



# ZENGIN SYSTEM

— The Zengin Data  
Telecommunication System —



# Infrastructure for Japan's Economic Transactions



The Zengin Data Telecommunication System (Zengin System) is an online network that links financial institutions nationwide through computers and telecommunication lines and processes transfer messages arising from remittances and other transactions. The Zengin System also handles the daily settlement of inter-bank credit/debt relationships that result from these transactions.

The Zengin System was launched in April 1973 and now includes almost all deposit-taking financial institutions in Japan (see Table 1). It plays a crucial role as the basic infrastructure for Japan's economic transactions, processing a daily average of approximately 6.5 million transfer messages for credit transfers and other transactions exceeding 12 trillion yen (see Table 2).

Since October 2018, the "Core Time System," which supports fund transfer transactions during

daytime on weekdays, is supplemented by the "More Time System," which supports transfers at nighttime on weekdays, weekends, and holidays, realizing Zengin System operations on a 24/7 basis.

The 7th Generation Zengin System, launched in November 2019, inherits the functions and configuration of the 6th Generation Zengin System (including the More Time System). Steps are being taken to enhance safety and reliability by raising capacity and processing performance, strengthening cybersecurity measures, and reducing power consumption (see page 14).

In addition, in December 2018 the Zengin EDI System (ZEDI), which allows various type of EDI information (payment notification numbers, invoice numbers, etc.) to be attached to transfer messages between companies, was built and launched.

Table 2: Inter-bank Payment Systems in Japan

	Operation Commencement	Types of Payment	Participants (as of December 31, 2018)	Transactions (2018)	
				Volume (million)	Value (trillion yen)
<b>Zengin Data Telecommunication System (Zengin System)</b>	Apr. 1973		1,274	1,614	2,881
(Joint system)		Fund transfers such as credit transfers, remittances and collections			
Zenshinkin System	Oct. 1976		262	19*1	11*1
Data Transmission System for Credit Cooperatives	Nov. 1982		145	0.3*1	0.3*1
Central Network System for Labour Banks	Jan. 1984		14	2.6*1	1.6*1
Agricultural Cooperative Savings Network Service	Feb. 1984		713	10*1	20*1
<b>Clearing Houses (operated by 107 local clearing houses)</b>	Dec. 1879 (Osaka Clearing House) Dec. 1887 (Tokyo Clearing House)	Clearing of bills, checks and other inter-bank receipts	(Tokyo) 303	(nationwide) 51 (Tokyo) 16	(nationwide) 261 (Tokyo) 124
<b>Foreign Exchange Yen Clearing System (using BOJ-Net)</b>	Mar. 1989	Clearing of foreign exchange-related yen funds	201	7	4,226
<b>BOJ-Net Funds Transfer System (BOJ-Net)</b>	Oct. 1988 *Changeover to RTGS in Jan. 2001	Fund transfers between current accounts held at the Bank of Japan	502	16	35,998
<b>CD/ATM Networks (Integrated ATM Switching Service)</b>	Feb. 1990 (MICS) *CD/ATM online network services between banks started in 1980 Jan. 2004 (Integrated ATM Switching Service)	Cash withdrawals Balance inquiries Account verification prior to credit transfers from ATMs		757*2	11*2
					MICS (Multi Integrated Cash Service links the following networks.) BANCS (city banks) ACS (regional banks) SOCS (trust banks) LONGS (long-term credit banks and Shoko Chukin Bank) SCS (member banks of the Second Association of Regional Banks) SNCS (shinkin banks) SANCS (credit cooperatives) ROCS (labour banks) Agricultural Cooperative Net Service

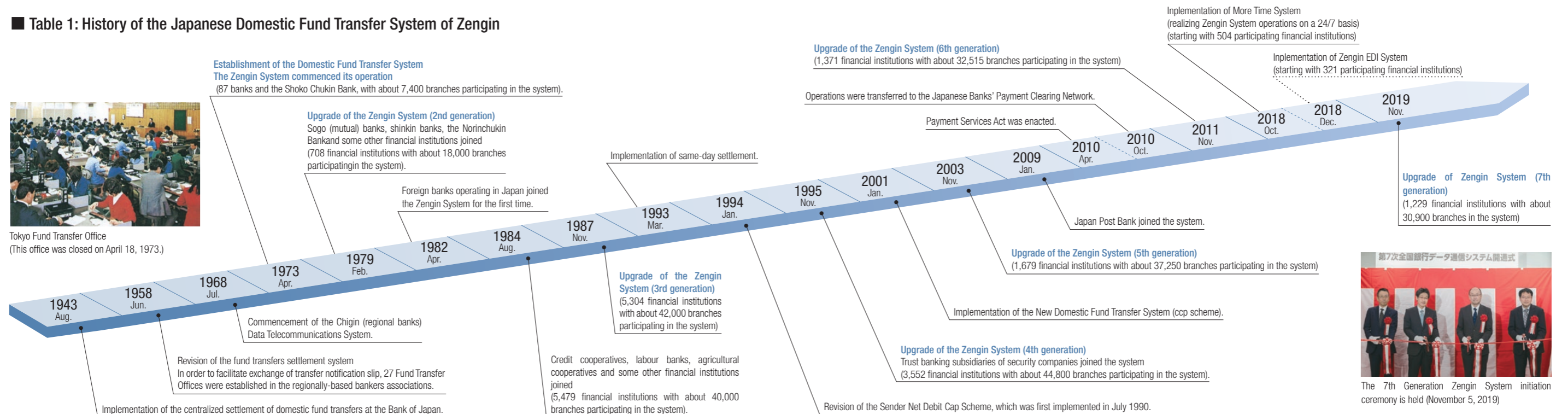
Notes

\*1 Figures show the transaction volume and value within each joint system. These are not included in the figures for the Zengin System.

\*2 Figures show both intra-group and inter-group transactions.

Source: Japanese Bankers Association, Settlement Statistics, etc.

Table 1: History of the Japanese Domestic Fund Transfer System of Zengin



# Nationwide Fund Transfer Network

Almost all deposit-taking financial institutions in Japan, including banks, shinkin banks, credit cooperatives, labour banks, agricultural cooperatives and the Japan Post Bank, currently participate in the Domestic Fund Transfer System. The Zengin System was connected to 1,229 member banks with 30,883 branches as of the end of November 2019 (see Table 3).

Shinkin banks, credit cooperatives, labour banks and agricultural cooperatives are connected to the Zengin System through their respective joint systems. The Bank of Japan (BOJ) also participates in the Zengin System as an associate member.

## Management of the Zengin System

The Zengin System is managed by the Japanese Banks' Payment Clearing Network (hereafter "Zengin-Net") and is developed and provided by NTT DATA Corporation.

Procedures governing remittances and other transactions processed through the Zengin System and the clearing of inter-bank funds that results from these transactions are outlined in the rules of the Domestic Fund Transfer System established by the Zengin-Net.



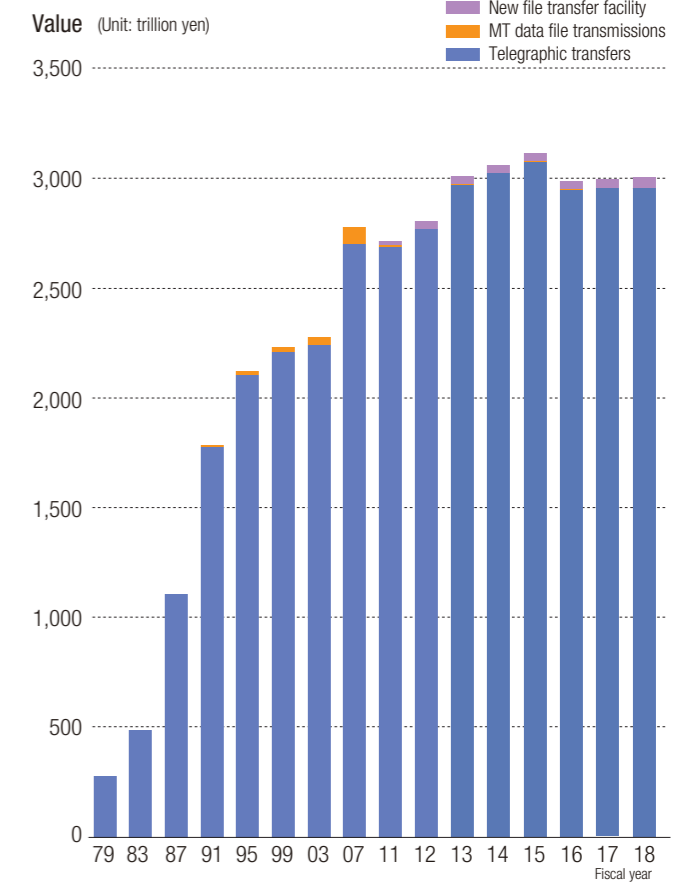
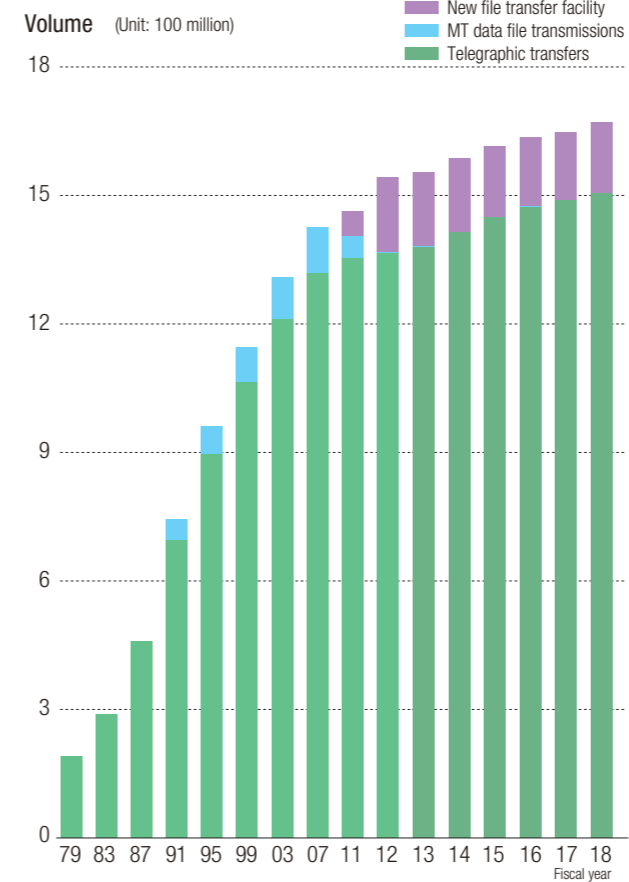
Table 3: Number of Financial Institutions Using the Zengin System

(as of the end of November 2019)

Clearing Participants			Agency Participants		
Number of Banks		Branches	Number of Banks		Branches
City banks	5	2,210			
Regional banks	64	7,750			
Trust banks	9	466			
Foreign banks	7	20			
Member banks of the Second Association of Regional Banks	39	2,868			
Shinkin Central Bank	1	14	Shinkin banks	257	7,259
Shinkumi Federation Bank	1	9	Credit cooperatives	144	1,607
Rokinren Bank	1	1	Labour banks	13	606
Norinchukin Bank	1	20	Credit federations of agricultural cooperatives	32	77
			Credit federations of fishery cooperatives	32	140
Others	15	493	Agricultural cooperatives	608	7,343
Subtotal	143	13,851		1,086	17,032
<b>Total</b>	<b>Financial institutions 1,229</b>		<b>Branches 30,883</b>		

Note: Banks listed under "Others" are Japan Net Bank, Seven Bank, Sony Bank, Rakuten Bank, SBI Sumishin Net Bank, Jibun Bank, AEON Bank, Daiwa Next Bank, Lawson Bank, GMO Aozora Net Bank, Shinsei Bank, Aozora Bank, Shinhan Bank Japan, Shoko Chukin Bank and Japan Post Bank.

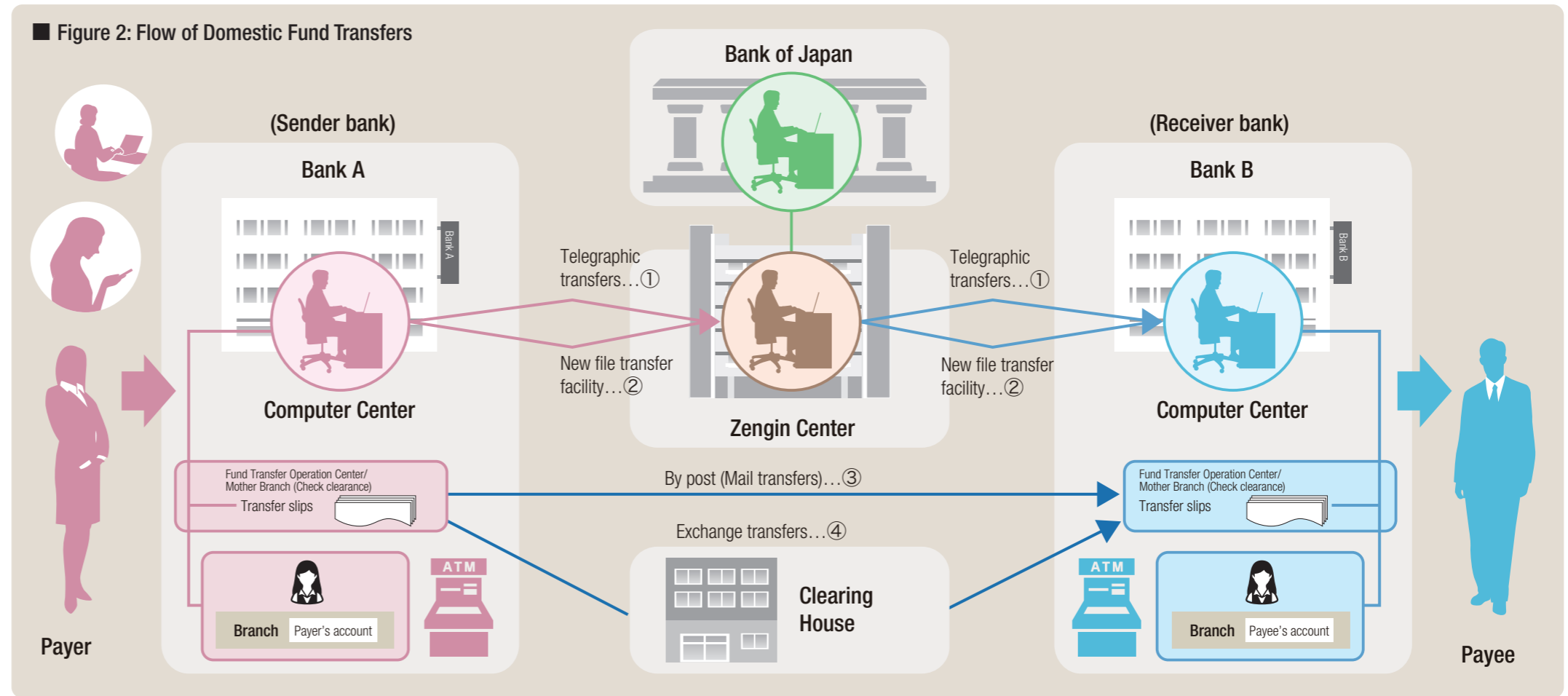
Figure 1: Fund Transfer Transactions



# Credit Transfers, Remittances and Collections



■ Figure 2: Flow of Domestic Fund Transfers



## What are domestic fund transfers?

Fund transfers include payments and receipts of funds between individuals and companies that do not involve cash delivery, and they are intermediated by financial institutions.

Fund transfers can be categorized into three types: “Credit transfer,” where funds are credited to the payee’s account, “Remittance,” where funds are paid to a payee by means of a bank draft and “Collections,” where bills and checks are collected on behalf of the payee and the proceeds are credited to the payee’s account. All these transactions are conducted by sending and receiving transfer messages between financial institutions.

Transfer messages can be sent and/or received through the Zengin System, i.e., by telegraphic transfer and a new file transfer facility; or by post or check clearing, i.e., document-based transfers (see Figure 2).

## Exchange of transfer messages through the Zengin System

Under the Domestic Fund Transfer System, a financial institution will request another financial institution to debit an amount into a client’s account by sending a transfer message. The Zengin System’s methods for transmitting transfer messages can be divided into two major categories; telegraphic transfers and new file transfer facility.

### ● Telegraphic transfers (See ① in Figure 2)

In a telegraphic transfer, member banks can send and/or receive a transfer message for each transaction through the Zengin System on an online, real-time basis. There are several types of telegraphic transfer messages, including credit transfer, remittance, collection and other forms of fund transfer between financial institutions (see Table 4).

In the case of a credit transfer or remittance, a financial institution (sender bank) acting on the instruction of its customer (payer) sends a transfer message to the financial institution (receiver bank) designated by the customer. In the case of a collection, the financial institution that has collected a bill/check sends a transfer message to the financial institution that has requested the collection.

A transfer message prepared by the sender bank’s branch is sent to a Zengin Center via processing computers and the Zengin RC (relaying computer) in the bank. The Zengin Center checks the content of the message and the amount of the transaction, etc., then sends the transfer message to the receiver bank, which credits the amount to the payee’s account in accordance with the content of the transfer message.

■ Table 4: Types of Telegraphic Transfer Messages

Type	Use
Credit transfer	Credit transfers on the day
	Post-dated credit transfers
Payroll transfer	Credit transfers of payrolls and bonuses
<b>Remittance</b>	
Ordinary remittances	Remittances in general
Remittances of government payments	Remittances of government payments
<b>Collection</b>	
Payment advices of individual collections and dishonored collections	
<b>Miscellaneous inter-bank transfer</b>	
Credit advice	Credit on the day
	Post-dated credit
Claim advice	Claim on the day
	Post-dated claim
	Claim of dishonored collection
Ordinary communication	Communication between banks related to domestic fund transfers
Government transfer	Credit transfers for government payments

**● New file transfer facility (See ② in Figure 2)**

New file transfer facility is used for sending and receiving multiple transfer messages at once.

In addition to document exchanges, post-dated transfers, and payroll transfers, new file transfer facility is also dealt with pensions, benefits, and stock dividend transfers, referred to as “transfer agent operations,” with the focus on transfers that need to be processed in bulk on a specific date (Table 5).

Transfer message files sent from financial institutions are first edited and processed by the Zengin Center in accordance with transaction types and receiver banks, and then distributed to the receiver banks. The receiver banks then credit the funds to the payee’s account on the designated day.

Due to the mass migration to the new file transfer facility along with the growth in transaction volumes, the handling of MT data file transmissions under the 7th Generation Zengin System has been discontinued.

**■ Table 5: Types of Data for New File Transfer Facility**

Type	Use
Document-based transfer	Document-based transfers
Post-dated transfer	Post-dated credit transfers
Payroll transfer	Transfers of payrolls/bonuses
Bonus transfer	
Stock dividend transfer	Transfers of dividends to shareholders
Loan-trust dividend transfer	Transfers of loan-trust dividends to beneficiaries
Benefit transfer from pension trust fund	Transfers of benefits to beneficiaries
Benefit transfer from public pension fund	
Benefit transfer from health insurance fund	
Statement for pension transfer	Statement for transfers of public pension
Statement for state tax refund transfer	Statement for transfers of state tax refund

Note  
New file transfer facility also deal with data files that do not accompany fund settlements, such as a list of payments using a bulk payment system and a payee’s account verification.

**Document-based transfers**

Document-based transfers are used for sending credit transfers that are not urgent. Transfer methods include mail transfers and exchange transfers.

**● Mail transfers (See ③ in Figure 2)**

A sender bank prepares a transfer slip, the standard form for message transmission, and sends it to the receiver bank by post. Upon receipt of the transfer slip, the receiver bank credits the funds to the payee’s account according to the instructions. These transactions are settled through the Zengin System, whereby the receiver bank claims the funds by sending a transfer request to the sender bank via telegraphic transfer.

Mail transfers have been largely discontinued as their use has declined due to the extra time involved in sending and receiving transfer messages and the significant operational burden placed on financial institutions in preparing transfer slips.

**● Exchange transfers (See ④ in Figure 2)**

In a similar manner to mail transfers, a sender bank prepares a transfer slip and sends it to the receiver bank through a clearing house. In this case, both the sending and receiving of transfer messages and fund settlements between banks are processed without using the Zengin System. For fund settlements between banks, the payee’s bank claims the funds against the payer’s bank through the clearing house. Exchange transfers are used between the branches of member banks located within the same district of the clearing house.

Transaction volume of credit transfers by type is shown in Table 6.

**■ Table 6: Transaction Volume of Credit Transfer by Type**

Type of Fund Transfer	Volume (Unit: ten thousand)	Value (Unit: 100 million yen)
Telegraphic transfer	10,600	2,361,727
Core Time System	9,988	2,350,818
More Time System	612	10,909
New file transfer facility	155	11,513
Mail transfer	32	2,622
Exchange transfer	25	2,576
<b>Total</b>	<b>10,813</b>	<b>2,378,438</b>

Note  
Figures are for December 2018.

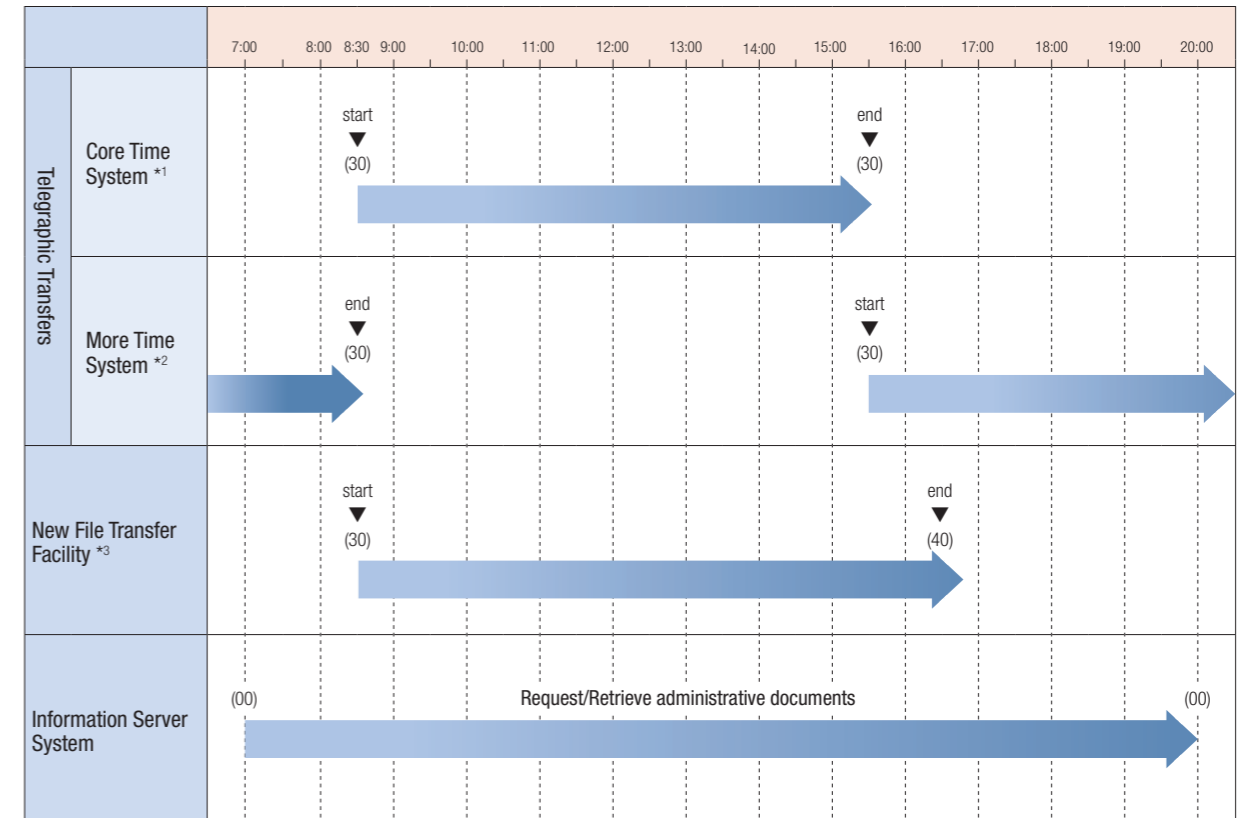
**Operating hours of the Zengin System**

The operating hours of the Zengin System are shown in Figure 3. On days when traffic is expected to be high, the operating hours of the Core Time System may be extended. On the last business day of each

month (excluding the year-end business day), it is extended by one hour.

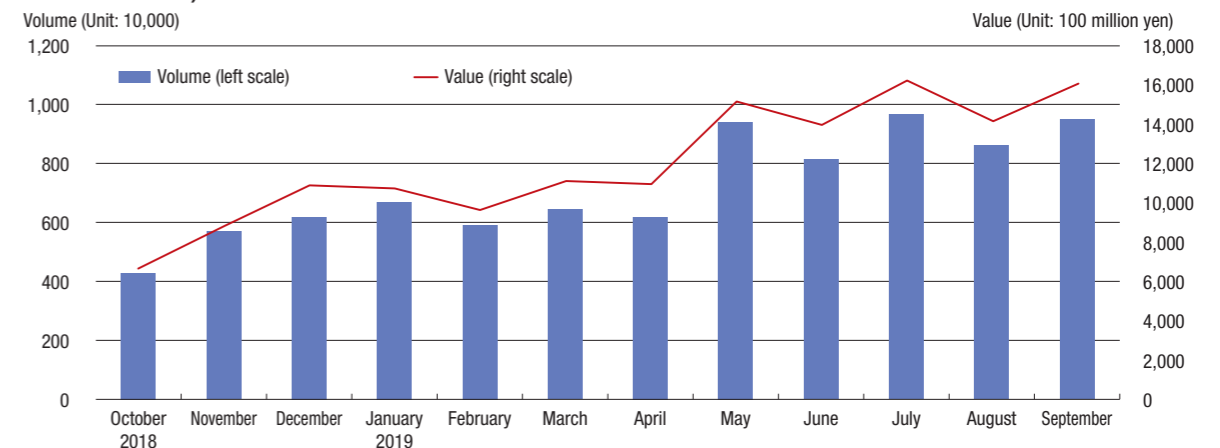
In addition, in the telegraphic transfer business, the More Time System is in operation on weekday nights, weekends, and holidays in order to support 24/7 operations (see Figure 4 for a year trend in fund transfer transactions).

**■ Figure 3: Zengin System Operating Schedule by Method of Transmission**



Notes  
\*1 The operating hours for telegraphic transfers (Core Time System) on the last business day of each month (excluding the year-end business day in December) is extended by one hour.  
\*2 The operating hours for telegraphic transfers (More Time System) is set to overlap with the Core Time System 10 minutes before the start of operations and 10 minutes after the end of communication each business day (weekdays). On Saturdays, Sundays, and holidays, only telegraphic transfers under the More Time System are in operation all day.  
\*3 The time required for editing and distributing transfer messages of the new file transfer facility varies depending on the amount of data.

**■ Figure 4: Fund Transfer Transactions (Telegraphic Transfers / More Time System) (settlement date base)**



# Settlement at the Bank of Japan and Real-Time Settlements for Transactions of 100 Million Yen and Above

## Funds clearing (transactions under 100 million yen)

Following a remittance transaction, the sender bank pays the funds to the receiver bank.

In the case of transfer messages for transactions of funds under 100 million yen, the Zengin Center calculates the net balance of transfers between the member banks and informs the banks as well as the BOJ. The BOJ debits or credits the net balance from/to the current accounts of the Zengin-Net and the member banks at 4:15 pm of the same day.

Settlements for financial institutions such as shinkin banks, which are indirectly connected to Zengin Centers through respective joint centers, are made by the group's parent financial institution, for instance, the Shinkin Central Bank for shinkin banks, which aggregates debits and credits of all its member financial institutions. Settlements between the affiliated financial institutions of the parent financial institution are processed in the group by each intra-group system.

Through this mechanism, the balance of each credit/debt relationship that results from a remittance transaction under 100 million yen between a sender bank and a receiver bank is replaced by a relationship between individual financial institutions and the Zengin-Net as a central counterparty (see Figure 5). This limits the settlements of accounts to individual

financial institutions and the Zengin-Net and prevents impact on other financial institutions in the event of a settlement risk. This method corresponds with "funds clearing" as laid out by the Payment Services Act, and the Zengin-Net is licensed by the Prime Minister to undertake a funds clearing business.

## Managing settlement risk in funds clearing

Settlement risk must be controlled to maintain a sound and stable centralized settlement system. Settlement risk is the risk of a member bank failing to pay the net balance to other member banks as scheduled, even after the amounts have been debited to the payees' accounts.

### ● Covering for credit risk

As a settlement risk mitigation measure under the Zengin System, each member financial institution posts with the Zengin-Net collateral such as Japanese government bonds, etc., to provide for the case of a default on cash settlement.

### ● Establishment of a system for providing liquidity

In the event of default, "liquidity providing banks" contracted with the Zengin-Net provide funds to cover the net balance(s) of the defaulted bank(s) during the

day and provide final settlement by the end of the day. The liquidity providing bank is later reimbursed using the funds recovered from the disposal proceeds of the collateral posted by the bank in default on the Zengin-Net.

### ● Sender Net Debit Cap Scheme

The Zengin System employs the Sender Net Debit Cap Scheme to control the level of unsettled balance. Under this scheme, a Zengin Center monitors and manages the member banks' net debit amount (their gross payment minus their gross receipt) to ensure that it does not exceed the limit declared by each bank. The net debit cap set for each financial institution cannot exceed estimated collateral value posted with the Zengin-Net.

When a member bank sends a transfer message through the Zengin System, the bank's debit amount increases. And when the bank's net debit resulting from a transfer is expected to exceed the limit, the transaction is rejected by the system and returned to the bank as an error. However, once the bank receives credits from other member banks and its net debit decreases, the bank can resend the message.

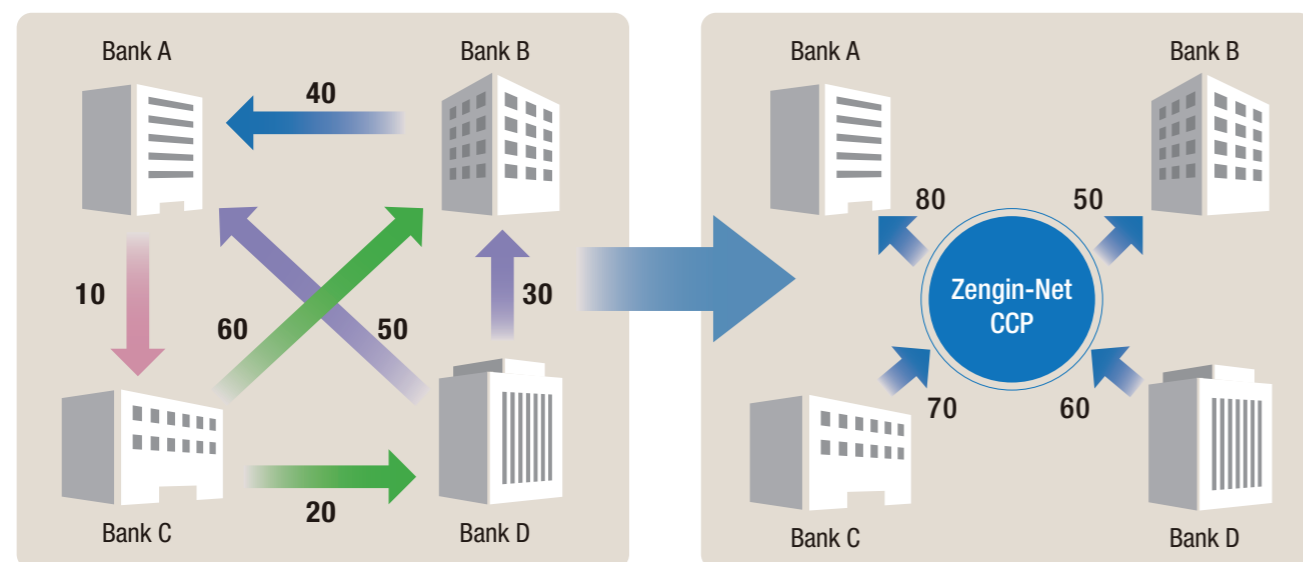
## Real-time gross settlements for fund transfers of 100 million yen and above

A different process from that previously described applies to the clearing of large-value domestic fund transfers of 100 million yen and above (with the exception of remittances of salary and bonus payments). Each time a large-value payment is made, a transfer message is sent to the receiver bank after the transaction has been settled between the sender bank and receiver bank.

The transfer message is kept at a Zengin Center until each transaction is settled. Funds are cleared for each transfer message by the BOJ-NET through RTGS (real-time gross settlement) with liquidity saving features (see Figure 6).

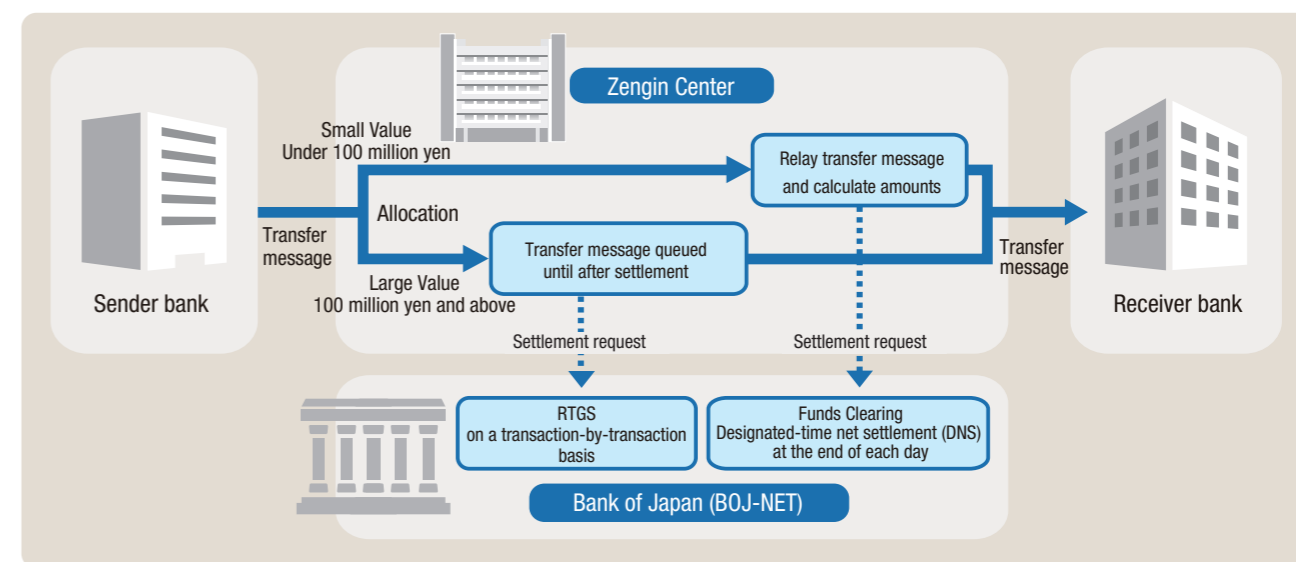
RTGS does not entail any settlement risks since funds are cleared before the transfer message is sent to the receiver bank. While domestic fund transfers of 100 million yen and above account for less than 0.2 percent of total fund transfers handled by the Zengin System in terms of the number of transactions, they nevertheless account for about 70 percent of the total in terms of amount (as of December 2018).

Figure 5: Fund Settlements through the Zengin-Net as a Central Counterparty (CCP)



Notes  
 1. Figures in the diagram indicate the debtor-creditor (debt and credit) relationships between banks accompanying credit transfers.  
 2. Debts and credits between banks may be replaced by a debtor-creditor relationship between each bank and the Zengin-Net (CCP).

Figure 6: Transaction Flow (RTGS for large-value payments / DNS for small-value payments)



## Solid Security and Reliability

The Zengin System consists of the host computers at the Zengin Centers that comprise the hub of the system, the Zengin relaying computers (RCs) installed in the computer centers of the member banks (in the case of agency participation, the Zengin RCs are installed in the joint center), and the communication lines that connect these computers.

To assure the Zengin System's security and reliability, duplicate computer systems back up every aspect of the system.

The Zengin Centers are located in Tokyo and Osaka and both have adopted a multiple host computer structure. Each member bank has at least two sets of Zengin RCs installed. Moreover, the Zengin Centers are equipped with a backbone network and a backup network that are connected to each other (Figure 7). Communication between the Zengin Centers and Zengin RCs is encrypted.

### Zengin Centers

The Zengin Centers in Tokyo and Osaka are both equipped with three sets of host computers that operate simultaneously. The separately installed host computers in Tokyo and Osaka enable member banks to continue transactions through the Osaka Center even in the event the Tokyo Center fails due to a natural disaster or other reasons. The configuration of the system equipment of the Tokyo and Osaka centers is the same. Two sets of host computers are used for online processing and another set is used for offline processing and backup. We have adopted a hot-standby method to ensure that when online processing fails due to a damaged computer, this computer can be immediately replaced by the backup. In addition, power supplies, data storages and other control peripherals are duplicated.

The Zengin Centers in Tokyo and Osaka mutually synchronize data at all times. As such, the Zengin System provides comprehensive redundancy.

The processing performance of telegraphic transfer of the Zengin System is currently 30 million transactions per business day (6 million transactions per hour during peak hours).

### Relaying computers

The banks communicate with the Zengin Centers through the Zengin relaying computers (RCs) installed in their computer centers.

The transmission protocols and data formats of these member banks vary and therefore have to be converted so that the Zengin Centers can accept them. Zengin RCs convert the various transmission protocols and data formats and then transmit the data to the Zengin Centers. These RCs also serve as a backup system when a member bank's computer system fails, by sending and receiving transfer messages directly to/from the Zengin Centers on behalf of the bank's host computers.

With regard to the following joint systems, the RCs are installed in the joint centers of each group.

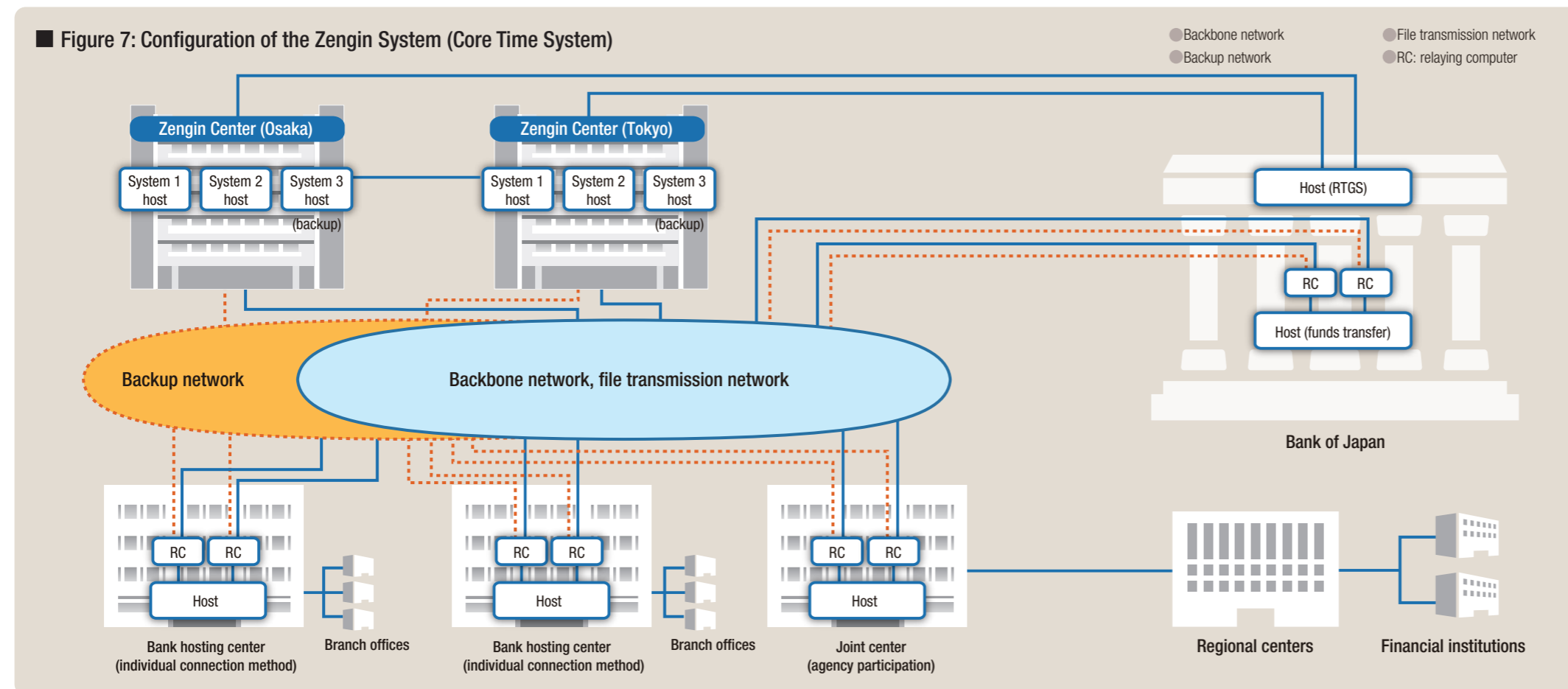
- Zenshinkin System: Shinkin Central Bank and shinkin banks
- Data Transmission System for Credit Cooperatives: The Shinkumi Federation Bank and credit cooperatives
- Central Network System for Labour Banks: The Rokinren Bank and labour banks
- Agricultural Cooperative Savings Network Service: The Norinchukin Bank, credit federations of agricultural cooperatives, credit federations of fishery cooperatives, and agricultural cooperatives
- System Banking Kyushu: The Fukuoka Chuo Bank, The Saga Kyoei Bank, The Bank of Nagasaki, The Howa Bank, The Miyazaki Taiyo Bank and The Minami-Nippon Bank

### Communication lines

In addition to the backbone network, a backup network exists between the Zengin Centers and the Zengin RCs. If the backbone network is disconnected, communication can be continued by using the backup network.

### Information server system

The information servers form a separate system from the fund transfer system. This system is used by the Zengin Centers to transmit statistical information and other data to member banks and by member banks to send online requests and registration to a Zengin Center.



## Performing a Leading Role in the Centralized Settlement System between Financial Institutions

The Zengin System began operations on April 9, 1973, under the management of the Organization for the Management of Domestic Fund Transfers established by the then Tokyo Bankers Association (now Japanese Bankers Association). Following implementation of the Payment Services Act in April 2010, which defines the fund clearing business under license, the Zengin-Net was established that same month to take over the operations of the Zengin System from the Tokyo Bankers Association. The Zengin-Net began operations of the Zengin System in October of that year upon issuance of the relevant license by the Prime Minister.

The computer systems used for the Zengin System are developed and supplied by NTT DATA Corporation. Since the system's inception, the company has maintained the system at a high level of security and reliability.

The system constitutes an infrastructure for retail funds transfer in Japan and is now commonly known as "Zengin" throughout the global financial industry.

### The 7th Generation Zengin System

The 7th Generation Zengin System, which started operations in November 2019, inherits the functions and configuration of the 6th Generation Zengin System. By introducing the latest equipment, steps are being taken to enhance safety and reliability by increasing capacity and processing performance, strengthening cybersecurity measures, and reducing power consumption.

In addition to the "Core Time System," which supports fund transfer transactions during daytime on weekdays, since October 2018, the "More Time System" has been in operation, which supports transfers at nighttime on weekdays, weekends, and holidays, realizing Zengin System operations on a 24/7 basis. However, the "More Time System" is available only for telegraphic transfers (less than 100 million yen per transaction).

#### Zengin EDI System (ZEDI)

On the Zengin-Net, the Zengin EDI System (ZEDI) was built and launched in December 2018 (development and maintenance by NTT DATA Corporation). The system moves transfer messages between companies transitioned to XML messages (ISO20022) and allows for various EDI information (payment notification number, invoice number, etc.) to be attached when transfers are made from the paying company to the receiving company. This is expected to improve the efficiency of clearing accounts receivable at the receiving company while the paying company will be able to reduce the number of inquiries regarding payment verification.

ZEDI services are provided through a total of 333 financial institutions comprised of 101 banks, Shinkin Central Bank and 231 Shinkin Banks (as of the end of November 2019).

### History of the Zengin Data Telecommunication System

Generation	Start of Operations	Number of Participating Banks	Content of Service	Processing Capacity
1st	April 9, 1973	88	Telegraphic transfers • Remittances • Credit transfers • Collections • Other transfers (fund transfers, billing, etc.)	Telegraphic transfers Per hour: 160,000 transactions Per day: 1 million transactions Daily average in 1973: 170,000 transactions
2nd	February 13, 1979	708	Telegraphic transfers Addition of credit transfer for payrolls	Telegraphic transfers Per hour: 440,000 transactions (final capacity: 800,000 transactions) Per day: 1.4 million transactions (final capacity: 2.3 million transactions) Daily average in 1979: 590,000 transactions
3rd	November 16, 1987	5,304	Telegraphic transfers Addition of MT data file transmission (from October 7, 1988) Document-based transfers, post-dated transfers, credit transfers for payrolls, bonuses, pensions, benefits, loan-trust dividend transfers and stock dividend transfers	Telegraphic transfers Per hour: 1.25 million transactions (final capacity: 2.5 million transactions) Per day: 5 million transactions (final capacity: 10 million transactions) Daily average in 1987: 1.6 million transactions
4th	November 13, 1995	3,552	Telegraphic transfers MT data file transmissions Addition of itemized accounts of centralized government payments, statements for bulk payment systems and confirmation of receiver account	Telegraphic transfers Per hour: 3.4 million transactions (no upgrades implemented) Per day: 13.5 million transactions (no upgrades implemented) Daily average in 1995: 3.54 million transactions  MT data file transmissions Per day: 4 million transactions
5th	November 17, 2003	1,679	Telegraphic transfers Addition of credit transfer for government payments  MT data file transmissions Addition of information server system Faster information delivery and paperless operations through digitization of transaction statements	Telegraphic transfers Per hour: 3.8 million transactions (initial facility) Per day: 15 million transactions (initial facility) Daily average in 2003: 4.91 million transactions  MT data file transmissions Per day: 4 million transactions (expandable up to 12 million transactions)
6th	November 14, 2011	1,371	Telegraphic transfers MT data file transmissions  Information server system Confirmation of settlement status, etc., for large-value domestic transfers, introduction of online submission for branch registration, fund of collateral amount and sender net debit cap	Telegraphic transfers Per hour: 5 million transactions (initial facility) Per day: 20 million transactions (initial facility) Daily average in 2011: 6.06 million transactions  MT data file transmissions (to be discontinued after shift to new file transfer facility) Per day: 4 million transactions  New file transfer facility Per day: 26 million transactions
7th	November 4, 2019	(Core Time System) 1,229	Telegraphic transfers New file transfer facility Information server system MT data file transmissions discontinued (complete migration to new file transfer facility)	Telegraphic transfers Per hour: 6 million transactions Per day: 30 million transactions  New file transfer facility Per day: 31 million transactions
		(More Time System) 1,200* <small>* As of the end of November 2019</small>	Telegraphic transfers	Telegraphic transfers Per settlement day: 5.4 million transactions (both centers)