines.

A quarter of a century has passed since that time, now, as the social infrastructure that supports the credit-card shopping age, CAFIS supports the affluent lives of consumers.

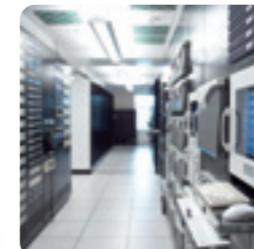


NTT Data Pioneered and Now Leads the Card Payment Field in Japan. Our Total Card Payment Solution is Evolving Even at This Moment.



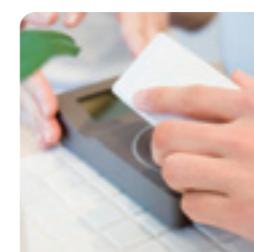
To Meet Every Need

About Our Services	Page 7
Card Payment Service	Page 9
Internet Payment Service	Page 12
Payment Server ASP Service	Page 13
Payment Collection Service	Page 15
Acting Service for Payment Collection...	Page 18



To Provide Secure Services

Creating a Safe and Secure Structure	Page 19
Enhanced Security.....	Page 19
Stable Transactions Quality.....	Page 20
Broadened Help Desk Service	Page 20



To Make the System More Familiar and Useful

Creating a More Convenient Structure....	Page 21
--	---------



To Fulfill Our Social Responsibilities as a Corporation

Contribution to the Environment and Society.....	Page 25
--	---------

History

To Provide a More Secure, Higher Quality Card Payment Solution at a Lower Price

- Secure** ★ Toward enhanced security
- Reassuring** ♡ Toward stable system operation
- Convenient**
 - Toward diversified transaction means
 - ◆ Toward globalization
 - Toward increased convenience

Fee per transaction Up to 8 yen

1985

- ♡ Stand-in authorization service for system halt/maintenance of credit card companies started [September]
- Bank POS service started [September]
- CAFIS access points increased to 10 [December]

Up to 7 yen

1988

- CAFIS intracorporate CD service started [October]

Up to 4 yen

1990

- CAFIS audio response service started [April]
- CAFIS access points increased to 11 [December]

1991

- CAFIS access points increased to 15 [December]

1995

- CAFIS sales data management service for merchants started [February]
- CAFIS-Hi communication protocol service started

1998

- CAFIS 24-hour nonstop service started [April]
- CAFIS cash management account deposits and withdrawals service started [October]
- CAFIS stand-in authorization service for credit card companies started [November]
- ◆ CAFIS international ATM service started [November]
- CAFIS convenience store CD service started [November]

2001

- Pay-easy – a multi-payment network – started [October]
- ◆ CSD validity check data switching service started [October]
- ★ CAFIS security check service started [October]

2002

- INFOX-NET account transfer contract acceptance service started [January]
- ★ CAFIS started to support IC cards [July]
- ★ INFOX started to support IC cards [July]
- ★ CAFIS BlueGate – Internet payment service – started user authentication service [September]
- CAFIS started to support IP [October]

2003

- CDS started to support the HULFT protocol [February]

2005

- ★ ISMS (information security management system) certification obtained [April]
- ◆ China UnionPay connection started [December]
- NTT DoCoMo began the micropayment service (ID) [December]

2006

- ♡ INFOX center system duplexed [September]

2007

- ◆ Cash advance using overseas-issued cards supported [January]
- Mobile Register – pay by mobile phone using barcode service – started [April]
- VISA debit service started [July]

2008

- ★ CAFIS obtained PCI DSS certification [February]
- ★ CDS obtained PCI DSS certification [July]
- National treasury fund collection service started [October]
- ♡ Number of INFOX terminals set up exceeded 600,000 [November]
- ★ BlueGate obtained PCI DSS certification [November]

2009

- Contactless IC payment service started [February]
- INFOX started to support optical communication lines [March]
- Mobile Register started to support payment of local public entity [May]
- ★ INFOX obtained PCI DSS accreditation [June]
- ★ PastelPort obtained PCI DSS accreditation [June]
- ♡ Number of monthly CAFIS transactions exceeded 300 million [December]

2011

- Via Mobile Register, began enabling credit card payments of Tokyo metropolitan motor vehicle taxes [May]
- Began providing the CAFIS paper slip management service for large stores [July]
- Began providing a Mobile Register smartphone app [October]

2012

- ★ Commenced the CAFIS attribute certification service [March]
- ♡ Set up two centers for CAFIS and INFOX-NET in Tokyo and Osaka [March]
- Commenced the PastelPort Plus service [April]
- ◆ Began a multiple currency settlement service [April]
- Began enabling the SFTP Procedure via CDS [August]

1984

With an eye toward the growing credit-card market

- CAFIS service – total card payment network – started [February]

Driven by the entry of international credit-card brands into the Japanese market, the growing use of credit cards in large-scale retail stores, widespread cash advance services, and other factors, the credit-card market was rapidly growing. Under those circumstances, we started the credit authorization switching service based on the CAFIS (Credit and Finance Information System)—a network with stable communication lines. Now, it is the largest total card payment network in Japan.

- CAFIS authorization service started [February]
- CAFIS access points established in Tokyo, Osaka, and Nagoya [February]
- CAFIS cash advance service started [September]



Up to 3.5 yen

To respond to the need to reduce the workload for transaction settlements

- CDS – credit data transfer system – service started [June]

We started the CDS service based on a credit data transfer system that provides an online connection between merchants and credit card companies to transfer information about sales, credit-card validity, and others. By computerizing data transmission, which had been based on magnetic tape (MT), we helped merchants reduce their paperwork load.

- CAFIS gathering service started (supporting G-CAT) [September]
- CAFIS access points increased to 40 [December]

Up to 3.325 yen

To meet diversified needs for card payments

- INFOX and INFOX-NET services – terminal solutions for card payments – started [July]

Under the situation where more types of cards were becoming available, including credit and debit cards, we started a service using INFOX terminal, a compact terminal that accepts many types of cards. We also provide a service that allows merchants to establish a connection with INFOX-NET to check sales summaries and handle points, for example.

- Phase 1 of the INFOX debit service started [October]

100 million exceeded

Up to 3.15 yen

Toward more convenient credit-card payments

- CAFIS PastelPort service – a card payment solution for retailers – started [April]

In the situation where more and more people bring plastic money with them instead of actual money in daily life, we began the CAFIS PastelPort, an ASP service for building a card payment system for retailers at low cost. In February 2010, we also began the contactless IC card payment service that supports various types of digital money that is coming into wide use.

- INFOX terminal connected to LAN launched [July]
- INFOX service started to support PiTaPa, a contactless IC card for transportation [September]

200 million exceeded

300 million exceeded

Numbers of monthly CAFIS transactions (figures in millions)

*Monthly transactions at fiscal year ends (March)

0.20	1.2	1.96	3.04	5.07	7.00	9.53	11.65	13.22	15.02	19.49	28.46	38.64	44.78	53.07	64.74	77.14	92.61	115.37	139.28	171.85	207.86	239.51	268.66	283.90	302.45	296.10	355.01
------	-----	------	------	------	------	------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

Through Constantly Evolving CAFIS, We Will Create Innovative Changes toward the Future



How did the CAFIS service start?



With the background of the growing credit-card market, it started as a trial to meet the demands of the industry.

In the early 1980s, the credit-card market showed signs of rapid growth, including the entry of international credit-card brands into the Japanese market and the growing use of credit cards in large-scale retail stores. In those days, it was said that a real card age was coming. At merchant sites, however, card payment handling was a very troublesome task because it required clerks to manually handle the device for copying card information to sales slips, and then write the amounts and product names and other information on them. Under the circumstances, credit card companies developed their own dedicated terminals and provided them to their merchants. However, as credit cards became more widespread, credit card companies were required to

bear increasing costs for maintaining and managing terminals, and merchants, in turn, had to install more than one terminal at their stores. This increased the complaint that the system was very inefficient.

Thus, the situation gave momentum to efforts to build a mechanism that could be shared by all organizations. Based on the request from Japan Credit Card Association (JCCA), NTT developed the CAT (Credit Authorization Terminal) at that time. This terminal became considerably widespread, which did not lead to automated card processing, however. Under the circumstances, we decided to set up a center for collectively processing information. This later developed into CAFIS.

What did you focus on when developing CAFIS?

With many problems to solve, we focused our efforts on assuring reliability and accuracy thoroughly because they underlay the significance of the existence of CAFIS.

In those days, there was no network connecting all merchants, credit card companies, and financial institutions with one another. In this situation, we had a

bunch of very real problems because we were trying to build an unprecedented, leading-edge network for electronically checking the validity of cards. How can we secure the reliability for assuring 24-hour operation of the system? How can we build an efficient system that accurately handles settlement transactions using a variety of lines? Which cryptographic technology is most suitable for securing communications? How should we define easy-to-use terminals? Among all these important issues, we focused our efforts on reliability and accuracy thoroughly because they might be the very significance of the existence of CAFIS.

Despite many hours we spent working on CAFIS by trial and error, we successfully started the service in 1984 as scheduled. I believe that this success was surely driven by the sense of responsibility and passion of our employees each; "We will build an unprecedented, new social infrastructure."



What is your most important challenge now?



Working as a global business partner, our biggest challenge is to propose and continue to provide new value.

Our most important challenge is simply to continually create and propose new values. A quarter of a century has passed since we began the service. CAFIS has been supported by you and is now an essential social infrastructure. I believe that this growth has been driven by our power of conception, with which we have been offering new features and services a half step ahead of the time while facing credit card companies, financial institutions, and merchants.

For example, in the 1980s, we implemented a bank POS service, which allowed consumers to buy things with their cash cards. In addition, we started to connect it with intracorporate cash dispensers. In the 1990s, we set up gathering-capable CAT terminals, started non-stop 24-hour service, supported debit cards, and began INFOX, a multi-functional credit-card terminal. In the 2000s, we began a credit-card transaction service on

the Internet and ASP service for POS terminals, improved reliability by implementing multicarrier mission-critical networks and a duplex center system, and enhanced security by introducing ISMS. In recent years, we are also putting our energies into international connection with China UnionPay and other organizations, as well as credit settlements in multiple currencies. We are also focusing on settlement via smartphones and tablets.

Some of these services were introducing too early and therefore were not expected to produce good profits. However, with the DNA called "public nature" we inherited, we have aggressively addressed the services associated with payment settlement, which would potentially provide the basis for our growth. We also provide our customers with both local and global services, partnering with customers to help them succeed in their global businesses.



Finally, give your message to stakeholders.



With an eye toward the development of the whole industry, we will make efforts to develop new technologies and services.

With a lot of great help from all the parties concerned, we provide constantly evolving CAFIS services. I appreciate very much the warm support from you. While the world is more and more quickly changing, I believe that it is an endless process to develop new technologies and services for easier and more secure use of the system. With our efforts focused on evolving CAFIS itself, we will propose policies that will develop the whole payment industry through conversations with the stakeholders.

As a business that lives with customers and society, we value long-term relationships. Through CAFIS's ongoing progress, we aim to take on new markets with an eye toward the future.

Toshio Iwamoto

President and Chief Executive Officer



Using CAFIS, the largest card payment network in Japan, as the core, we will continue to create services and functions that meet new needs associated with payment.

To help merchants enhance their service to the customers

We help merchants improve their customer service and operational efficiency by providing them with a variety of payment methods, including credit cards and contactless IC cards, as well as a sales management service.

To help credit card companies increase their profits

We help credit card companies expand their business opportunities in the cashless age by increasing opportunities for the use of cards through the delivery of a safe, convenient card transaction mechanism.

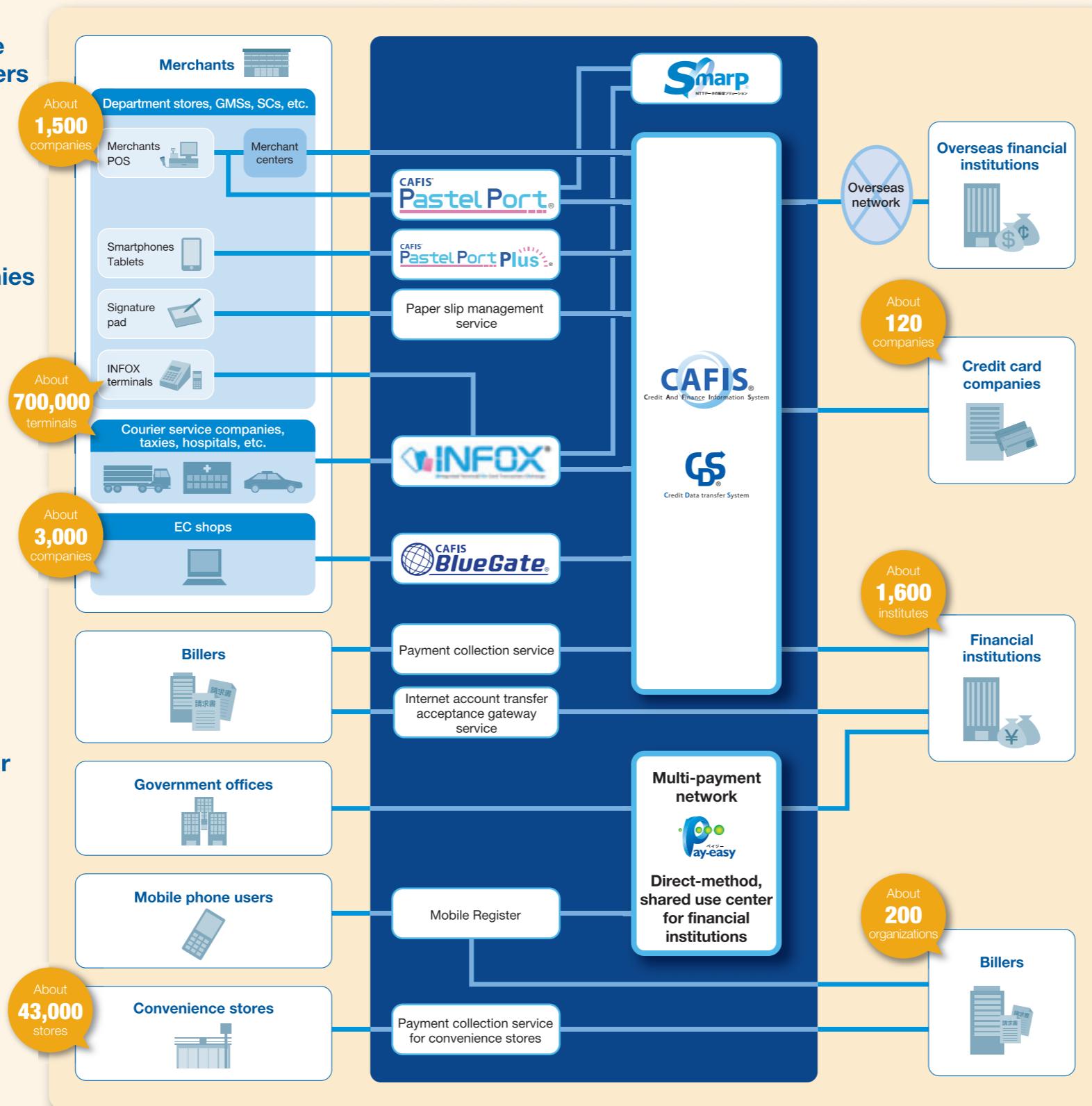
To help financial institutions improve their operational efficiency

By computerizing the necessary procedures required for account transfers and other processes, we help financial institutions streamline their window service and paperwork to reduce their task load. In addition, we provide flexible ATM network connections according to their ATM strategies.

To help billers increase their receipt ratio

By providing an environment that allows people to make payments at any time and any place using a convenience store, ATM, mobile phone, or other means, we help billers receive more payments earlier.

Network configuration diagram



Secure

Reliable transaction data relays provided for more than 25 years

Since its debut in 1984, CAFIS has been supporting card payments in Japan for more than 25 years. Now, it is Japan's largest-scale, reliable network infrastructure connecting about 1,500 merchants, about 120 credit card companies, and about 1,600 financial institutions.

Duplexed-center configuration for non-stop operation even in a disaster

For CAFIS and INFOX-NET, data centers are located at two different places in Japan. This provides a framework that can provide non-stop service even if one of the centers stops operation due to a large-scale disaster or the like.

Service for scheduled maintenance or system halt of user centers

Even if the scheduled maintenance or out of order of user centers, they can continuously provide their services to their customers by using CAFIS center stand-in authorization service.

Reassuring

High-level security ensured

We have achieved high-level security fully compliant with international security guidelines and absolutely essential to card transactions. Ahead of others, we enhanced the security for Internet shopping, IC cards, and other applications to ensure that the sensitive/confidential information of customers and users is protected.

Leading-edge network security achieved

We always implement security measures based on the leading-edge technologies appropriate for the type of the line: telephone line, DDX line, or TCP/IP.

Convenient

A variety of payment methods provided

We provide a variety of payment methods, including the Internet and contactless IC cards, to provide customers and card users with increased convenience.

Service provided 24/7

We provide service 24/7/365, even on Sundays and national holidays and even at night so that you can use the service any time according to your business and lifestyle.

Customer center also available 24/7

Our customer center also operates 24/7/365 to always support customers at many levels ranging from the sign-up process to the use of the service. We monitor customers transaction status to give you a sense of assurance.

Card Payment Service

We Provide a Total Card Payment Solution that Supports Cashless Society

CAFIS – Total Card Payment Network

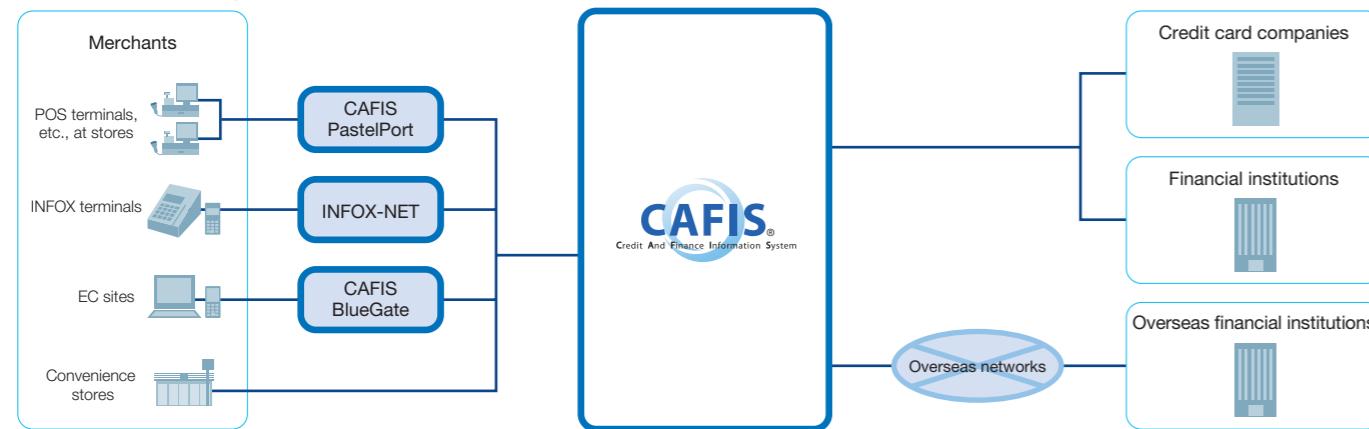


It is the largest payment network in Japan with enhanced security, reassurance, and convenience.

CAFIS is the largest total card payment network that connects credit card companies, financial institutions, and merchants across Japan online. CAFIS provides authorization services and cash advance services along with other services, including debit cards and cash withdrawal service such as ATMs at convenience stores. CAFIS is being globalized. As one aspect of our globalization, in

recent years we have begun providing a cashing service in Japan on credit cards issued overseas. In addition, CAFIS provides an agency facility service that allows us to step in on behalf of credit card companies in unforeseen situations such as when credit companies are unable to provide credit. In such ways, we continue working to promote safe, secure and convenient card settlement systems.

CAFIS network concept



CDS – Credit Data Transfer System

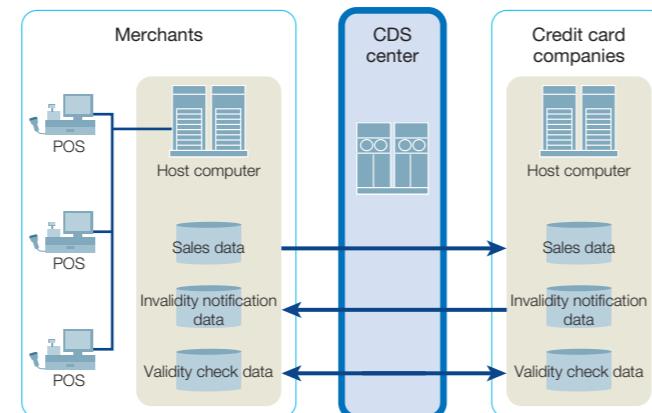


It transfers sales data and other information by credit card company at once, substantially streamlining your sales data handling task.

CDS connects merchants and credit card companies with each other online to communicate data, such as product and service sales information and credit card validity, promptly and accurately. On the occasion of CDS's 20th anniversary of establishment in 2012, in

addition to data transfer using ISDN lines as was done in the past we began offering data transfer via Internet connections.

CDS system concept



Advantage of introduction 1: Reduced burdens associated with preparation and transmission of MT

Merchants no longer need to prepare or transmit MT (magnetic tape) bearing sales data for each credit card company. This reduces their paperwork and dispatch costs.

Advantage of introduction 2: Reduced transmitting and receiving time

CDS transmits and receives data online, reducing the time for merchants and credit card companies to transmit and receive data.

INFOX and INFOX-NET

– Terminal Solutions for Card Payments



Supporting many types of cards like credit cards, reward and contactless IC cards.

INFOX-NET is a data processing center that connects the INFOX terminal installed at each merchants with credit card companies and financial institutions.

INFOX terminals alone accept credit, debit, contactless IC, and China UnionPay cards,* supporting shopping, account transfer contract acceptance, and point reward services based on these cards.

*China UnionPay card: Debit card branded by China UnionPay

Major optional services

Sales management service

During the morning, this service sends the data of the previous day's payments made through INFOX terminals to the head office of merchant, helping that merchant speed up their sales management task without missing any information from the summarized data.

Sales management ASP service

This ASP service allows the head office of merchant to manage the summarized sales data about the payments made through INFOX terminals on Web based interface, helping them streamline their sales management and other tasks.

Sale report management service

This service daily summarizes the data associated with sales, such as payments for products and the number of visitors, input through INFOX terminals to provide the summarized data to the head office of merchant.

Sales report Web browsing service

This service allows the head office of merchant to access INFOX-NET to view the sales report data of each of their stores in real time.

Advantage of introduction 1: Variety of payment methods supported

INFOX and INFOX-NET support contactless IC cards, such as iD, Edy, Suica, QUICPay, and WAON, and are therefore available for micropayments using digital money.

Advantage of introduction 2: Reduced workload of sales data management

The sales data management service and other optional services help merchants streamline their tasks such as sales data processing and payment management.

Advantage of introduction 3: Help desk support

We provide help desk support 24/7 to respond to inquiries about the use of the more than 700,000 INFOX terminals installed nationwide.

Variety of INFOX terminals for many purposes



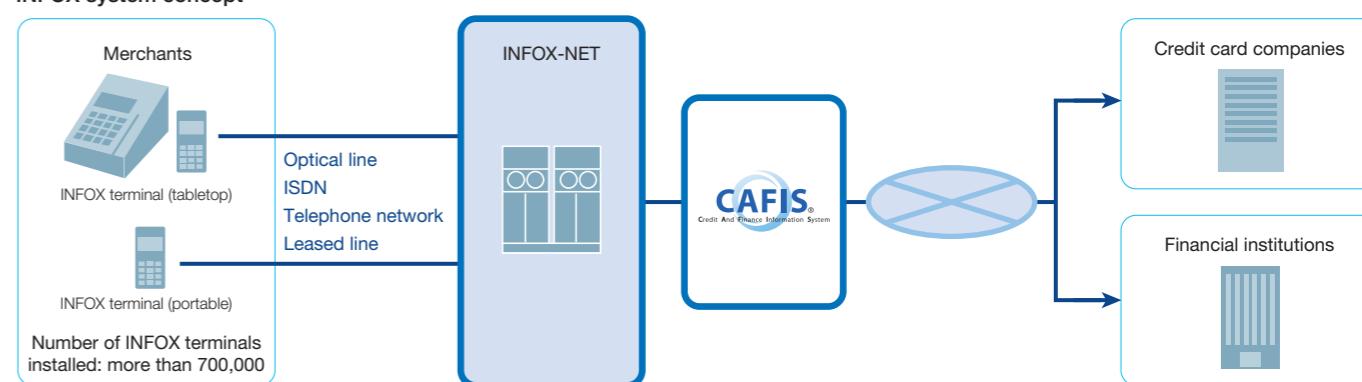
Compact tabletop terminals installable next to the cash register
Mobile terminal you can bring with you for bill collection or to exhibition spaces.
Taxi-meter-linked, kiosk-type, and other special terminals

Contactless IC cards supported by the INFOX terminals



*For contactless IC cards, the services available depend on your terminal model.

INFOX system concept



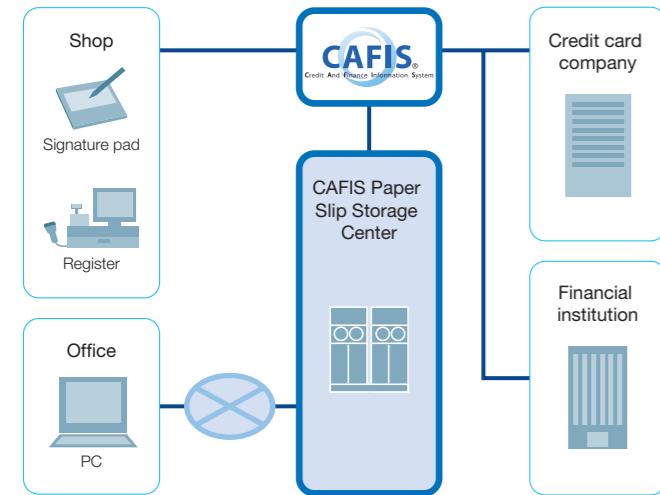
CAFIS Paper Slip Management Service

This service converts credit card signature slips to an electronic format and stores them in a secure environment.

The CAFIS Paper Slip Management Service converts credit settlement signatures and the like that previously used paper slips to an electronic format, eliminating the need for signature slips to be output on paper. Signatures that have been obtained on signature pads

and transaction information are transmitted via CAFIS for storage at a paper slip storage center operated by NTT Data. This paper slip storage center meets the PCI DDS global standard for the credit industry. Signature slips can be stored under tight security for seven years.

CAFIS Paper Slip Management Service concept



Advantage of introduction 1: Eliminates operational mishaps at stores

There is no need to output signature slips on paper, which allows operations to be systematized. This also avoids operational mishaps such as forgetting to hand the customer the slip, handing him or her the wrong one, or slips being lost by stores.

Advantage of introduction 2: Eliminates cumbersome checking of paper slips

This system essentially eliminates the cumbersome process of managing paper slips, including checking to be sure that the signature has not been forgotten, checking that the wrong slip has not been handed to the customer, and checking the number of slips to be sure that none are missing.

Advantage of introduction 3: Speeds response to inquiries

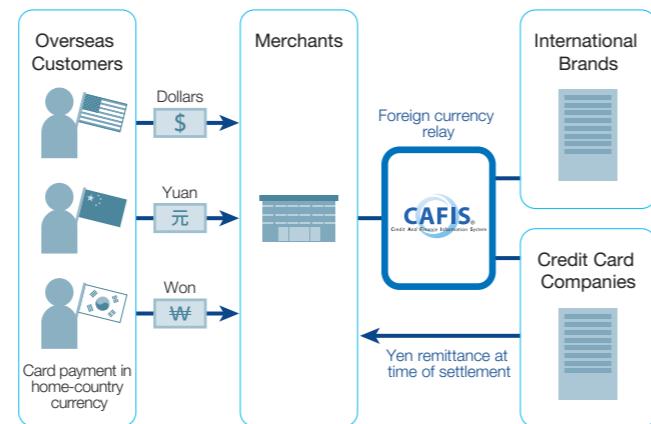
When necessary, slips can be searched from the paper slips storage site in an instant. This speeds the response to credit card company inquiries as it eliminates the need to go to a warehouse and physically sort through piles of sales slips.

Multiple Currency Settlement Service

This is a new service that enables foreign currency card services via CAFIS.

The Multiple Currency Settlement Service allows credit card settlements to be conducted in foreign currencies. Until now, when consumers from overseas used their credit cards to purchase products in Japan, their settlements typically could be denominated only in yen. However, this service allows people from overseas to settle their purchases in their customary currencies. This service is also the first of its kind in Japan that allows Japanese credit card companies to offer foreign currency settlements. As one early example of this, on April 2012 we began providing the BlueGate Multiple Currency Settlement Service via the BlueGate cloud service for customers using e-commerce sites. Going forward, in addition to e-commerce sites this service will also become available for foreign currency card settlements at physical stores.

Multiple Currency Settlement Service concept



Card payment in home-country currency

Internet Payment Service

We Provide a Secure Card System that Supports the Expanding Online Shopping Market

CAFIS BlueGate – Internet Payment Service



Providing a secure, multifunctional card payment system best suited to Internet and mail order shopping.

Advantage of introduction 1: No need for building or operating a server for online payments

CAFIS BlueGate does not require merchants to build their own payment server, reducing the resources that they have been spending in daily system and task operation.

Advantage of introduction 2: Reduced workload of credit card information management

Because the service allows merchants to conduct their business without having to keep credit card numbers or other information, they can enhance security while improving convenience.

Major features

•Card number entrusting feature

Even though merchants entrust card information to NTT Data, they can provide users with the same purchase flow as in the case where they internally have card information.

•Member billing/regular purchase feature

This feature provides necessary one-stop services and functions to merchants that need regularly billing, such as monthly fee collection.

•Management feature

This feature provides a control panel that allows merchants to view or download the transaction history, return products, and conduct other business operations.

•Foreign currency settlements

Credit card settlements can be conducted in foreign currencies, which expands the potential shopping area to overseas locations.

BlueGate User Authentication Service

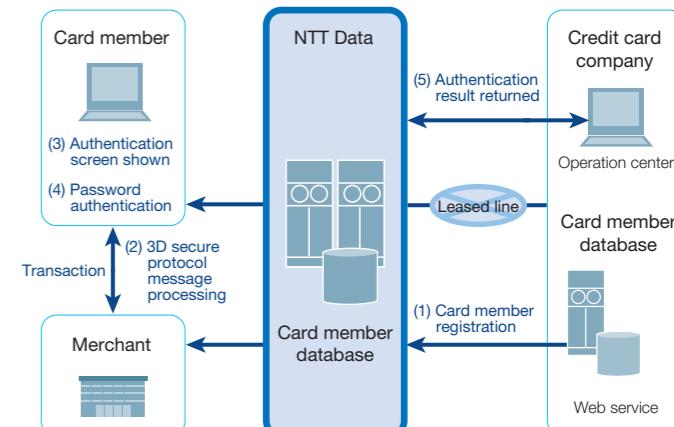
Using the ASP method to provide a user authentication mechanism that supports 3D secure system.

It supports the 3D secure authentication* to prevent unauthorized transactions through spoofing or the like by authenticating not only card numbers but also passwords of card members.

Introduction of this service allows card companies to build an authentication mechanism compliant with the 3D secure authentication that supports the authentication services for the three brands of VISA, MasterCard, and JCB, without having to develop their own system.

*3D secure authentication: Security technology developed by VISA Worldwide for providing secure Internet transactions.

BlueGate user authentication service concept



Payment Server ASP Service

We Provide More Secure, Convenient Server Functions Required for Card Payments at Lower Cost

CAFIS PastelPort – Card Payment Solution for Retailers

Providing a card payment solution in an ASP method that does not require retailers to build a server.

PastelPort directly connects with POS terminals at stores to provide payment functions for many cards, including credit and debit cards, using the ASP method. It also supports services such as reward cards, prepaid cards, and digital money. PastelPort has eliminated the need for you to set up and operate a server for retailer.

Advantage of introduction 1: Reduced server construction and operation costs

The service does not require you to set up an additional server or to develop systems, which considerably reduces the initial cost, operational expenses, and required personnel.

Advantage of introduction 2: Supporting diversified payment means ahead of others

The service can support a variety of payment methods, such as credit/debit card including the China UnionPay Card and digital money, quickly and at low cost.

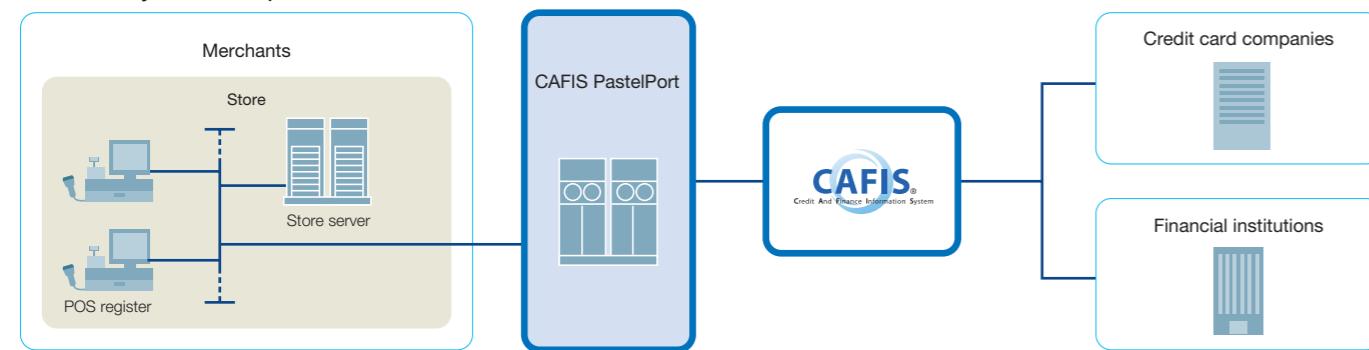
Advantage of introduction 3: Security measures giving safety and reassurance

The backbone of the solution is the CAFIS network, which achieves advanced information security. In the event of a trouble, the security measures minimize the effect of it.

Advantage of introduction 4: Wide choices of optional services

You can use the data input through POS terminals to manage customer information, perform a simplified customer analysis, and manage points.

PastelPort system concept



It does not require you either to accommodate new payment methods in the feature because NTT Data will add all the necessary functions.

In addition, you do not have to think about the security and operation aspects because the service is based on the highly reliable servers of NTT Data.

Major services

• Credit-card payment services

Services such as credit-card transaction data, preparation and representation of sales data, and sales summary data feedback.

• Debit-card payment service

Services such as debit-card transaction data and sales summary data feedback.

• Point management service

Services such as point and customer data management and administrator terminals.

• Contactless IC card payment service

Services such as management of reader/writer terminals supporting contactless IC cards, transmission of credit line data, preparation of sales data on your behalf, and sales summary data feedback.

• Prepaid card payment services

Services such as balance inquiries for prepaid cards, money receipt and sales data processing, and administrator terminals.

• China UnionPay connecting service

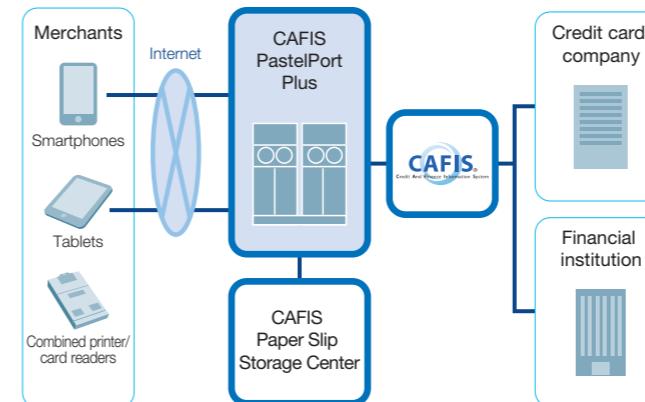
Services such as China UnionPay card transaction data relays and sales summary data feedback.

PastelPort Plus Settlement Service for Smartphones and Tablets

This service enables card settlement anywhere and at any time.

PastelPort Plus allows settlements to be conducted either inside or outside a store using smartphones or tablets and a combined printer/card reader. The "Plus" denotes the additional flexibility of portability with the PastelPort cloud service for POS settlements. In addition to conventional credit and China UnionPay settlements, the settlement menu offers a paper slip management service. When out and about, settlement can be performed immediately, food and beverage

Concept of PastelPort Plus



establishments can use the service to accept payment at tables rather than at central cashiers, and instantaneous POS settlements can be performed at festivals and events.

Advantage of introduction 1: Enhanced customer satisfaction and more efficient customer interactions

This service eliminates the bother of asking a customer to move to a different location for payment, which enhances customer satisfaction and provides for more efficient customer interactions.

Advantage of introduction 2: Improved management of paper slips

Signature slips can be stored electronically, eliminating paper output for card companies. This keeps paper slips from being lost and helps merchants manage paper slips.

Advantage of introduction 3: Can be used for activities other than settlements

Smartphones and tablets can be used to store electronic catalogs and other data. A single terminal can be used to improve business efficiency and reduce costs.

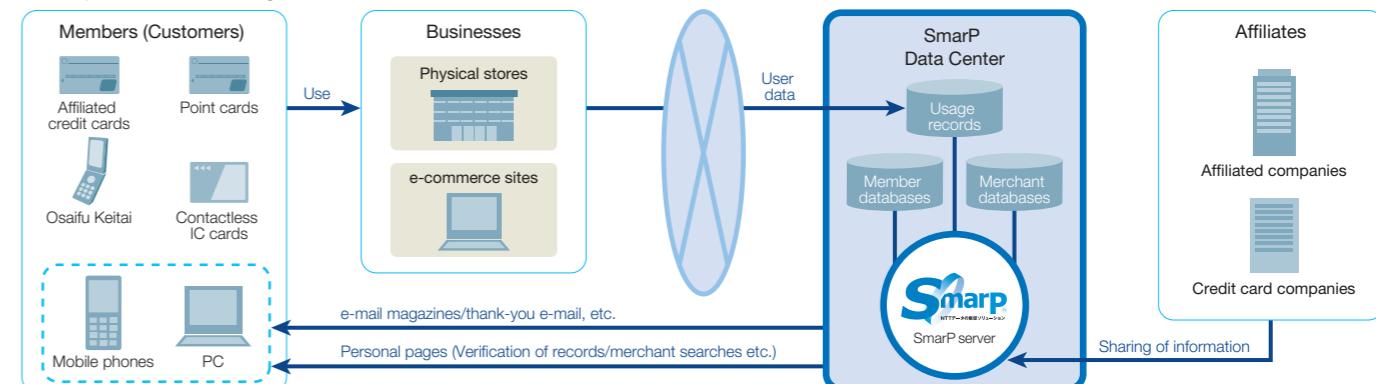
SmarP, a SaaS Sales Promotion Solution

This solution allows data from e-commerce sites and physical stores to be managed together.

SmarP is highly cost-effective for point and campaign services. SmarP can be used to handle settlements at INFOX and POS terminals and use affiliated point services. In addition, it allows customer data to be managed centrally for the point cards of e-commerce sites and physical stores, most of which were managed

separately in the past. A variety of other functions are also available. The "thank you e-mail" function can be used to send sales promotion e-mail messages, and the analysis function aids in creating sales promotion plans based on customers' usage histories.

Concept of services using SmarP



Payment Collection Service

We Make a Variety of Payment Methods Available, Including Increasingly More Widely Used Internet and Mobile Banking

Pay-easy – Multi-payment Network



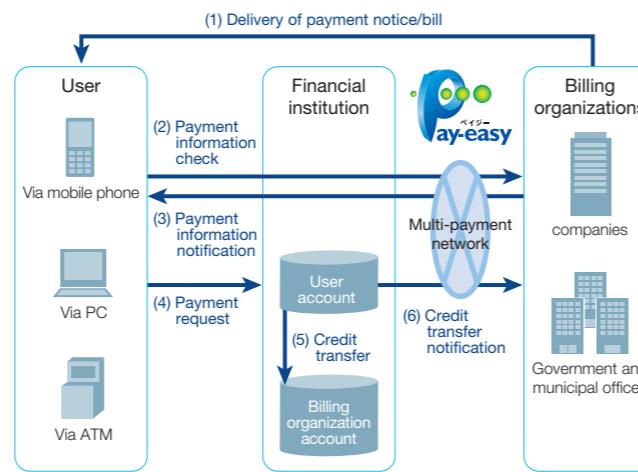
Reliable payment network built for streamlining your payment collection tasks.

Pay-easy is a payment network that connects billing organizations of government offices, local public agencies, private businesses, and other organizations, with financial institutions. This network allows users to pay public utility charges and taxes using a variety of means, such as the mobile phone, PC, and ATM, without having to go to a financial institution or convenience store.

Billing organizations, in turn, can expect to increase their collection ratio as well as streamline their payment receipt tasks. Likewise, financial institutions can considerably streamline their payment receipt tasks.

Pay-easy has been built and operated by NTT Data under a commission from the Japan Multi-Payment Network Management Organization. It provides a 24/7 stable service.

Multi-payment network concept



Direct-method, Shared Use Center for Financial Institutions

Providing payers with increased convenience and promoting electronic government and municipalities through a payment system interlocking with the electronic application system.

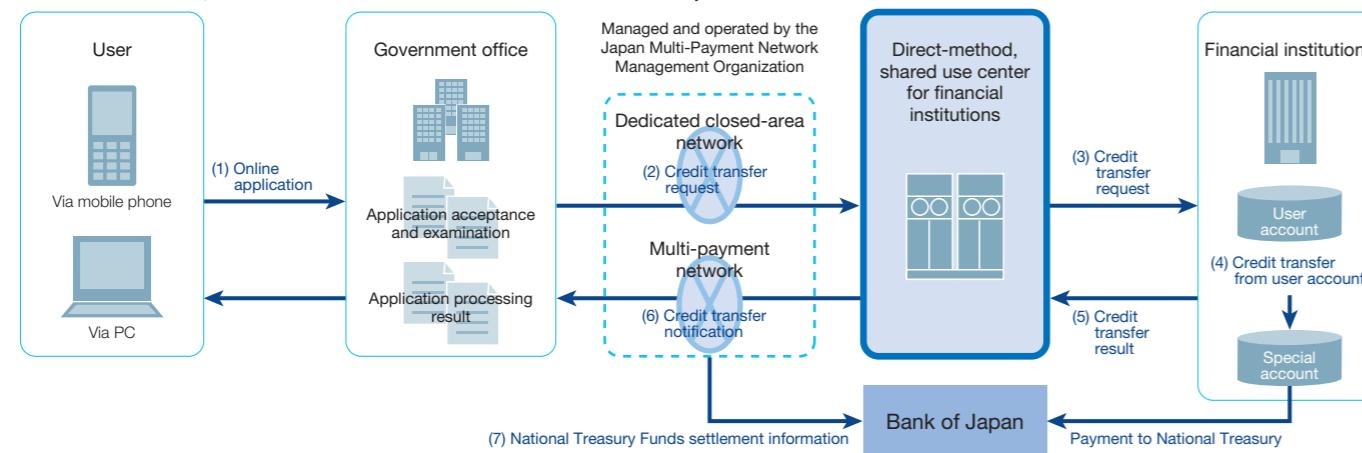
The direct method is one of the Pay-easy payment methods. It allows payers to file an electronic application through the Website of each government office so that they can automatically have the associated fee and reported tax amount deducted instantly from the pre-registered account of a financial institution. Payers can enjoy considerably increased convenience because they do not have to do anything to pay fees and taxes. Now, this method is

adopted by the Customs and Tariff Bureau, Ministry of Finance Japan; the Financial Bureau, Ministry of Finance; the Japan Patent Office; and the National Tax Agency.

NTT Data has built the direct-method, shared use center for more than 300 financial institutions.

We will continue to provide payers with increased convenience and help promotion of electronic government and municipalities.

The direct-method, shared use center for financial institutions concept



Mobile Register – Barcode Payment Service



Providing an easy, convenient, secure transaction means based on the mobile phones and smartphones.

Advantage of introduction 1: Protected users' privacy

This payment service does not require users to turn over their bills with private information to clerks at a convenience store, and therefore protects their privacy.

Advantage of introduction 2: Payments at any place

You can make payments easily at any place any time without going out or arranging cash.

Advantage of introduction 3: Earlier payment receipt

Billers can expect earlier payment receipt and an increased receipt ratio because of convenience in payments.

Advantage of introduction 4: No need to develop applications

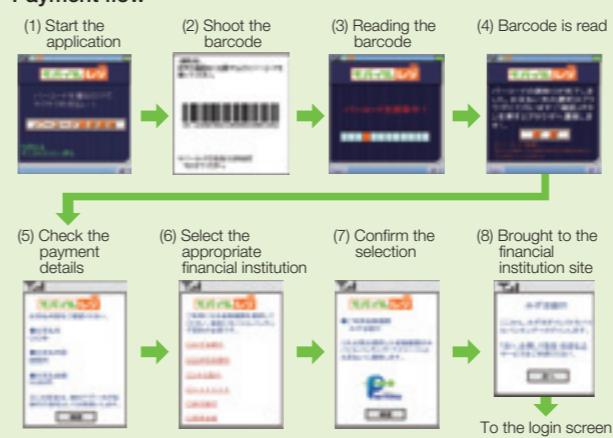
Billers do not have to develop new applications. Financial institutions that support the information link system* of Pay-easy do not have to modify their systems.

*Information link system: This system allows payers to specify the destination financial institution through the Website of each receipt organization.

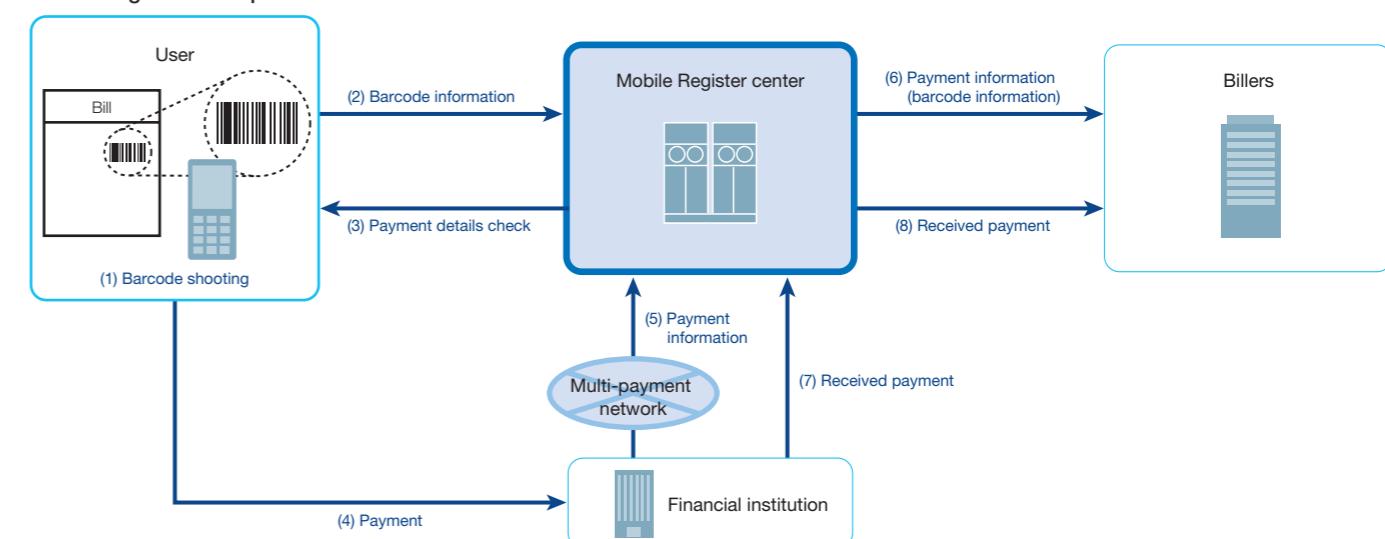
Advantage of introduction 5: Helping reduction of environmental burdens

The service reduces CO₂ emissions associated with going out for payment and delivery and arrangement of receipts.

Payment flow



Mobile Register concept



Acting Service for Payment Collection

Makes Payments of Utility Charges and Product More Speedy and Efficient

Internet Account Transfer Acceptance Gateway Service

Helping you streamline your procedure tasks by eliminating paper and seals from account transfer contract.

The Internet Account Transfer Acceptance Gateway Service is an ASP service intended for financial institutions that provides the account transfer contract procedure on the Internet. In conjunction with the Internet account transfer acceptance service provided by each financial institution, it provides a paperless, no-seal account transfer procedure based on the user authentication on the Website of each financial institution.

This service, allows billers, such as credit card

companies, telco companies, life/non-life insurance companies, and mail-order companies, to streamline and speed up their operations and reduce paper documents.

To enable financial institutions to easily introduce Internet account transfer acceptance services, we have configured the Internet Account Transfer Acceptance and Financial Institution Front Service as an ASP service targeting financial institutions. This service is currently being used by approximately 40 banks.

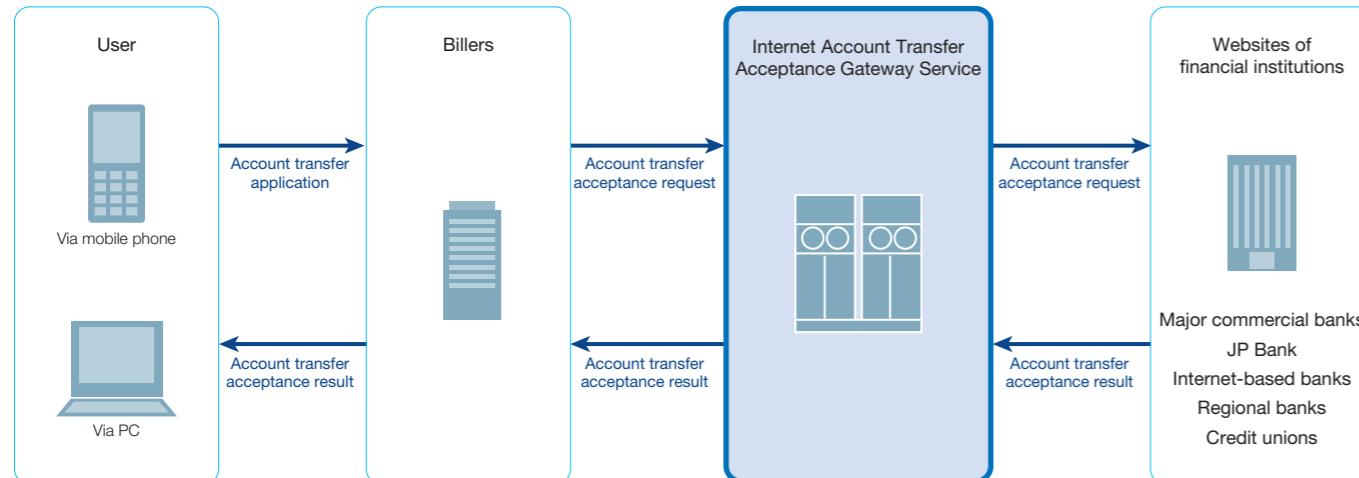
Advantage of introduction 1: Increased convenience for users

This service eliminates the drudgery of filling out an account transfer request and affixing a seal to it. It allows them to easily and quickly make new account transfer contracts or modify existing account transfer contracts on the Internet at any place any time.

Advantage of introduction 2: Streamlined clerical work

The service, eliminates the need for billers to send documents to or receive documents bearing results from financial institutions. This also saves them from having to handle documents returned by financial institutions due to missing information, streamlining clerical work.

Internet Account Transfer Acceptance Gateway Service concept



Payment Collection service for Convenience Store

Enabling payments at convenience stores across Japan, helping billers improve their receipt ratio.

This is an ASP service intended for billers and local public agencies that receives payments made at convenience stores on behalf of them. Billers do not have to sign a contract with each convenience store by introducing this service.

Advantage of introduction 1: Increased receipt ratio

More than 40,000 convenience stores across Japan accept payments 24/7, which helps billers increase their receipt ratio.

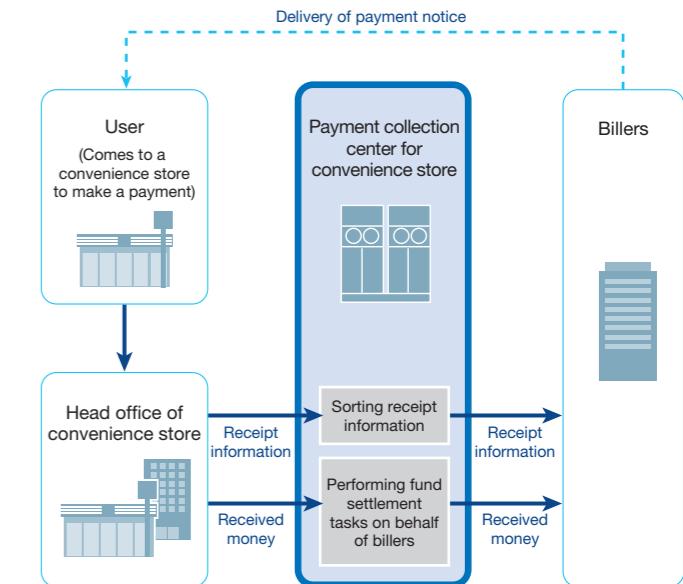
Advantage of introduction 2: Reduced workload of reconciliation tasks

The service allows billers to consolidate payment receipt information, helping them reduce the workload of reconciliation tasks for confirming payments for goods.

Advantage of introduction 3: Reduced system development costs

Because it is an ASP service, billers do not have to make many modifications to their own system and can introduce the service at low cost.

Payment collection service for convenience store concept



Payment Collection Service

Performing credit-card payments on your behalf to reduce the workload of keeping and managing user information.

It is an ASP service intended for billers, such as insurance companies, gas companies, waterworks departments, health clubs, and others that receives credit-card payments on a regular basis on behalf of them. Billers can receive credit-card payments regularly without having to manage an enormous amount of personal information.

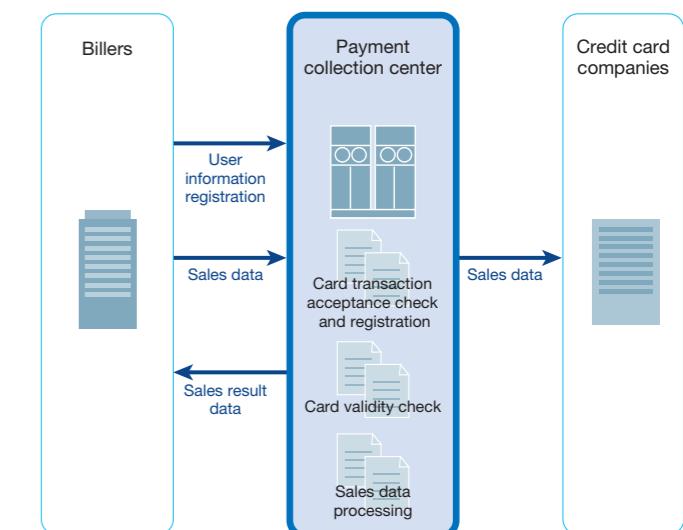
Advantage of introduction 1: Reduced system development costs

The service allows billers to transmit data required for credit-card payment in the currently used format to the payment collection center of NTT Data, reducing their initial development costs.

Advantage of introduction 2: No need to keep or mange personal information

NTT Data stores an enormous amount of credit-card information, helping billers reduce the workload of managing information.

Payment collection service concept



Creating a safe and secure structure

To Fulfill Our Responsibilities as the Provider of the Largest Card Payment Network in Japan

Enhanced Security

Security is the heart of Card Payment. That is why it also keeps evolving

While more and more payment methods are becoming available, including credit card, digital money, and online payment, card payments require more enhanced security than ever to prevent leakage of card and personal information through unauthorized accesses or otherwise.

Under the circumstances, we have been continually working toward enhanced security to ensure that our network functions as an infrastructure that can be used by customers at ease; for example, we obtained ISMS certification (International Standard for Information Security Management Systems) in 2005 and PCI DSS

certification (International Security Standard for the Credit-card Industry) in 2008.

We will continue to update the obtained certifications and accreditation every year to further enhance security by improving the level of our information security management as well as introducing the latest encryption schemes.

Tokio Yonekura
project promotion



ISMS (International Standard for Information Security Management Systems) certification Obtained

The ISMS standard is an international standard intended for establishing systems that continuously maintain the confidentiality, integrity, and availability of information, which defines requirements for technical security measures and organizational management. In April 2005, NTT Data obtained ISMS certification for its window operations for serving customers and for maintenance and operations in regard to the total card payment service built around CAFIS. Since that time, we have undergone and passed ongoing annual certification screening.



PCI DSS (International standard for card business) certification obtained

PCI DSS (Payment Card Industry Data Security Standard) is an international standard intended for organizations associated with card business, defined mainly by international credit card brands. This standard requires the organizations concerned to implement more concrete security features, including firewall and anti-virus programs, along with appropriate measures, to protect card member information.

NTT Data obtained PCI DSS certification for its CAFIS in February 2008 and then obtained the same certification for CDS in July, for BlueGate in November, for INFOX and PastelPort in June 2009, for the BlueGate user authentication service in May 2010, and for CAFIS paper slip storage in December 2011.

The fact that NTT Data thus obtained PCI DSS for our services proves, we believe, that the total card payment service of NTT Data provides its customers with reassuring, secure transaction programs.



Stable Transactions Quality

We continue to enhance our network toward constantly stable transactions

CAFIS handles more than 10 million transactions a day. This means that if the service suspends even one second, many customers lose payment opportunities.

For this reason, we have been making efforts to enhance the accuracy, continuity, and security of CAFIS since its debut. To respond to increasing transactions and the importance in society and environmental changes, we made the network multiplexed and redundant by, for example, setting up a duplex-center system, installing multiple servers, and making communications multicarrier. We thus continue to enhance the features and boost the equipment to ensure that we can provide accurate, secure transactions even if a communications line fails or a system trouble occurs,

or when the system is being updated.

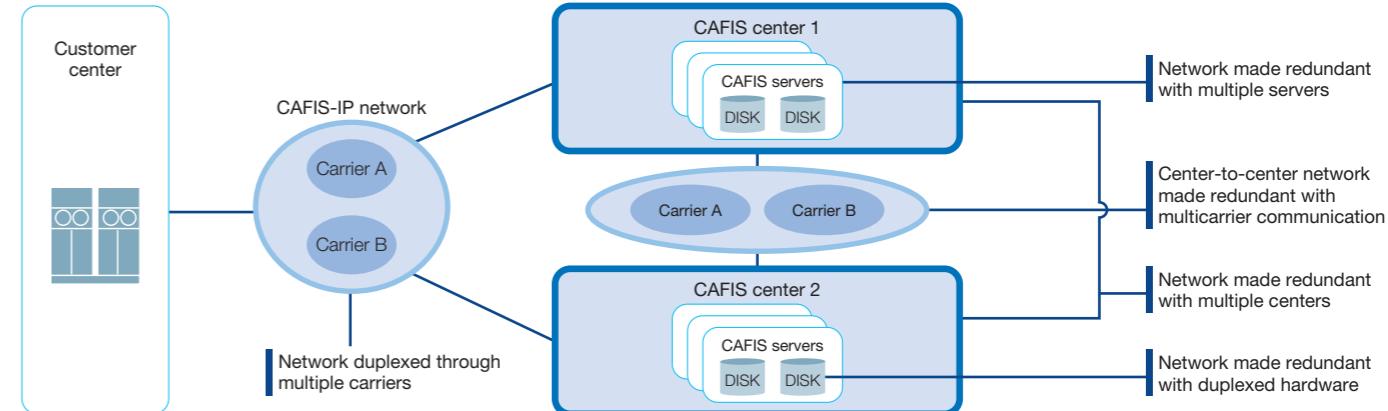
In addition, CAFIS routinely monitors the transaction status of credit card companies and financial institutions to promptly notify them of any problems. We are thus trying to increase the stability of all transactions together with customers.

We will continue to make efforts to enhance our network with an eye toward the increased stability of all transactions.



Daiju Kato
the system

CAFIS network enhancing concept



Broadened Help Desk Service

24/7 help desk service responds to troubles faced by customers

The INFOX-NET help desk service responds to inquiries from merchants 24 hours a day, 7 days a week. Now, more than 700,000 INFOX terminals are operated; the number of monthly inquiries has reached several tens of thousands and is increasing year after year.

Our help desk personnel maintain and operate various tools, such as databases and Q&A lists containing stored information about customers and terminals, so that they can promptly and accurately respond to a variety of questions. They also put their energies into brushing up their skills to respond to questions through periodic training and monitoring of the service skills of staff members.

In addition, in responding to inquiries, they identify customer needs and feed them back to the sales department so that they are used to improve the services and terminals in quality.

We will continue to enhance the operation power of our help desk team toward the further improvement of customer satisfaction.



Nobuyoshi Douchi
the customer service center

Creating a more convenient structure

We Provide a More Accessible, Convenient Card System and a Global Card Payment Network

In response to the increasing number of UnionPay card holders, we are broadening our payment service range

These days, more and more Chinese tourists come to Japan, raising expectations for broadened use of the China UnionPay cards in Japan. In response to these needs, NTT Data connected CAFIS with the China UnionPay network in 2005 to enable the use of UnionPay in Japan.



Hiroyuki Kanno
product planning

At the present, in addition to allowing China UnionPay Card settlements via INFOX multifunctional settlement terminals, we provide a China UnionPay Card Settlement Service via our PastelPort ASP service, targeting retailers. Using PastelPort Plus, settlement can also be conducted via smartphones and tablets. In this manner, we are increasing the number of ways in which the

China UnionPay Card can be used in Japan.

In this way, we consider it one of our missions to support new payment methods ahead of others. We will further enhance the convenience of merchants by providing one-stop payment solutions.

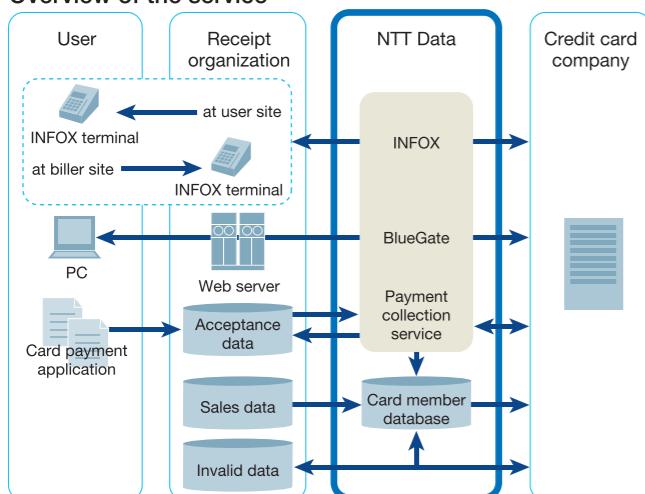


We help organizations streamline their monthly card payment acceptance tasks

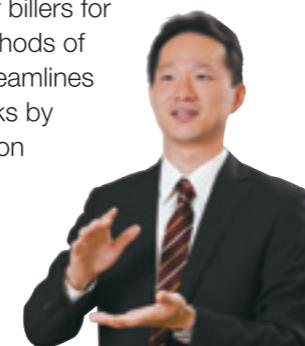
While credit cards are widely accepted to make monthly payments today, people can make card payments in many ways: over the counter, via the Internet, and through an application form. To respond to these

payment methods, billers need to install card payment terminals at their stores and introduce an Internet payment system to their website. In addition, they are required to inquire credit card companies via their own systems and input the inquiry results individually into their fee system, making the tasks very complicated.

Overview of the service



As a solution to this, NTT Data provides a service intended for billers for collectively handling many methods of card payment. This service streamlines card payment acceptance tasks by linking INFOX, a card transaction terminal; BlueGate, an Internet payment service; and the payment collection service, which enables regular payment receipts, with one another to centralize inquiry results from credit card companies.



Go Hashimoto
product planning

Handling everything from product explanations to settlements on a single smartphone

The rapid rise in popularity of smartphones and tablets has prompted their increased use in various situations, both personal and business. PastelPort Plus is a new cloud service that adds settlement to the list of ways in which smartphones and tablets can be used.

For example, when outside a store—out on a call or at an outdoor event—after using such devices for a visual presentation with e-catalogs and video, a user can move directly to a sales location to conduct settlements. Maximizing the flexibility of smartphones and tablets in this way boosts merchants' operational efficiency and leads to enhanced levels of customer satisfaction.

As PastelPort Plus grows to be used more



Wataru Shimamoto
product planning

consistently in different businesses and industries, we expect PastelPort Plus to assist innovation of and help strengthen corporate reforms.



We are making efforts to promote the Mobile Register for facilitating payments

NTT Data is making efforts to promote Mobile Register, which allows users to pay taxes and insurance premiums through an account of a specified financial institution using mobile phones and smartphones. Now, more than 1,100 financial institutions support Mobile Register. In 2007 when the service started, it was



mainly used for payments of mail-order transactions, life/non-life insurance premiums, and mobile phone fees. In fiscal 2009, the applications of it started to expand to, for example, tax payments to municipalities.

For example, in fiscal 2009, ahead of other municipalities in Japan, Chofu City introduced Mobile Register to receive the light motor vehicle tax. Based on this implementation, it started in fiscal 2010 to accept payments of the municipal/metropolitan inhabitant taxes and others using Mobile Register.

From fiscal 2011, we also enabled credit card payments of Tokyo metropolitan motor vehicle taxes. We have begun providing a smartphone app (Android and iPhone versions) in hopes that more people will take advantage of the increasingly convenient Mobile Register service.



Asami Higuchi
product planning

In response to diversifying needs, we are considering developing low-price INFOX terminals

To meet the increasingly diverse needs of the card settlement market, NTT Data aims to enable a wide variety of merchants to use its highly convenient card settlement terminals. To this end, the company launched the reasonably priced INFOX terminal in fiscal 2011.



Tomoh Shimizu
product planning

Compared to previous terminals, the INFOX terminal offers simplified hardware specifications and a simpler maintenance/operation menu. Also, this terminal is 20–50% less expensive. At the same time, the terminal is compatible with Suica and other transport-related IC cards, which are increasing in popularity. Furthermore, compatibility with iD, QUICPay and other contactless IC services

remains available. Rates on terminals connected to a LAN are held down to the same level as for an analog connection.

For settlement terminals, NTT Data provides a one-stop shop for activities ranging from sales to maintenance/operation, as well as paper rolls and other supplies. For merchants, this translates to higher operational efficiency.



T101-SE/UT1

By digitizing signatures, we will help merchants streamline their slip management

NTT Data is promoting a number of initiatives to reduce the merchants' operational burden of handling cards.

For example, customers who manage large-scale shopping centers used to go through the cumbersome process of managing signature slips when credit cards were settled. They had to collect an enormous number



of paper slips from each tenant and, once they had processed them, store them in warehouses. NTT Data proposes the introduction of the CAFIS Paper Slip Management Service to streamline these multiple procedures. The service involves converting the credit settlement process to the use of electronic signature pads and digitizing operations such as signatures, which were previously performed on paper slips. This eliminates the need to output signature slips on paper.

By providing this service, we aim to help customers make their operations more efficient. At the same time, the service helps to lower the risk of losing paper slips and reduces the amount of CO₂ emitted when producing and transporting paper slips.



Emi Hasegawa
business planning

We are creating an environment in which customers can settle transactions made in Japan in their own countries' currencies

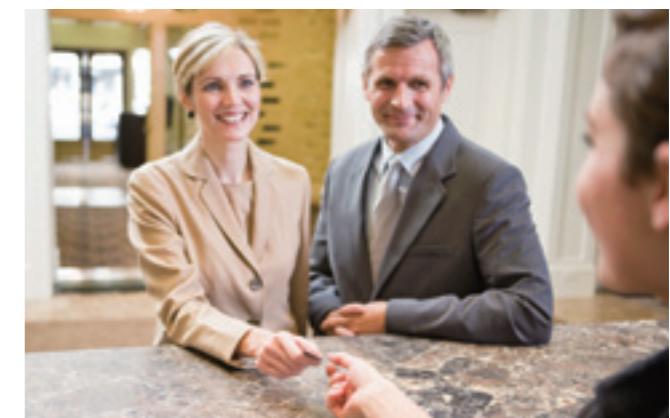
In the past, transactions made in Japan could in principle only be settled in yen; foreign nationals making purchases in Japan could not settle transactions in their own countries' currencies. Given the rapid growth in the cross-border e-commerce market and Japanese government efforts to

attract overseas tourists to Japan, the need for foreign currency card settlements in Japan has increased

every year. For this reason, we began looking into ways to use the CAFIS structure to handle Multiple Currency Settlement Services. In April 2012, we began offering this service to operators of e-commerce sites. For businesses, this represented an increased opportunity to attract foreign customers, and it has expanded the commercial potential of digital content and other

businesses aimed at overseas customers. As a result, this service has increasingly become a point of focus.

We are proceeding with the development of systems that will allow multiple-currency settlement at physical stores. We plan to expand our Multiple Currency Settlement Service by providing the service at duty-free shops, hotels and other locations frequented by overseas visitors.



Ayaka Ishikawa
business planning

We are concentrating on services to support merchants' sales promotion efforts

Point services are increasingly popular among retailers and operators of e-commerce sites as a way to increase repeat customer visits and promote loyalty. In many cases, however, these programs simply provide points and do not lead to sales promotion. We provide the SmarP sales promotion solution to address this issue.



In addition to managing points, SmarP provides analyses that can be used in sales promotion, based on such data as members' use history. Using the solution's customer analysis tool allows customers to be segmented according to their purchase history. As a result, privilege points can be awarded or e-mails distributed to excellent customers. Although SmarP uses the SaaS format, the solution can be customized to meet merchants' requirements.

We are looking into the possibility of extending this solution's compatibility to smartphones and tablets, thereby contributing to more robust merchant sales promotion efforts.



Hiroyuki Kobayashi
product planning

Contribution to the Environment and Society

INFOX Green Campaign Implemented to Make a Contribution to Tree Planting Activities in Indonesia

While Indonesia is one of the world's leading owners of tropical rain forests, a survey by the Food and Agriculture Organization of the United Nations shows that it experienced the most significant decrease of forests during the period from 2000 to 2005 among the Asian countries. Japan is the top importer of Indonesian timber. The paper maker which supplies slips for the INFOX terminal imports substantial timber from Indonesia, as well.

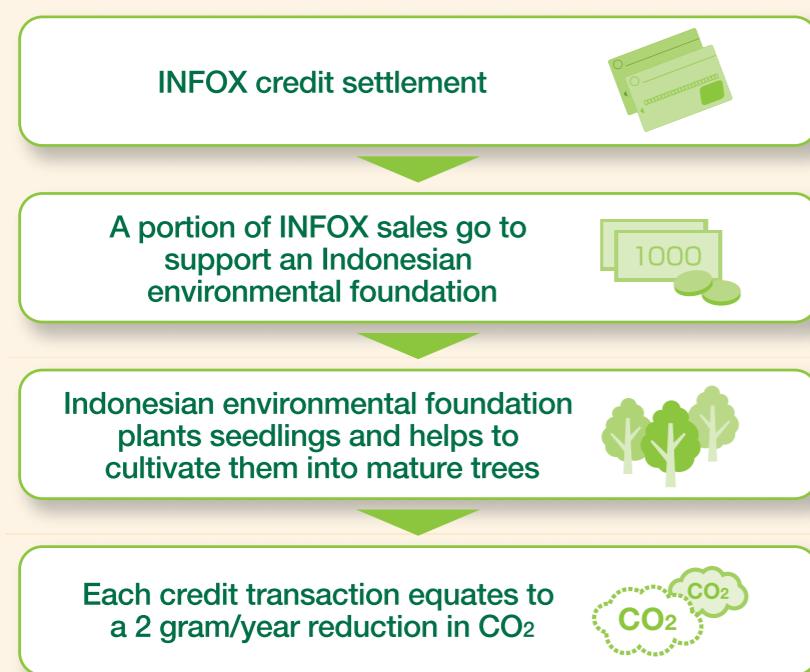
For this reason, NTT Data has been promoting the INFOX green campaign since 2009. This initiative is intended to support tree planting activities in Indonesia corresponding to the number of credit card transactions based on INFOX, a card transaction terminal.

This is a social contribution campaign through which a nursery tree which effectively reduces 2 grams of annual CO₂ emissions is donated for every INFOX terminal transaction conducted during the campaign. Donations are made to the Indonesian Environmental Foundation. In February 2012, the campaign was implemented for one month. In the following month, the foundation and local high school students planted our donated nursery trees in Chatra Village, Banri County, Bali, Indonesia. Since 2009, NTT Data donated a total of 3,078 nursery trees, which are calculated to naturally remove approximately 134 tons of annual CO₂ emissions, to the foundation.

Campaign site:

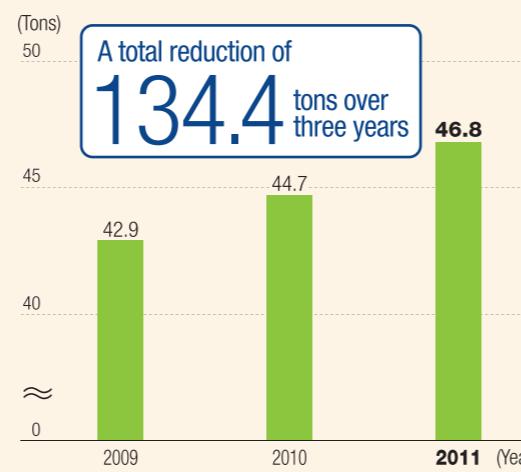
http://solution.cafis.jp/infox_green/ (Japanese only)

INFOX Green Campaign Structure



Planting nursery trees

Annual Reduction in CO₂ through the INFOX Green Campaign



Promoting the Reduction and Reuse of Slip Sheets to Be Used for the INFOX Terminal



With the help of a terminal maker, NTT Data decreased the length of the slip output from the INFOX terminal to two-thirds the original length to reduce the annual paper usage by one ton. In addition, we also started efforts to dissolve slips that no longer have to be kept to recycle them into toilet paper.

For roll sheets for the INFOX terminal, we use lumber from planted trees. For slip roll sheet printing, we use ink containing no VOC (volatile organic compound). Besides these efforts, we use RoHS-directive-complaint* materials for the INFOX terminal and recyclable materials for the shipping carton for the terminal packages. In this way, we are promoting environmentally friendly efforts from many aspects.

*RoHS directive: Restrictions defined by EU (European Union) on the use of specific hazardous substances used for electric and electronic devices

INFOX terminal examples that use fewer slip-sheets



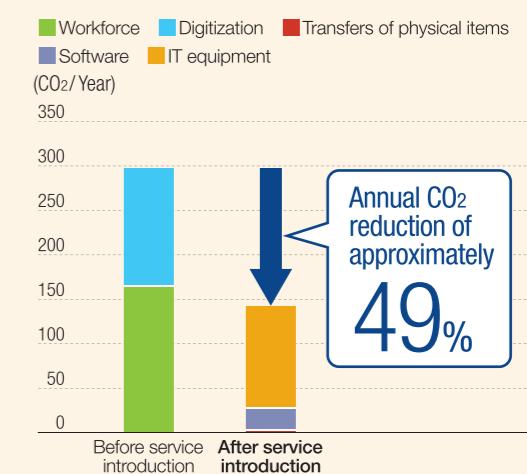
Paper Slip Management Service Reduces Transfers of Paper and Other Physical Items, as Well as People

The CAFIS Paper Slip Management Service has obtained a certification mark based on the NTT Group Solution Environmental Label System*. This service digitizes the signatures needed for credit card settlements and provides a framework for storing and managing this information. Introducing this service consequently reduces the use of paper, the transfer of physical items and workforce requirements. According to our calculations, introducing this service leads to an annual reduction in CO₂ emissions of approximately 49%.

*Solution Environmental Label System: Under this system for ICT solutions provided by members of the NTT Group, solutions that achieve an environmental impact reduction (reduction in CO₂ emissions) effect above a specified level (15% reduction) are certified as environmentally friendly solutions. By providing services that reduce environmental impact, the Group aims to reduce the environmental impact of customers and society as a whole. Please see the NTT Group's website for detailed environmental information.

<http://www.ntt.co.jp/kankyo/protect/label>

CO₂ Reduction as a Result of Service Introduction

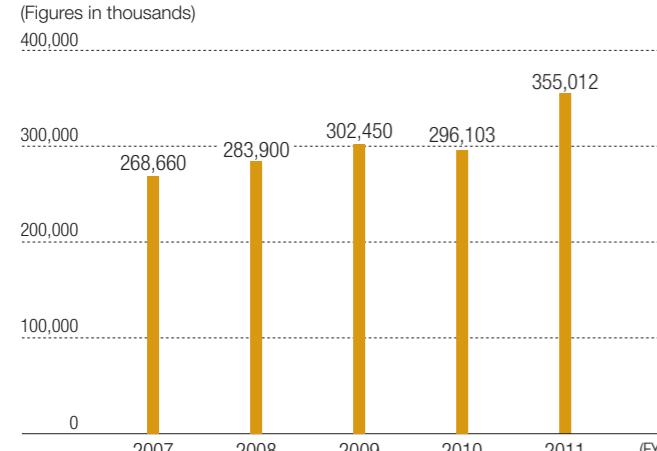


Solution Environmental Label

Data List

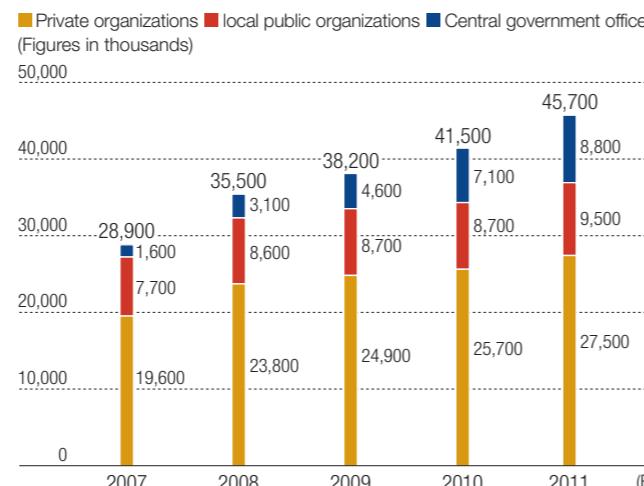
Data related to CAFIS and MPN

Numbers of Monthly Transactions Handled through CAFIS



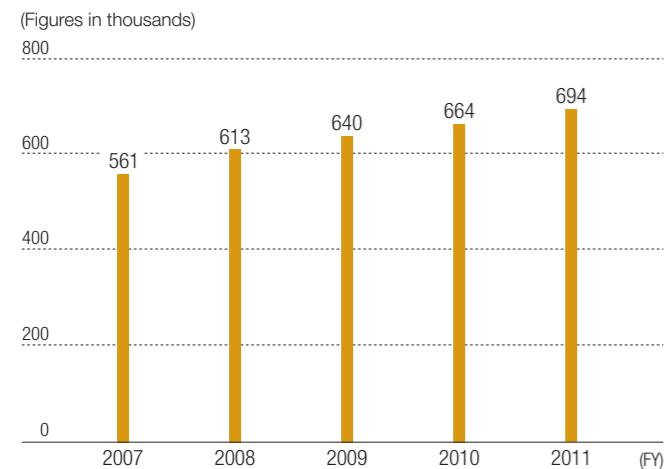
Note: Each figure represents the number of monthly transactions at the end (March) of the appropriate fiscal year.

Numbers of Annual Transactions Handled through the Multi-Payment Network (MPN)

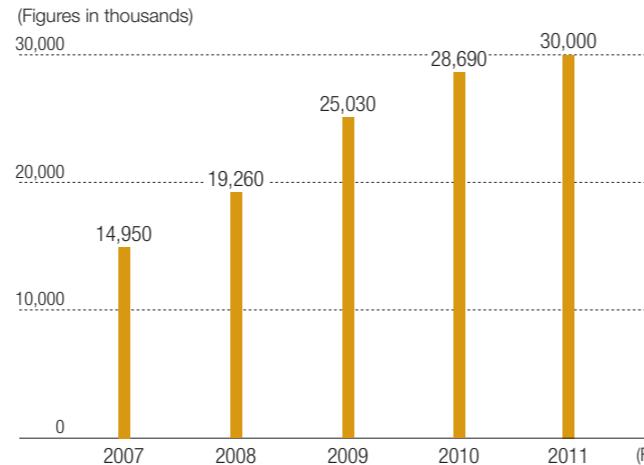


Note: The MPN is operated by the Japan Multi-Payment Network Management Organization.

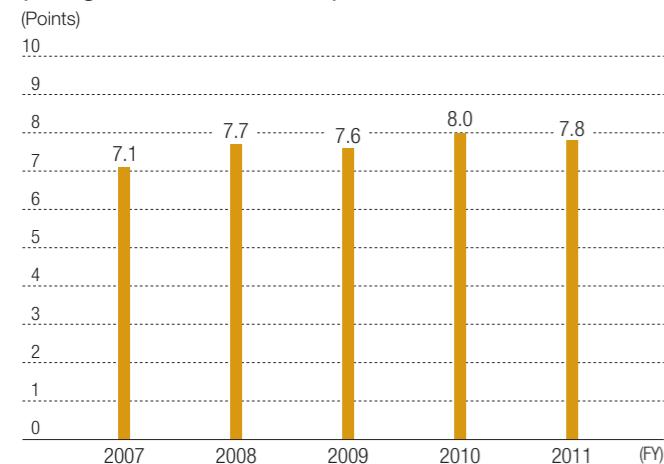
Numbers of INFOX Terminals Installed



Numbers of Public Money Payments Made through Convenience Stores



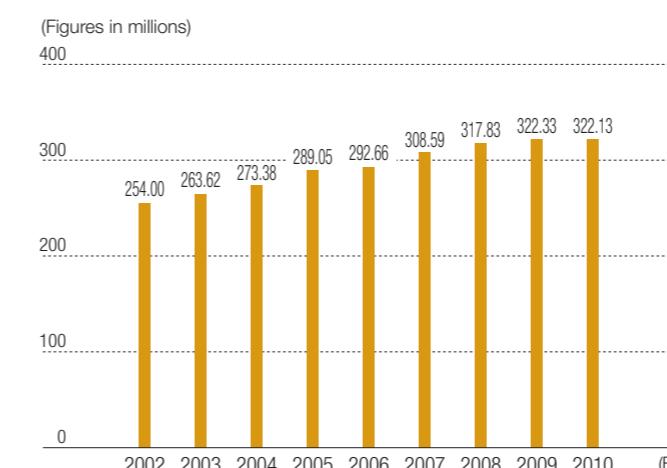
Assessments of CAFIS, INFOX, and CDS Made by Customers (Changes in Satisfaction Level)



Notes: Points are out of 10 points.

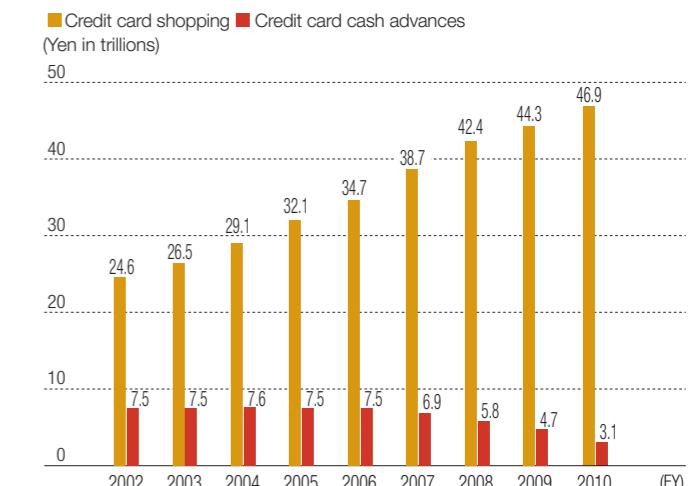
Market Data

Numbers of Credit Cards Issued



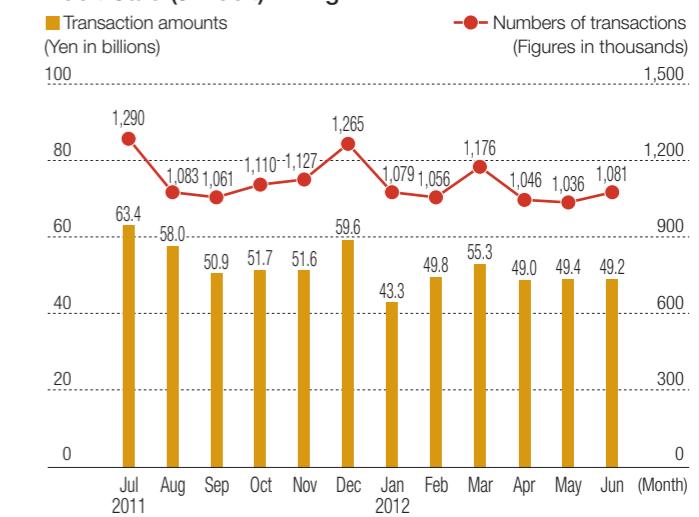
Source: Japan Consumer Credit Association

Credit Card Billings



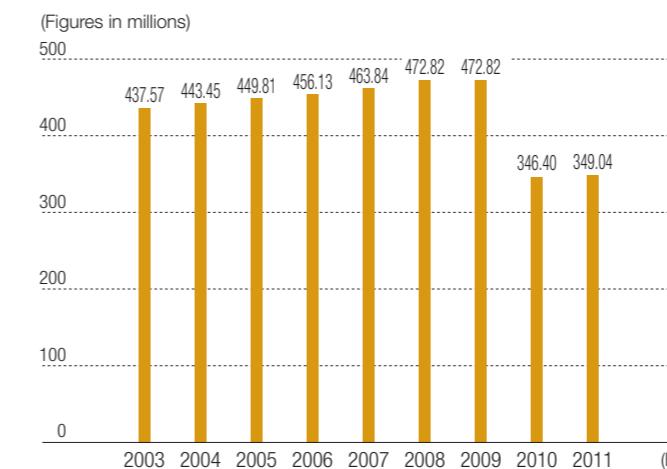
Source: Japan Consumer Credit Association

Debit Card (J-Debit) Billing



Source: Japan Debit Card Promotion Association

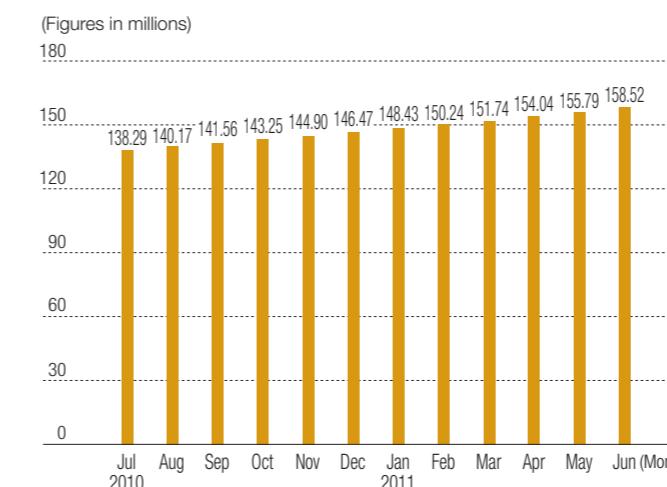
Numbers of Cash (Debit) Cards Issued



Source: The Center for Financial Industry Information Systems (FISC)

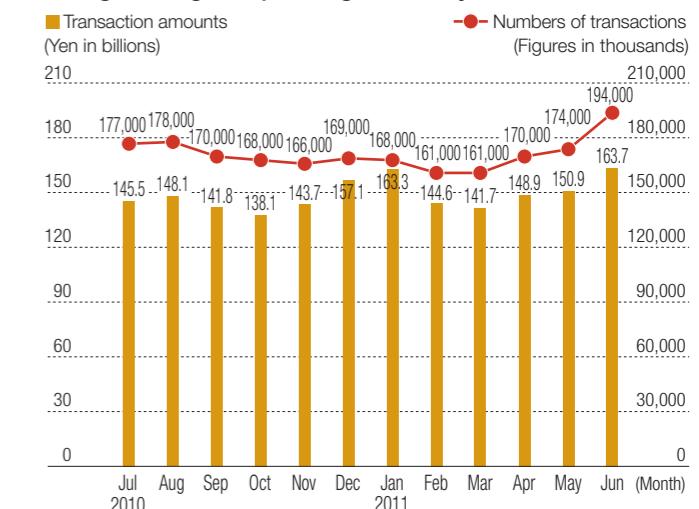
Note: Data from fiscal 2010 onward is not reflected, as the number of cards issued by Japan Fisheries Cooperative and Japan Post Bank is not publicly available.

Numbers of Prepaid Digital-money IC Cards*



* Covering 6 different cards: Edy, Suica, ICOCA, PASMO, nanaco, and WAON
Source: Bank of Japan

Billings through Prepaid Digital-money IC Cards*



* Covering 6 different cards: Edy, Suica, ICOCA, PASMO, nanaco, and WAON
Source: Bank of Japan



With an Eye toward the Credit-card Shopping Age

In the 1980s, credit card holders were increasing in the consumer market year after year. However, the authorization system, essential to credit card transactions, had been based on manual operations; those involved had been demanding a new authorization system for secure, reliable and prompt authorizations.

Under the circumstances, NTT Data, as part of a team with our relevant organizations, developed a network service called CAFIS for real-time credit card authorizations connecting between merchants and credit card companies by telecommunication lines.

A quarter of a century has passed since that time, now, as the social infrastructure that supports the credit-card shopping age, CAFIS supports the affluent lives of consumers.

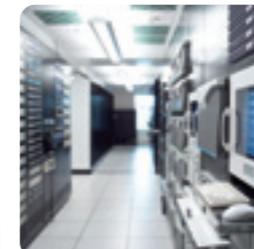


NTT Data Pioneered and Now Leads the Card Payment Field in Japan. Our Total Card Payment Solution is Evolving Even at This Moment.



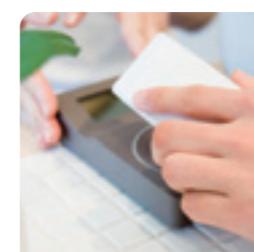
To Meet Every Need

About Our Services	Page 7
Card Payment Service	Page 9
Internet Payment Service	Page 12
Payment Server ASP Service	Page 13
Payment Collection Service	Page 15
Acting Service for Payment Collection...	Page 18



To Provide Secure Services

Creating a Safe and Secure Structure	Page 19
Enhanced Security.....	Page 19
Stable Transactions Quality.....	Page 20
Broadened Help Desk Service	Page 20



To Make the System More Familiar and Useful

Creating a More Convenient Structure....	Page 21
--	---------



To Fulfill Our Social Responsibilities as a Corporation

Contribution to the Environment and Society.....	Page 25
--	---------

History

To Provide a More Secure, Higher Quality Card Payment Solution at a Lower Price

- Secure** ★ ... Toward enhanced security
- Reassuring** ♥ ... Toward stable system operation
- Convenient**
 - ... Toward diversified transaction means
 - ◆ ... Toward globalization
 - ... Toward increased convenience

Fee per transaction Up to 8 yen

1985

- ♥ Stand-in authorization service for system halt/maintenance of credit card companies started [September]
- Bank POS service started [September]
- CAFIS access points increased to 10 [December]

Up to 7 yen

1988

- CAFIS intracorporate CD service started [October]

Up to 7 yen

1989

- CAFIS access points increased to 15 [December]

Up to 4 yen

1991

- CAFIS access points increased to 33 [December]

Up to 3.5 yen

1995

- CAFIS sales data management service for merchants started [February]
- CAFIS-Hi communication protocol service started

Up to 3.5 yen

1998

- CAFIS 24-hour nonstop service started [April]
- CAFIS cash management account deposits and withdrawals service started [October]
- CAFIS stand-in authorization service for credit card companies started [November]
- ◆ CAFIS international ATM service started [November]
- CAFIS convenience store CD service started [November]

Up to 3.325 yen

2001

- Pay-easy – a multi-payment network – started [October]
- ◆ CSD validity check data switching service started [October]
- ★ CAFIS security check service started [October]

Up to 3.15 yen

2003

- CDS started to support the HULFT protocol [February]

With an eye toward the growing online transaction market

- **CAFIS BlueGate service started [July]**

In the situation where EC (electronic commerce) business was rapidly growing with the penetration of the Internet, we started the CAFIS BlueGate service supporting credit-card payments for Internet shopping. With advanced security, we provide a safe, reassuring Internet shopping environment.

Payment collection service for convenience stores started [August]

2002

- INFOX-NET account transfer contract acceptance service started [January]
- ★ CAFIS started to support IC cards [July]
- ★ INFOX started to support IC cards [July]
- ★ CAFIS BlueGate – Internet payment service – started user authentication service [September]
- CAFIS started to support IP [October]

2005

- ★ ISMS (information security management system) certification obtained [April]
- ◆ China UnionPay connection started [December]
- NTT DoCoMo began the micropayment service (ID) [December]

2006

- ♥ INFOX center system duplexed [September]
- Phase 2 of the INFOX debit service started [March]
- Mobile INFOX terminal released [March]
- CDS started to support TCP/IP [April]
- ♥ CAFIS center system duplexed and network renewed [October]

2007

- ◆ Cash advance using overseas-issued cards supported [January]
- Mobile Register – pay by mobile phone using barcode service – started [April]
- VISA debit service started [July]

2009

- INFOX and INFOX-NET services – terminal solutions for card payments – started [July]

2011

- INFOX terminal connected to LAN launched [July]
- INFOX service started to support PiTaPa, a contactless IC card for transportation [September]

2012

- ★ Commenced the CAFIS attribute certification service [March]
- ♥ Set up two centers for CAFIS and INFOX-NET in Tokyo and Osaka [March]
- Commenced the PastelPort Plus service [April]
- ◆ Began a multiple currency settlement service [April]
- Began enabling the SFTP Procedure via CDS [August]

2010

- Number of monthly CAFIS transactions exceeded 300 million [December]

2011

- Via Mobile Register, began enabling credit card payments of Tokyo metropolitan motor vehicle taxes [May]
- Began providing the CAFIS paper slip management service for large stores [July]
- Began providing a Mobile Register smartphone app [October]

2012

- Number of monthly CAFIS transactions exceeded 300 million [December]

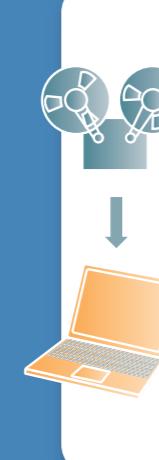
1984

With an eye toward the growing credit-card market

- **CAFIS service – total card payment network – started [February]**

Driven by the entry of international credit-card brands into the Japanese market, the growing use of credit cards in large-scale retail stores, widespread cash advance services, and other factors, the credit-card market was rapidly growing. Under those circumstances, we started the credit authorization switching service based on the CAFIS (Credit and Finance Information System)—a network with stable communication lines. Now, it is the largest total card payment network in Japan.

- CAFIS authorization service started [February]
- CAFIS access points established in Tokyo, Osaka, and Nagoya [February]
- CAFIS cash advance service started [September]



Numbers of monthly CAFIS transactions (figures in millions)

*Monthly transactions at fiscal year ends (March)

1990	0.20	1.2	1.96	3.04	5.07	7.00	9.53	11.65	13.22	15.02	19.49	28.46	38.64	44.78	53.07	64.74	77.14	92.61	115.37	139.28	171.85	207.86	239.51	268.66	283.90	302.45	296.10	355.01
------	------	-----	------	------	------	------	------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

Through Constantly Evolving CAFIS, We Will Create Innovative Changes toward the Future



How did the CAFIS service start?



With the background of the growing credit-card market, it started as a trial to meet the demands of the industry.

In the early 1980s, the credit-card market showed signs of rapid growth, including the entry of international credit-card brands into the Japanese market and the growing use of credit cards in large-scale retail stores. In those days, it was said that a real card age was coming. At merchant sites, however, card payment handling was a very troublesome task because it required clerks to manually handle the device for copying card information to sales slips, and then write the amounts and product names and other information on them. Under the circumstances, credit card companies developed their own dedicated terminals and provided them to their merchants. However, as credit cards became more widespread, credit card companies were required to

bear increasing costs for maintaining and managing terminals, and merchants, in turn, had to install more than one terminal at their stores. This increased the complaint that the system was very inefficient.

Thus, the situation gave momentum to efforts to build a mechanism that could be shared by all organizations. Based on the request from Japan Credit Card Association (JCCA), NTT developed the CAT (Credit Authorization Terminal) at that time. This terminal became considerably widespread, which did not lead to automated card processing, however. Under the circumstances, we decided to set up a center for collectively processing information. This later developed into CAFIS.

What did you focus on when developing CAFIS?

With many problems to solve, we focused our efforts on assuring reliability and accuracy thoroughly because they underlay the significance of the existence of CAFIS.

In those days, there was no network connecting all merchants, credit card companies, and financial institutions with one another. In this situation, we had a

bunch of very real problems because we were trying to build an unprecedented, leading-edge network for electronically checking the validity of cards. How can we secure the reliability for assuring 24-hour operation of the system? How can we build an efficient system that accurately handles settlement transactions using a variety of lines? Which cryptographic technology is most suitable for securing communications? How should we define easy-to-use terminals? Among all these important issues, we focused our efforts on reliability and accuracy thoroughly because they might be the very significance of the existence of CAFIS.

Despite many hours we spent working on CAFIS by trial and error, we successfully started the service in 1984 as scheduled. I believe that this success was surely driven by the sense of responsibility and passion of our employees each; "We will build an unprecedented, new social infrastructure."



What is your most important challenge now?



Working as a global business partner, our biggest challenge is to propose and continue to provide new value.

Our most important challenge is simply to continually create and propose new values. A quarter of a century has passed since we began the service. CAFIS has been supported by you and is now an essential social infrastructure. I believe that this growth has been driven by our power of conception, with which we have been offering new features and services a half step ahead of the time while facing credit card companies, financial institutions, and merchants.

For example, in the 1980s, we implemented a bank POS service, which allowed consumers to buy things with their cash cards. In addition, we started to connect it with intracorporate cash dispensers. In the 1990s, we set up gathering-capable CAT terminals, started non-stop 24-hour service, supported debit cards, and began INFOX, a multi-functional credit-card terminal. In the 2000s, we began a credit-card transaction service on

the Internet and ASP service for POS terminals, improved reliability by implementing multicarrier mission-critical networks and a duplex center system, and enhanced security by introducing ISMS. In recent years, we are also putting our energies into international connection with China UnionPay and other organizations, as well as credit settlements in multiple currencies. We are also focusing on settlement via smartphones and tablets.

Some of these services were introducing too early and therefore were not expected to produce good profits. However, with the DNA called "public nature" we inherited, we have aggressively addressed the services associated with payment settlement, which would potentially provide the basis for our growth. We also provide our customers with both local and global services, partnering with customers to help them succeed in their global businesses.



Finally, give your message to stakeholders.



With an eye toward the development of the whole industry, we will make efforts to develop new technologies and services.

With a lot of great help from all the parties concerned, we provide constantly evolving CAFIS services. I appreciate very much the warm support from you. While the world is more and more quickly changing, I believe that it is an endless process to develop new technologies and services for easier and more secure use of the system. With our efforts focused on evolving CAFIS itself, we will propose policies that will develop the whole payment industry through conversations with the stakeholders.

As a business that lives with customers and society, we value long-term relationships. Through CAFIS's ongoing progress, we aim to take on new markets with an eye toward the future.

Toshio Iwamoto

President and Chief Executive Officer



Using CAFIS, the largest card payment network in Japan, as the core, we will continue to create services and functions that meet new needs associated with payment.

To help merchants enhance their service to the customers

We help merchants improve their customer service and operational efficiency by providing them with a variety of payment methods, including credit cards and contactless IC cards, as well as a sales management service.

To help credit card companies increase their profits

We help credit card companies expand their business opportunities in the cashless age by increasing opportunities for the use of cards through the delivery of a safe, convenient card transaction mechanism.

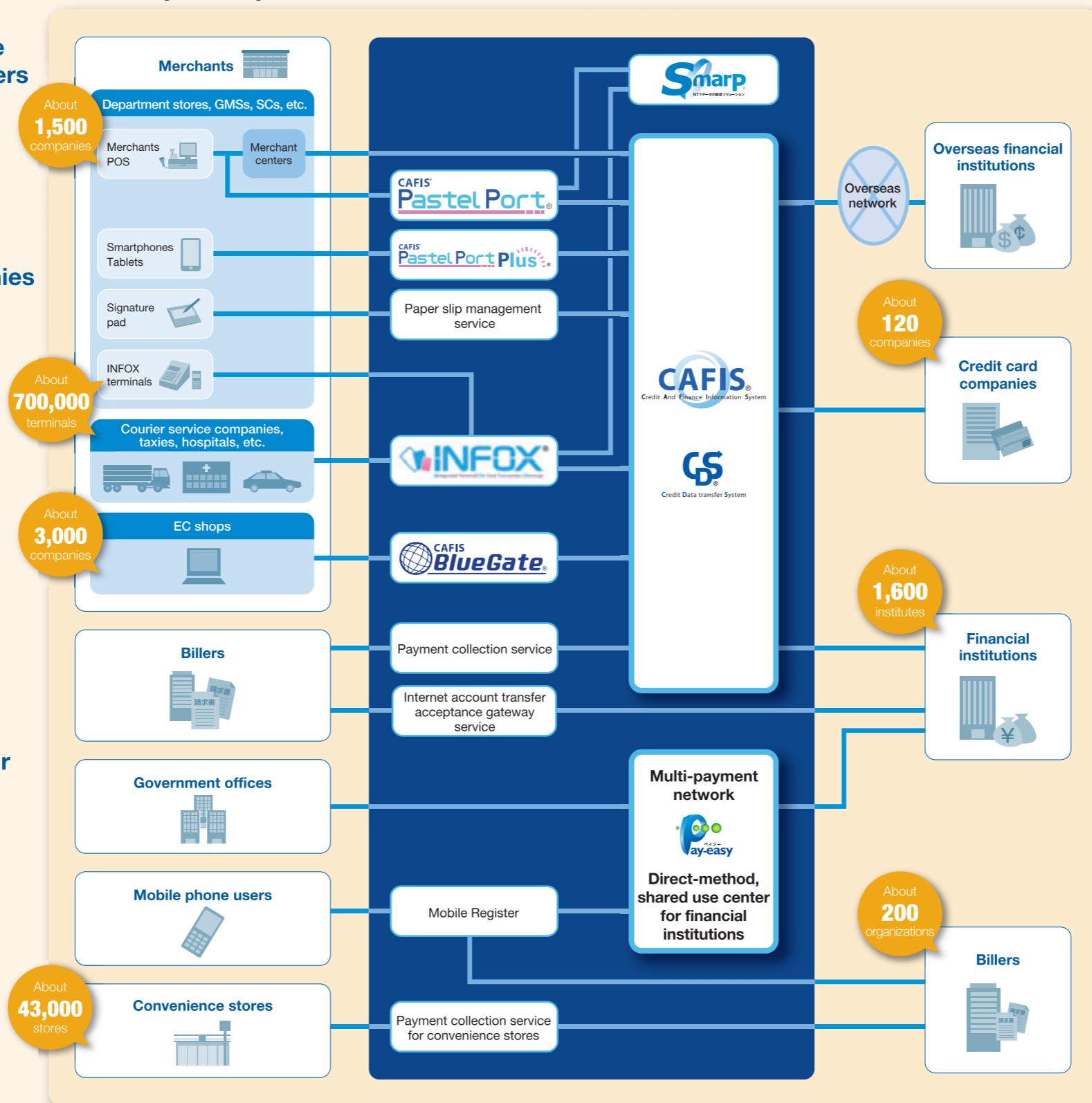
To help financial institutions improve their operational efficiency

By computerizing the necessary procedures required for account transfers and other processes, we help financial institutions streamline their window service and paperwork to reduce their task load. In addition, we provide flexible ATM network connections according to their ATM strategies.

To help billers increase their receipt ratio

By providing an environment that allows people to make payments at any time and any place using a convenience store, ATM, mobile phone, or other means, we help billers receive more payments earlier.

Network configuration diagram



Secure

Reliable transaction data relays provided for more than 25 years

Since its debut in 1984, CAFIS has been supporting card payments in Japan for more than 25 years. Now, it is Japan's largest-scale, reliable network infrastructure connecting about 1,500 merchants, about 120 credit card companies, and about 1,600 financial institutions.

Duplexed-center configuration for non-stop operation even in a disaster

For CAFIS and INFOX-NET, data centers are located at two different places in Japan. This provides a framework that can provide non-stop service even if one of the centers stops operation due to a large-scale disaster or the like.

Service for scheduled maintenance or system halt of user centers

Even if the scheduled maintenance or out of order of user centers, they can continuously provide their services to their customers by using CAFIS center stand-in authorization service.

Reassuring

High-level security ensured

We have achieved high-level security fully compliant with international security guidelines and absolutely essential to card transactions. Ahead of others, we enhanced the security for Internet shopping, IC cards, and other applications to ensure that the sensitive/confidential information of customers and users is protected.

Leading-edge network security achieved

We always implement security measures based on the leading-edge technologies appropriate for the type of the line: telephone line, DDX line, or TCP/IP.

Convenient

A variety of payment methods provided

We provide a variety of payment methods, including the Internet and contactless IC cards, to provide customers and card users with increased convenience.

Service provided 24/7

We provide service 24/7/365, even on Sundays and national holidays and even at night so that you can use the service any time according to your business and lifestyle.

Customer center also available 24/7

Our customer center also operates 24/7/365 to always support customers at many levels ranging from the sign-up process to the use of the service. We monitor customers transaction status to give you a sense of assurance.

Card Payment Service

We Provide a Total Card Payment Solution that Supports Cashless Society

CAFIS – Total Card Payment Network

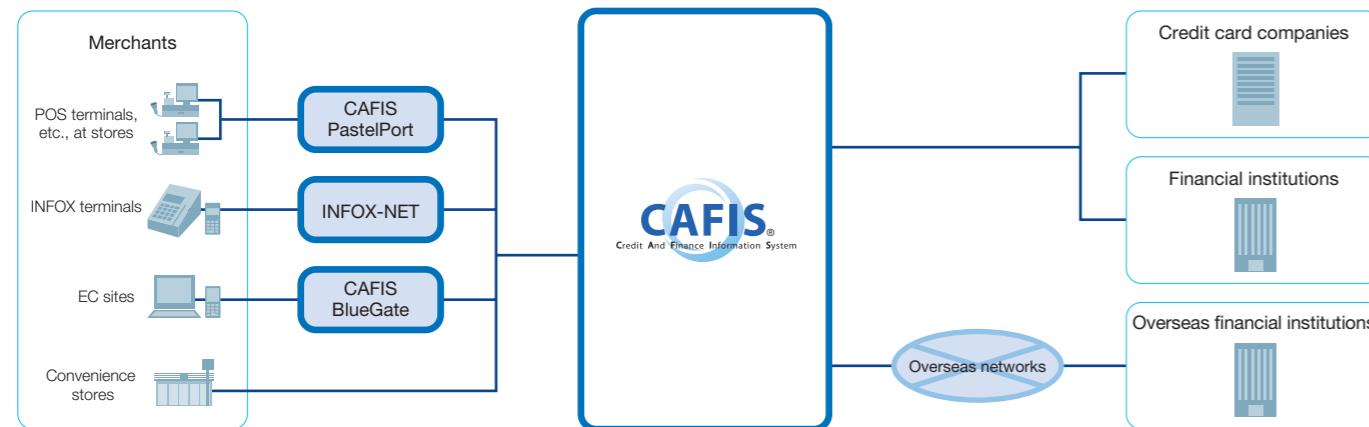


It is the largest payment network in Japan with enhanced security, reassurance, and convenience.

CAFIS is the largest total card payment network that connects credit card companies, financial institutions, and merchants across Japan online. CAFIS provides authorization services and cash advance services along with other services, including debit cards and cash withdrawal service such as ATMs at convenience stores. CAFIS is being globalized. As one aspect of our globalization, in

recent years we have begun providing a cashing service in Japan on credit cards issued overseas. In addition, CAFIS provides an agency facility service that allows us to step in on behalf of credit card companies in unforeseen situations such as when credit companies are unable to provide credit. In such ways, we continue working to promote safe, secure and convenient card settlement systems.

CAFIS network concept



CDS – Credit Data Transfer System

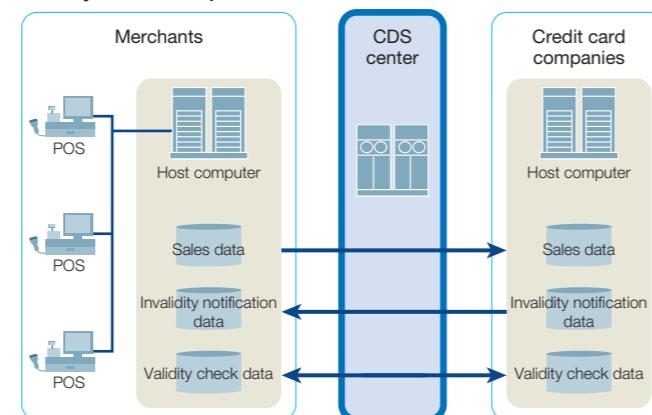


It transfers sales data and other information by credit card company at once, substantially streamlining your sales data handling task.

CDS connects merchants and credit card companies with each other online to communicate data, such as product and service sales information and credit card validity, promptly and accurately. On the occasion of CDS's 20th anniversary of establishment in 2012, in

addition to data transfer using ISDN lines as was done in the past we began offering data transfer via Internet connections.

CDS system concept



Advantage of introduction 1: Reduced burdens associated with preparation and transmission of MT

Merchants no longer need to prepare or transmit MT (magnetic tape) bearing sales data for each credit card company. This reduces their paperwork and dispatch costs.

Advantage of introduction 2: Reduced transmitting and receiving time

CDS transmits and receives data online, reducing the time for merchants and credit card companies to transmit and receive data.

INFOX and INFOX-NET

– Terminal Solutions for Card Payments



Supporting many types of cards like credit cards, reward and contactless IC cards.

INFOX-NET is a data processing center that connects the INFOX terminal installed at each merchant with credit card companies and financial institutions.

INFOX terminals alone accept credit, debit, contactless IC, and China UnionPay cards,* supporting shopping, account transfer contract acceptance, and point reward services based on these cards.

*China UnionPay card: Debit card branded by China UnionPay

Major optional services

•Sales management service

During the morning, this service sends the data of the previous day's payments made through INFOX terminals to the head office of merchant, helping that merchant speed up their sales management task without missing any information from the summarized data.

•Sales management ASP service

This ASP service allows the head office of merchant to manage the summarized sales data about the payments made through INFOX terminals on Web based interface, helping them streamline their sales management and other tasks.

•Sale report management service

This service daily summarizes the data associated with sales, such as payments for products and the number of visitors, input through INFOX terminals to provide the summarized data to the head office of merchant.

•Sales report Web browsing service

This service allows the head office of merchant to access INFOX-NET to view the sales report data of each of their stores in real time.

Advantage of introduction 1: Variety of payment methods supported

INFOX and INFOX-NET support contactless IC cards, such as iD, Edy, Suica, QUICPay, and WAON, and are therefore available for micropayments using digital money.

Advantage of introduction 2: Reduced workload of sales data management

The sales data management service and other optional services help merchants streamline their tasks such as sales data processing and payment management.

Advantage of introduction 3: Help desk support

We provide help desk support 24/7 to respond to inquiries about the use of the more than 700,000 INFOX terminals installed nationwide.

Variety of INFOX terminals for many purposes



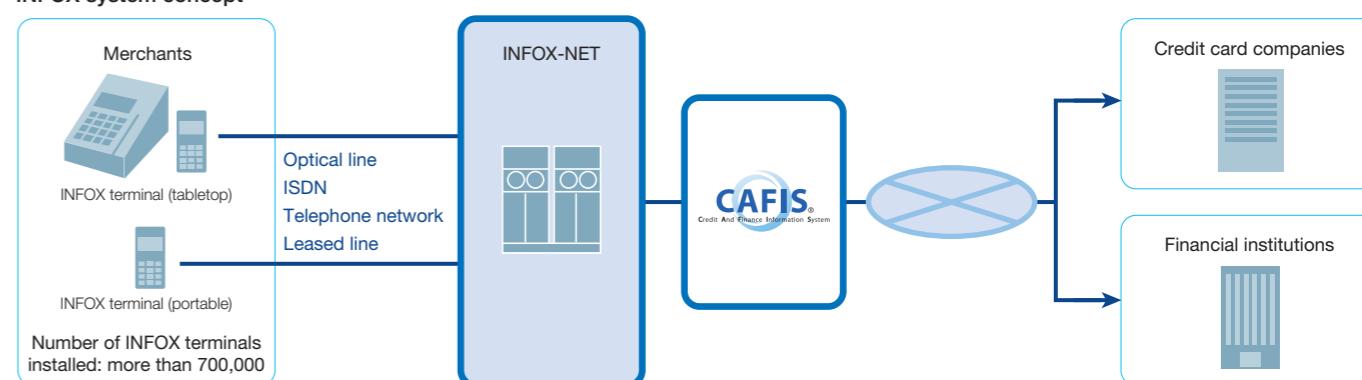
Compact tabletop terminals installable next to the cash register
Mobile terminal you can bring with you for bill collection or to exhibition spaces.
Taxi-meter-linked, kiosk-type, and other special terminals

Contactless IC cards supported by the INFOX terminals



*For contactless IC cards, the services available depend on your terminal model.

INFOX system concept



Internet Payment Service

We Provide a Secure Card System that Supports the Expanding Online Shopping Market

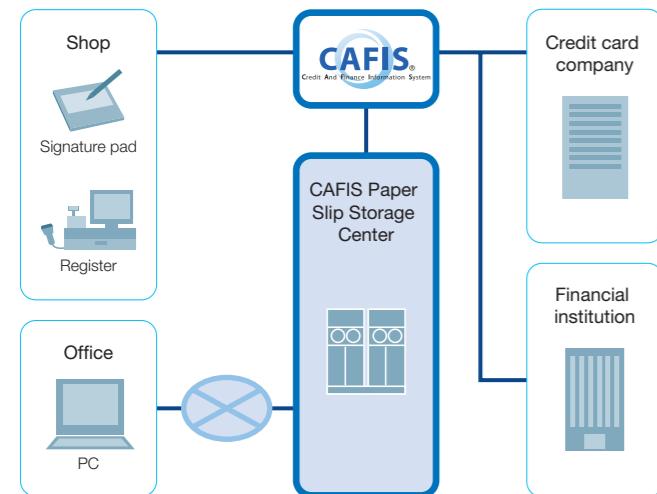
CAFIS Paper Slip Management Service

This service converts credit card signature slips to an electronic format and stores them in a secure environment.

The CAFIS Paper Slip Management Service converts credit settlement signatures and the like that previously used paper slips to an electronic format, eliminating the need for signature slips to be output on paper. Signatures that have been obtained on signature pads

and transaction information are transmitted via CAFIS for storage at a paper slip storage center operated by NTT Data. This paper slip storage center meets the PCI DDS global standard for the credit industry. Signature slips can be stored under tight security for seven years.

CAFIS Paper Slip Management Service concept



Advantage of introduction 1: Eliminates operational mishaps at stores

There is no need to output signature slips on paper, which allows operations to be systematized. This also avoids operational mishaps such as forgetting to hand the customer the slip, handing him or her the wrong one, or slips being lost by stores.

Advantage of introduction 2: Eliminates cumbersome checking of paper slips

This system essentially eliminates the cumbersome process of managing paper slips, including checking to be sure that the signature has not been forgotten, checking that the wrong slip has not been handed to the customer, and checking the number of slips to be sure that none are missing.

Advantage of introduction 3: Speeds response to inquiries

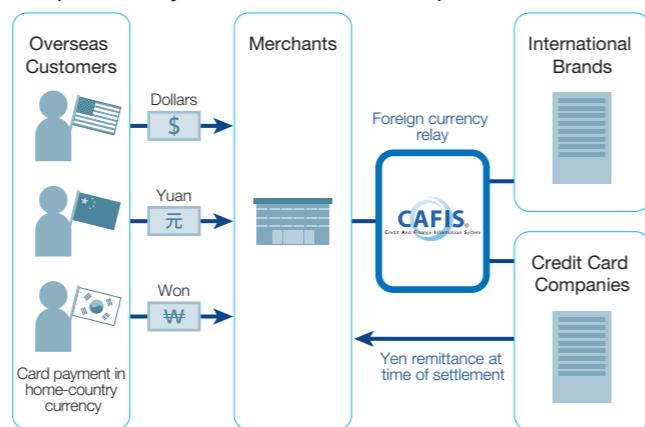
When necessary, slips can be searched from the paper slips storage site in an instant. This speeds the response to credit card company inquiries as it eliminates the need to go to a warehouse and physically sort through piles of sales slips.

Multiple Currency Settlement Service

This is a new service that enables foreign currency card services via CAFIS.

The Multiple Currency Settlement Service allows credit card settlements to be conducted in foreign currencies. Until now, when consumers from overseas used their credit cards to purchase products in Japan, their settlements typically could be denominated only in yen. However, this service allows people from overseas to settle their purchases in their customary currencies. This service is also the first of its kind in Japan that allows Japanese credit card companies to offer foreign currency settlements. As one early example of this, on April 2012 we began providing the BlueGate Multiple Currency Settlement Service via the BlueGate cloud service for customers using e-commerce sites. Going forward, in addition to e-commerce sites this service will also become available for foreign currency card settlements at physical stores.

Multiple Currency Settlement Service concept



Card payment in home-country currency

CAFIS BlueGate – Internet Payment Service



Providing a secure, multifunctional card payment system best suited to Internet and mail order shopping.

Advantage of introduction 1: No need for building or operating a server for online payments

CAFIS BlueGate does not require merchants to build their own payment server, reducing the resources that they have been spending in daily system and task operation.

Advantage of introduction 2: Reduced workload of credit card information management

Because the service allows merchants to conduct their business without having to keep credit card numbers or other information, they can enhance security while improving convenience.

Major features

•Card number entrusting feature

Even though merchants entrust card information to NTT Data, they can provide users with the same purchase flow as in the case where they internally have card information.

•Member billing/regular purchase feature

This feature provides necessary one-stop services and functions to merchants that need regularly billing, such as monthly fee collection.

•Management feature

This feature provides a control panel that allows merchants to view or download the transaction history, return products, and conduct other business operations.

•Foreign currency settlements

Credit card settlements can be conducted in foreign currencies, which expands the potential shopping area to overseas locations.

BlueGate User Authentication Service

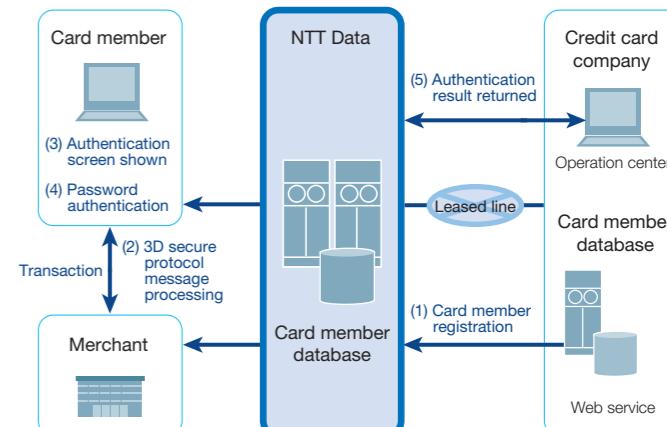
Using the ASP method to provide a user authentication mechanism that supports 3D secure system.

It supports the 3D secure authentication* to prevent unauthorized transactions through spoofing or the like by authenticating not only card numbers but also passwords of card members.

Introduction of this service allows card companies to build an authentication mechanism compliant with the 3D secure authentication that supports the authentication services for the three brands of VISA, MasterCard, and JCB, without having to develop their own system.

*3D secure authentication: Security technology developed by VISA Worldwide for providing secure Internet transactions.

BlueGate user authentication service concept



Payment Server ASP Service

We Provide More Secure, Convenient Server Functions Required for Card Payments at Lower Cost

CAFIS PastelPort – Card Payment Solution for Retailers

Providing a card payment solution in an ASP method that does not require retailers to build a server.

PastelPort directly connects with POS terminals at stores to provide payment functions for many cards, including credit and debit cards, using the ASP method. It also supports services such as reward cards, prepaid cards, and digital money. PastelPort has eliminated the need for you to set up and operate a server for retailer.

Advantage of introduction 1: Reduced server construction and operation costs

The service does not require you to set up an additional server or to develop systems, which considerably reduces the initial cost, operational expenses, and required personnel.

Advantage of introduction 2: Supporting diversified payment means ahead of others

The service can support a variety of payment methods, such as credit/debit card including the China UnionPay Card and digital money, quickly and at low cost.

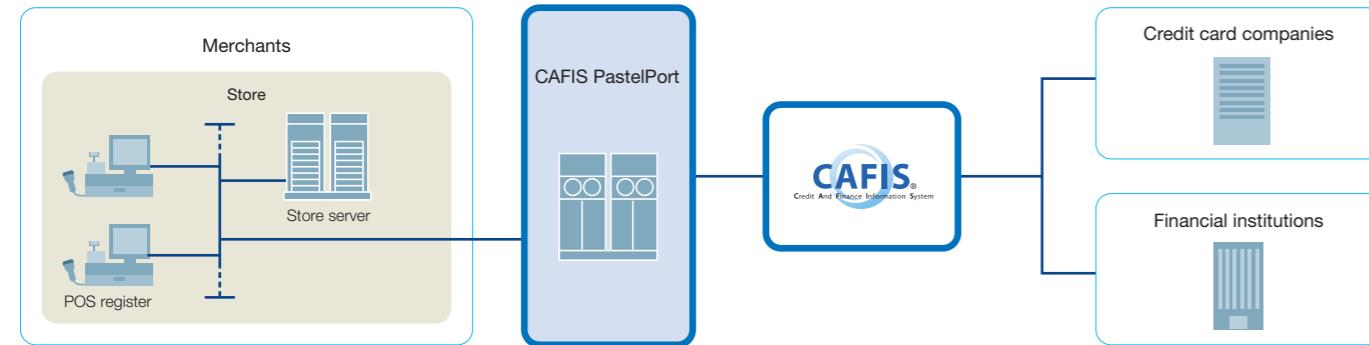
Advantage of introduction 3: Security measures giving safety and reassurance

The backbone of the solution is the CAFIS network, which achieves advanced information security. In the event of a trouble, the security measures minimize the effect of it.

Advantage of introduction 4: Wide choices of optional services

You can use the data input through POS terminals to manage customer information, perform a simplified customer analysis, and manage points.

PastelPort system concept



It does not require you either to accommodate new payment methods in the feature because NTT Data will add all the necessary functions.

In addition, you do not have to think about the security and operation aspects because the service is based on the highly reliable servers of NTT Data.

Major services

Credit-card payment services

Services such as credit-card transaction data, preparation and representation of sales data, and sales summary data feedback.

Debit-card payment service

Services such as debit-card transaction data and sales summary data feedback.

Point management service

Services such as point and customer data management and administrator terminals.

Contactless IC card payment service

Services such as management of reader/writer terminals supporting contactless IC cards, transmission of credit line data, preparation of sales data on your behalf, and sales summary data feedback.

Prepaid card payment services

Services such as balance inquiries for prepaid cards, money receipt and sales data processing, and administrator terminals.

China UnionPay connecting service

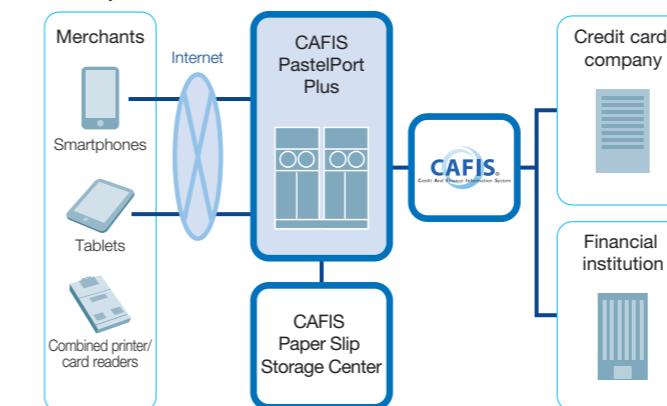
Services such as China UnionPay card transaction data relays and sales summary data feedback.

PastelPort Plus Settlement Service for Smartphones and Tablets

This service enables card settlement anywhere and at any time. 

PastelPort Plus allows settlements to be conducted either inside or outside a store using smartphones or tablets and a combined printer/card reader. The "Plus" denotes the additional flexibility of portability with the PastelPort cloud service for POS settlements. In addition to conventional credit and China UnionPay settlements, the settlement menu offers a paper slip management service. When out and about, settlement can be performed immediately, food and beverage

Concept of PastelPort Plus



establishments can use the service to accept payment at tables rather than at central cashiers, and instantaneous POS settlements can be performed at festivals and events.

Advantage of introduction 1: Enhanced customer satisfaction and more efficient customer interactions

This service eliminates the bother of asking a customer to move to a different location for payment, which enhances customer satisfaction and provides for more efficient customer interactions.

Advantage of introduction 2: Improved management of paper slips

Signature slips can be stored electronically, eliminating paper output for card companies. This keeps paper slips from being lost and helps merchants manage paper slips.

Advantage of introduction 3: Can be used for activities other than settlements

Smartphones and tablets can be used to store electronic catalogs and other data. A single terminal can be used to improve business efficiency and reduce costs.

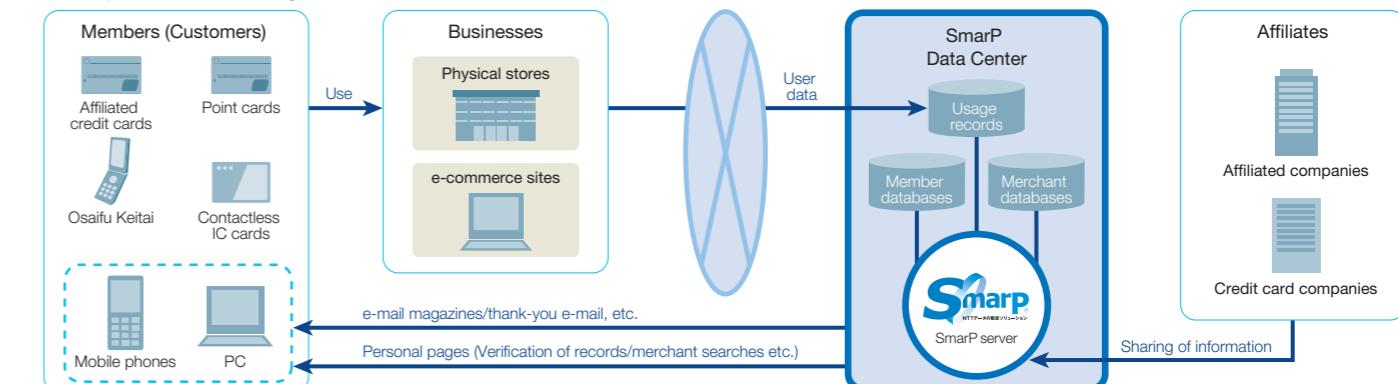
SmarP, a SaaS Sales Promotion Solution

This solution allows data from e-commerce sites and physical stores to be managed together.

SmarP is highly cost-effective for point and campaign services. SmarP can be used to handle settlements at INFOX and POS terminals and use affiliated point services. In addition, it allows customer data to be managed centrally for the point cards of e-commerce sites and physical stores, most of which were managed

separately in the past. A variety of other functions are also available. The "thank you e-mail" function can be used to send sales promotion e-mail messages, and the analysis function aids in creating sales promotion plans based on customers' usage histories.

Concept of services using SmarP



Payment Collection Service

We Make a Variety of Payment Methods Available, Including Increasingly More Widely Used Internet and Mobile Banking

Pay-easy – Multi-payment Network



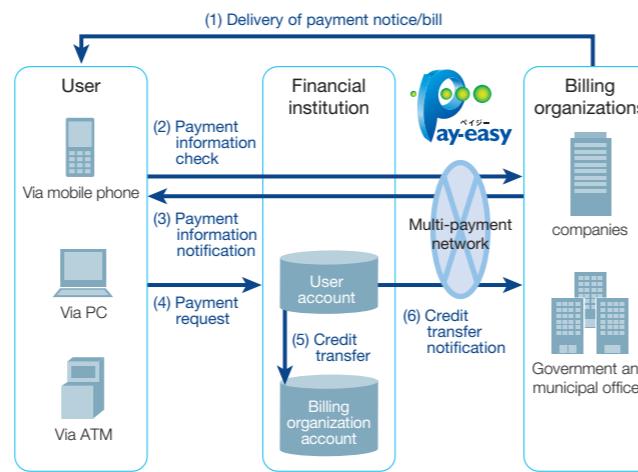
Reliable payment network built for streamlining your payment collection tasks.

Pay-easy is a payment network that connects billing organizations of government offices, local public agencies, private businesses, and other organizations, with financial institutions. This network allows users to pay public utility charges and taxes using a variety of means, such as the mobile phone, PC, and ATM, without having to go to a financial institution or convenience store.

Billing organizations, in turn, can expect to increase their collection ratio as well as streamline their payment receipt tasks. Likewise, financial institutions can considerably streamline their payment receipt tasks.

Pay-easy has been built and operated by NTT Data under a commission from the Japan Multi-Payment Network Management Organization. It provides a 24/7 stable service.

Multi-payment network concept



Direct-method, Shared Use Center for Financial Institutions

Providing payers with increased convenience and promoting electronic government and municipalities through a payment system interlocking with the electronic application system.

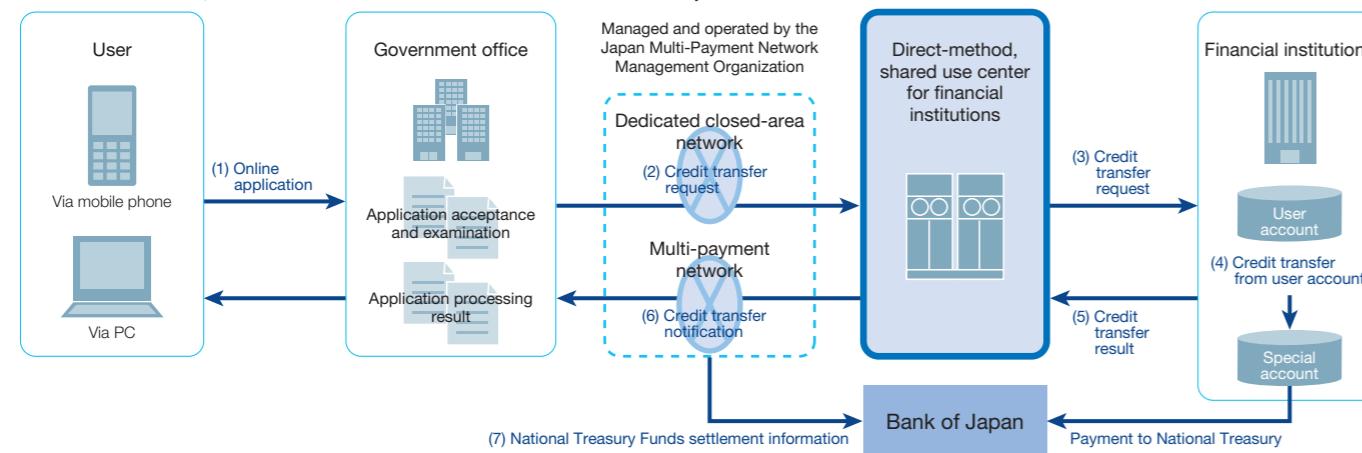
The direct method is one of the Pay-easy payment methods. It allows payers to file an electronic application through the Website of each government office so that they can automatically have the associated fee and reported tax amount deducted instantly from the pre-registered account of a financial institution. Payers can enjoy considerably increased convenience because they do not have to do anything to pay fees and taxes. Now, this method is

adopted by the Customs and Tariff Bureau, Ministry of Finance Japan; the Financial Bureau, Ministry of Finance; the Japan Patent Office; and the National Tax Agency.

NTT Data has built the direct-method, shared use center for more than 300 financial institutions.

We will continue to provide payers with increased convenience and help promotion of electronic government and municipalities.

The direct-method, shared use center for financial institutions concept



Mobile Register – Barcode Payment Service



Providing an easy, convenient, secure transaction means based on the mobile phones and smartphones.

Advantage of introduction 1: Protected users' privacy

This payment service does not require users to turn over their bills with private information to clerks at a convenience store, and therefore protects their privacy.

Advantage of introduction 2: Payments at any place

You can make payments easily at any place any time without going out or arranging cash.

Advantage of introduction 3: Earlier payment receipt

Billers can expect earlier payment receipt and an increased receipt ratio because of convenience in payments.

Advantage of introduction 4: No need to develop applications

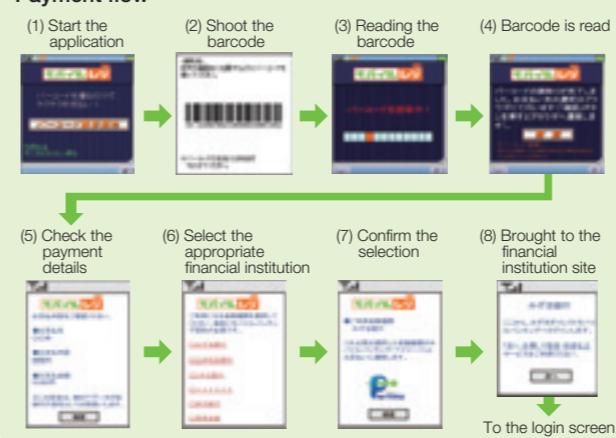
Billers do not have to develop new applications. Financial institutions that support the information link system* of Pay-easy do not have to modify their systems.

*Information link system: This system allows payers to specify the destination financial institution through the Website of each receipt organization.

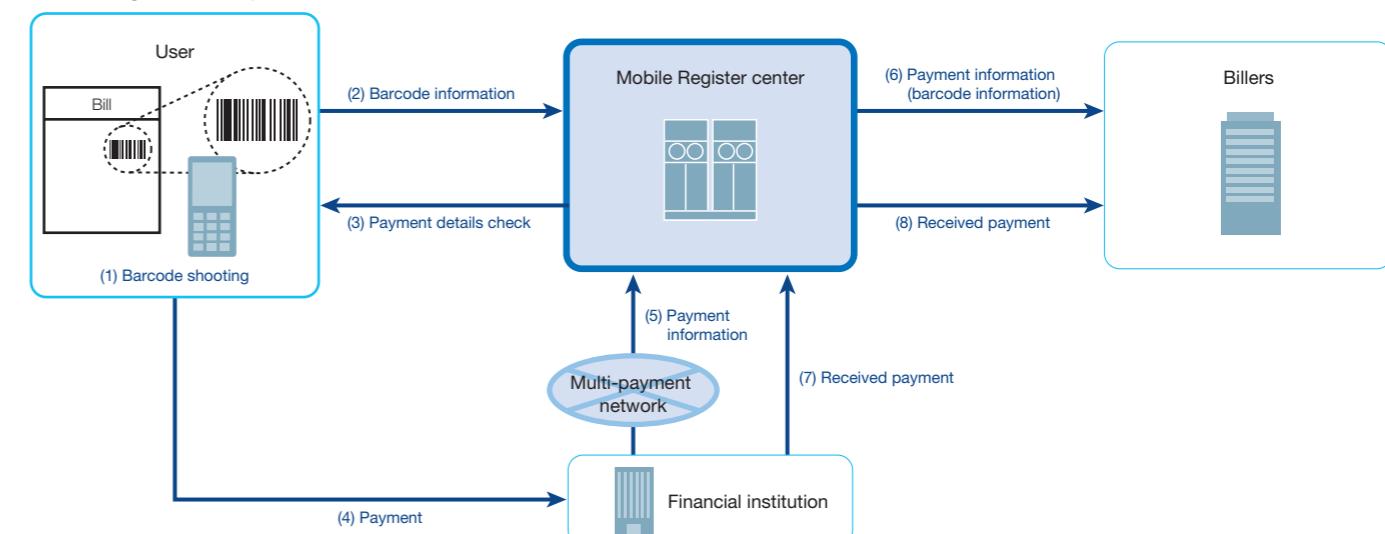
Advantage of introduction 5: Helping reduction of environmental burdens

The service reduces CO₂ emissions associated with going out for payment and delivery and arrangement of receipts.

Payment flow



Mobile Register concept



Internet Account Transfer Acceptance Gateway Service

Helping you streamline your procedure tasks by eliminating paper and seals from account transfer contract.

The Internet Account Transfer Acceptance Gateway Service is an ASP service intended for financial institutions that provides the account transfer contract procedure on the Internet. In conjunction with the Internet account transfer acceptance service provided by each financial institution, it provides a paperless, no-seal account transfer procedure based on the user authentication on the Website of each financial institution.

This service, allows billers, such as credit card

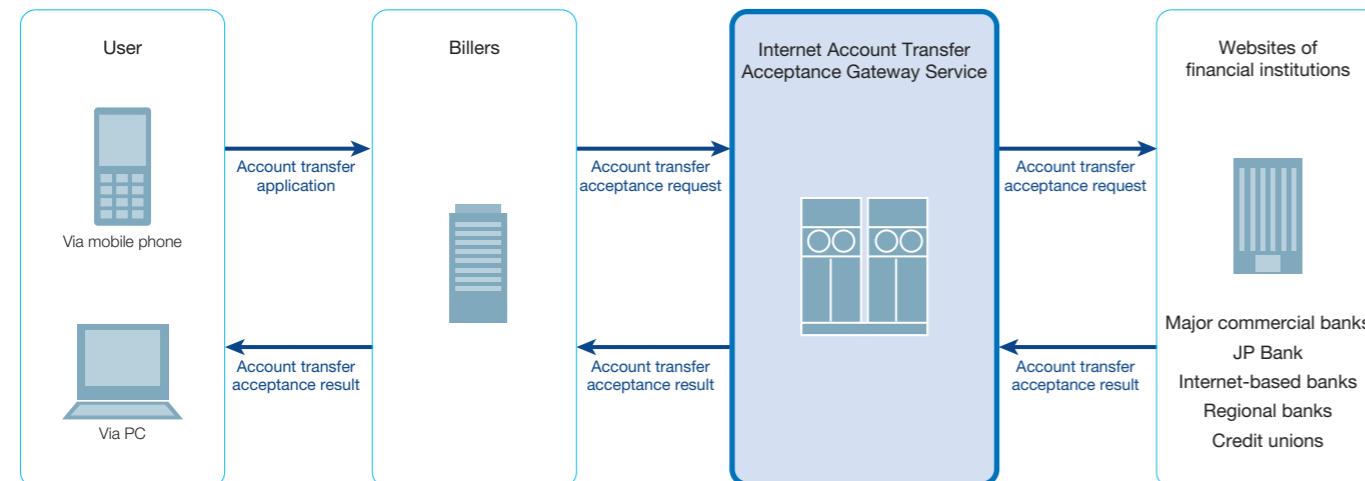
Advantage of introduction 1: Increased convenience for users

This service eliminates the drudgery of filling out an account transfer request and affixing a seal to it. It allows them to easily and quickly make new account transfer contracts or modify existing account transfer contracts on the Internet at any place any time.

Advantage of introduction 2: Streamlined clerical work

The service, eliminates the need for billers to send documents to or receive documents bearing results from financial institutions. This also saves them from having to handle documents returned by financial institutions due to missing information, streamlining clerical work.

Internet Account Transfer Acceptance Gateway Service concept



companies, telco companies, life/non-life insurance companies, and mail-order companies, to streamline and speed up their operations and reduce paper documents.

To enable financial institutions to easily introduce Internet account transfer acceptance services, we have configured the Internet Account Transfer Acceptance and Financial Institution Front Service as an ASP service targeting financial institutions. This service is currently being used by approximately 40 banks.

Advantage of introduction 3: Helping reduction of environmental burdens

The service eliminates paper usage and CO₂ emissions associated with travel and delivery.

Advantage of introduction 4: Connectable to more than one financial institution

Billers can connect to many financial institutions such as major commercial banks, regional banks, credit unions, Internet-based banks, and JP Bank.

Advantage of introduction 5: Reduced system development cost

Billers can connect to more financial institutions in the future almost without having to modify their systems. This will lead to reduced costs.

Acting Service for Payment Collection

Makes Payments of Utility Charges and Product More Speedy and Efficient

Payment Collection service for Convenience Store

Enabling payments at convenience stores across Japan, helping billers improve their receipt ratio.

This is an ASP service intended for billers and local public agencies that receives payments made at convenience stores on behalf of them. Billers do not have to sign a contract with each convenience store by introducing this service.

Advantage of introduction 1: Increased receipt ratio

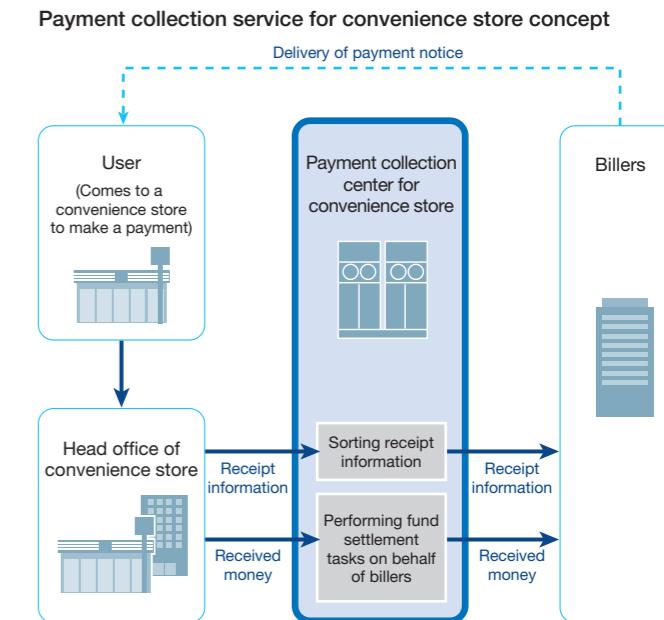
More than 40,000 convenience stores across Japan accept payments 24/7, which helps billers increase their receipt ratio.

Advantage of introduction 2: Reduced workload of reconciliation tasks

The service allows billers to consolidate payment receipt information, helping them reduce the workload of reconciliation tasks for confirming payments for goods.

Advantage of introduction 3: Reduced system development costs

Because it is an ASP service, billers do not have to make many modifications to their own system and can introduce the service at low cost.



Payment Collection Service

Performing credit-card payments on your behalf to reduce the workload of keeping and managing user information.

It is an ASP service intended for billers, such as insurance companies, gas companies, waterworks departments, health clubs, and others that receives credit-card payments on a regular basis on behalf of them. Billers can receive credit-card payments regularly without having to manage an enormous amount of personal information.

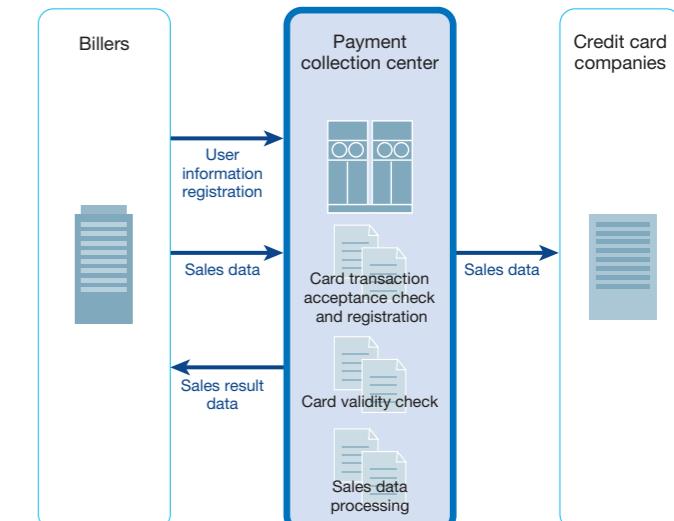
Advantage of introduction 1: Reduced system development costs

The service allows billers to transmit data required for credit-card payment in the currently used format to the payment collection center of NTT Data, reducing their initial development costs.

Advantage of introduction 2: No need to keep or mange personal information

NTT Data stores an enormous amount of credit-card information, helping billers reduce the workload of managing information.

Payment collection service concept



Creating a safe and secure structure

To Fulfill Our Responsibilities as the Provider of the Largest Card Payment Network in Japan

Enhanced Security

Security is the heart of Card Payment. That is why it also keeps evolving

While more and more payment methods are becoming available, including credit card, digital money, and online payment, card payments require more enhanced security than ever to prevent leakage of card and personal information through unauthorized accesses or otherwise.

Under the circumstances, we have been continually working toward enhanced security to ensure that our network functions as an infrastructure that can be used by customers at ease; for example, we obtained ISMS certification (International Standard for Information Security Management Systems) in 2005 and PCI DSS

certification (International Security Standard for the Credit-card Industry) in 2008.

We will continue to update the obtained certifications and accreditation every year to further enhance security by improving the level of our information security management as well as introducing the latest encryption schemes.

Tokio Yonekura
project promotion



ISMS (International Standard for Information Security Management Systems) certification Obtained

The ISMS standard is an international standard intended for establishing systems that continuously maintain the confidentiality, integrity, and availability of information, which defines requirements for technical security measures and organizational management. In April 2005, NTT Data obtained ISMS certification for its window operations for serving customers and for maintenance and operations in regard to the total card payment service built around CAFIS. Since that time, we have undergone and passed ongoing annual certification screening.



PCI DSS (International standard for card business) certification obtained

PCI DSS (Payment Card Industry Data Security Standard) is an international standard intended for organizations associated with card business, defined mainly by international credit card brands. This standard requires the organizations concerned to implement more concrete security features, including firewall and anti-virus programs, along with appropriate measures, to protect card member information.

NTT Data obtained PCI DSS certification for its CAFIS in February 2008 and then obtained the same certification for CDS in July, for BlueGate in November, for INFOX and PastelPort in June 2009, for the BlueGate user authentication service in May 2010, and for CAFIS paper slip storage in December 2011.

The fact that NTT Data thus obtained PCI DSS for our services proves, we believe, that the total card payment service of NTT Data provides its customers with reassuring, secure transaction programs.



Stable Transactions Quality

We continue to enhance our network toward constantly stable transactions

CAFIS handles more than 10 million transactions a day. This means that if the service suspends even one second, many customers lose payment opportunities.

For this reason, we have been making efforts to enhance the accuracy, continuity, and security of CAFIS since its debut. To respond to increasing transactions and the importance in society and environmental changes, we made the network multiplexed and redundant by, for example, setting up a duplex-center system, installing multiple servers, and making communications multicarrier. We thus continue to enhance the features and boost the equipment to ensure that we can provide accurate, secure transactions even if a communications line fails or a system trouble occurs,

or when the system is being updated.

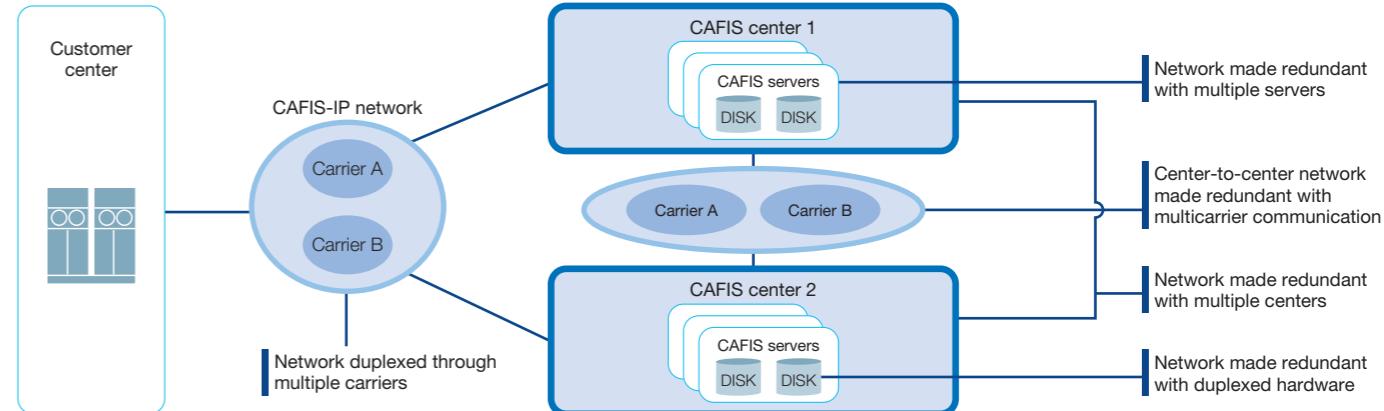
In addition, CAFIS routinely monitors the transaction status of credit card companies and financial institutions to promptly notify them of any problems. We are thus trying to increase the stability of all transactions together with customers.

We will continue to make efforts to enhance our network with an eye toward the increased stability of all transactions.



Daiju Kato
the system

CAFIS network enhancing concept



Broadened Help Desk Service

24/7 help desk service responds to troubles faced by customers

The INFOX-NET help desk service responds to inquiries from merchants 24 hours a day, 7 days a week. Now, more than 700,000 INFOX terminals are operated; the number of monthly inquiries has reached several tens of thousands and is increasing year after year.

Our help desk personnel maintain and operate various tools, such as databases and Q&A lists containing stored information about customers and terminals, so that they can promptly and accurately respond to a variety of questions. They also put their energies into brushing up their skills to respond to questions through periodic training and monitoring of the service skills of staff members.

In addition, in responding to inquiries, they identify customer needs and feed them back to the sales department so that they are used to improve the services and terminals in quality.

We will continue to enhance the operation power of our help desk team toward the further improvement of customer satisfaction.



Nobuyoshi Douchi
the customer service center

Creating a more convenient structure

We Provide a More Accessible, Convenient Card System and a Global Card Payment Network

In response to the increasing number of UnionPay card holders, we are broadening our payment service range

These days, more and more Chinese tourists come to Japan, raising expectations for broadened use of the China UnionPay cards in Japan. In response to these needs, NTT Data connected CAFIS with the China UnionPay network in 2005 to enable the use of UnionPay in Japan.



Hiroyuki Kanno
product planning

At the present, in addition to allowing China UnionPay Card settlements via INFOX multifunctional settlement terminals, we provide a China UnionPay Card Settlement Service via our PastelPort ASP service, targeting retailers. Using PastelPort Plus, settlement can also be conducted via smartphones and tablets. In this manner, we are increasing the number of ways in which the

China UnionPay Card can be used in Japan.

In this way, we consider it one of our missions to support new payment methods ahead of others. We will further enhance the convenience of merchants by providing one-stop payment solutions.

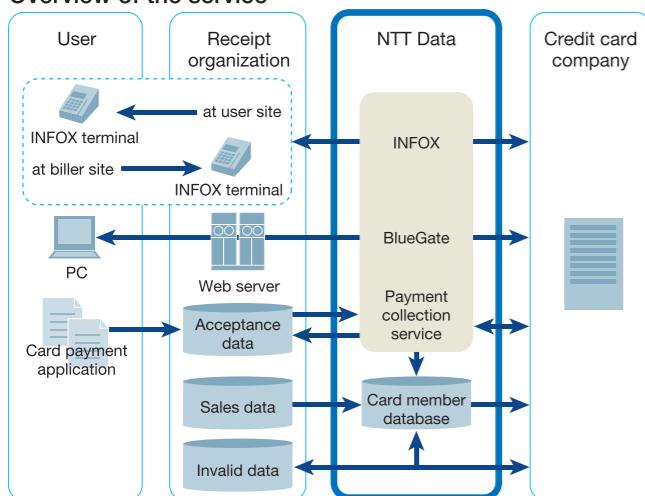


We help organizations streamline their monthly card payment acceptance tasks

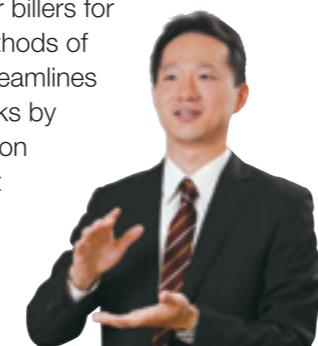
While credit cards are widely accepted to make monthly payments today, people can make card payments in many ways: over the counter, via the Internet, and through an application form. To respond to these

payment methods, billers need to install card payment terminals at their stores and introduce an Internet payment system to their website. In addition, they are required to inquire credit card companies via their own systems and input the inquiry results individually into their fee system, making the tasks very complicated.

Overview of the service



As a solution to this, NTT Data provides a service intended for billers for collectively handling many methods of card payment. This service streamlines card payment acceptance tasks by linking INFOX, a card transaction terminal; BlueGate, an Internet payment service; and the payment collection service, which enables regular payment receipts, with one another to centralize inquiry results from credit card companies.



Go Hashimoto
product planning

Handling everything from product explanations to settlements on a single smartphone

The rapid rise in popularity of smartphones and tablets has prompted their increased use in various situations, both personal and business. PastelPort Plus is a new cloud service that adds settlement to the list of ways in which smartphones and tablets can be used.

For example, when outside a store—out on a call or at an outdoor event—after using such devices for a visual presentation with e-catalogs and video, a user can move directly to a sales location to conduct settlements. Maximizing the flexibility of smartphones and tablets in this way boosts merchants' operational efficiency and leads to enhanced levels of customer satisfaction.

As PastelPort Plus grows to be used more



Wataru Shimamoto
product planning

consistently in different businesses and industries, we expect PastelPort Plus to assist innovation of and help strengthen corporate reforms.



We are making efforts to promote the Mobile Register for facilitating payments

NTT Data is making efforts to promote Mobile Register, which allows users to pay taxes and insurance premiums through an account of a specified financial institution using mobile phones and smartphones. Now, more than 1,100 financial institutions support Mobile Register. In 2007 when the service started, it was



mainly used for payments of mail-order transactions, life/non-life insurance premiums, and mobile phone fees. In fiscal 2009, the applications of it started to expand to, for example, tax payments to municipalities.

For example, in fiscal 2009, ahead of other municipalities in Japan, Chofu City introduced Mobile Register to receive the light motor vehicle tax. Based on this implementation, it started in fiscal 2010 to accept payments of the municipal/metropolitan inhabitant taxes and others using Mobile Register.

From fiscal 2011, we also enabled credit card payments of Tokyo metropolitan motor vehicle taxes. We have begun providing a smartphone app (Android and iPhone versions) in hopes that more people will take advantage of the increasingly convenient Mobile Register service.



Asami Higuchi
product planning

In response to diversifying needs, we are considering developing low-price INFOX terminals

To meet the increasingly diverse needs of the card settlement market, NTT Data aims to enable a wide variety of merchants to use its highly convenient card settlement terminals. To this end, the company launched the reasonably priced INFOX terminal in fiscal 2011.



Tomoh Shimizu
product planning

Compared to previous terminals, the INFOX terminal offers simplified hardware specifications and a simpler maintenance/operation menu. Also, this terminal is 20–50% less expensive. At the same time, the terminal is compatible with Suica and other transport-related IC cards, which are increasing in popularity. Furthermore, compatibility with iD, QUICPay and other contactless IC services

remains available. Rates on terminals connected to a LAN are held down to the same level as for an analog connection.

For settlement terminals, NTT Data provides a one-stop shop for activities ranging from sales to maintenance/operation, as well as paper rolls and other supplies. For merchants, this translates to higher operational efficiency.



By digitizing signatures, we will help merchants streamline their slip management

NTT Data is promoting a number of initiatives to reduce the merchants' operational burden of handling cards.

For example, customers who manage large-scale shopping centers used to go through the cumbersome process of managing signature slips when credit cards were settled. They had to collect an enormous number



of paper slips from each tenant and, once they had processed them, store them in warehouses. NTT Data proposes the introduction of the CAFIS Paper Slip Management Service to streamline these multiple procedures. The service involves converting the credit settlement process to the use of electronic signature pads and digitizing operations such as signatures, which were previously performed on paper slips. This eliminates the need to output signature slips on paper.

By providing this service, we aim to help customers make their operations more efficient. At the same time, the service helps to lower the risk of losing paper slips and reduces the amount of CO₂ emitted when producing and transporting paper slips.



Emi Hasegawa
business planning

We are creating an environment in which customers can settle transactions made in Japan in their own countries' currencies

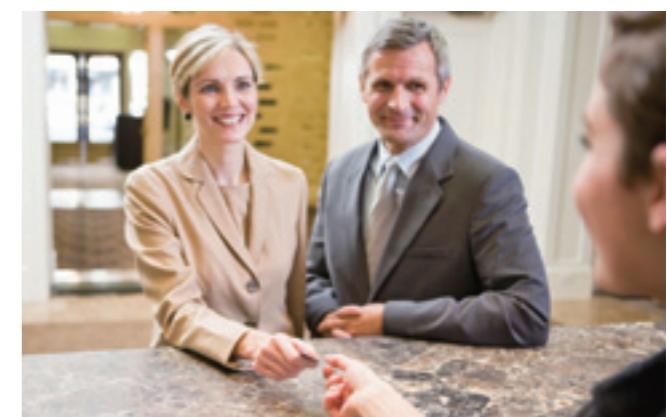
In the past, transactions made in Japan could in principle only be settled in yen; foreign nationals making purchases in Japan could not settle transactions in their own countries' currencies. Given the rapid growth in the cross-border e-commerce market and Japanese government efforts to

attract overseas tourists to Japan, the need for foreign currency card settlements in Japan has increased

every year. For this reason, we began looking into ways to use the CAFIS structure to handle Multiple Currency Settlement Services. In April 2012, we began offering this service to operators of e-commerce sites. For businesses, this represented an increased opportunity to attract foreign customers, and it has expanded the commercial potential of digital content and other

businesses aimed at overseas customers. As a result, this service has increasingly become a point of focus.

We are proceeding with the development of systems that will allow multiple-currency settlement at physical stores. We plan to expand our Multiple Currency Settlement Service by providing the service at duty-free shops, hotels and other locations frequented by overseas visitors.



Ayaka Ishikawa
business planning

We are concentrating on services to support merchants' sales promotion efforts

Point services are increasingly popular among retailers and operators of e-commerce sites as a way to increase repeat customer visits and promote loyalty. In many cases, however, these programs simply provide points and do not lead to sales promotion. We provide the SmarP sales promotion solution to address this issue.



In addition to managing points, SmarP provides analyses that can be used in sales promotion, based on such data as members' use history. Using the solution's customer analysis tool allows customers to be segmented according to their purchase history. As a result, privilege points can be awarded or e-mails distributed to excellent customers. Although SmarP uses the SaaS format, the solution can be customized to meet merchants' requirements.

We are looking into the possibility of extending this solution's compatibility to smartphones and tablets, thereby contributing to more robust merchant sales promotion efforts.



Hiroyuki Kobayashi
product planning

Contribution to the Environment and Society

INFOX Green Campaign Implemented to Make a Contribution to Tree Planting Activities in Indonesia

While Indonesia is one of the world's leading owners of tropical rain forests, a survey by the Food and Agriculture Organization of the United Nations shows that it experienced the most significant decrease of forests during the period from 2000 to 2005 among the Asian countries. Japan is the top importer of Indonesian timber. The paper maker which supplies slips for the INFOX terminal imports substantial timber from Indonesia, as well.

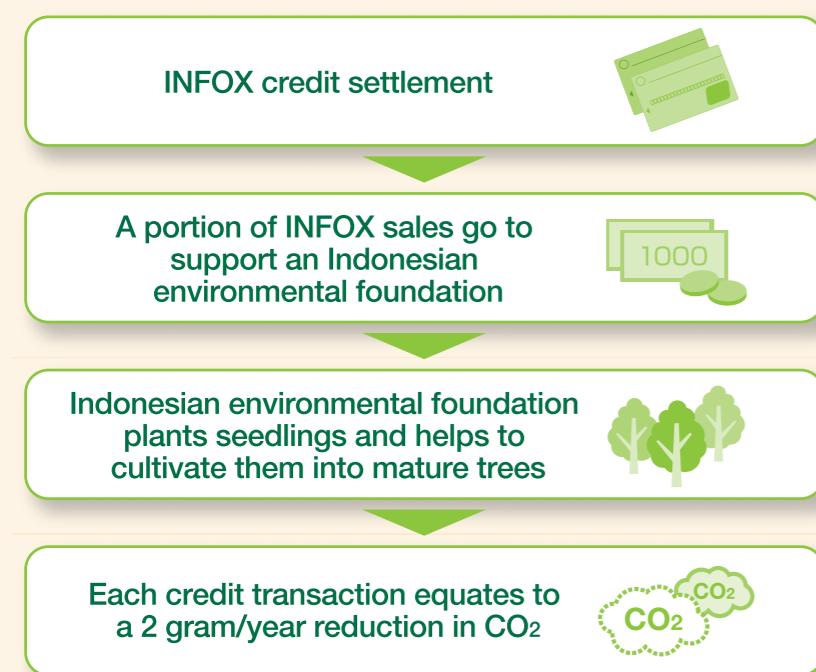
For this reason, NTT Data has been promoting the INFOX green campaign since 2009. This initiative is intended to support tree planting activities in Indonesia corresponding to the number of credit card transactions based on INFOX, a card transaction terminal.

This is a social contribution campaign through which a nursery tree which effectively reduces 2 grams of annual CO₂ emissions is donated for every INFOX terminal transaction conducted during the campaign. Donations are made to the Indonesian Environmental Foundation. In February 2012, the campaign was implemented for one month. In the following month, the foundation and local high school students planted our donated nursery trees in Chatra Village, Banri County, Bali, Indonesia. Since 2009, NTT Data donated a total of 3,078 nursery trees, which are calculated to naturally remove approximately 134 tons of annual CO₂ emissions, to the foundation.

Campaign site:

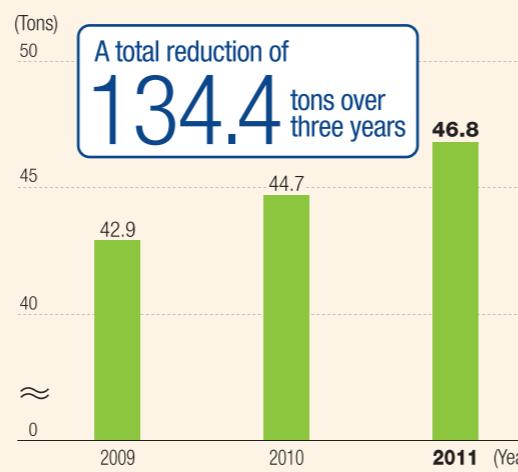
http://solution.cafis.jp/infox_green/ (Japanese only)

INFOX Green Campaign Structure



Planting nursery trees

Annual Reduction in CO₂ through the INFOX Green Campaign



Promoting the Reduction and Reuse of Slip Sheets to Be Used for the INFOX Terminal



With the help of a terminal maker, NTT Data decreased the length of the slip output from the INFOX terminal to two-thirds the original length to reduce the annual paper usage by one ton. In addition, we also started efforts to dissolve slips that no longer have to be kept to recycle them into toilet paper.

For roll sheets for the INFOX terminal, we use lumber from planted trees. For slip roll sheet printing, we use ink containing no VOC (volatile organic compound). Besides these efforts, we use RoHS-directive-complaint* materials for the INFOX terminal and recyclable materials for the shipping carton for the terminal packages. In this way, we are promoting environmentally friendly efforts from many aspects.

*RoHS directive: Restrictions defined by EU (European Union) on the use of specific hazardous substances used for electric and electronic devices

INFOX terminal examples that use fewer slip-sheets



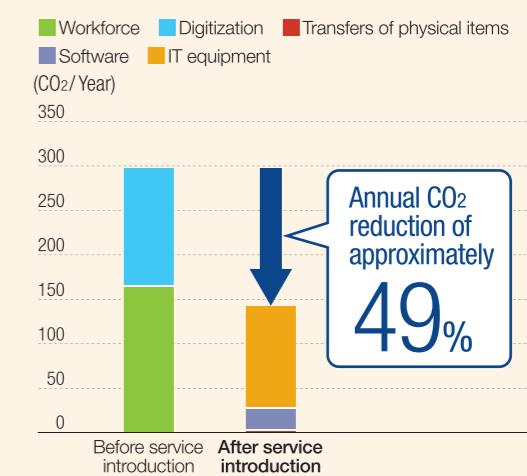
Paper Slip Management Service Reduces Transfers of Paper and Other Physical Items, as Well as People

The CAFIS Paper Slip Management Service has obtained a certification mark based on the NTT Group Solution Environmental Label System*. This service digitizes the signatures needed for credit card settlements and provides a framework for storing and managing this information. Introducing this service consequently reduces the use of paper, the transfer of physical items and workforce requirements. According to our calculations, introducing this service leads to an annual reduction in CO₂ emissions of approximately 49%.



Solution Environmental Label

CO₂ Reduction as a Result of Service Introduction

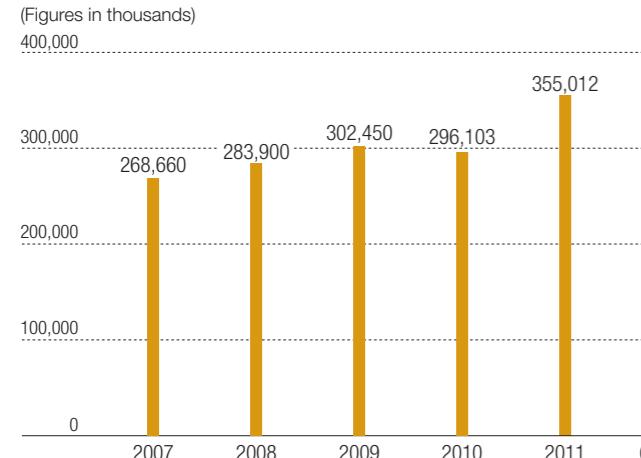


*Solution Environmental Label System: Under this system for ICT solutions provided by members of the NTT Group, solutions that achieve an environmental impact reduction (reduction in CO₂ emissions) effect above a specified level (15% reduction) are certified as environmentally friendly solutions. By providing services that reduce environmental impact, the Group aims to reduce the environmental impact of customers and society as a whole. Please see the NTT Group's website for detailed environmental information.
<http://www.ntt.co.jp/kankyo/protect/label>

Data List

Data related to CAFIS and MPN

Numbers of Monthly Transactions Handled through CAFIS



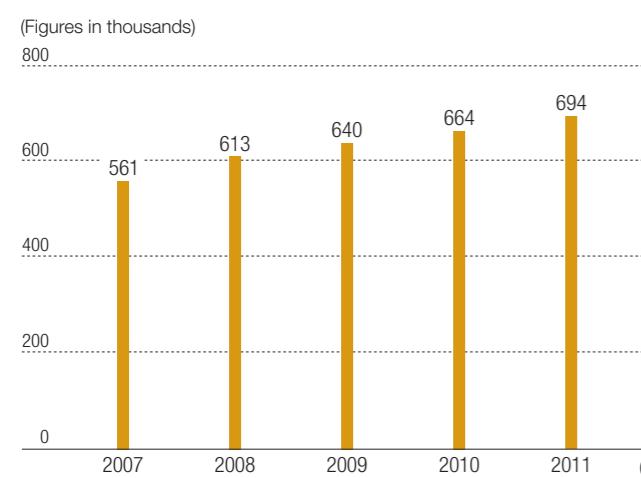
Note: Each figure represents the number of monthly transactions at the end (March) of the appropriate fiscal year.

Numbers of Annual Transactions Handled through the Multi-Payment Network (MPN)

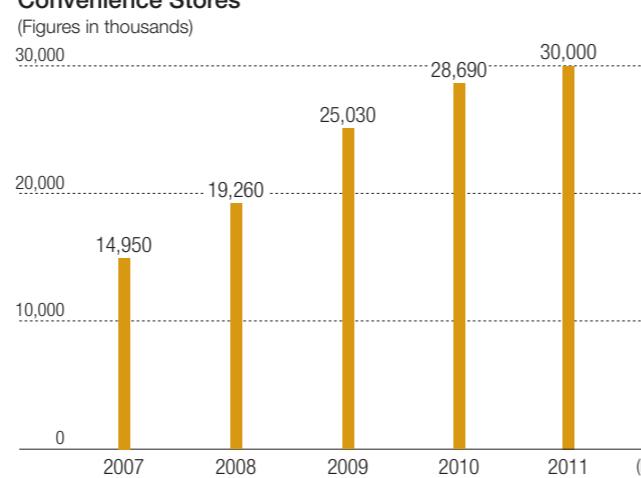


Note: The MPN is operated by the Japan Multi-Payment Network Management Organization.

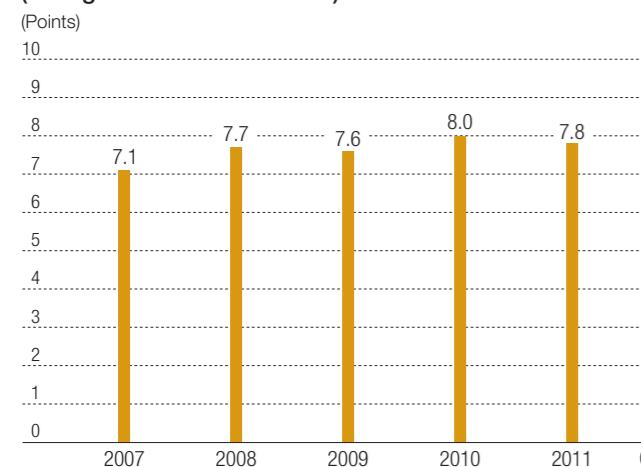
Numbers of INFOX Terminals Installed



Numbers of Public Money Payments Made through Convenience Stores



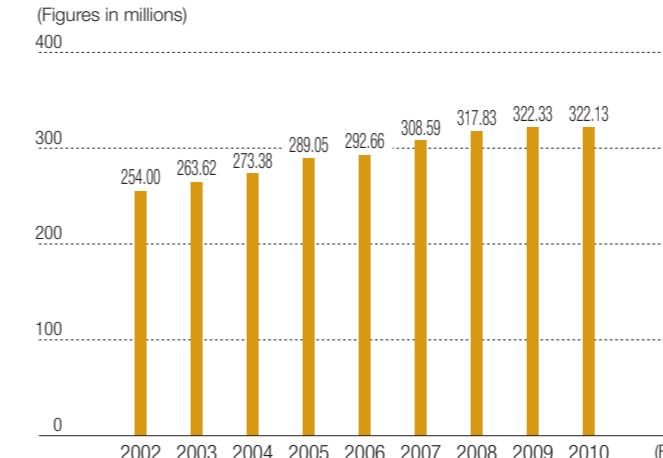
Assessments of CAFIS, INFOX, and CDS Made by Customers (Changes in Satisfaction Level)



Notes: Points are out of 10 points.

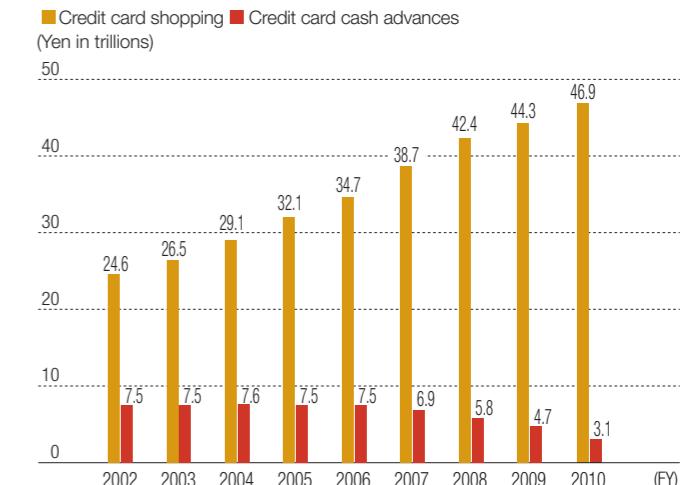
Market Data

Numbers of Credit Cards Issued



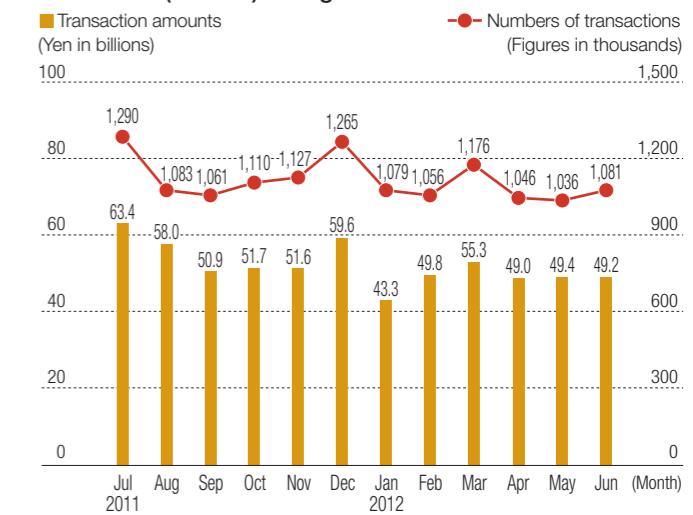
Source: Japan Consumer Credit Association

Credit Card Billings



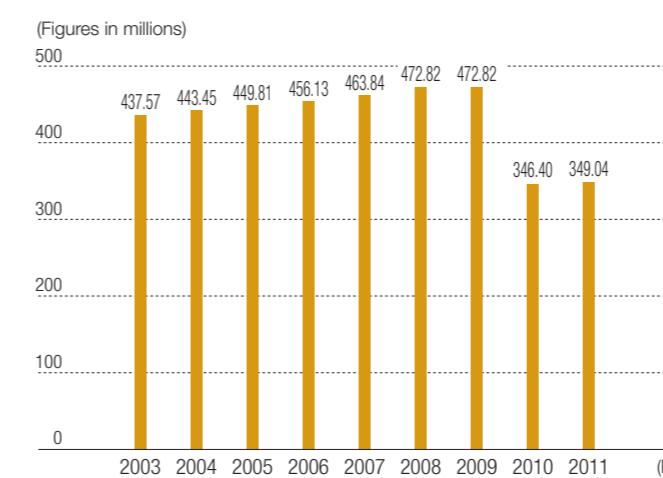
Source: Japan Consumer Credit Association

Debit Card (J-Debit) Billing



Source: Japan Debit Card Promotion Association

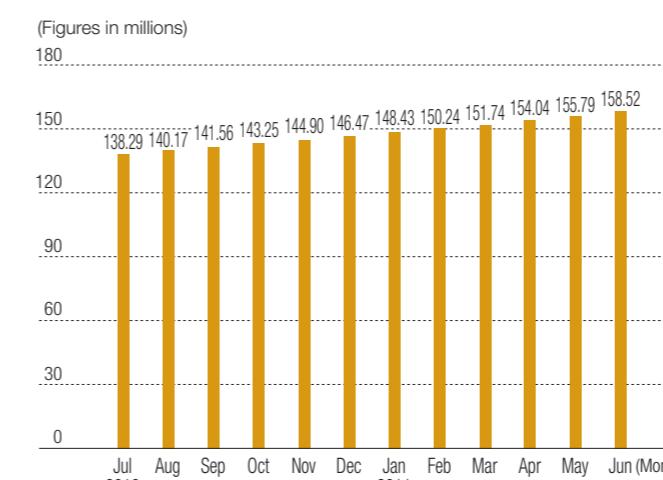
Numbers of Cash (Debit) Cards Issued



Source: The Center for Financial Industry Information Systems (FISC)

Note: Data from fiscal 2010 onward is not reflected, as the number of cards issued by Japan Fisheries Cooperative and Japan Post Bank is not publicly available.

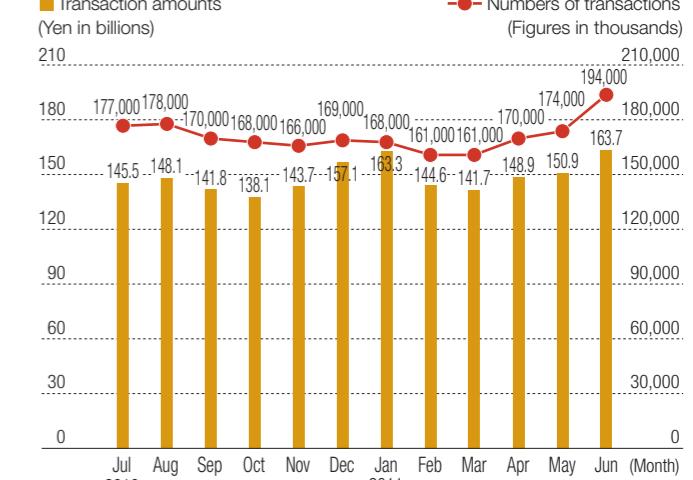
Numbers of Prepaid Digital-money IC Cards*



* Covering 6 different cards: Edy, Suica, ICOCA, PASMO, nanaco, and WAON

Source: Bank of Japan

Billings through Prepaid Digital-money IC Cards*



* Covering 6 different cards: Edy, Suica, ICOCA, PASMO, nanaco, and WAON

Source: Bank of Japan