The State of Play in U.S. Faster Payments

October 2025
FPC Network Committee

The State of Play in U.S. Faster Payments – A Network Perspective

- Introduction
- The State of Play in U.S. Faster Payments – Use Cases
- Understanding Faster Payment Networks
- Update on U.S. Faster Payment Networks

Real-Time, Instant and Faster Payments.

Where are they same and where are they different?

Applicable to all Real-Time, Instant, Faster payments. Based on the Bank for International Settlements, Committee on Payments and Market Infrastructures, a “fast payment” is one in which the transmission of the payment message and **the availability of final funds to the payee occur in real time** or near-real time (“immediate”) **and on as near to a (24/7) basis as possible*** This definition is broadly applicable to include both card and account-based offerings currently in the U.S.

While we often center the conversation around account based Faster Payments, there are other varieties of Faster Payments to consider.

Account Based

- Account-to-account tied to all FI accounts
- FI owns authentication and authorization
- Irrevocable transactions
- Intraday/immediate settlement (immediate settlement is referred to as an “instant” payment)
- Rich data via ISO 20022

Example

RTP® Network, FedNow, Zelle®

Card Based

- Leverages existing card credentials
- Domestic ubiquity and global reach
- Utilizes existing infrastructure

Example

Visa Direct, Mastercard Send

Digital Money*

- Fiat (e.g., USD-based) or Non-fiat (e.g., non-national currency, crypto, etc.).
- Wallet-to-Wallet (May be open or closed loop; may leverage an array of technology platforms, e.g., Venmo, Cash App, blockchain)
- Digital Bearer Instruments

** out of scope for this document*

Example

Fiat: CBDC, Stable Coin
Non-fiat: Bitcoin, Ethereum

*Although the FPC will determine the key characteristics of a “faster payment,” for purposes of this document, the term “faster payment” is consistent with the Committee on Payments and Market Infrastructures definition: “a payment in which the transmission of the payment message and the availability of final funds to the payee occur in real time or near-real time on as near to a 24-hour and seven-day (24/7) basis as possible.”

The State of Play in U.S. Faster Payments – A Network Perspective

Consumers and businesses in the United States have a choice of networks that provide faster payments. These networks have different characteristics, which have implications for the variety of use cases faster payments enables. This range of features allows financial institutions and payment service providers to choose the networks that best meet their needs. Providers of payment services often use multiple networks to extend the capabilities of their offerings. The choice among networks provides a rich platform for innovative solutions that no single network can offer.

This report provides an update on the market for payments in the US that are instant (clear and settle within seconds, 24x7) or immediate (those that clear and settle on an accelerated basis) with a focus on the underlying payment networks. For this report, we have defined a payment network as a network that connects financial institutions for the purpose of making funds transfers. A network in which the transmission of the payment message and the availability of final funds to the payee occur in real-time (within seconds) or near real-time (within hours or same day) and as near to a 24-hour and seven-day (24/7) basis as possible is considered instant or immediate, depending upon the settlement mechanism.

We have also included in this report both core clearing and settlement networks (those that effect the movement of funds between FI's) and the value-added networks or overlays built on top of core payments infrastructure.

The profiles included in this report are provided by networks represented in the U.S. Faster Payments Council. We believe these networks offer a broad profile of faster payment options in the United States.

Faster Payments are Enabling a Variety of Use Cases

P2P/C2B

- Transfer and payments to friends & family
- Paying for services (e.g. plumber, rent payments)
- Cross-border remittances

B2B

- Payments to expedite shipments – to suppliers, trucking firms, drivers
- Mortgage closings without exchanging checks

A2A

- Expedited merchant settlement
- Transfers to move funds between accounts (e.g. move funds from brokerage account to checking)

Disbursements

- Loan disbursements
- Insurance claim payments
- Payouts to sellers on marketplaces

Wages

- Gig workers paid on demand
- Expedited payroll
- Digital tips

US Faster Payments Council

* Bill Payments may be facilitated by a request for payment

U.S. Consumers and Businesses Have a Choice of Faster Payment Networks

These networks have different characteristics, which have implications for the variety of use cases that faster payments enable.

Payment Routing

- Account number and routing number
- Card number
- Social alias (phone number, email address)

User Experience

- Network may define the user experience and use cases
- Network sets baseline, providers design user experience and use case specific features

Value Added Services

- Directories
- Tokenization
- Payment request
- Fraud Mitigation
- Account validation
- FX or Cross-border payments

State of Play in Cross-Border: A Spectrum of Approaches and Solutions

A cross-border faster payment is where a sender and receiver in different countries can transact seamlessly in real time through their respective domestic payment networks. A primary goal of current cross-border efforts is to match the customer experience of domestic payments. There are a range of solutions that are either available commercially, or under development, to help parties interested in cross-border payments. See the Network Characteristics to learn more about each network and their cross-border payments capabilities.

As financial institutions and other entities consider solutions for cross-border payments, it is important to consider the following criteria in assessing solutions and partners:

- Data standards and integrity (may vary by payment type and sending and receiving country file formats)
- Technical stack for integration and transaction submission (Moving to API, but still may be batch file or ISO)
- Posting and settlement times (may vary by mechanism with availability in real-time, same day, or next day)
- Data availability (posting time, cost to beneficiary, payment status, etc.)
- Reach (payments posted to bank accounts, mobile wallets, cash out agents, push to card)

FPC CBPWG Bulletin_02_12-15-2022_Final3.pdf (fasterpaymentscouncil.org) discusses different models associated with CBDC and correspondent banking for cross-border faster payments

NB. In 2020, at the request of the G20, the FSB, in coordination with other relevant international organizations and standard-setting bodies, developed a roadmap to enhance cross-border payments (G20 Roadmap). Based on the work over the first three years, the FSB, in February 2023, published a revised G20 Roadmap centered around 15 priority actions. One action specifically focuses on faster payment system (FPS) interlinking across borders.

For more information regarding Cross Border payments, you can reach out to the following Faster Payments Council partners:

- Federal Reserve
- Junifunds® Network
- Mastercard Send
- Open Payment Network
- RTP® Network
- Visa Direct

Understanding Faster Payment Networks

Faster payment networks offer a broad range of features. Users and payment service providers can choose the networks that provide the functionality they need for the use cases and user experience they need. These distinctive characteristics help users understand the faster payment network options available in the United States. Defining characteristics of faster payment networks include:

- **Credits and debits** – Does the network support credit transfers, debits, or both?
- **Speed** – How fast are payments cleared, and how soon are funds available to the payee?
- **Settlement** – How are payments settled (e.g., deferred net settlement, real-time gross settlement) and how soon after initiation?
- **Payment finality** – Can payments be revoked, reversed or returned, for what reasons, and for how long after initiation?
- **Payment confirmation**— Does the network provide confirmation of payment to payers, to payees, and when? Is it provided?
- **Additional message functionality** – What non-payment messages (e.g., request for payment, account verification) and extended data capabilities does the network provide?
- **Payment routing** – How are payments routed over the network (account number and routing number, card number, social alias, token, etc.)?
- **Directories** – Does the network use a directory of recipients to support network routing or risk management? And if so, how?
- **Links to other networks** – Does the network use other networks to clear or settle transactions, to expand its reach, or for other purposes?
- **User experience** – What elements of the user experience does the network control through rules, technical specifications, user interface requirements, etc.?
- **Fraud and risk controls** – Does the network have built-in compliance and other anti-money laundering checks?
- **Rules** – Does the payment network have defined rules to support each use case, channel, and customer type?

Network Characteristics

Network Characteristics – At a Glance

Network	Accel	FedNow®	Juniper OnWe®	Mastercard Send	Open Payment Network OPN®	RTP® Network
Fraud and Risk Controls	See detailed network characteristics	See detailed network characteristics	See detailed network characteristics	See detailed network characteristics	Limits, authorized transfers, etc. See detailed network characteristics for more information.	See detailed network characteristics
Credits and Debits	Credits and debits	Credit transfers	Credit transfers	Credits and debits	Credit transfers, pre-authorized payments	Credit transfers
Payment Routing	Card credentials (primary account number)	Routing number and account number	Routing number and account number	Primary account number or Token and registered Aliases	Routing number and account number, social alias (email etc.)	Routing number and account number, account tokens
Speed	Typically, seconds; otherwise within 5-minutes.	Within seconds	Within seconds	Typically, seconds up to 30 minutes	Immediate	Average 2-3 seconds
Settlement	Deferred net or gross settlement / single-point settlement	Real-time gross settlement	Real-time gross settlement	The acquirer is responsible for settlement	Immediate	Real-time gross settlement
Payment Finality	Immediate, irrevocable	Immediate, irrevocable	Immediate, irrevocable	Immediate, irrevocable	Immediate, irrevocable	Immediate, irrevocable

Network Characteristics – At a Glance

Network	SHAZAM	STAR	Visa Direct	Zelle®
Fraud and Risk Controls	See detailed network characteristics	See detailed network characteristics	See detailed network characteristics	See detailed network characteristics
Credits and Debits	Credit transfers	Credits and debits	Credits and debits	Credit transfers
Payment Routing	Card credentials (primary account number) or routing number and account number	Card credentials (primary account number)	Card credentials (primary account number) or routing number and account number	Social aliases (e.g., email address or U.S. mobile number)
Speed	Funds availability to receiving entity within seconds, 24 X 7	Typically, availability within seconds	Typically, seconds up to 30 minutes	Typically, in minutes when the recipient is already enrolled
Settlement	Real-time gross settlement and net deferred settlement options	Deferred net settlement; with FLEX Settlement options	Deferred net settlement	ACH and RTP
Payment Finality	Immediate, irrevocable	Immediate, irrevocable	Immediate, irrevocable	Immediate, irrevocable

US Faster Payments Council

Network Characteristics – At a Glance

Network	Accel	FedNow®	Juniper OnWe®	Mastercard Send	Open Payment Network OPN®	RTP® Network
Payment Confirmation	Within seconds for the sender and receiver	Within seconds for sender and receiver	Within seconds for sender and receiver	Synchronous response with status	Occurring immediately with initiation and receipt	Within seconds for sender and receiver
Additional Messaging Functionality	Eligibility check, transaction amounts, & velocity limits	Request for payment and other non-payment messages	Link to external documents	Eligibility check; transaction limits and thresholds	Full API with support for multiple message formats and program interfaces	Request for payment and other non-payment messages
Directories	N/A	N/A	N/A	Tokenization and optional consumer registration service to securely store and access account	Integrated and updated in real time with context-sensitive security and interoperable with other directories (e.g., social media, contacts, routing, and account number, etc.)	N/A
Cross Border Payments	N/A	N/A	Available through Global Payment Gateways	Move enables transactions to 180 countries and 150+ currencies	N/A	Under development

Network Characteristics – At a Glance

Network	SHAZAM	Star	Visa Direct	Zelle®
Payment Confirmation	Available immediately upon initiation or receipt	Within seconds for the sender and receiver	Pre-transaction	Typically in minutes when sender and receiver are enrolled
Additional Messaging Functionality	Eligibility checking, transaction limits, daily dollar limits, routing decisioning, email notifications for requests for return of funds and fraud alerts	Eligibility check, transaction amounts, & velocity limits	Dynamic controls including transaction limits and velocity limits	Request, unregistered notifications, alerts, and reminders
Directories	N/A	N/A	Domestic and Cross Border alias services	Social alias directory
Cross Border Payments	N/A	N/A	Send money to 175 combined (card and account) countries	N/A

Network Profiles

Network Profile – Accel® Money Transfer

- Accel delivers! With 40+ years of experience delivering real-time payments, including 10+ years of money transfers with instant access to funds
- Accel brings together millions of consumers & businesses through thousands of financial institutions and money transfer service providers
- Consumers & businesses expect to send funds & be able to receive funds with immediate access
- The Network and processing streams provide an expansive array of real-time risk tools, providing multi-layers of fraud fighting capabilities considering all transactions sent to the network using debit card credentials

- **Top tier network with customers / participants nationwide**
- **Real-time funds access**
- **Strong risk / security tools**

Network Profile – Accel® Money Transfer

Features

- Existing technology, supported by Accel processors for many years
- Accel provides the transaction set and technical guide, rules, and network infrastructure
- Accel Member responsible for integrating “instant availability” within their services
- Money transfer transaction set fully integrated into the FI’s back-office, allowing for streamlined operational procedures & support

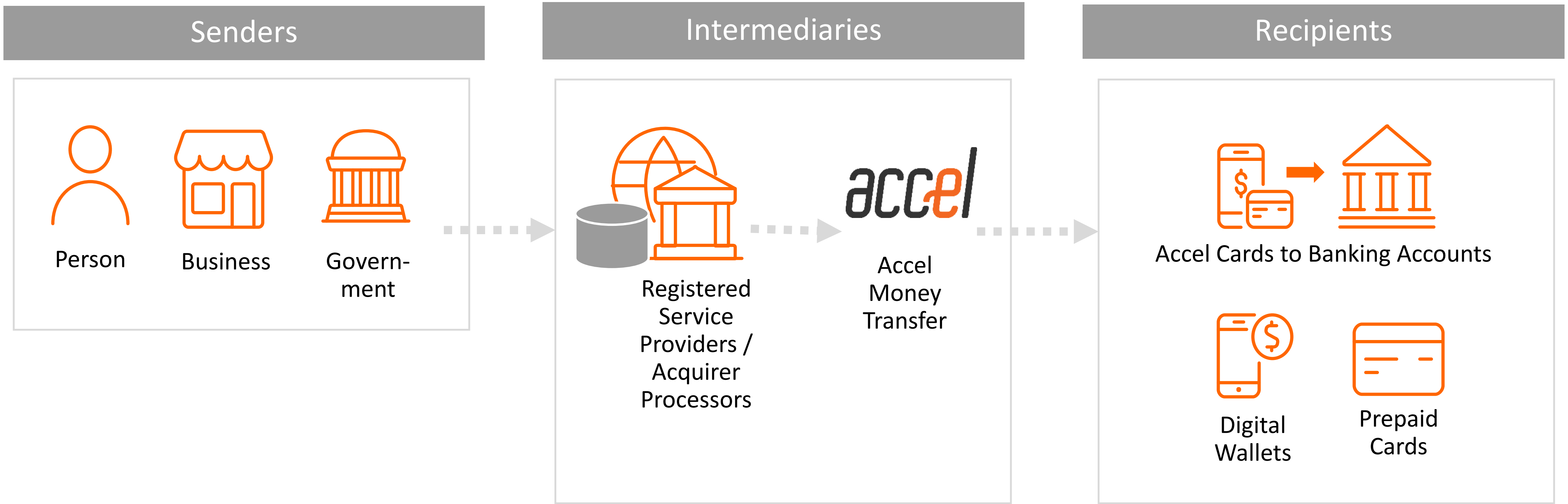
Authentication and Security

- Licensed service providers must authenticate customer, including KYC, CIP, and assignment of authentication tokens – be reasonably certain that the customer is authorized to transact on the account
- Network and processors provide numerous authentication methods & risk tools

Regulatory Compliance

- Accel Network Operating Rules, all applicable federal & state laws, additional industry standards requirements
- Network reserves the right to review and approve method of authentication and consumer experience flows

Network Profile – Accel® Money Transfer



Network Profile – Accel® Money Transfer

Feature	Description
Overview	Owned and operated by Fiserv, Accel provides the link between financial institutions and money transfer service providers that enable consumers and businesses to easily pay and receive funds from others. Funds are available directly in bank accounts within minutes when the recipient is already enrolled with the Service Provider.
User Experience	Accel provides the rails and rules for money transfers and disbursements including A2A, P2P, B2C and G2C. Service Providers control the user experience of the Sender and the Network manages the user experience of the Recipient. Using debit cards with deeply-rooted risk tools evolved by the network and participants over many years, provides better smarter decisioning and achieves user expectations.
Access and Distribution Model	U.S. financial institutions may join the Accel Network. Eligible Network Members may sponsor money transfer service providers for participation in the Network. Network rules and guidelines level-set requirements for all participants. Entities considered money transmitters by the Financial Crimes Enforcement Network (FinCEN) must maintain current state licenses as required.
Recent Development and Initiatives	Accel recently made deep investments to provide an additional risk tool that utilizes ML and AI, and enables card members greater security in making real-time authorization decisions.
Statistics	Accel enables secure, real-time money transfers to and from millions of bank accounts using debit card credentials, initiating settlement for billions of dollars.

Network Profile – The FedNow Service

- The FedNow Service was developed by the Federal Reserve to enable financial institutions of every size, and in every community across America, to provide safe and efficient instant payment services around the clock, 365 days a year.
- The FedNow Service provides core clearing and settlement capabilities to support a range of transaction types and use cases. Developed with industry input, the service was designed to advance the Fed's public mission.
- The FedNow Service will be enhanced through **incremental releases of new functionality,** with a focus on continuing to **support resiliency, ease of use, safety and trust** in the industry as the FedNow Service network expands.

Key Attributes

Accessible network

24/7/365 Availability

ISO® 20022 Standard

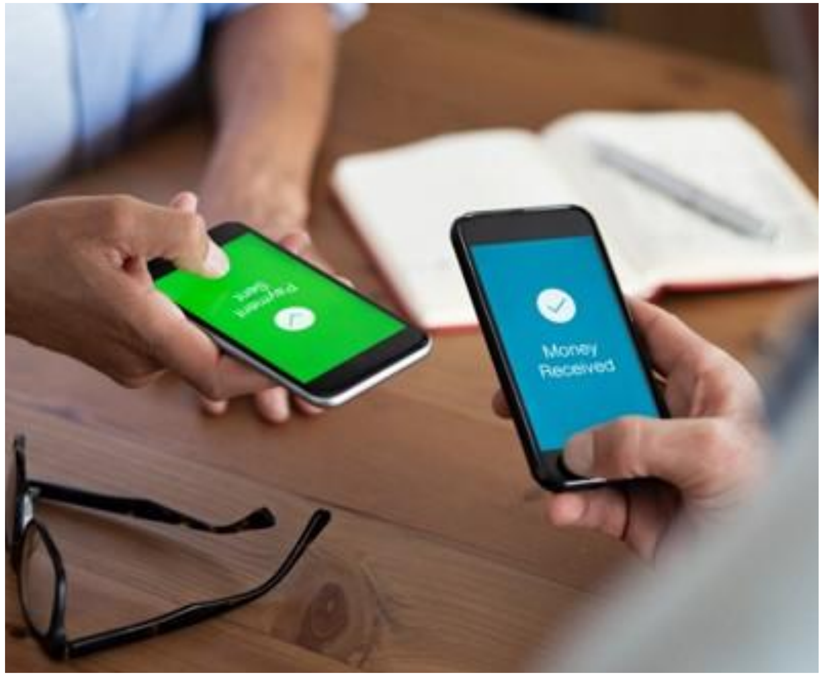
Risk mitigation tools

Liquidity management

Request for Payment

Network Profile – FedNow℠ Service

The Federal Reserve's broad reach, encompassing connections and service relationships with more than 10,000 financial institutions, supports a nationwide infrastructure for instant payments.



- Use of the **ISO 20022 standard** will facilitate industry interoperability.
- **Request-for-payment** capability enables bill payment and other key use cases.
- A broad range of **message types and reports** support payment inquiries, reconcilement, certain exceptions, and returns.
- Tools, including **transaction value limits and reporting features**, help combat fraud, and support payment integrity.
- A **liquidity management** transfer feature allows the transfer.

Network Profile – FedNow℠ Service

The figure below illustrates a completed payment over the FedNow Service in its simplest form. This process is designed to take place within seconds.

1. Sender initiates payment.
2. Sender's financial institution submits payment message to FedNow Service.
3. FedNow Service validates payment message.
4. FedNow Service sends contents of the payment message to receiver's financial institution.
5. Receiver's institution confirms that it intends to accept the payment message.
6. FedNow Service debits and credits the designated master accounts of the sender's and receiver's institutions.
7. FedNow Service sends a payment message to the receiver's institution with an advice of credit and an acknowledgement of settlement to the sender's institution.
8. Sender's and receiver's accounts are debited and credited, respectively, outside the service.

Network Profile – FedNow® Service

Feature	Description
Overview	The FedNow Service is a new instant payment infrastructure developed by the Federal Reserve. Through the FedNow Service, funds clear and settle between participating financial institutions in seconds, meaning that there is no buildup of interbank obligations or short-term credit risk.
Recent Development and Initiatives	The FedNow Service launched on July 20, 2023, with 35 live participants, the U.S. Department of the Treasury's Bureau of the Fiscal Service and 16 certified service providers. After two years, there are more than 1,400 financial institutions and their service providers on the FedNow Service network (please see our website for the updated participant list). The FedNow Service's current focus is on industry readiness and adoption to build out the growing network of participating financial institutions and to facilitate the growth of new use cases over the service. Additionally, the FedNow Service continues to introduce new functionality on an ongoing basis, driven by themes of safety, trust, and ease of use. Examples of this new functionality include: a centralized platform where technical partners at FIs and Service providers can access resources to help with implementation and usage of the FedNow Service, risk management tools such as correspondent net send limits and Service controls FIs set to manage account activity across attributes like cumulative value and velocity, and further fraud mitigation tools that are planned to be expanded upon continuously.
Access and Distribution Model	The FedNow Service is broadly available to all depository institutions in the United States, provided they are eligible to hold accounts at the Federal Reserve Banks under applicable federal statutes and Federal Reserve rules, policies, and procedures. Financial institutions connect to the service using the FedLine® Access Solution. Participants can designate a service provider or agent to submit or receive payment instructions on their behalf and may choose to settle payments in the account of a correspondent. Merchants, consumers, or non-bank payment service providers can access the service through depository institutions as they do with other Federal Reserve payment services.
Resources	The latest service information, along with instant payments educational materials, is available at FedNow® Explorer – Instant Payments Learning & Resources.

Network Profile – Juniper OnWe®

Over 5,000 financial institutions use the Juniper Payments and Velera Networks.

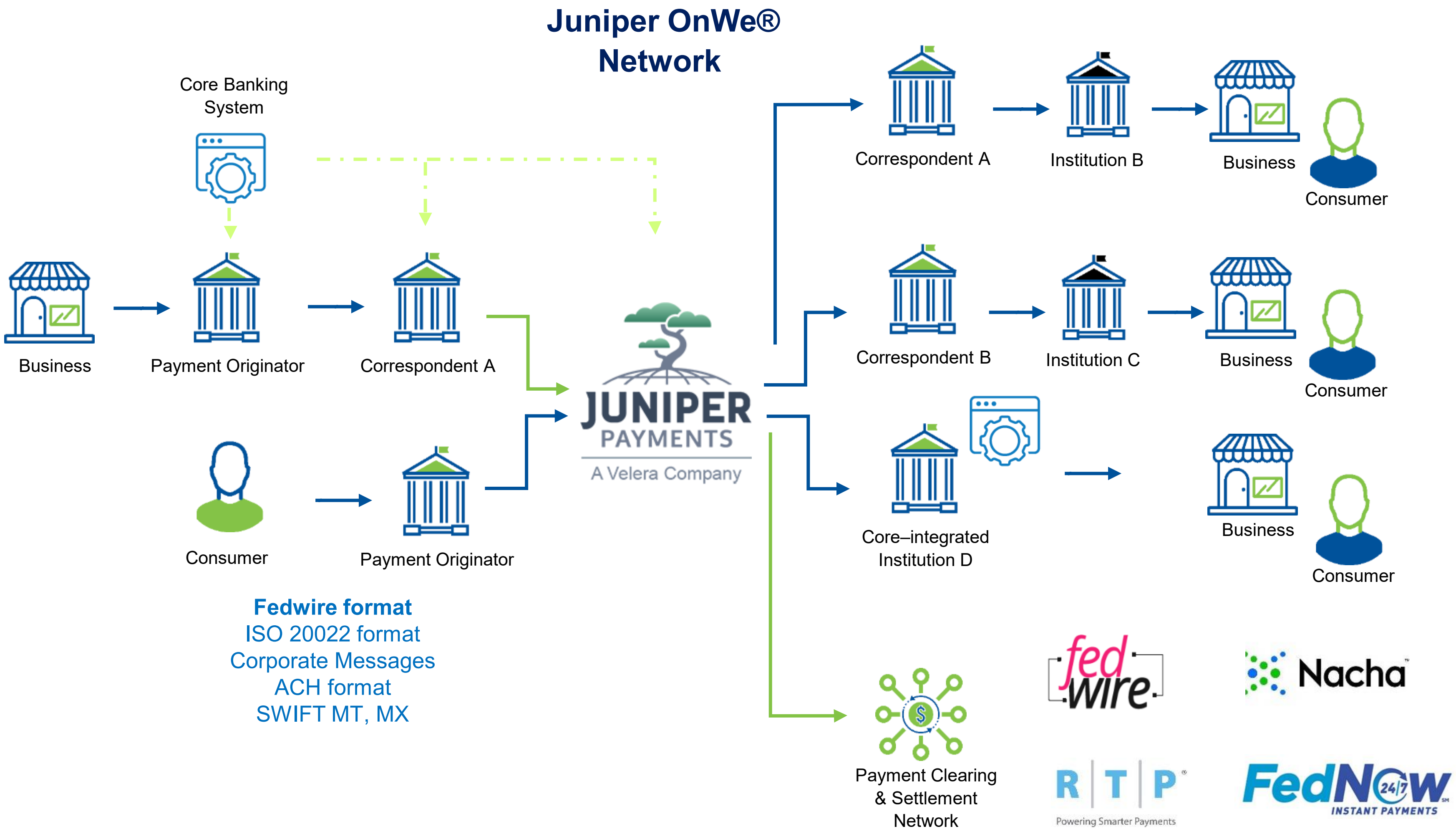
Outsourcing and automating Instant Payments, Wires, ACH, card processing, checks, real-time ledger, and international for correspondents, financial institutions, banks, and corporates.

U.S. $10 billion transacted daily on Juniper, Federal Reserve, and networks worldwide.

Audited by the Federal Reserve, the OCC, NCUA, and FDIC.

OPENBANKINGU.S.A.COM

Network Profile – Juniper OnWe®



Processing 24x7 and Settled in real-time

Network Profile – Juniper OnWe®

Feature	Description
Overview	Operated by Juniper Payments. The Juniper OnWe® network is an immediate message transfer, clearing, and settlement network for U.S. financial institutions.
User Experience	Juniper OnWe® network rules define requirements for end-user funds availability, cost of receipt, timeliness of payment notification, and finality of payment. Other aspects of user experience such as user interface are determined by the participating financial institution or payment service provider.
Links to Other Networks	Juniper Payments is a founding member of the Association of Payment Operators, which includes 14 countries from the US to Argentina. Juniper Payments has integrated with foreign ACH and central banks to facilitate efficient global payments.
Access and Distribution Model	Any U.S. depository financial institution is eligible to participate in the network. All financial institutions on the network are full participants. Financial institutions can connect directly to the network or can use an approved third-party financial institution sponsor.
Recent Development and Initiatives	The Juniper OnWe® network has expanded to close to 5,000 financial institutions with the merger of Co-op share branching into the Valera family.

Network Profile – Mastercard Send, a Mastercard Move platform

Digital technology is rapidly changing how people live, where they work and how they access services. People and businesses need faster, more flexible ways to send and receive money.

Mastercard's portfolio of money movement solutions, **Mastercard Move**, provides fast, transparent and secure ways to move money, serving both domestic and international needs. Mastercard Move includes Mastercard Send and Mastercard Cross-Border Services.

180
countries

95%
of the world's banked population reached

150+
currencies

~10b
Endpoints reached globally (cards, accounts, digital wallets, cash-out locations)[1]

[1] The figures on this slide were reached by combining Mastercard's money transfer solutions Valid as of March 2024.

Network Profile – Mastercard Send, a Mastercard Move platform

How It Works

SENDER
Individual or a business that transfers the funds

TRANSACTION INITIATOR (Merchant/ Digital Wallet)
Holds relationship with the sender and provides them with funds transfer service[1]

ORIGINATING INSTITUTION (Acquirer)
Licensed Mastercard customer responsible for the program and settles the payment transaction with Mastercard

Facilitates transfers of funds via Mastercard Send APIs and/or a Mastercard Interface Processor (MIP)

RECEIVING INSTITUTION (Issuer)/FUNDING ISSUER
Bank responsible for receiving the funds/ payment transaction or funding the transaction

RECIPIENT
Receives funds in near real-time[2] or has card debited for a funding transaction

1. If applicable
2. Actual posting times for approved transactions will depend on the receiving financial institution.

Near real-time payments

- Transfers sent and received in less than 30 minutes[1]

Worldwide transfers

- Allows for domestic, cross-border, and cross-network[2] funds transfer
- Funds can be sent directly to and from multiple endpoints – debit, credit, prepaid, and bank accounts
- Availability in every region and over 100* markets
- Support for 30+ use cases

Efficient go to market

- Flexible implementation options (API or MIP)
- Best-in-class implementation tools

Fraud prevention solutions

- Identify verification and authentication services
- Fraud Protection Controls (Identity Check, Ekata, Address Verification Service, etc.)
- Robust network controls (limits / velocity)
- Configurable limits & alerts for API customers

Other value-added services

- Pre-transaction initiation services (e.g., eligibility check, account status inquiry, FX rates)
- Sanctions Scoring and other services for receiving institutions to expand reach and optimize approval rates for originators
- Automated dispute management and exception handling tools

1. Actual posting times for approved transactions will depend on the receiving financial institution.
2. Network available in select markets.
*This information refers to Mastercard Send

US Faster Payments Council

Network Profile – Mastercard Send, a Mastercard Move platform

Leveraging Mastercard's trusted card and non-card networks, Mastercard Send enables payment experiences across a wide range of domestic and cross-border use cases.

Mastercard Move*

Person-to-Person Payments

- Domestic P2P
- Cross-border remittances

Disbursements

- Fast refunds
- Insurance disbursements
- On-demand wage payouts (gig economy)
- Gaming and gambling winnings payouts
- E-marketplace payouts
- Government disbursements
- Humanitarian aid

Business Payments

- Small-to-medium sized enterprise payments
- Embedded business payments

Funding Transfers

- Me2me and me2P transfers
- Wallet cash-out and top up
- Gaming and gambling account loads and payouts

*Not an exhaustive use case list. Includes customer types for Mastercard Transaction Services entities and Mastercard core entities. Eligibility varies.

Network Profile – Mastercard Send, a Mastercard Move platform

Feature	Description
Overview	Mastercard Send™ enables transaction originators to send domestic payments for various use cases, including person-to-person payments as well as business and government disbursements to recipients located in the same country, regardless of card brand.
Links to Other Networks	Mastercard Send enables funds transfers from and to major card networks in multiple regions. Depending on the region, this includes Mastercard and Maestro debit card accounts and non-Mastercard accounts, such as Visa debit cards. The Mastercard Send intelligent network routing capabilities eliminate the need to establish connections with multiple networks or build custom routing logic so that funds are delivered in real time in most cases.
User Experience	Mastercard offers Mastercard Send as a B2B2C solution. Transaction originators control the user experience of the disburser; receiving networks control the user experience of the recipient. Mastercard provides best practices and data and services solutions to advise customers to create and maintain best-in-class user experience, customized by end-user segment. Mastercard also administers the network's integrity, mandating for example standards of know your customer (KYC) requirements, sanctions screening, consumer disclosures, transactions limits, etc. Mastercard Send programs and payment transfer activities are governed by the Mastercard rules and Mastercard MoneySend and Funding domestic program guidelines.
Access and Distribution Model	Mastercard Move is designed to move money domestically and internationally to various endpoints — including bank account, digital wallet, card and cash — reaching nearly 10 billion endpoints in over 180 countries and territories worldwide.
Recent Development and Initiatives	As of December 2024, Mastercard completed the acquisition of Recorded Future to better support customers to expand threat intelligence capabilities for cybersecurity services, identity solutions and real-time fraud scoring. Mastercard Move Commercial Payments launched in October 2024 to enable banks to facilitate near real-time, predictable and transparent commercial cross-border payments 24 hours a day, 365 days a year.
Statistics	Mastercard Send enables secure, near real-time payment transfers to and from billions of card, bank, and digital accounts around the world. Funds available to consumers typically within seconds with 24/7/365 access and high approval rates of 98%+. Multiple real time checks via APIs including card and address verification. Intelligently route funds to 97% of U.S. debit cards agnostic of network including small business debit & KYCed prepaid cards. Single gateway to all major card networks for streamlined service and consolidated reporting

Network Profile – Open Payment Network

OPN Open Payment Network®

Value-added Services & Applications

The OPN technology stack enables financial institutions to innovate rapidly.

1. Open API means financial institutions can rapidly create solutions to offer their customers.

2. Interoperability with RTP and FedNow at launch means one connection reaches receivers regardless of network.

Apps	
OPN API	
Financial Institutions	
Fed Account	Joint Account
Reserve Bank	

Network Profile – Open Payment Network

OPN Open Payment Network®

Key Attributes

Enhanced Fraud Controls	API with Workflow*	Extended Remittance	Directory Service	Enhanced Reporting	24/7/365 Availability

*With OPN's extensive open API, developers and financial institutions can provide innovative solutions to their customers.

Network Profile – Open Payment Network

Feature	Description
Overview	Open Payment Network (OPN®) is a real-time payment network for financial institutions and their customers. It supports low cost, immediate transfers in good funds, 24/7/365 for both wholesale and retail payments.
User Experience	OPN's end user experience is optimized by value added developers using OPN's API. In many cases, end users are aware that their financial institution is providing the experience and may not be aware OPN is providing the underlying network.
Links to Other Networks	OPN is interoperable with the payment card networks (e.g., SHAZAM, Visa) using the standard ISO 8583 message format, FedACH using the NACHA format, and other networks using the more updated ISO 20022 message format.
Access and Distribution Model	OPN's network services are distributed by participating institutions or their authorized agents and accessible through value added applications by their customers without direct integration with the participating institution's core.

Network Profile – RTP® Network

About The Clearing House

Heritage

Founded by banks in 1853 to bring order to the chaos of daily exchanges between banks and the industry, especially in times of crisis.

Our Mission, Then and Now

- Provide safe, reliable, and efficient systems and infrastructure
- Drive adoption of safer, faster, and smarter payments
- Innovate and advance national payments agenda in the digital age

Core Payments Networks

RTP® Network
Industry infrastructure that supports real-time payments for all financial institutions

90%
Of participants are credit unions and community banks

Image Exchange Network
Reliable, scalable check image exchange network

27%
Market share

CHIPS® Service
Wire payments network with efficient liquidity savings mechanism

$5B
Annual liquidity savings from patented algorithm

EPN®
Private sector network for clearing and settling ACH transactions

75M
Transactions per day

RTP®, CHIPS®, and EPN® are registered service marks of The Clearing House Payments Company.

Network Profile – RTP® Network

RTP® Network

Achieved its billionth payment

Raised the transaction limit to $10 million

Cleared and Settled 99.6% of all instant payments in FY 2024

The Clearing House Launched the First Real-Time Payments Network in the U.S.

What is the RTP® network

The RTP® network is an instant payment system used to send money electronically between financial institutions in the United States. It clears and settles payments in seconds 24x7x365

It's Proven

Launched in 2017, the RTP® network has been active for 7 years and has remained efficient, secure, and resilient as both the volume and value of transactions rapidly increase, demonstrating its value to consumers and business alike

At-a-Glance

- The RTP® network is for FIs of all sizes and solves for many use cases; use as another option to make a payment
- 90% of participants are credit unions and community banks
- Provides transparency and control to the sender, and immediate and final funds to receiver
- Allows more standardized bank engagement with customers via data-rich messaging (ISO 20022)
- Improves cash flow and allows for better liquidity management

Network Profile – RTP® Network

The RTP® Network is the Largest Instant Payments Network in the U.S.

1,000+Participants: Banks and credit unions of all sizes

90%: Of participants are smaller FIs (less than $10B in assets)

7+ Years: Continuous operation since 2017

70% Enabled Reach: Percentage of U.S. demand deposit accounts that are enabled to receive RTP® payments

98% Technical Reach: Connectivity to community banks and credit unions

1 million: Average daily volume of transactions

343 million: RTP® payments in 2024

$246+ billion: RTP® payments value in 2024

300,000: Number of unique business/corporate originators

6+ million: Number of consumer transactions per month

$10 million: Maximum payment value as of Feb. 9

1+ billion: Total payments on the network

Network Profile – RTP® Network

The RTP® Network is driving value across industry verticals (✓ = Top Use Cases)

Account to Account ✓	Payroll / EWA ✓	Wallets ✓
Loan Funding	Merchant Funding ✓	Insurance Claims
Gig Economy ✓	Mortgage Closing	Cash Concentration
B2B	Auto Finance / Logistics	Bill Pay

Network Profile – RTP® Network

Feature	Description
Overview	Operated by The Clearing House. The RTP® network is an immediate message transfer, clearing, and settlement network of U.S. financial institutions.
User Experience	RTP network rules define requirements for end user funds availability, timeliness of payment notification, and finality of payment. Other aspects of user experience such as user interface are determined by the participating financial institution or payment service provider.
Links to Other Networks	The Zelle® network supports RTP payments.
Access & Distribution Model	Any U.S. depository financial institution (see RTP rules for formal definition) is eligible to participate in the RTP network. All financial institutions on the network are full participants. Financial institutions can connect directly to the network or can use an approved third-party processor. Financial institutions can also pre-fund their position in the joint account directly or can rely on another financial institution such as a bankers' bank or corporate credit union to do so. Non-bank payment service providers can use the RTP network via participating financial institutions.
Recent Development & Initiatives	Financial institutions have begun routing Zelle® transactions over the RTP Network and are now also using requests for payment to present and pay for a variety of permissible use cases. On February 9th, 2025, the Network raised its individual transaction limit from $1 million to $10 million, supporting the further expansion and utility of the business-to-business use cases on the Network.
Statistics	In the fourth quarter of 2024, the RTP Network cleared and settled more than 97 million payments totaling $80 billion, and with an average value of $824. The Network's individual transaction limit increased to $10 million on February 9, 2025, which has helped the Network set record breaking daily value results and increased average payment value to more than $4,000 in the second quarter of 2025. More than 4 million Requests for Payment (RfP's) have been originated on the RTP Network through the second quarter of 2025.

RTP rules and specifications are published on The Clearing House website at https://www.theclearinghouse.org/payment-systems/rtp/document-library

Network Profile – SHAZAM

Instantly Move Money™

SHAZAM is the original innovator of processing debit card transactions, and we've evolved to be a leader in the payments space, helping banks, credit unions, fintechs and other corporate entities move money efficiently and safely across the U.S. payments rail systems. Huge strides have been made in the payments space, and SHAZAM is on the cutting edge of the mechanics to move money in real-time.

Network Profile – SHAZAM

FASTER PAYMENTS GATEWAY

PAYMENT INITIATOR

A company or entity that needs to send money.

ITS GATEWAY

SHAZAM's portal or "gateway" is built into the U.S. Payments Systems connecting senders and receivers of funds with a streamlined, efficient and secure financial pipeline.

DIRECT DEPOSIT ACCOUNTS

SHAZAM

VISA

Our integration methods with payments networks allow SHAZAM to reach most any U.S. direct deposit account.

RECIPIENTS

The recipient receives the funds directly into their account quickly.

Network Profile – SHAZAM

Feature	Description
Overview	SHAZAM is the original innovator of processing debit card transactions, and we've evolved to be a leader in the payments space, helping banks, credit unions, fintechs, and other corporate entities move money efficiently and safely across the U.S. payment rail systems. Huge strides have been made in the payments space, and SHAZAM is on the cutting edge of the mechanics to move money in real-time.
User Experience	SHAZAM APIs provide financial institutions, fintechs, and businesses with the flexibility to integrate with their choice of other options to deliver faster payments
Links to Other Networks	SHAZAM, Debit Card Networks, TCH RTP® System, FedNow™ System (when it becomes available), and ACH
Access and Distribution Model	SHAZAM/Cardinal Core is certified to receive faster payments, plus our APIs allow financial institutions using other core providers to leverage our faster payments processing capabilities without a large investment of resources. Our APIs also provide financial institutions the choice and flexibility to use our SHAZAM digital (online/mobile) banking user interface or their own provider to enable their accountholders/users to initiate faster payments.
Recent Development and Initiatives	SHAZAM has offered 24 X 7 immediate funds availability through debit card funds transfer credits for many years In early 2021, SHAZAM introduced 24 X 7 immediate funds availability through account-based real-time credit transfers SHAZAM is currently expanding its card-based faster payments gateway to support initiation of account-based faster payments SHAZAM will be integrating to FedNow™ in 2023
Statistics	Our 2021 experience with 24 X 7 immediate funds availability through account-based real-time credit transfers identified the following as the most popular use cases: "cash out"/credit transfer from a fintech virtual wallet to a financial institution account, merchant expedited settlement, real-time payroll deposit, and Me2Me transfers. The average transaction value was $390.

Network Profile – STAR Expedited Transfer Service

In our evolving payments market, you need to meet the needs of consumers and businesses today, and in the future. STAR from Fiserv is ready to help.

On-Demand Experiences

Funds transfers are a primary mechanism used by individuals and the business community for fast and reliable transfer of funds between two parties.

STAR supports funds transfer debits and credits which becomes more important with the growth of person-to-person, business-to-consumer and business-to-business real-time payments.

Security is our Priority

STAR takes the security of transactions seriously. We are focused on constantly expanding fraud mitigation services so that cardholders can feel safe using their debit cards through any payment method.

Processing Integrity & Authorization Rates are Key

STAR real-time processing ensures seamless transactions across all commerce channels, devices and payments methods for consumers and businesses.

Network Profile – STAR Expedited Transfer Service

Keys to Success

1	End User Applications
2	Large Sender/Receiver Networks
3	Real-Time DDA Connectivity

STAR delivers all key aspects:

- Extensive array of user apps available for customer use
- Licensed service providers eligible to send money transfers in STAR with access to hundreds of millions of senders / receivers at thousands of financial institutions
- Real-time access to customer DDAs and immediate funds availability
- Multiple levels of risk monitoring tools in place for all financial institutions, that oversee broad array of digital activity

Network Profile – STAR Expedited Transfer Service

Key Benefits: Faster payments, cost reduction, customer service differentiation

Benefit	Description	Proof Point
More Secure, Faster Payments	• Deliver real time payments to debit and prepaid cards in seconds • Available immediately to hundreds of millions of US consumers • More secure than sending paper checks through the mail • Fully traceable, reconcilable	<5 seconds *For a payment to clear* Over 1Bn *Accessible accounts*
Reduced Costs	• Less expensive than paper check handling processes • Route disbursements to a cost-effective debit network and bypass checks, wires and ACH • Obtain an immediate ROI through the cost of payment processing via STAR Network	23% savings *vs. traditional paper check costs* 96% savings *vs. wire transactions*
Differentiated Customer Service	• Instant payouts are easily tracked • Incremental revenue stream / earning potential by charging for faster payments • More responsive than mailing a check	25% reduction *in payment status inquiries*

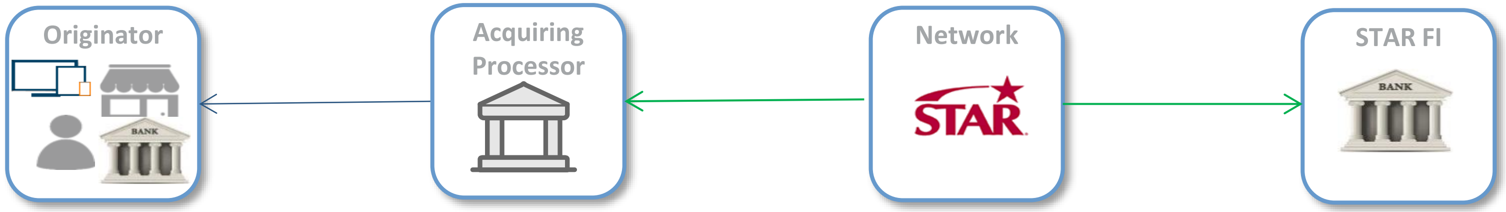
Network Profile – STAR Expedited Transfer Service

STAR Money Movement Transaction Flow Example

Funds Transfer Flow - The Pushing and Pulling of Funds

Authorization Flow – Real time approvals of “good funds”

Settlement Flow



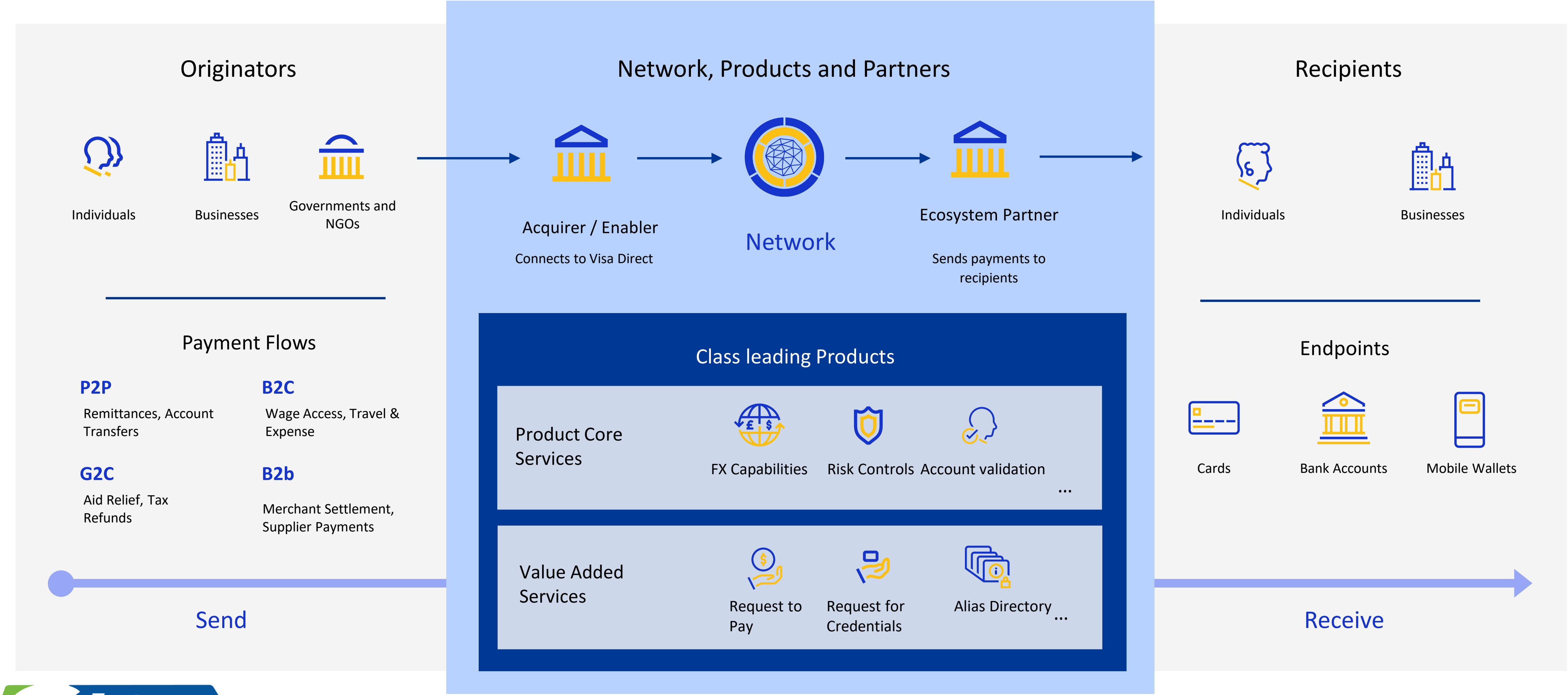
Features

- Real-time approval of “good funds” occurs
- Item memo-posted to/from cardholders account same day
- Funds settlement occurs between funds transfer entities

Network Profile – STAR Expedited Transfer Service

Feature	Description
Overview	Owned and operated by Fiserv, STAR provides a link between financial institutions and STAR Funds Transfer Entities that enable consumers and businesses to easily transfer funds between senders and receivers. Funds are available directly in bank accounts within minutes when the recipient is already enrolled with the Funds Transfer Entity.
User Experience	Funds Transfer Entities and financial institutions provide the user experience for their customers, including integrating “instant transfer” capability and status notifications to users within their services. STAR provides the network infrastructure, rules, security requirements, transaction set and technical guide for all participants.
Access and Distribution Model	Depository financial institutions and bank holding companies are eligible to become STAR Members. STAR Members may be eligible to sponsor processors, facilitators, and Funds Transfer Entities for participation.
Recent Development and Initiatives	STAR recently completed migration of its rules-based engine that monitors transactions to detect unusual activity and fraud. The new system provides capability for comprehensive and robust rules to identify potential fraud occurring across multiple stakeholders and channels. Velocity monitoring checks add another layer of fraud mitigation. These tools work together with the network predictive fraud scoring system that utilizes ML and Smart tools to identify likely high-risk transactions, and shares a risk score to benefit financial institutions which may use the score for real-time decisions whether to approve funds transfer debit (pull) and credit (push) requests.
Statistics	STAR enables secure, real-time money transfers to and from millions of bank accounts using debit card, initiating settlement of billions of dollars.

Network Profile – Visa Direct



Network Profile – Visa Direct

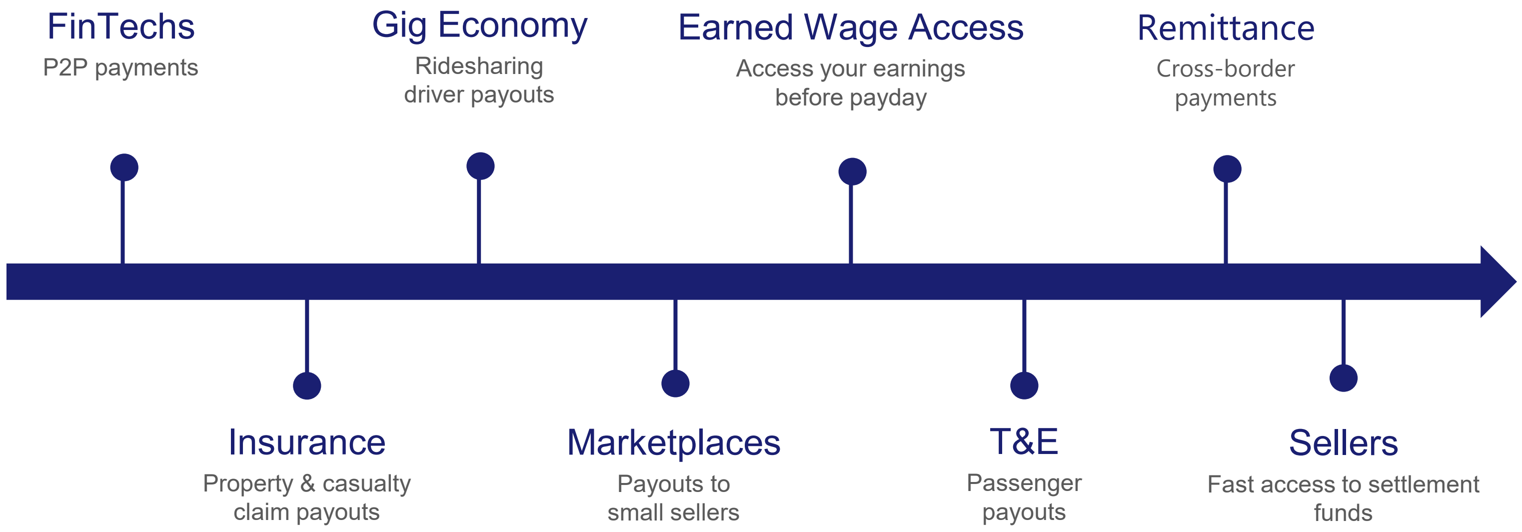
Visa Direct growth and evolution

Use cases across multiple industries are powered by Visa Direct and help millions of consumers move money in real-time* through billions of transactions annually.

2,800+ programs

500M enablers

7.5+B transactions



Sources: Visa FY23 Q4 Earnings, Vas of full year FY23; VisaNet data. Note: All brand names and logos are the property of their respective owners, are used for identification purposes only, and do not imply product endorsement. Use cases are for illustrative purposes only. Program providers are responsible for their programs and compliance with any applicable laws and regulations. *Actual fund availability depends on receiving financial institution and region

Network Profile – Visa Direct

Feature	Description
Overview	Operated by Visa, Visa Direct provides a single point of access to billions of endpoints, helping transform global money movement by facilitating the delivery of funds directly to eligible cards, bank accounts and wallets around the world. Visa Direct supports multiple use cases such as person-to-person payments and account-to-account transfers, business and government payouts to individuals or small businesses, merchant settlements and refunds.
User Experience	Visa does not control elements of the user experience—as acquirers, service providers, and merchants provide the user experience for their customers. Instead, Visa does offer guidance and best practices around user experience (e.g., card capture, design), research, risk considerations, proof points, developing product identity, messaging examples, consumer preference testing, FAQ recommendations, marketing/communications, and launch plans.
Links to Other Networks	The Visa Push Payment Gateway Service (PPGS) allows acquirers, service providers, and merchants to send their account funding transactions (AFTs) and original credit transactions (OCTs) to Visa for routing to multiple debit networks in the United States, as well as ACH and RTP systems in more than 175 countries. The service provides authorization, clearing, settlement, reporting, and exception processing support for Accel, CU24, Maestro, NYCE, Pulse, STAR, and Mastercard PPGS. Additionally, Visa Direct connects to 15 card-based networks, 70+ domestic payment schemes, 10+ RTP schemes and 5+ payment gateways.
Access and Distribution Model	Through a single integration, Visa Direct enables money movement to over 8.5 billions of endpoints capability, including 3B+ cards, 3B+ accounts and 2.5B+ digital wallets around the world. Visa Direct reverses the traditional card payment flow by allowing payment originators, through their acquirer, to push funds directly to card, accounts or wallets.
Recent Development and Initiatives	In FY23, Visa Direct surpassed 7.5 billion transactions, up 19% year-over-year and nearly 30%, excluding Russia, across 65-plus use cases and over 2,800 programs helped by more than 500 enablers. Cross-border P2P transactions grew 65% year-over-year and reached a new record for payments volume in the fourth quarter. Throughout FY23, we continued to expand Visa Direct's reach, especially to wallet endpoints. Most recently, we signed an agreement with Tencent for the Visa Direct cross-border remittance business. This will bring the total wallet reach for Visa Direct to over 2.5 billion. We have expanded our partnership with Paysend from US and UK payments to enable all of Paysend's customers across the globe to send money in real-time to eligible Visa cards across 170 countries and territories.

Visa Direct Fact Sheet: Visa Direct. Helping transform the next generation of global money movement 2. Visa FY23 Q4 Earnings *Actual fund availability varies by receiving financial institution and region

Network Profile – Zelle®

SEND AVERAGE OF $2.8 BILLION PER DAY

Over $1 trillion was sent using Zelle® in 2024.[1]

That's up **27%** YoY

ENABLE 6,500+ TRANSACTIONS PER MINUTE

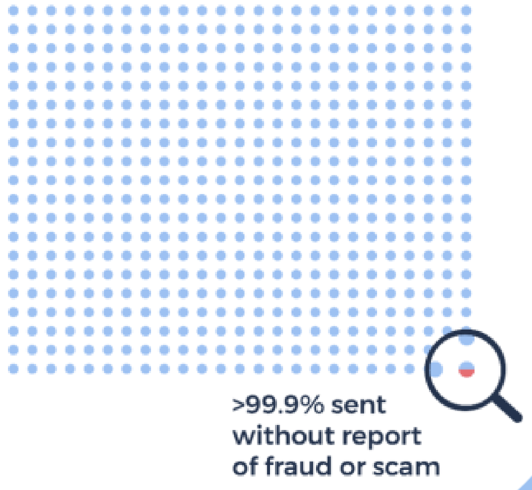
Consumers and small businesses completed 3.6 billion transactions in 2024.[1]

An increase of **25%** YoY

Over 2,300 FINANCIAL INSTITUTIONS ON THE NETWORK

In excess of 675 million DDAs have access to Zelle®

Represents **83%** of U.S. DDAs



[1] Zelle® Shatters Records with $1 Trillion Sent in a Single Year, February 2025

Network Profile – Zelle®

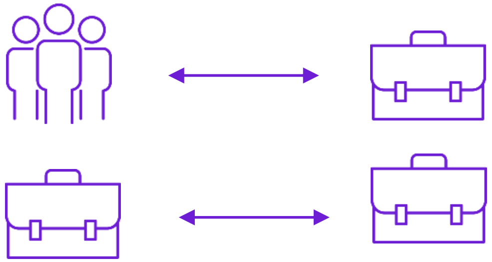
Solutions

Zelle® Person to Person (P2P)

Zelle® is a convenient way to send and receive money with friends, family and others you trust through your bank or credit union's mobile app or online banking. Zelle® is available in over 2,200 bank and credit union apps.

Benefits to Financial Institutions

- Enable Consumers to Send Money in the Moment
- Attract and Retain Customers
- Reduce Check and Cash Management Expenses
- Increase Stickiness

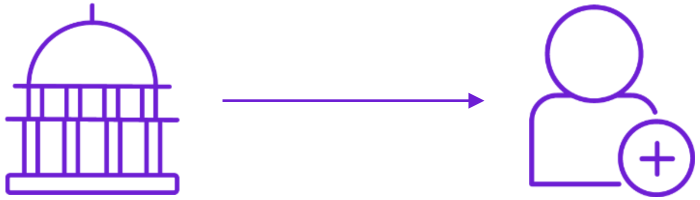


Zelle® Small Business

Zelle® is available for eligible small businesses as a fast and easy way to send, request and receive money directly between eligible checking or savings accounts in the U.S.[1]

Benefits to Financial Institutions

- Increase Brand Awareness
- Attract and Retain Customers
- Reduce Check and Cash Management Expenses
- Drive Digital Engagement
- Create Revenue Opportunities



Zelle® Disbursements

Zelle® Disbursements is a fast and easy way for companies and government entities to send money directly to their customers' checking or savings accounts. Using just an email address or U.S. mobile number.[2]

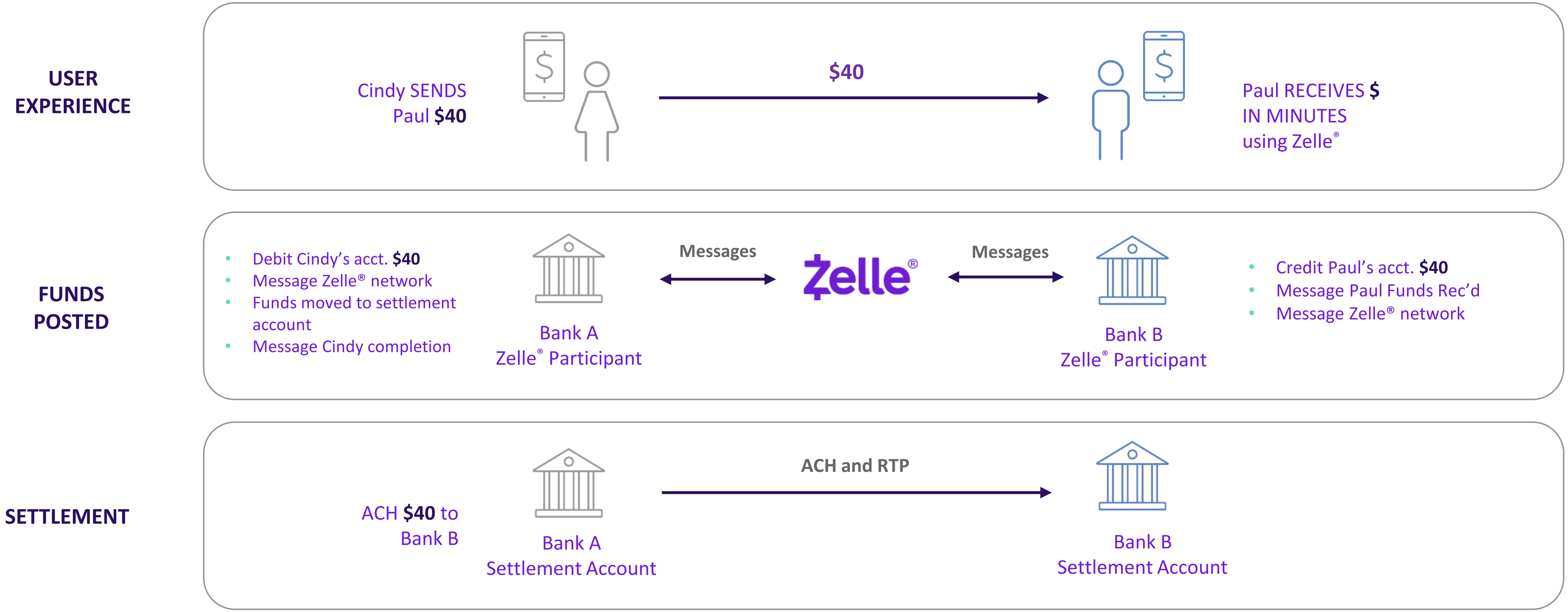
Industries leveraging Zelle®

- Insurance
- Higher Education
- Employer to Employee (payroll, T&E)
- Healthcare
- Class Action Settlements
- Disaster Relief

[1] To send or receive money with Zelle®, both parties must have an eligible checking or savings account. Transactions between enrolled users typically occur in minutes.
[2] Eligible checking or savings account required to use Zelle®. Transactions sent to enrolled users typically occur in minutes.

Network Profile – Zelle®

How Zelle® works



Network Profile – Zelle®

Feature	Description
Overview	Zelle® is transforming how money moves, with more than five billion digital payments sent since its launch in 2017. The Zelle® network connects over 2,300 banks and credit unions of all sizes, enabling consumers and businesses to send digital payments to people and businesses they know and trust with an eligible bank account in the U.S. Money is available directly in bank accounts generally within minutes when the recipient is already enrolled with Zelle®. To learn more about Zelle® and participating financial institutions in the Zelle® network, visit www.zellepay.com.
User Experience	Consumers and small businesses can find Zelle® in more than 2,300 banks and credit unions mobile and online banking services.
Links to Other Networks	The Zelle® network enables settlement over ACH and The Clearing House's RTP Network.
Access and Distribution Model	U.S. financial institutions may join the Zelle® network directly through Early Warning Services or through reseller partners including FIS, Fiserv, and Jack Henry & Associates.
Recent Development and Initiatives	Zelle® is available to send and receive money with eligible small businesses. Additionally, corporate companies and government entities can disburse money with Zelle® to consumers with an eligible U.S. bank account.
Statistics	In 2024 the Zelle® network helped American consumers and small businesses send over $1 trillion—the most money ever sent by a person-to-person payments service in a single year. The total dollar amount sent on the platform increased 27% from 2023, while transaction volume on Zelle® totaled 3.6 billion, a 25% increase from the prior year. Today, over 100 million people are enrolled with Zelle®.

Detailed Network Characteristics

Network Characteristics – Debits & Credits

Network	Description
Accel	Accel enables secure, real-time money transfer debits (funding) and credit transactions using debit card credentials.
FedNow® Service	The default transfer limit will be $100,000. Participants may adjust the limit up or down, with a ceiling of $500,000, based on their business needs and risk preferences.
Juniper OnWe® Network	The default is $1 Million USD. It can be increased by request.
Mastercard Send	Mastercard Send offers both funding (pull) and payment (push) transactions in near real time. Funding transactions facilitate pulling funds (debit) from an eligible debit card for the purpose of either (a) funding a subsequent and linked funds transfer from the sender to another person or entity; or (b) transferring funds into another eligible financial account held by the sender. Push transactions facilitate pushing funds (credit) to consumer and small business debit and prepaid cards.
Open Payment Network	Credit transfers.

Network Characteristics – Debits & Credits

Network	Description
RTP® Network	Credit transfer up to $10,000,000.
SHAZAM	Credit transfers.
STAR	STAR enables secure, real-time expedited transfer debits (funding) and credit transactions using debit card credentials.
Visa Direct	Visa Direct works through Visa's card systems using two types of VisaNet financial transactions: original credit transactions (OCTs) and account funding transactions (AFTs). OCTs are used to push funds ("credit") to an eligible debit, credit, or prepaid card, and AFTs are used to pull funds ("debit"). Whereas purchase transactions are used to fund a merchant for purchase of goods/services, AFTs are used to fund another financial account or to fund a P2P transfer. Information in this document is specific to OCTs except where noted.
Zelle®	Zelle® is a network where the sending financial institution debits the sender's account and the receiving financial institution credits the receiver generally in minutes when the recipient's email address or U.S. mobile number is enrolled. Settlement occurs later either through ACH or RTP.

Network Characteristics – Speed

Network	Description
Accel	Accel Money Transfer transactions route through the network's real time rails providing an immediate response from the financial institution. Accel rules require that funds for credit transactions be available to the recipient within 5 minutes of the transaction. However, normally the recipient has access to the funds within seconds.
FedNow® Service	Transfers are expected to be completed within seconds. Participants will agree to make funds available to receivers immediately upon receipt.
Juniper OnWe® Network	Immediate between financial institutions. Posted in Real Time to beneficiaries
Mastercard Send	Mastercard Send transactions can be routed to a variety of receive networks. Posting time is governed by the receive network and may also vary by issuer. MoneySend Payment Transaction routed through the Mastercard Network to eligible cards are required to post within 30 minutes of Authorization approval. In the United States, typically, funds are made available to the recipient in near real time.
Open Payment Network	Immediate for on-network transfers. A good-funds invitation is created when transfers are initiated to a recipient off-network. Good funds are immediately available to the recipient upon acceptance of the invitation.

US Faster Payments Council

Network Characteristics – Speed

Network	Description
RTP® Network	Immediate. Most transfers are completed within 2-3 seconds, with a maximum of 15 seconds before transactions time out. Receivers have access to funds within seconds, a service level defined by network rules.
SHAZAM	Funds availability to receiving entity within seconds, 24 X 7.
STAR	STAR Expedited Transfer transactions route through the network's real time rails providing an immediate response from the financial institution. STAR rules require that funds for credit transactions be available to the recipient within minutes of the transaction. Normally the recipient has access to the funds within seconds.
Visa Direct	The original credit transaction (OCT) uses Visa's real-time information network. Issuers approve OCTs in real time. So, the sender of funds will know within seconds whether the issuer will accept the funds and deliver money to the recipient account. The Visa "fast funds" rule requires issuers to make the funds available to the cardholder in 30 minutes or less of approving the OCT. Typically, funds are available in real time (actual fund availability depends on receiving financial institution and region). Cross-border transactions to account vary by country and receiving financial institution.
Zelle®	Transactions between enrolled users typically occur in minutes.

Network Characteristics – Settlement

Network	Description
Accel	Accel settles the transaction dollars daily to its participants (issuer and acquirer) according to their pre-defined settlement timeframe. The Money Transfer transaction set is fully integrated into the financial institution's back-office reconciliation processes to make a streamlined, turn-key service.
FedNow® Service	Real-time gross settlement through debit and credit entries to balances in participants' reserve bank accounts (or an account of a correspondent).
Juniper OnWe® Network	Pre-funded balances backed by Real-time gross settlement
Mastercard Send	Mastercard Send operates on a good funds model. The transaction originator must have sufficient funds available for settlement of the payment transaction prior to its submission to Mastercard Send. The acquirer or sponsor bank is responsible for settlement of payment transactions.
Open Payment Network	Real-time gross settlement with prefunded account balances at participating institutions with deferred net settlement as needed between financial institutions.

Network Characteristics – Settlement

Network	Description
RTP® Network	Real-time gross settlement backed by pre-funded balances in a joint account at the Federal Reserve Bank of New York. Financial institutions can pre-fund their position in the joint account directly or can rely on another financial institution such as a bankers' bank or corporate credit union to do so.
SHAZAM	Real-time gross settlement and net deferred settlement.
STAR	STAR Expedited Transfer transactions route through the network's real time rails providing an immediate response from the financial institution. STAR rules require that funds for credit transactions be available to the recipient within minutes of the transaction. Normally the recipient has access to the funds within seconds.
Visa Direct	Net settlement, once per day. Visa manages settlement with the acquirer (the sending entity's bank) and the issuer (the recipient's bank). Visa collects funds from the acquirer and delivers funds to the issuer.
Zelle®	Zelle® enables financial institutions to settle on existing and future settlement services. Today, financial institutions may settle transactions via ACH and RTP.

Network Characteristics – Payment Finality

Network	Description
Accel	Immediate, irrevocable
FedNow® Service	Immediate, irrevocable.
Juniper OnWe® Network	Immediate, irrevocable.
Mastercard Send	Immediate, irrevocable. Both P2P and disbursement transactions are irrevocable and cannot be reversed. The transaction originator (P2P provider or disburser) must ensure that all payment information is correct before sending a transaction via Mastercard Send. Exception items are supported but resolved based on agreement.
Open Payment Network	Immediate, irrevocable.

Network Characteristics – Payment Finality

Network	Description
RTP® Network	Immediate, irrevocable.
SHAZAM	Immediate, irrevocable.
STAR	Immediate, irrevocable.
Visa Direct	Immediate, irrevocable. The Visa system does support a process for exception items for original credit transactions (OCTs) – notably originator errors, or situations where recipient does not receive funds – but all adjustments associated with these exception items are agreed upon with the recipient issuer.
Zelle®	Immediate, irrevocable.

Network Characteristics – Payment Confirmation

Network	Description
Accel	The originator receives confirmation of approved or denied immediately via the real-time message. The originator can then use this information to provide a status to the consumer.
FedNow® Service	Sending and receiving institutions will receive acknowledgement of receipt of a payment message and an advice of credit, respectively, within seconds, notifying them that settlement is complete.
Juniper OnWe® Network	Sending and receiving financial institutions typically receive confirmation within 10 seconds. Juniper OnWe® rules require confirmation to payers and payees within 10 seconds over available electronic channels.
Mastercard Send	Mastercard Send provides a synchronous response with status indicating the receiving institution's authorization decision. Transaction originators have the option to utilize the status and notify the sender and/or the beneficiary.
Open Payment Network	Payment confirmation is sent to sender, receiver, and other parties concurrent with execution of the transfer as specified by the transfer's workflow configuration.

Network Characteristics – Payment Confirmation

Network	Description
RTP® Network	Sending and receiving financial institutions typically receive confirmation within 2-3 seconds, with a maximum of 15 seconds. RTP rules require confirmation to payers and payees within seconds over available electronic channels.
SHAZAM	Available immediately upon receipt.
STAR	The originator receives confirmation of approved or denied immediately via the real-time message. The originator can then use this information to provide a status to the consumer.
Visa Direct	Visa Direct provides a synchronous response with status indicating the receiving institution's authorization decision. Transaction originators have the option to utilize the status and notify the sender and/or the beneficiary.
Zelle®	Sending and receiving financial institutions typically receive confirmation within seconds.

Network Characteristics – Additional Message Functionality

Network	Description
Accel	The originator receives confirmation of approved or denied immediately via the real-time message. The originator can then use this information to provide a status to the consumer.
FedNow® Service	Request for payment, request for return (for payments sent in error), request for payment status, request for information, confirmation of posting, request for account balance, and account activity reports. All messages are based on the ISO 20022 standard.
Juniper OnWe® Network	All messages receive a positive confirmation from the receiving financial institution. Credit transfers can include links to external documents (remittance data, invoices, bills, etc.).
Mastercard Send	Mastercard Send checks eligibility of a recipient card to receive funds, including whether the card type is eligible in-market. Provides participants the flexibility to use custom fields and configure statement descriptor. Establishes transaction limits (daily and monthly per card) and checks every transaction against established limits. Send enables acquirers and sponsor banks to establish daily credit limits for any of their customers (transaction originators). Based on established thresholds, proactive notifications are generated to participants. Alleviates PCI compliance for participant with tokenization capability. Send can validate cardholder's Billing Address, Postal Code, CVC/CVV code and card account status
Open Payment Network	OPN supports multiple standard message formats (e.g., ISO 8583, ISO 20022), modern program interface message formats (e.g., JSON, XML, etc.), and design to migrate from older message formats to modern ones.

Network Characteristics – Additional Message Functionality

Network	Description
RTP® Network	Request for payment, acknowledgment of receipt, request for information, request for return of funds (for payments sent in error), and remittance advice. All messages receive a positive confirmation from the receiving financial institution. Credit transfers and requests for payment can include links to external documents (remittance data, invoices, bills, etc.).
SHAZAM	Eligibility checking, transaction limits, daily dollar limits, routing decisioning, email notifications for requests for return of funds and fraud alerts
STAR	STAR expedited transfer transactions include several validation checks as part of the authorization. There are validations on card status, dollar limits, and activity velocity limits. All are defined by the financial institution and can be custom down to the consumer level.
Visa Direct	Visa sets dynamic controls in the network overall, with transaction limits of $10,000 and $50,000, for most U.S. domestic consumer-funded (e.g., P2P) and cross-border, and U.S. domestic business-funded transactions (e.g., disbursements), respectively, and with some exceptions. Visa has set one-, seven-, and thirty-day count velocity limits on transaction funding to a single Visa card. In addition, issuers, acquirers, and processors may set limits based on a variety of characteristics to limit their risk. It is important to note that Visa actively monitors and frequently updates its risk policies and controls.
Zelle®	Zelle® enables multiple messages including sending a payment and requesting funds. Alerts, notifications, and reminders are also part of the Zelle® network.

Network Characteristics – Payment Routing

Network	Description
Accel	Accel uses card credentials for routing payment authorizations to millions of consumers.
FedNow® Service	Based on account number or proxy for account number (e.g., alias) of the receiver and routing number of the receiving bank.
Juniper OnWe® Network	Account number and routing transit number. Alpha-numeric domain-controlled tokens will be supported in future.
Mastercard Send	Mastercard Send transmits funds into consumer and small business debit card, and eligible prepaid card accounts. Through API integration with Mastercard Send, program participants can leverage intelligent network routing capabilities for near real-time payments, eliminating the need to establish connections with multiple networks or build custom routing logic, and to optimize acceptance rates and fastest funds availability.
Open Payment Network	Account number and routing transit number, social alias routing, and domain alias routing are all supported.

Network Characteristics – Payment Routing

Network	Description
RTP® Network	Account number and routing transit number. Alpha-numeric domain-controlled tokens are also supported.
SHAZAM	Card credentials (primary account number) or routing number and account number
STAR	STAR uses card credentials for routing payment authorizations to millions of consumers.
Visa Direct	Card credentials or account number and routing transit number.
Zelle®	Alias based tokens (email address or U.S. mobile number) are used to route payment.

US Faster Payments Council

Network Characteristics – Directories

Network	Description
Accel	Accel does not currently have its own directory. Service providers use their directories to route activity through the network rails.
FedNow® Service	Participants that leverage alias directories external to the FedNow Service to provide P2P or other services for their customers will be able to use the service as a platform for clearing and settling alias-based payments.
Juniper OnWe® Network	The Juniper OnWe® network does not have an integrated directory.
Mastercard Send	Mastercard partners use their own directory to support payment process. Send provides mapping service to partners. This enables partners to tokenize the account credentials of senders/beneficiaries. The mapping service also enables partners to create and manage a directory of senders and recipients.
Open Payment Network	OPN has a tightly integrated global directory service that is updated in real time with contextual security and alias capability that allows end users to create, read, update, delete, and control their entries in the directory.

Network Characteristics – Directories

Network	Description
RTP® Network	The RTP network does not have an integrated directory. Independent third-party networks can provide alias or directory-based initiation of payments routed over the RTP network via routing number/account or token.
SHAZAM	N/A
STAR	STAR does not currently have its own directory. Service providers use their directories to route activity through the network rails.
Visa Direct	Visa currently does not have an integrated directory in the United States. Partners use Visa Direct in conjunction with their proprietary directory for P2P payments or other use cases.
Zelle®	Early Warning Services maintains the Zelle® directory that associates tokens with users at participating financial institutions.

Network Characteristics – Fraud & Risk Controls

Network	Description
Accel	Accel reviews and approves every service provider who wishes to send activity over the network rails. The network has specific rules that require service providers to authenticate the consumers. Since these transactions route through the network rails, financial institutions are able to apply their debit activity risk tools to scrutinize these transactions which allows fraud detection at the time of the transaction before approval versus other solutions that do not detect fraud until many days after the funds have moved between parties. Finally, Fiserv has reinvested significantly in the network risk tools to provide additional risk evaluation services to the transactions during real-time processing.
FedNow® Service	At launch, the service will allow participants to set lower limits and conditions for transaction rejection. Enhanced fraud prevention tools will be provided in subsequent releases of the service. In addition, the service is being designed to assist its participants with consumer protections and resolving errors.
Juniper OnWe® Network	Rules require participating financial institutions to implement strong fraud detection/prevention, fraud reporting, and consumer protection policies.
Mastercard Send	To maintain the integrity of each transaction, the Mastercard Send Domestic service performs transaction controls prior to routing payment transactions for processing: eligibility of a recipient card to receive funds; validation of use case by participant and market; proper field configuration in message; defined limits by use case, market and participant. Default limits in the United States are $10,000 per card per day and per month for P2P transactions; and $10,000 per card per day; and $50,000 per card per month for disbursements. Send participants are subject to risk review by Mastercard. Acquirers and transaction originators shall perform all applicable anti-money laundering (AML) measures for each consumer/merchant for whom they submit payment transactions via the Mastercard Send Domestic service. Each program participant must ensure that its service providers and other agents, if any, that facilitate, initiate, or otherwise participate in Mastercard Send transactions for or on behalf of the acquirer or transaction originator have all licenses, permits, registrations, other governmental approvals, and satisfy all other requirements, including applicable money transmitter laws, necessary to engage in such activities. On the Mastercard network, additional controls and capabilities are available for banks to opt-in and configure.

Network Characteristics – Fraud & Risk Controls

Network	Description
Open Payment Network	Participating financial institutions or their authorized agents are each responsible for anti-money laundering (AML), combating the financing of terrorism (CFT), and know your customer (KYC) for their customers. OPN has appropriate balance between privacy and transparency that allows participating institutions (and their agents) to comply with both legal and regulatory requirements to control and mitigate fraud and risks.
RTP® Network	Rules require participating financial institutions and payment service providers to implement strong authentication, fraud detection/prevention, fraud reporting (to the network), and consumer protection policies. Lack of debit transactions limits potential fraud vectors; immediate confirmation provides transparency. All transactions are digitally signed and encrypted. The Clearing House tracks reported fraud and participating financial institutions are required to investigate suspected fraud.
SHAZAM	Eligibility checking, transaction limits, daily dollar limits, routing decisioning, email notifications for requests for return of funds and fraud alerts
STAR	STAR reviews and approves every service provider who wishes to send activity over the network rails. The network has specific rules that require service providers to authenticate the consumers. Since these transactions route through the network rails, financial institutions are able to apply their debit activity risk tools to scrutinize these transactions which allows fraud detection at the time of the transaction before approval versus other solutions that do not detect fraud until many days after the funds have moved between parties. Finally, Fiserv has reinvested significantly in the network risk tools to provide additional risk evaluation services to the transactions during real-time processing.

Network Characteristics – Fraud & Risk Controls

Network	Description
Visa Direct	Originators, acquirers, and issuers need to manage multiple risks every time their customers pay/get paid. Visa Direct has multi-layered controls including: • Only members (issuers and acquirers) trusted and vetted by Visa can participate. • Visa program approval and system-level risk controls and analytics including know your customer (KYC), anti-money laundering (AML), account takeover (ATO) protection, sanctions screening, transaction controls and monitoring, velocity limits, compliance, and risk management. • Robust payment details in a single payment message.
Zelle®	The Zelle® network provides comprehensive risk management and is layered with the participating financial institution's controls. Key categories include due diligence and know your customer (KYC) by participating financial institution, anti-money laundering (AML), authentication of customers, transaction controls, blocking transactions before funds are sent, protecting consumers from sending money for fraud and scams Early Warning provides participants recommended best practices. In 2024, Zelle® empowered over 73 million consumers with information about the risks of fraud and scams and more than 99.9% of payments were sent without any report of fraud or scams.

Contributors to The State of Play in U.S. Faster Payments

Thank you to the members of the FPC Network Committee and others who contributed to this industry report:

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- Phillipa Wilson, Mastercard
- Matt Kinne, Early Warning Services
- Sofia Freyder, American Express
- Dan Baum, Federal Reserve
- Reed Luhtanen, U.S. Faster Payments Council
- Jorge Jimenez, Juniper Payments—a Velera Company
- Bradley Wilkes, Open Payment Network
- Robert Lewis, Open Payment Network
- Richard Luchak, Viewpointe
- Jim Filice, Visa