

# White Paper

## Disputes Processing In A P2P World



**BHMI**<sup>™</sup>  
Software for the Speed of Now

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# Executive Summary

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P2P payments processing has gained increased, and growing, popularity in recent years, allowing convenient person-to-person payments to be initiated via a number of intelligent devices, including smart phones, laptops, and other internet-enabled devices. However, the question arises “How will this new payment channel affect the ability of payers to dispute payments made contrary to their expectation?” For example, payment errors attributable to fraud, payment errors attributable to processors, or payment mistakes made by payers themselves.

This white paper examines the world of P2P payments and how the nature of P2P payments can affect mechanisms used to dispute payment transactions. As will be shown, P2P payments systems can possess a variety of attributes that affect payment disputes. These attributes will be analyzed, and a number of existing P2P networks will be used to illustrate them.

Finally, it will be noted that even though P2P payments can occur in short intervals of time, ranging from near real-time to several days, the amount of time needed to process P2P payment disputes still ranges from weeks to months of time. This period is really no different from the amount of time required to dispute conventional, non-P2P payments and illustrates a stark contrast between the time to process a P2P payment and the time to dispute it. A number of recommendations are made to improve the time needed to dispute P2P payments.

## Introduction

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P2P payments processing has been gathering steam for a number of years. P2P payments, also known as person-to-person payments or peer-to-peer payments, represent an alternative channel of transferring funds from one party to another party outside historic payment channels, like checks, credit cards, or debit cards. Additionally, payments can be initiated using personal computers, smart phones, laptops, or other Internet-enabled devices. Now, smart, voice-activated systems, like Alexa and Siri are being used to initiate payments to individuals (“Alexa, repay Uncle Herman \$20 for last night’s barbecue.”). Depending on the specific payment system involved in the funds transfer, payments will be accessible to the recipient within seconds, minutes, a single day, or possibly several days. However, the question arises, “How do these new P2P payment mechanisms address disputed payment transactions?” Traditional providers of payment services, like check processing banks and providers of credit and debit cards, have evolved formal processes to address disputes. Do service providers have a different process to address disputes in a P2P world, or will traditional mechanisms suffice?

# Types of P2P Networks

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Even though P2P networks focus on funds transfers between individual parties, their features can be significantly different. Some of these differences include

- Speed of payment
- Payment clearing and payment settlement
- Support for commercial transactions
- Types of payment sources
- Methods for crediting payments
- Commercial fintech-based or national / banking consortium-based
- Responsibility for payment errors
- Processes to dispute transactions

These differences are discussed in greater detail below. In addition, specific P2P payment networks are used to illustrate these differences. Although there are significant (and growing) numbers of P2P networks, the ones used to illustrate the P2P differences noted above include

- Dwolla
- Zelle
- Venmo
- PayPal
- New Payments Platform (NPP)
- Real Time Payments (RTP)
- Faster Payments Service (FPS)

Although addressed in other publications, brief descriptions of the payment networks noted above appear below:

## **Dwolla**

Dwolla began business in 2010 in Des Moines, Iowa as a wallet-based system specializing in processing payments between individuals with low-cost fees to participants. In 2016 Dwolla shifted its business model to focus on the provision of white label payment services to merchants. Merchants could develop user portals based on the API published by Dwolla, which could then be used by their customers to make payments. Customer interfacing is the responsibility of merchants, and payment processing is the responsibility of Dwolla. Payment settlement is carried out using standard ACH mechanisms.

## **Zelle**

Zelle was started by Early Warning Systems, Inc., which is owned by Bank of America, Capital One, JP Morgan Chase, PNC Bank, U.S. Bank, Wells Fargo, and BB&T. Zelle offers its near real-time payment services to customers of member banks, whose roster continues to grow. Customers associated with member banks can receive payments within minutes of payment origination. Transferred funds are immediately available to recipients through their member banking accounts. Individuals who are not associated with a Zelle member bank can sign up for a Zelle mobile app, which can be associated with either (1) a checking or savings account or (2) a debit card tied to an account with an institution that is part of a Visa or MasterCard network. Such external users are restricted to exchanging payments only with individuals who are associated with member banks. Even though funds transfers occur within minutes, final settlement is carried out using standard ACH mechanisms.

## **Venmo**

Venmo is another wallet-based system owned by PayPal that requires parties exchanging funds to have accounts on Venmo that are linked to bank accounts, debit cards, or credit cards. Funds can be transferred to individuals who are not Venmo members; however, in order to actually receive transferred funds, such individuals will have to sign up for Venmo memberships. Funds are exchanged between Venmo accounts, but actual funds transfer transactions are settled using standard ACH mechanisms. Venmo has two kinds of accounts – personal accounts and business accounts. Personal accounts are primarily intended for use in person-to-person transfers with known and trusted parties. A personal account holder has to agree that funds will not be used for commercial transactions except for transactions with authorized merchants who have been reviewed and approved by Venmo. Business accounts, which undergo a higher degree of scrutiny to minimize financial risk, may be used to support general commercial transactions.

## **PayPal**

PayPal is another wallet-based payment system with different kinds of external accounts (bank account, debit card) linked to PayPal accounts. Like Venmo, funds can be sent to a person who has a PayPal account or who sets up a PayPal account after being notified of funds availability. There are no fees associated with funds transfers if the origins of such funds are PayPal wallet accounts or bank accounts. Funds transferred from PayPal wallet accounts are immediately available in a recipient's PayPal wallet account; funds transferred from bank accounts are transferred via ACH. Recipient funds used to purchase items are subject to holds until the purchased items have been shipped. PayPal offers buyer and seller protection plans for certain classes of purchased goods. Seller protection requires evidence that goods were ordered, paid for, shipped, and received. Buyer protection requires evidence that goods were ordered, paid for, but were never received or, if received, were substantially different from the goods that were ordered.

## **New Payments Platform (NPP)**

The NPP network is a national payments network created in Australia by NPP Australia Ltd and 13 financial institutions. Additional financial institutions and processors are able to connect to the NPP through one of the initial participants. The new network went live in February 2018. The NPP permits customers of connected financial institutions to transfer funds from their banking accounts to the banking accounts of other customers of connected banks within minutes. Additionally, final settlement of funds transfer transactions between banks occurs within minutes using the Reserve Bank of Australia's Fast Settlement Service (FSS). Individuals who wish to transfer funds to other individuals do not need to know account information of intended recipients because NPP maintains proxies for banking accounts, which can include email addresses or telephone numbers.

## **Real Time Payments (RTP)**

RTP is a U.S.-based payments network that started in November 2017. It is owned and operated by The Clearing House, which is owned by a number of the largest banks in the world. It provides near real-time payments services for its member banks and third party processors for banks. Like the NPP, RTP permits customers of connected financial institutions to transfer funds from their banking accounts to the banking accounts of other customers of connected banks within minutes. Unlike the NPP, RTP is focused on the entire ordering and payments life cycle, with the inclusion of messaging that supports the issuance, acceptance, amendment, fulfillment, billing, and payment of orders for goods and services. The RTP system permits funds transfers to be related to specific orders. Reconciliation of funds positions among banks involved in funds transfers occurs several times each day.

## **Faster Payments Service (FPS)**

FPS is a system based in the United Kingdom that started in 2008. It is considered to be the model for RTP. Like RTP, FPS provides near real-time payments services for its member banks and third party processors for banks. Customers of connected financial institutions can transfer funds from their banking accounts to the banking accounts of other customers of connected banks within minutes. Funds are immediately available to recipients; however, settlement among banks involved in funds transfer transactions occurs during a settlement run scheduled three times daily. Individuals transferring funds to other individuals need to specify account numbers and sort codes for recipient accounts; i.e., FPS does not maintain account proxies.

# Speed of Payment

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All of the systems noted above provide funds transfers between individuals; however, there are differences in the speed at which the payments occur. For wallet-based systems, funds are typically in recipients' wallets in near real-time if senders and recipients are part of the same payment network. However, funds settlement may not occur for several days. The reason is that the funds movement supporting a transfer originates from a sender's bank account; funds are transferred via ACH to a banking account maintained by the payment network that is associated with the recipient's wallet. Funds movements via standard ACH channels may require one or more days to complete, although the inauguration and use of same day ACH processing has shortened funds movement time. In effect, there is a delinking between the wallet funds movement and the *real* supporting funds movement. This delinking can provide an opportunity for fraud. For example, if a funds transfer is being used to pay for goods, a seller may consider that a payment has been made when it arrives in the seller's wallet on the payment network. This event causes the goods in question (e.g., concert tickets) to be transferred / downloaded to the purchaser, who, after receiving the goods, closes the bank account used to fund the purchase. Consequently, the ACH transfer actually supporting the funds movement later fails and the payment network reverses or cancels the original wallet transfer. Even if the seller is able to immediately transfer funds from its wallet account to its bank account, the seller is still obligated to return the affected funds to the payment network. For this reason, payment networks susceptible to this condition encourage users to only transfer funds to individuals or entities that they know and trust. Some payment networks will not allow users with personal accounts to participate in commercial transactions in order to reduce fraud.

In 2015 the Federal Reserve released a report, **Strategies for Improving the U.S. Payment System**, that summarized, among other objectives, the need for a ubiquitous near real-time payments network. This report was the culmination of earlier efforts in 2013 and 2014 to solicit public opinion on needs of the U.S. payment system. Following this report a Faster Payments Task Force commissioned by the Federal Reserve held a series of meetings to refine the details of the **Strategies** report and "recommend next steps for the industry to take to achieve safe, ubiquitous faster payments capabilities timelines for their implementation." The Task Force produced two documents in 2017, **The U.S. Path to Faster Payments, Part 1** and **The U.S. Path to Faster Payments, Part 2**. These reports strongly recommended a payments system that was

- Fast
- Ubiquitous and broadly inclusive
- Safe and secure
- Efficient

The U.S.-based systems, RTP and Zelle, possess many of the features outlined by the Task Force. These features are also largely present in the Australian NPP network and FPS network in Great Britain. Features shared by these near real-time systems include

- Near instant clearing of payment transactions  
Once a payment has been introduced to the payments network, it cannot be revoked. Funds are credited to a recipient’s account almost immediately, and the funds are immediately available to the recipient.
- Guaranteed settlement of affected accounts  
Some payment systems (e.g., RTP) require all participant banks to maintain a minimal pool of cash for processing payments. A bank’s position will be debited when it sends funds and will be credited when it receives funds. No payment will be processed if the sending bank’s position is insufficient to cover the payment. Any bank whose position is below the minimum required amount will be forced to augment its funds position. Consequently, transaction settlement occurs as an inherent component of payment clearing. However, other payment systems settle using standard ACH mechanisms, so final settlement may not occur until sometime after a payment has been credited to a recipient’s account. In such instances, it is the obligation of the sending bank to ensure that sufficient funds exist in a payer’s account to support the payment transaction. The Australian NPP system uses an ACH-like process to settle accounts; however, the Reserve Bank’s Fast Settlement Service carries out settlement in near real-time.

Because payments are instantly debited from a sender’s account and credited to a recipient’s account, subsequent issues of addressing mistakes, whether the mistakes are attributable to users, financial institutions, or the payment network, are more complicated. Some of these mistakes can include

- Crediting incorrect accounts
- Double paying a recipient
- Crediting incorrect amounts
- Failing to complete a payment transaction
- Fraud

Speed of payment for the example networks noted previously is represented in the table below:

Payment Network	Speed of Initial Receipt of Payment	Speed of Confirmed Payment
<b>Dwolla</b>	Near real-time	One to several days
<b>Zelle</b>	Near real-time	Near real-time; institution settlement daily
<b>Venmo</b>	Near real-time	One to several days unless transferred funds are taken directly from a sender’s wallet
<b>PayPal</b>	Near real-time	One to several days unless transferred funds are taken directly from a sender’s wallet
<b>New Payments Platform (NPP)</b>	Near real-time	Near real-time; institution settlement near real-time
<b>Real Time Payments (RTP)</b>	Near real-time	Near real-time; institution settlement near real-time; institution reconciliation multiple times per day
<b>Faster Payments Service (FPS)</b>	Near real-time	Near real-time; institution settlement multiple times per day

# Payment Clearing and Payment Settlement

As noted previously, wallet-based systems can have a problem when the clearing of payments between sender and recipient wallets and the actual settlement of these payments are delinked. PayPal and Venmo can partially control this linkage issue if the funds involved in a transfer are actually taken from a sender’s wallet. In such cases, there is no necessity to link funds from an external banking account that are not actually moved until an ACH operation occurs.

Wallet-based payment networks that use ACH operations can require one to several days to settle even though wallet-to-wallet funds transfers take place in near real-time. The lag between clearing and ACH settlement can be narrowed if same day ACH settlement is used.

Near real-time payment networks clear funds and settle at the same time or shortly thereafter. NPP settles funds shortly after clearing them. Zelle, RTP, and FPS ensure funds are in senders’ accounts before effecting transfers. Consequently, after funds are cleared between a funds sender and a funds recipient, the transfer is irrevocable. Even though settlement among member banks may not occur until later, individual transfer transactions have already been effectively settled.

Payment clearing and payment settlement features of the example networks are represented in the table below:

Payment Network	Payment Clearing	Payment Settlement
<b>Dwolla</b>	Wallet-to-wallet transfer	Settles in conjunction with ACH processing
<b>Zelle</b>	Direct account-to-account transfer	Availability of funds confirmed before transfer; institution settlement daily
<b>Venmo</b>	Wallet-to-wallet transfer	Settles in conjunction with ACH processing
<b>PayPal</b>	Wallet-to-wallet transfer	Settles in conjunction with ACH processing
<b>New Payments Platform (NPP)</b>	Direct account-to-account transfer	Settlement in near real-time using Fast Settlement Service
<b>Real Time Payments (RTP)</b>	Direct account-to-account transfer	Availability of funds confirmed before transfer; institution settlement near real-time; institution reconciliation multiple times per day
<b>Faster Payments Service (FPS)</b>	Direct account-to-account transfer	Availability of funds confirmed before transfer; institution settlement multiple times per day

# Support for Commercial Transactions

Even though P2P payment systems have historically been intended to facilitate funds transfers between individuals, there is no technical reason why e-commerce activity cannot use the same mechanisms – in fact, a number of the payment networks encourage e-commerce activity and have special functions and features to facilitate such activity. However, as noted previously, fraudsters have discovered and exploited weaknesses in payment networks so some payment networks strongly encourage participants to only transfer funds to individuals whom they know and trust. Essentially, such networks assume that friends will not attempt to defraud friends.

The following table characterizes e-commerce support by the example payment networks:

Payment Network	E-commerce Support
<b>Dwolla</b>	Dwolla supports transfers among individuals as well as e-commerce activity for organizations that use Dwolla as their white label payments network provider.
<b>Zelle</b>	The Zelle sign-up agreement requires members to commit to not using their accounts for any commercial purposes.
<b>Venmo</b>	Venmo has two kinds of accounts – personal accounts and business accounts. If a user signed up for a personal account, the user has to agree that funds will not be used for commercial transactions except for transactions with authorized merchants. Similarly, holders of business accounts cannot use their accounts for personal transfers. Venmo encourages personal account holders to only transfer funds to trusted individuals.
<b>PayPal</b>	Like Venmo, PayPal has two kinds of accounts – personal accounts and business accounts. A personal account holder can transfer personal funds to another individual, but, unlike Venmo, can also buy and sell merchandise using PayPal. A business account holder has to certify that the account holder will be using the business account primarily for commercial purposes, i.e., selling merchandise.
<b>New Payments Platform (NPP)</b>	NPP has no restrictions on commercial payments. It is strictly a payments network; i.e., goods and services are not offered for sale on the NPP. Payments may be transferred between individuals for any purposes.
<b>Real Time Payments (RTP)</b>	RTP is focused on e-commerce activity. Messaging provides for orders to be issued, accepted, amended, fulfilled, billed, and paid.
<b>Faster Payments Service (FPS)</b>	Like NPP, FPS has no restrictions on commercial payments. It is strictly a payments network; i.e., goods and services are not offered for sale on FPS. Payments may be transferred between individuals for any purposes.

# Types of Payment Sources

Typically, payment networks that are created and operated by financial institutions only allow the individual accounts of their clients to be used as sources of transferred funds. Wallet-based payment networks tend to be more flexible in the types of payment sources that can be used to fund transfers. For example, depending on the specific wallet-based payment network, users may be able to use any of the following to fund transfers:

- Bank / credit union accounts
- Debit cards
- Credit cards
- Lines of credit
- eChecks

There may be fees associated with the use of certain kinds of payments sources. For example, use of credit cards and lines of credit will have associated fees, whereas debit cards and bank accounts will be free.

The following table represents the types of payment sources supported by the example payment networks:

Payment Network	Payment Sources
Dwolla	Wallet-based; bank accounts, line of credit
Zelle	Bank accounts
Venmo	Wallet-based; bank accounts, credit cards, debit cards
PayPal	Wallet-based; bank accounts, credit cards, debit cards, echecks, line of credit
New Payments Platform (NPP)	Bank accounts
Real Time Payments (RTP)	Bank accounts
Faster Payments Service (FPS)	Bank accounts

# Methods for Crediting Payments

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Similar to types of payments sources, different payment networks can support different ways of receiving transferred funds. The most prevalent way of receiving payments is via bank accounts. Most payment networks support this form of funds receipt regardless of underpinning architecture. Wallet-based networks receive funds in wallets; however, wallets may be linked to bank accounts, which are typically the ultimate destinations of transferred funds. Once funds are in a user's bank account, the funds can be used for any purpose desired by the recipient; i.e., there are no network restrictions on the use of these funds.

In addition to allowing funds to be credited to bank accounts, some networks (mostly wallet-based networks) allow funds to be credited in other ways, which can be useful for recipients who do not maintain bank accounts.

The following table represents the types of payment credit methods supported by the example payment networks:

Payment Network	Payment Credit Methods
Dwolla	Wallet-based; bank accounts
Zelle	Bank accounts; debit cards
Venmo	Wallet-based; bank accounts, debit cards
PayPal	Wallet-based; bank accounts, debit cards
New Payments Platform (NPP)	Bank accounts
Real Time Payments (RTP)	Bank accounts
Faster Payments Service (FPS)	Bank accounts

# Commercial Fintech-Based or National / Banking Consortium-Based

Generally, payments networks operated by commercial organizations tend to be wallet-based in which wallet-to-wallet transfers occur in near real-time. However, because these networks rely on external mechanisms (e.g., ACH) to attain final settlement, final confirmation of transferred funds may require one to several days. Use of same day ACH can reduce this time lag to hours instead of days. In contrast, payment networks created by banking consortia rely on their own internal payment mechanisms based on shared policies and procedures. Two common mechanisms include

- Payer’s bank debits payer’s account and transmits credit information to payee’s bank that credits payee’s account; individual payment is cleared and settled; overall settlement and reconciliation among participating banks may occur later
- Participating banks add funds to a shared pool of funds; payer’s bank debits payer’s account and payee’s bank credits payee’s account; the payer’s bank account in the shared pool is debited and the payee’s bank account in the shared pool is credited; reconciliation among member banks may occur later

Because the clearing and settlement of individual payments is handled internally, funds transfers are near real-time. This provides a speed advantage for consortium-based networks over commercial networks.

The following table represents the network types of the example payment networks:

Payment Network	Payment Network Type
Dwolla	Commercial
Zelle	Banking consortium
Venmo	Commercial
PayPal	Commercial
New Payments Platform (NPP)	National / banking consortium
Real Time Payments (RTP)	Banking consortium
Faster Payments Service (FPS)	National / banking consortium

# Responsibility for Payment Errors

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Errors can occur with transactions issued via any payment network. Typical errors include the following:

- **Fraud**  
An unauthorized payment is made from an individual's account using compromised account information. In most situations, payment networks (or financial institutions involved in funds transfers on such networks) will reimburse parties suffering fraudulent payments as long as appropriate procedures and notification timeframes are observed.
- **Financial institution or payment network error**  
Errors can be introduced by payment networks or financial institutions involved in funds transfers typically because of software errors. For example, a sending financial institution can send duplicate payments to a recipient causing a payer's account to be debited twice. After such an error has been researched, the party responsible for the error will reimburse the affected party.
- **Mistaken or misdirected payments**  
Errors can be caused by individuals originating funds transfers. For example, payments for the wrong amounts can be initiated, or payments can be directed to the wrong payee accounts. Different payment networks handle these cases in a number of ways, including the following:
  - **Do nothing**  
Since the payment occurred as specified by the payment sender, the payment network bears no responsibility for the error. The sender can contact the payee directly to seek reimbursement for the payment.
  - **Research the payment to determine if it is mistaken or misdirected; if so, reimburse the payer**  
Some payment networks will attempt to determine if a payment was mistaken or misdirected. Typically, this research is undertaken by a payee financial institution that is contacted by the payer financial institution, and, if the payee institution determines that a legitimate error has occurred, it will return funds to the payer's account.
  - **If a mistaken or misdirected payment is not contested by the payee, the payer will be reimbursed**  
After a payer notifies the payer financial institution of the error, it will notify the payee financial institution of the problem. The payee financial institution will contact the payee as follow-up, and, if the payee does not contest the dispute, the payee financial institution will reimburse the payer. If the payee claims that the payment was not mistaken or misdirected, the payer will not be reimbursed. In the latter situation, the sender can contact the payee directly to seek reimbursement for the payment or pursue the issue through legal channels.

The following table represents how the example payment networks determine responsibility for reported errors:

Payment Network	Responsibility for Payment Errors
<b>Dwolla</b>	Dwolla is responsible if (1) a client has followed appropriate procedures in reporting an error and (2) Dwolla determines that it is the cause of the error. A fraudulent error should be reported to Dwolla. Dwolla will research the error, and if it determines that an error occurred, it will correct it. Notwithstanding this policy, if a client is using a Dwolla white label service offered by a merchant, the merchant is responsible for handling all payment-related issues, including disputes.
<b>Zelle</b>	Zelle is responsible if (1) a client has followed appropriate procedures in reporting an error and (2) Zelle determines that it is the cause of the error. Fraudulent errors should be reported to Zelle and the client’s financial institution. Liability for the fraudulent transaction will be determined in accordance with the agreement between the client and the client’s financial institution, but the maximum liability associated with the fraudulent transaction will be limited by Regulation E. All other errors not directly relatable to Zelle or one of its member institutions are the responsibility of the client.
<b>Venmo</b>	Venmo is responsible for correcting any transaction errors or fraudulent errors that are reported in accordance with Venmo’s procedures. All reported errors will be investigated and if confirmed by Venmo, Venmo will reimburse any affected amounts.
<b>PayPal</b>	PayPal is responsible for correcting any transaction errors or fraudulent errors that are reported in accordance with PayPal’s procedures. All reported errors will be investigated and if confirmed by PayPal, PayPal will reimburse any affected amounts.
<b>New Payments Platform (NPP)</b>	Duplicate payments or other payment errors attributable to the payer financial institution will be reimbursed by the payer financial institution. Fraudulent, mistaken, or misdirected transfers are reimbursed by the payee financial institution. All reimbursements are contingent upon determination that funds transfers are, in fact, in error.
<b>Real Time Payments (RTP)</b>	Duplicate payments or other payment errors attributable to the payer financial institution will be reimbursed by the payer financial institution. Fraudulent, mistaken, or misdirected transfers are reimbursed by the payee financial institution. Consumers may be liable for some portion of fraudulent transfers in accordance with Regulation E; fraudulent commercial transfers must be repaid by the payee’s financial institution. All reimbursements are contingent upon determination that funds transfers are, in fact, in error.
<b>Faster Payments Service (FPS)</b>	Duplicate payments or other payment errors attributable to the payer financial institution will be reimbursed by the payer financial institution. Fraudulent transfers will be reimbursed by the payer financial institution. Mistaken or misdirected transfers may or may not be reimbursed by the payee financial institution. The payer financial institution can request refund of mistaken or misdirected funds from a recipient’s financial institution, and, if the recipient does not contest the claim, then funds will be returned to the payer; if the recipient does contest the claim, then funds will not be reimbursed.

# Processes to Dispute Transactions

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If a problem arises with a funds transfer and it is disputed by a payer, different payment networks follow a number of procedures to resolve the dispute. Typically, these procedures are followed by all parties involved in processing a funds transfer; i.e., the payment network determines the policies and procedures for all network participants. The nature of disputes processing is dependent on the type of dispute raised as noted below:

- **Fraud**  
All payment networks will research issues of fraud raised by a payer. In some cases, after determining that an unauthorized payment transaction has occurred, the payer will receive reimbursement from one of the financial institutions involved in the transaction or from the payment network operator. In other cases, no reimbursement will be received but the amount of the loss will be limited, typically in accordance with Regulation E.
- **Payment for merchandise**  
If a funds transfer is a payment for merchandise, then the payment may be disputed because the ordered merchandise was substantially different from that ordered or was never delivered. Some payment networks, particularly those focused on commercial transactions, will research the dispute. If the dispute is confirmed, then the payment network will reimburse the disputed payment. Typically, this treatment is limited to certain classes of merchandise. Other payment networks will not research the disputed payment, because their terms of service specifically prohibit use of the networks for commercial transactions. In such cases, the only recourse for a payer is to contact the seller of the merchandise to seek restitution or to pursue action through legal channels.
- **Funds transfers**  
If a funds transfer did not involve fraud, a payer can still dispute the transfer if there was an error associated with the transfer. As noted above, the error might be a processing error by the payment network or a financial institution involved in the transfer. If the issue is raised by a payer and proven to be a processing error by one of the parties involved in the transaction, then, typically, the party causing the error will reimburse the payer. If the error was caused by the payer because the funds transfer was mistaken (e.g., excessive funds transfer amount) or transfer was misdirected, then some payment networks and financial institutions involved in the transfer will do nothing, reasoning that the parties processing the funds transfer operated correctly in carrying out the payer's stated purpose. Other payment networks will research the funds transfer and will contact the payee to solicit return of the funds. Typically, if the payee does not contest the dispute claim, then funds will be returned to the payer. If the payee does contest the dispute claim, then no funds will be returned to the payer. Noting the difficulty of reimbursement for mistaken or misdirected payments by a payer, most payment networks strongly advise payers to check the details of funds transfers before initiating them.

The following table represents how the example payment networks handle disputes raised by a payer:

Payment Network	Dispute Handling
<b>Dwolla</b>	A Dwolla client is responsible for all payment disputes. However, upon petition by a client, Dwolla, at its discretion, may undertake an investigation of the disputed payment. It will determine if the dispute is valid, and its decision is final. Notwithstanding this policy, if a client is using a Dwolla white label service offered by a merchant, the merchant is responsible for handling all payment-related issues, including disputes.
<b>Zelle</b>	A Zelle client is responsible for all payment disputes other than those associated with fraud or mishandling by Zelle. After reporting by a client, Zelle will determine if it is responsible for a mishandled funds transfer. If so, then it will correct the problem. It will also research unauthorized transactions for possible fraud. Zelle will not necessarily reimburse payers affected by fraud – fraud protections are limited to those defined in Regulation E. Zelle clarifies that neither Zelle nor the financial institutions in the Zelle network are responsible for any disputed transfers.
<b>Venmo</b>	Disputes for certain types of purchases between a payer and an authorized merchant will be researched by Venmo. If the evidence supplied by a payer supports the dispute, then Venmo will return funds. Venmo is not responsible for any other disputed payments. In case a payer files a chargeback dispute, the payer will have to dispute the transaction via its bank or debit/credit card provider. If a payer transfers funds that are excessive or send funds to an incorrect recipient, Venmo will not help.
<b>PayPal</b>	For disputing a personal funds transfer, PayPal encourages a payer to contact the payee for return of funds. If such attempt is unsuccessful, PayPal will accept a disputes claim from the payer. PayPal does not publish the procedures that it follows to determine if a funds transfer is valid; therefore, conditions under which disputed funds would be returned are uncertain. Disputes for certain types of purchases between a client and a vendor will be researched by PayPal. If the evidence supplied by a client supports the dispute, (i.e., merchandise was not received or merchandise was substantially different from that ordered), then PayPal will return funds. A client who effects a purchase from a vendor using a credit or debit card has the option of disputing the transaction via PayPal or the card issuer but not at the same time.
<b>New Payments Platform (NPP)</b>	Disputes are instigated by a client with the client’s financial institution. If the dispute relates to a fraudulent, misdirected, or mistaken payment, the client’s financial institution will contact the recipient’s financial institution, which will research the payment dispute to determine if it is valid. Reimbursement will be made by the recipient’s financial institution if the dispute is determined to be valid. All disputes-related communications are handled using the NPP ISO 2022 messaging protocol, and allowed time to respond to disputed payments occurs in accordance with service level agreements (SLAs) defined by the NPP.
<b>Real Time Payments (RTP)</b>	Disputes are instigated by a client with the client’s financial institution. If the dispute relates to a fraudulent, misdirected, or mistaken payment, the client’s financial institution contacts the recipient’s financial institution, which will research the payment dispute to determine if it is valid. Reimbursement will be made by the recipient’s financial institution if the dispute is determined to be valid. All disputes-related communications are handled using the RTP ISO 2022 messaging protocol, and allowed time to respond to disputed payments occurs in accordance with SLAs defined by RTP. RTP itself is not involved with any disputes resolution activity – the responsibility is between the payer and payee financial institutions.

Payment Network	Dispute Handling
<b>Faster Payments Service (FPS)</b>	<p>Disputes are instigated by a payer with the payer’s financial institution. If the dispute relates to a fraudulent payment, the payer’s financial institution will research the issue, and, if the fraud claim is detected, the payer’s financial institution will reimburse the payer. Claims of mistaken or misdirected transfers will be directed by the payer’s financial institution to the payee’s financial institution, and if the payee does not contest the claim, funds will be reimbursed to the payer by the payee financial institution. If the payee does contest the claim, then the only recourse by the payer to recover funds is through alternative channels, e.g., lawsuit or individual appeal. Dispute activity does not appear to be supported by FPS’s ISO 8583 messaging protocol; i.e., FPS dispute procedures are not defined as components of its funds transfer messages.</p>

# Conclusions

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Like their traditional payment system counterparts, disputes processing for P2P payment networks can assume different forms depending on the commercial purpose and architecture of the payment network. Although different in their internal operations, the disputes policies and procedures followed by all parties involved in P2P funds transfers within a given payment network are well defined to minimize processing conflicts. Typically, policies and procedures also identify the response times permitted by the interacting parties to carry out their particular roles in the overall disputes process. One surprising aspect of the combined SLAs for dispute participants is that the total time required to research and return disputed P2P funds is similar to that of traditional payment channels. Even though a funds transfer operation may occur in near real-time, obtaining a reimbursement for an errored funds transfer can take weeks or months to complete. This out of sync quality between payment processing and dispute processing is one area in need of significant quality improvement. Some changes that could facilitate this improvement include

- **Disputes procedures to shorten dispute research time**  
One way to shorten overall dispute resolution time is the adoption of procedures to decrease research time. This might include decreasing the number of individual SLAs, requiring paperwork to electronically accompany disputes to reduce research time, or reduce the number of steps to resolve dispute issues.
- **Increase use of computerized workflows to process disputes**  
Any formal set of procedures, like disputes processing, requires training. Depending on the complexity of procedures, training can be extensive. Training and resulting processing can be shortened by use of customized “intelligent” workflows that automatically walk disputes personnel through the correct processes. This might include screens that are automatically populated with data that is appropriate for the specific task at hand. In addition, data entry fields can be automatically presented to only solicit and collect required information for the processing step under consideration.
- **Automated SLA warnings and alerts**  
Because disputes procedures typically include assorted SLAs for disputes participants to complete their work, a computerized disputes system could automatically route warnings to disputes supervisors noting that a processing time limit is about to be breached. Similarly, alerts can be issued when SLAs have been reached. This can ensure that disputes are not forgotten or abandoned, thereby improving quality and maintaining target times for completing dispute research.
- **Reduce manual processing**  
Increasing automated processing of disputes reduces the amount of manual processing that must be completed. This improves processing consistency, facilitates compliance with disputes procedures, and shortens disputes resolution. Used in combination with refocused disputes procedures, it may be possible to completely eliminate manual processing of certain disputes steps.

- Increase integration with supporting systems  
Supporting systems for disputes processing might include document generation, email distribution, fax transmissions, and gateways to other networks. Incorporating these additional supporting systems as inherent components of automated disputes processing further reduces the need for additional manual intervention and reduces processing time.

Will incorporating additional automation into the disputes handling process reduce disputes resolution time to near real-time? No, it will not. For example, a misdirected payment will require contact with the unintended payee. Regardless of other areas of automation, there will be delay to contact and solicit information from the payee as part of the research effort. So disputes automation as characterized above may not shorten disputes resolution time to less than a day, but it might shorten disputes processing time from weeks or months to days. This would be a major advance in P2P disputes processing.

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# About BHMI

BHMI is an elite group of technologists who have been creating primary business applications since 1986. BHMI's core competency is creating enterprise software applications that are continuously available, highly scalable, and undeniably reliable.

As frictionless payment options such as P2P payments are rapidly increasing, the back-end processing of card transactions can no longer be a static function – it must be fluid, dynamic and agile. Due to this urgent need, BHMI is best known as the creator of the Concourse Financial Software Suite – a flexible, rules-based solution that allows financial services companies to adapt back office processing to meet market changes as soon as they occur.

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