Service Details on Federal Reserve Actions To Support Interbank Settlement of Instant Payments

August 11, 2020

Published Document

AGENCY:

Board of Governors of the Federal Reserve System.

ACTION:

Service Announcement.

SUMMARY:

The Board of Governors of the Federal Reserve System (Board) has approved the FedNow^{SM} Service as described in this announcement. The FedNow Service is a new interbank 24x7x365 real-time gross settlement service with clearing functionality to support instant payments in the United States. The new service will support banks' provision of end-to-end instant payment services and will provide infrastructure to promote ubiquitous, safe, and efficient instant payments in the United States.

DATES:

September 10, 2020.

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SUPPLEMENTARY INFORMATION:

I. Introduction

The payment system is a core part of our nation's infrastructure. For more than a century, the Federal Reserve has provided payment and settlement services to promote an accessible, safe, and efficient U.S. payment system.[1] Throughout its history, the Federal Reserve has provided these services alongside, and in support of, private-sector service providers. The Federal Reserve Banks (Reserve Banks) fulfill this statutory role by offering services that provide core infrastructure for financial transactions, including check, automated clearinghouse (ACH), and funds transfer services.[2] This operational role provides key public benefits, including enhanced resiliency, healthy competition, increased innovation, and more equitable access. Since the Federal Reserve does not have plenary regulatory or supervisory authority over payments, this operational role has also helped catalyze fundamental improvements in the nation's payment system.[3] This role in the payments system has allowed the Federal Reserve to advance its broader mission of providing the nation with a modern, safe, and effective financial system.

Consistent with this history, beginning in 2013 the Federal Reserve launched a collaborative initiative with a broad array of stakeholders to improve the speed, safety, and efficiency of the U.S. payment system. As part of this initiative, the Federal Reserve and stakeholders identified the need for instant payment capabilities in the United States that would allow individuals and businesses to conduct and complete payments almost immediately, around the clock, every day of the year and provide a receiver with access to funds in seconds (instant payments).[4] The ability to both send and receive funds instantly allows individuals and businesses greater flexibility and control to manage their money and make time-sensitive payments. This flexibility in turn may help alleviate mismatches between the time that incoming funds are available for use and the time that such funds are needed for other purposes.

For individuals, instant payments reduces the need for high-cost borrowing and the risk of associated penalties, such as overdraft or late fees. Start Printed Page 48523Instant payments could be particularly helpful for individuals facing financial constraints or in times of crisis when there is heightened need to move money quickly and access funds almost immediately. For businesses, and in particular for small businesses, the ability to receive funds in near real time may result in better cash flow management in normal times, and this may be especially important in periods of stress. Instant payments may also provide businesses with considerable opportunity to improve efficiency and reduce costs of payments relative to paper checks and other existing payment methods.

In light of these and many other potential benefits, the Board and a broad set of stakeholders determined that a core infrastructure is essential to support the development and availability of instant payment services. In particular, stakeholders recommended that the Federal Reserve explore and assess the need for an operational role in instant payments and develop a 24x7x365 settlement service to support such payments.[5] This sentiment was echoed by the U.S. Treasury.[6] It was also supported by the vast majority of over 400 comments received by the Board in 2018 in response to a Board proposal of potential actions to support instant payments in the United States (the 2018 Notice).[7]

As a result of this extensive consultation with a wide variety of stakeholders, the Board announced via public notice in August 2019 (the 2019 Notice), that the Reserve Banks would develop the FedNow Service, a new interbank 24x7x365 real-time gross settlement (RTGS) service with integrated clearing functionality to support instant payments in the United States.[8] In making its decision, the Board concluded that the Federal Reserve's operation of such a 24x7x365 RTGS service would be the most effective approach to advance the Federal Reserve's and industry's objective of ubiquitous, safe, and efficient instant payments in the United States.

Consistent with the Federal Reserve's historical role in supporting payment system improvements, the Board concluded that the Reserve Banks' operation of the FedNow Service would support broader modernization of the nation's payment system as the industry moves towards instant payments.[9] Serving as an operator would also be consistent with the Federal Reserve's historical role as a provider of payment services alongside the private sector, which is currently the established model for almost every major payment system in the United States.[10]

An operational role for the Federal Reserve would also help ensure competition in the market—an outcome that the U.S. Government Accountability Office concluded benefits consumers in other payment systems.[11] Notably, over the course of the Federal Reserve's multiyear engagement with the industry on instant payments, only one private-sector RTGS service for instant payments has been established in the United States (the existing private-sector service). The Board's analysis supporting the decision to develop the FedNow Service indicated that the existing private-sector service was likely to remain the sole private-sector provider of RTGS services for instant payments in the United States. The Board explained in the 2019 Notice that no traditional payment system in the United States has only a single private-sector provider, and that such an outcome would create significant risks to the safety and efficiency of the nation's payment system. In particular, the Board explained that a single private-sector service would face significant challenges in establishing an accessible infrastructure for instant payments with nationwide reach, would result in limited competition that could have negative effects on pricing and innovation, and could create a single point of failure in the nation's instant payments infrastructure.

In light of these significant risks, the Board determined that an operational role would allow the Federal Reserve to advance a number of important objectives, including establishing an accessible nationwide infrastructure, fostering stability in times of crisis, supporting resiliency through redundancy, and stimulating healthy competition for clearing and settling instant payments.

Given their operational role in providing payment and settlement services, the Reserve Banks have established broad reach and invested in connections and customer service relationships with more than 10,000 diverse financial institutions, both small and large, across the country. This reach, in turn, will support the Federal Reserve's ability to provide a nationwide infrastructure for instant payments through the FedNow Service, furthering the goal of ubiquitous instant payments in the United States by connecting banks across the nation.[12] As a result, banks of every size, in every community will have the ability to offer instant payment services to their customers, which is essential to their ability to meet evolving customer demands effectively. This, in turn, will ensure that individuals and businesses across the country have the ability to use such services regardless of geography.

The Federal Reserve has also historically played an important role in promoting the safety of the U.S. payment system by providing liquidity and operational continuity in times of crisis. Serving in an operational role in instant payments will allow the Federal Reserve additional capacity in the future to respond to financial turmoil, natural disasters, and other crises, as it has done in the past. In addition, providing access to more than one RTGS service for instant payments for backup purposes will enhance resiliency by reducing the risks caused by a single point of failure.

The FedNow Service will also promote competition by providing choice of instant payment services in the market. Competition exists in nearly every payment system in the United States today, including funds transfers, ACH, checks, and card transactions. The Board's analysis indicated that choice in Start Printed Page 48524RTGS services for instant payments would likely result in efficiencies related to pricing, service quality, and innovation. Moreover, it will give banks and third-party service providers a neutral infrastructure to build on, allowing them to offer a variety of innovative and convenient instant payment services to individuals and businesses.

A. An Overview of the FedNow Service

The FedNow Service will be available to banks in the United States and will enable individuals and businesses to send instant payments any time of day, any day of the year through their bank accounts. An instant payment facilitated by the FedNow Service begins when a sender (that is, an individual or business) initiates a payment using a service provided by their bank, such as a banking application accessed on a computer, tablet, or mobile device.[13] After the sender's bank receives this request, it will send a message through the FedNow Service to the receiver's bank, with information about the payment.[14] Upon receipt of this message, the receiver's bank will indicate whether it intends to accept the payment. If it intends to accept the payment, the receiver's bank will send a positive confirmation back, and upon receipt the FedNow Service will transfer the funds between the Federal Reserve accounts associated with the banks. Each bank will debit and credit their customer's account accordingly. The entire process is intended to take place in a matter of seconds, so the receiver will have funds available to use in near real time. Completed payments will be final, meaning they are irrevocable.[15]

From a technical perspective, the FedNow Service will be designed to maintain uninterrupted 24x7x365 processing with security features to support payment integrity and data security. The FedNow Service will enable credit transfers that support a range of different types of payments for individuals and businesses, and will also support the transfer of supplemental information, such as invoices, related to a payment.[16] The service will have a 24-hour business day each day of the week, including weekends and holidays. End-of-day balances will be reported on Federal Reserve accounting records for each participating bank on each FedNow Service business day. Access to intraday credit will be provided to participants in the FedNow Service.[17]

Because instant payment services such as the FedNow Service process and settle each payment separately and continuously on a 24x7x365 basis, participants will need adequate funds or available credit (liquidity) in their accounts at all times in order to settle each payment. In some circumstances, banks with account balances beyond their current needs may supply liquidity to those facing a shortfall. Typically, banks can use a service like the Fedwire® Funds Service to conduct such liquidity transfers. However, when those services are closed, participants in the FedNow Service or the existing private-sector service may need an alternative method to transfer liquidity.

To facilitate such transfers, the FedNow Service will provide a liquidity management tool to support instant payment services that will be a critical enabler not only of the FedNow service but also the existing private-sector service. The tool will enable participants in the FedNow Service to transfer funds to one another to support liquidity needs related to payment activity in the FedNow Service. The tool will also support participants in a private-sector instant payment service backed by a joint account at a Reserve Bank by enabling transfers between the master accounts of participants and a joint account.[18] Access to the tool would be available to users regardless of whether they are full participants using the FedNow Service to send instant payments between end users or if they use the FedNow Service only to make liquidity transfers.[19] The tool will be available during specific hours, for example, when such transfers are not currently possible through other Federal Reserve services.

The Federal Reserve is committed to using widely accepted standards in designing the FedNow Service to aid in accomplishing the key goals of achieving nationwide reach for instant payments and promoting interoperability with the existing private-sector service. To support these goals, the service will use the widely accepted ISO 20022 standard and adopt other industry best practices, that would remove barriers to interoperability, in order to avoid unnecessary and burdensome incompatibilities, to the extent the existing private-sector service also uses publicly available, widely accepted standards.[20]

The Federal Reserve intends to launch the FedNow Service as soon as practicably possible. Although the target release date remains 2023 or 2024, the Federal Reserve intends to announce a more specific time frame for launch, as well as earlier pilot programs, through established Reserve Bank channels once additional work is completed. This and other work related to the implementation of the FedNow Service is ongoing and includes development of the necessary infrastructure, integration with existing Federal Reserve systems, and continued engagement with industry stakeholders on features and design.

The Federal Reserve will take a phased approach to providing additional features and functionality over time. Although this may result in the introduction of certain desirable features after the initial release, this approach will ensure the core features Start Printed Page 48525and functionality are delivered as quickly as possible. The Board believes this approach most appropriately balances the competing demands for the Federal Reserve to launch the FedNow service quickly and to provide enhanced features beyond core capabilities.

Specifically, the first release of the FedNow Service will provide baseline functionality that will support market needs and help banks manage the transition to a 24x7x365 service. The first release will also offer additional optional features where there is high demand, such as fraud prevention tools, the ability to join initially as a receive-only participant, request for payment capability, and tools to support participants in their handling of payment inquiries, reconcilements, and certain exceptions. Other aspects of the service, such as fee structures and governing terms, will be announced prior to the launch of the service through established Reserve Bank communication channels.

The Federal Reserve also recognizes that market needs and technology related to instant payments are constantly evolving and intends to continue engaging with stakeholders and remain flexible in its approach when building out additional features and functionality of the FedNow Service. Based on ongoing stakeholder engagement, additional features and service enhancements will be introduced over time. For example, the service will endeavor to offer additional features in the initial period following launch to support alias-based payments such as directories, as well as fraud prevention, error resolution, or case management tools. Other features in the future might include support for bulk payments or enhanced remittance information. The Federal Reserve will continue to engage with stakeholders on these and other, more complex considerations, such as cross-border capability.

B. Organization of Notice

This notice provides a high-level discussion of the comments received by the Board in response to the 2019 Notice (Section II). The notice details the core features and functionality of the FedNow Service at launch and related comments considered by the Board (Section III). Section III also outlines the Federal Reserve's approach to the introduction of additional features and service enhancements that may be offered in subsequent phases. Lastly, this notice provides a final competitive impact analysis of the FedNow Service (Section IV). Future communications about the FedNow Service, including but not limited to technical specifications, detailed product offerings, pricing, and implementation timeline, will be provided through established channels, such as FRBservices.org.

II. Comment Summary

The Board received 182 comments in response to the 2019 Notice. Of those comment letters, 3 included signatures from multiple parties, for a total of 353 entities responding to the 2019 Notice. Comments were submitted by a wide variety of stakeholders from the following segments: Small and midsize banks, large banks, individuals, consumer organizations, merchants, service providers, private-sector operators, financial technology companies (fintechs), trade organizations, and other interested parties.[21] Overall, small and midsize banks were the largest group of respondents, providing more than 40 percent of the total comment letters and representing institutions from 25 states. Trade organizations submitted letters representing several commenter segments, including small and midsize banks, large banks, merchants, fintechs, and service providers. Generally, these letters aligned with comments submitted by respondents in the same segment as a trade organization's membership. The majority of comments provided specific feedback on features and functionality of the FedNow Service. While this Section provides an overview of comments, a more detailed discussion of comments can be found in Sections III and IV.

The Board also received 2,246 form letters from individuals. These form letters argued that the Federal Reserve should not operate in competition with the private sector and viewed the decision to develop and implement the FedNow Service as an inappropriate expansion of the Federal Reserve's role that is inconsistent with its historical purpose. Generally, these commenters stated that the introduction of the FedNow Service would lead to decreased innovation and unfair competition with the private sector. These topics were addressed by the Board as part of its analysis in the 2019 Notice. In the 2019 Notice, the Board provided the rationale for its conclusion that the Federal Reserve should offer the FedNow Service. This rationale was based on input received in response to the Board's 2018 notice requesting comment on the Federal Reserve's role in the payment system and whether to develop the FedNow Service.[22]

Approximately 80 commenters, largely representing small and midsize banks, trade organizations and individuals, addressed the proposed implementation time frame for the service. Nearly all of these commenters stated that the Federal Reserve should accelerate development and bring the FedNow Service to market sooner than the anticipated implementation date of 2023 or 2024. In general, these commenters indicated that the FedNow Service should be made available as soon as possible. These commenters generally believed that market needs and technology for instant payments are rapidly evolving and that an earlier implementation would better support innovation and widespread adoption of the FedNow Service and instant payments more broadly.

Approximately 75 commenters, largely representing small and midsize banks, trade organizations, and service providers, recommended that the FedNow Service offer enhanced functionality that participants can use to mitigate fraud. While a majority of these commenters agreed that banks are primarily responsible for combatting fraud related to the accounts of their customers, most suggested that the Reserve Banks should nevertheless provide enhanced fraud prevention tools for FedNow Service participants. Most of these commenters offered Start Printed Page 48526specific recommendations as to how fraud prevention tools should be designed and implemented. Two commenters, however, stated that fraud prevention tools for the FedNow Service should be provided by the private sector and not the Reserve Banks.

Approximately 80 commenters, largely representing small and midsize banks, trade organizations, and fintechs, addressed the inclusion of directory services to support alias-based payments as part of the FedNow Service.[23] Nearly all these commenters noted that availability of a directory, whether provided by the Reserve Banks or the private sector, would support widespread adoption of the service for person-to-person (P2P) payments and reduce payment routing errors. Approximately 40 commenters, largely representing small and midsize banks, trade organizations, and individuals, described potential approaches to the development of directory services, with most of these commenters recommending that the FedNow Service provide either a centralized link to existing directories or build its own directory. Several commenters raised various other considerations with respect to directory services and highlighted potential complexities with day-to-day management of a directory service, such as protecting data privacy and security.

Approximately 100 commenters, representing all commenter segments, expressed views related to interoperability. Nearly all 100 commenters highlighted the benefits of interoperability between the FedNow Service and the existing private-sector service. Approximately 40 commenters, representing small and midsize banks, trade organizations and service providers, expressed the view that interoperability would promote ubiquitous access to instant payments in the United States and support widespread usage and adoption of instant payments. Approximately 35 commenters, largely representing small and midsize banks, trade organizations, and other interested parties, noted that interoperability would streamline operations for banks and service providers, allow for a consistent end-user experience with respect to funds availability, and generally promote efficiencies and savings. Very few commenters expressed views on how interoperability should be achieved, and many commenters appeared to use varying operational definitions of interoperability.[24]

Commenters also addressed considerations related to participant and service provider preparedness for FedNow Service onboarding and, more broadly, the transition to 24x7x365 real-time operations for instant payments. Approximately 40 commenters, largely representing small and midsize banks, trade organizations, and individuals, noted that successful integration of existing core service-provider systems is critical to achieving widespread adoption of the FedNow Service.[25] These commenters noted that small and midsize banks rely on core service providers and that the Reserve Banks should share technical and operational requirements with such service providers well in advance of service implementation so that small and midsize banks are not disadvantaged. More generally, approximately 15 commenters highlighted various challenges related to transitioning to 24x7x365 real-time processing of instant payments. The majority of these commenters raised concerns that increased staffing costs and upgrades to technology required to maintain continuous operations may limit adoption of the service.

Other groups of commenters raised relevant topics beyond specific features and functionality of the FedNow Service. For example, approximately 35 commenters, largely representing small and midsize banks, trade organizations, and other interested parties, emphasized the importance of effective governance for the FedNow Service and suggested, more generally, that the Reserve Banks take part in any future industry efforts that may arise to develop common rules and standards for instant payments. Another 8 commenters noted that introduction of the FedNow Service may necessitate revisions of existing regulations. These commenters cited a wide range of rules and regulations that may need to be adjusted, including regulations related to funds availability and funds transfers through Federal Reserve services. Another 6 commenters emphasized that the

FedNow Service design should incorporate robust cybersecurity controls (for example, endpoint security requirements). Finally, approximately 10 commenters suggested that the Reserve Banks design the FedNow Service to minimize the possibility that the service might be used in a way that can cause consumer harm. Additionally, these commenters recommended that the Reserve Banks develop industry standards for disputing payments in the event of a fraudulent or erroneous transfer.

III. The FedNow Service

In the 2019 Notice, the Board proposed potential features and functionality for the FedNow Service. Based on additional analysis informed by the comments received in response to the 2019 Notice, the Board has approved the FedNow Service as described in this notice. Recognizing that market needs and technology for instant payments are rapidly evolving, the Board also expects that additional service modifications or features, other than those described here, could be included in the service at launch and in the future. The Federal Reserve intends to take a phased approach to developing and enhancing the FedNow Service, with flexibility to adjust features and functionality in response to available technology, industry developments, and evolving needs of banks and their customers. Additions or changes to the features described in this notice will be announced through established Reserve Bank communication channels. Consistent with the Board's pricing principles, the Board will request public comment when changes in fees and service arrangements are proposed that would have significant longer-run effects on the nation's payment system.[26]

A. General Description of the FedNow Service

In the 2019 Notice, the Board explained that the FedNow Service would be designed to process individual payments continuously, 24 hours a day, Start Printed Page 485277 days a week, 365 days a year. The Board did not receive comments related to modifying the hours or days over which the service would be available, and the 24x7x365 functionality of the service will be adopted as proposed.

In the 2019 Notice, the Board indicated the service would support credit transfers, where a sender initiates a payment to an intended receiver. Three commenters suggested that the Board also consider inclusion of debit transfer functionality, such that a receiver would be able to initiate a transfer that “pulls” funds from a sender's account.[27] These commenters expressed the view that debit transfers would facilitate certain types of payments (for example, recurring bill payments) and support broader adoption of the service.

Although debit transfer functionality may facilitate some increased adoption of the FedNow Service and instant payments more broadly based on specific use cases, the Board believes that the risks of the FedNow Service supporting debit transfers outweigh the potential benefits, at least at the outset. Credit transfers require the sender to authorize and initiate each payment, which can decrease the risk of fraudulent or otherwise unauthorized payments and enhance the safety of the payment system.[28] In addition, recurring bill payments and other payments that are typically made by debit transfer can also be supported by a “request for payment” functionality that builds on credit transfer functionality (see the *Request for Payment* section). Therefore, the FedNow Service will only support credit transfers as proposed.

In the 2019 Notice, the Board explained that the FedNow Service would facilitate domestic payments. Four commenters suggested that the FedNow Service should be designed to accommodate nondomestic (that is, cross-border) payments. The Board recognizes that the ability to send and receive instant payments to and from other countries is functionality that could facilitate certain types of payments, including remittances to family members abroad and corporate trade payments. A number of regulatory and operational considerations, including cooperation with international operators, would need to be addressed before cross-border payments could be supported by the FedNow Service. In line with prioritization of a timely launch, the FedNow Service will only support domestic instant payments initially. The Board will continue to evaluate the costs and benefits of expanding the FedNow Service to allow for cross-border payments in the future, recognizing the need to address the heightened risks and compliance issues associated with cross-border payments.

In the 2019 Notice, the Board indicated that the FedNow Service would be available to institutions eligible to hold accounts at the Reserve Banks, pursuant to applicable federal statutes and Federal Reserve rules, policies, and procedures.[29] Seven commenters stated that eligibility to participate in the FedNow Service should be expanded to other institutions, including nonbanks that are not eligible for Federal Reserve accounts. These commenters stated that nonbanks' reliance on banks to access the service would result in increased costs and other inefficiencies. Additionally, these commenters emphasized that participation by entities such as nonbank lenders, money transmitters, and fintechs would promote competition and broader adoption of instant payment services. In contrast, approximately 20 commenters, largely representing small and midsize banks and trade organizations, emphasized that participation in the FedNow Service should be limited to federally insured institutions. Nearly all of these commenters noted that allowing nonbanks to participate directly in the FedNow Service would introduce risk to the service and the broader payment system.

While the Board recognizes the variety of perspectives offered by commenters, federal statutes and Federal Reserve rules, policies, and procedures limit the scope of entities eligible to receive Federal Reserve accounts, as the Board indicated in the 2019 Notice. Although the service will be available only to institutions eligible to hold accounts at the Reserve Banks, entities that are not eligible to hold accounts at the Reserve Banks may nevertheless be able to act as service providers or agents for participants in the FedNow Service, as described later.

In the 2019 Notice, the Board proposed that the FedNow Service would settle interbank obligations through debit and credit entries to balances in master accounts held at the Reserve Banks.[30] Nine commenters expressed support for settlement of payments in master accounts. Another group of four commenters suggested that, instead of using master accounts, the Reserve Banks should establish separate accounts to settle payments through the FedNow Service. These commenters stated that use of a separate settlement account would reduce the overall complexity of managing instant payments and allow banker's banks and corporate credit unions to manage and reconcile their customers' account balances more easily.

As discussed in the 2019 Notice, the Board previously sought comment on and analyzed a two-account structure, with a separate account dedicated to settlement of instant payments, but determined based on those comments that such a structure would introduce significant operational complexity for both the Federal Reserve and participating banks.[31] Therefore, as proposed, the FedNow Service will settle payments in master accounts held at the Reserve Banks.

In the 2019 Notice, the Board also proposed that settlement entries for transactions through the FedNow Service would be final. The finality of settlement entries would mean that interbank settlement is irrevocable. The Board did not receive comments on the topic of finality and therefore interbank settlement for transactions through the service will be final, as proposed.[32]

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In the 2019 Notice, the Board proposed that participating banks would be required to make the funds associated with individual payments available to their end-user customers immediately after receiving notification of settlement from the service. Several commenters suggested that the Board further clarify funds availability expectations through industry standards or amendments to existing regulations.

To be consistent with the goal of supporting instant payments for individuals and businesses, participating banks must agree to make the funds associated with individual payments available to their customers in near real time after receiving notification of settlement from the service, as proposed.[33] The Board is assessing applicable laws and regulations, and, to the extent changes to the Board's regulations are identified as necessary to clarify funds availability, the Board will request public comment.

In the 2019 Notice, the Board indicated that a participating bank would be permitted to designate a service provider or agent to submit or receive payment instructions to and from the FedNow Service on its behalf. The Board also stated that a participating bank could choose to settle payments in the master account of a correspondent bank.[34] The Board received 5 comments that supported the ability for a bank to designate a service provider to process FedNow payments on its behalf. These commenters noted that this ability would be especially important for community banks that rely on service provider relationships to access existing Federal Reserve services. Approximately 10 commenters expressed support for the inclusion of correspondent/respondent settlement relationships in the FedNow Service. These commenters emphasized that to support the management of correspondent/respondent relationships, respondent-level information, including settlement activity and account balances, should be provided to correspondents.

The Board agrees with commenters that use of service providers and correspondent banks will facilitate access to the FedNow Service, and these features will be adopted as proposed. In addition, the FedNow Service will be designed to provide correspondent banks with transaction-level and summary reports for respondent banks to which they provide services (see the *Reporting* section).

Finally, banks will have the option of enrolling in the FedNow Service as a “receive-only” participant, a feature that was not proposed in the 2019 Notice. Such a participant will not be required to have the ability to originate payments through the FedNow Service but can still receive instant payments. The Federal Reserve expects that this option may ease the burden of adopting the FedNow Service, especially for small banks as they gain experience with instant payments.

B. Implementation

In the 2019 Notice, the Board acknowledged the time-to-market pressure for the payment industry related to instant payment services and indicated that the Federal Reserve is committed to launching the FedNow Service as soon as practicably possible. Many commenters raised concerns about the Federal Reserve's anticipated implementation in 2023 or 2024. Commenters largely representing small and midsize banks, trade organizations and service providers stated that the Federal Reserve's key role as a provider of payment and settlement services to most of the nation's banks warranted an accelerated implementation timeline for the service to better support innovation related to instant payments, as well as development of third-party services. Other commenters, largely representing small and midsize banks, raised concerns that the current timeline would limit small and midsize banks' ability to meet growing customer demand for instant payments services. These commenters also suggested that many smaller banks will delay offering their own instant payment services until the FedNow Service is available.

The Board understands these timing concerns, and the Reserve Banks are working to bring the FedNow Service to market as soon as practicably possible, while also ensuring the requisite level of security and resiliency. Although the target release date remains 2023 or 2024, the Federal Reserve will announce a more specific time frame for launch, as well as earlier pilot programs, through established Reserve Bank channels. This and other work related to the implementation of the FedNow Service is ongoing and includes development of the necessary infrastructure, integration with existing Federal Reserve systems, and continuous engagement with industry stakeholders on features and design. As the development of the FedNow Service progresses, the Federal Reserve is committed to providing specific details in advance that will allow industry partners to take appropriate steps to ensure they are prepared to use the FedNow Service when it becomes available.

Deployment of the FedNow Service will take a phased approach so that the service can be launched expeditiously while maintaining flexibility to augment features and functionality over time. The first release of the FedNow Service will provide baseline functionality that will support market needs and help banks manage the transition to a

24x7x365 service. The Federal Reserve will continue to engage with stakeholders as market needs and technology evolve and the service matures. Based on this ongoing engagement, additional features and service enhancements will be released over time. While this phased approach may result in the introduction of certain desirable features after the initial release, it will ensure core features and functionality are delivered as quickly as possible with a high level of security and resiliency. The Board believes this approach most appropriately balances the industry's desires for the Federal Reserve to both move quickly and provide features beyond core clearing and settlement capabilities.

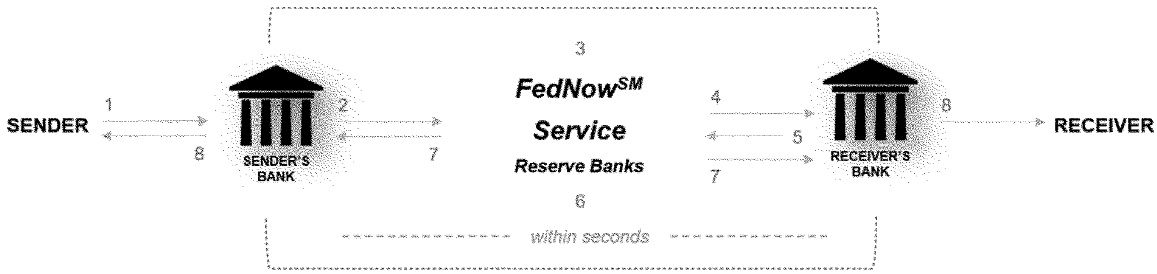
C. Core Features of the FedNow Service

1. Payment Flow and Message Types

In the 2019 Notice, the Board proposed a payment flow that described how a standard payment message could be processed and settled by the FedNow Service.[35] The Board received approximately 15 comments that addressed the payment flow. All of these commenters expressed support for the flow as proposed. In particular, most commenters were in favor of the proposed process where, before interbank settlement occurs over the service, the receiver's bank has an opportunity to confirm that it holds a valid account for the receiver and intends to accept the payment message. Several of these commenters noted that this confirmation step could reduce Start Printed Page 48529errors and increase end-user confidence in the service.

The flow of a standard payment message, called a credit transfer message, will operate largely as proposed.[36] Figure 1 illustrates a completed credit transfer over the FedNow Service in its simplest form.[37] This process is intended to take place within seconds.[38]

Figure 1: Standard FedNow Service Credit Transfer Payment Flow



In step 1, a sender (that is, an individual or business) initiates a payment by sending a payment message to its bank through an end-user interface outside the FedNow Service.[39] The sender's bank is responsible for screening the payment according to its internal processes and requirements.[40]

- In step 2, the sender's bank submits a payment message to the FedNow Service.
- In step 3, the FedNow Service validates the payment message, for example, by verifying that the message meets message format specifications.

- In step 4, the FedNow Service sends the contents of the payment message to the receiver's bank to seek confirmation that the receiver's bank intends to accept the payment message. At this point, the receiver's bank will have the opportunity to confirm or deny that it maintains the specified account.
- In step 5, the receiver's bank sends a positive response to the FedNow Service, confirming that it intends to accept the payment message.[41] Steps 4 and 5 are intended to reduce the number of misdirected payments and resulting exception cases that can occur in high-volume systems.

- In step 6, the FedNow Service debits and credits the designated master accounts of the sender's and receiver's banks (or their correspondent banks), respectively.
- In step 7, the FedNow Service sends a payment message forward to the receiver's bank with an advice of credit and in parallel sends an acknowledgement to the sender's bank notifying it that settlement is complete.[42]

  In step 8, the receiver's bank credits the receiver's account.[43] As a condition of the FedNow Service, the receiver's bank must agree to make funds available to the receiver almost immediately after step 7. This crediting to the receiver's account as well as the debiting of the sender's account by their respective banks happens outside the FedNow Service.[44]

In addition to the standard credit transfer message type, the FedNow Service will also include at least two additional payment message types and several nonvalue message types in the first release of the FedNow Service.[45] One of the additional payment message types will be a return transfer. The return transfer will be part of a payment return process that will be included in the service to assist participating banks with exception processing. This process will enable the sender's bank to request and potentially obtain a return of the previous payment. In this process, a sender's bank will send a nonvalue “request for return” message to a receiver's bank, requesting that funds previously sent through the FedNow Service be returned. After investigating the payment, the receiver's bank will either initiate a return transfer to the sender's bank to return the amount of the previous payment or send a nonvalue “status” message indicating it will not return funds. The return transfer will be a type of credit transfer, Start Printed Page 48530but the message will be distinct from a standard credit transfer message. In particular, a return transfer will carry information associating it with the original credit transfer that the sender's bank requested to be returned.

The second additional payment message type in the FedNow Service will be for interbank funds transfers that do not involve end users. This message type is intended primarily to support the liquidity management needs of participants in either the FedNow Service or a private-sector instant payment service that is backed by a joint account at a Reserve Bank (see the *Liquidity Management Tool* section.)

2. Message Standard

In the 2019 Notice, the Board proposed that payment messages in the FedNow Service would use the ISO 20022 standard and its implementation with respect to instant payments in the United States. Approximately 30 commenters, largely representing small and midsize banks, trade organizations, and other interested parties, addressed payment message formats for the FedNow Service. Nearly all of these commenters supported use of ISO 20022, noting that this standard is flexible enough to support various use cases and enables the transmission of payment data (for example, remittance and invoice information) along with a payment. Over half of these commenters noted that ISO 20022 is rapidly becoming the global standard for messaging frameworks and expressed the view that use of the ISO 20022 standard would align the FedNow Service with international and domestic payment systems. These comments indicated that adoption of a common messaging framework would support FedNow Service interoperability with other services for instant payments and facilitate the possibility of cross-border capabilities in the future. A group of 5 commenters specifically recommended that the Reserve Banks implement the ISO 20022 messaging framework in a way that is consistent with the ISO 20022 Real-Time Payments Group guidelines.[46]

The Board recognizes the benefits of ISO 20022 and agrees with commenters that the message standard could provide a common foundation for exchanging payment messages domestically and internationally in the future. As proposed, the FedNow Service will be based on the ISO 20022 standard. The Federal Reserve intends to continue engaging with the industry on topics related to the ISO 20022 standard and will provide ISO message specifications, including specific message types and interpretation of ISO formats prior to the launch of the FedNow Service through established Reserve Bank communication channels. As the standard evolves, the Reserve Banks will review changes to the standard and consider adjustments to message formats for the FedNow Service.

3. Transaction Value Limit

In the 2019 Notice, the Board proposed that the FedNow Service would include a transaction value limit of $25,000, with the potential to increase the limit over time. The $25,000 value limit was intended to restrict the size of potential fraudulent transactions, while also supporting payments associated with a variety of use cases. Approximately 25 commenters, largely representing small and midsize banks, trade organizations, and other interested parties, addressed the $25,000 limit, stating that the Federal Reserve should increase the initial value limit at service launch or shortly thereafter. Many commenters recommended that the Federal Reserve adjust the transaction limit to be consistent with market practices at service launch and that the limit should continue to align with those practices over time. Commenters noted that the $25,000 limit could inhibit use of the FedNow Service for many use cases, such as large-value business-to-business payments.

The Board agrees that the FedNow Service should support a wide variety of uses, including certain large-value transfers, and that the limit should be consistent with market practices and needs for instant payments. Therefore, prior to the launch of the service, the Reserve Banks will establish a transaction limit consistent with market practices and needs at the time and will announce the limit through established Reserve Bank communication channels. In addition, participating banks will have the ability to establish lower transaction value limits (see the *Fraud Prevention Tools* section).

4. Business Day

In the 2019 Notice, the Board proposed that the FedNow Service would have a 24-hour business day each day of the week, with defined opening and closing times. The Board specifically proposed that the FedNow Service should align with the business day of the Fedwire Funds Service to maintain consistency with practices for existing Federal Reserve services. Given the continuous operation of the FedNow Service, the opening time would occur immediately after the closing time, and the transition between closing and opening would not disrupt continuous processing.[47] The Board also proposed that, for the purpose of the Reserve Banks' accounting processes, transactions processed after the FedNow Service's close but before midnight eastern time each calendar day would be recorded on Federal Reserve accounting records as transactions occurring on the next calendar day.[48] For example, a FedNow Service transaction that occurs after the closing time and before midnight eastern time on a Saturday would be recorded as occurring on Sunday. The Board also explained in the 2019 Notice that the account recording convention used by the Federal Reserve would not dictate that participating banks adopt the same convention or preclude other conventions.

The Board received approximately 10 comments that addressed the proposed FedNow Service business day and accounting processes. A few of these commenters recommended that the business day for the FedNow Service align with the calendar day.[49] Two commenters expressed support for allowing banks to determine their own business day and accounting conventions, whereas one commenter suggested that the Federal Reserve develop a standard for transaction posting and funds availability.

While the Board recognizes potential challenges that the proposed business day of the FedNow Service may pose, a business day based on calendar day would mean the closing time for the FedNow Service would not align with other Federal Reserve services, which would introduce significant complexity to the service. Therefore, to maintain consistency with other Federal Reserve services, the FedNow Service business Start Printed Page 48531day will be adopted as proposed with the following additional clarifying detail. The Board has determined that the closing time of the FedNow Service will align on all calendar days with the scheduled close of the Fedwire Funds Service.[50] If the Fedwire Funds Service close is extended on any given day, the FedNow Service close would be extended to maintain alignment.

Additionally, the Board expects that participating banks will record FedNow Service transactions in their customer accounts according to their own business day and accounting conventions (while still providing immediate access to funds received through the FedNow Service). The Board recognizes that a bank's definition of a business day may also affect its conventions for reporting and recording transactions that occur on weekends and holidays, which is discussed in the next section, *Seven-Day Accounting.*

5. Seven-Day Accounting

In the 2019 Notice, the Board proposed that the Reserve Banks implement a seven-day accounting regime as part of implementing the FedNow Service. Under this regime, an end-of-day balance would be calculated for each day of the week, with transactions occurring on weekends and holidays recorded and reported in the same way as transactions occurring Monday through Friday (see the *Business Day* section).[51] Approximately 15 commenters addressed topics related to implementation of a seven-day accounting regime. Although the majority of commenters were supportive of seven-day accounting for FedNow Service transactions, commenters recommended that the Federal Reserve provide guidance to banks that prefer to maintain a five-day accounting regime, in order to assist those institutions with calculating reserve balances over the weekend and on holidays. Commenters noted that this guidance would be particularly helpful for small and midsize banks that may participate in the FedNow Service but do not wish to conduct all of their internal operations on a 24x7x365 basis.

The Board recognizes that seven-day accounting is a significant shift from current practice in the banking industry and will require FedNow Service participants to update accounting systems and practices. A seven-day accounting regime adopted by the Federal Reserve, however, does not dictate or preclude use of specific other accounting regimes by participating banks. Based on the specific applicability of accounting principles, participating banks may choose to use alternative accounting approaches for recording and reporting FedNow Service transactions on weekends and holidays to their financial records (though still providing immediate access to funds received through the FedNow Service). In addition, the service will provide reports to support reconcilement and reporting by participating banks under their chosen internal accounting approaches. The Board also believes that as adoption of instant payments grows over the long term, seven-day accounting is likely to become the industry standard. Implementing seven-day accounting is therefore likely to be less disruptive and more efficient than switching from five- to seven-day accounting in the future. For these reasons, the Board has determined that a seven-day accounting regime is appropriate.

6. Reports

In the 2019 Notice, the Board stated that the FedNow Service would provide reports to participating banks to support transaction monitoring, reporting, and reconciliation. Eight commenters agreed that the FedNow Service should provide reporting capabilities and recommended that account balance information be available to participants on a 24x7x365, real-time basis. These commenters explained that such reporting capabilities would assist banks with management of their account balances at the Reserve Banks.

The Board agrees that reporting capabilities will be important to facilitate participants' effective use of the FedNow Service, and the FedNow Service will offer reports as proposed. Reports about FedNow Service payment activity, such as transaction-level or summary-level activity reports, will be available as part of existing end-of-day reports provided for other Federal Reserve services or by request.[52] FedNow Service participants will also have the ability to request intraday account balances, which would reflect a master account balance inclusive of FedNow Service payment activity. Summary-level reports will provide the total dollar value of sent and received transactions, the number of completed and rejected transactions, and other information. Correspondent banks will also be able to obtain these transaction-level and summary reports for their respondents. Details on reports available through the FedNow Service will be announced prior to the launch of the service through established Reserve Bank communication channels.

7. Liquidity and Credit

In the 2019 Notice, the Board stated that it would consider providing intraday credit on a 24x7x365 basis to support FedNow Service transactions. The Reserve Banks currently provide liquidity in the form of intraday credit, also known as daylight overdrafts, to eligible banks in support of Federal Reserve services and subject to the Federal Reserve's Policy on Payment System Risk, Part II (PSR Policy).[53] Approximately 10 commenters addressed intraday credit, and all were supportive of the Reserve Banks providing intraday credit on a 24x7x365 basis to support FedNow Service transactions. Several commenters noted that access to intraday credit would provide flexibility for banks of varying sizes as they look to manage their account balances at the Reserve Banks and emphasized the importance of intraday credit to the smooth functioning of the FedNow Service. Commenters also stated that account balance management will become more complex in a 24x7x365 environment where payments settle continuously in master accounts.

The Board agrees with commenters that access to 24x7x365 intraday credit would support the smooth functioning of the FedNow Service.[54] Accordingly, access to intraday credit will be provided for participants in the FedNow Service during its business day under Start Printed Page 48532the same terms and conditions as are available for other Federal Reserve services.[55] As is the case today, participating banks will be expected to manage their master accounts in compliance with Federal Reserve policies, including avoiding negative balances at the close of the business day, each day of the week, to avoid overnight overdrafts.[56] Therefore, some participating banks may need to adjust internal account monitoring practices to manage intraday liquidity.[57]

In the 2019 Notice, the Board also explained that, while discount window loans would initially not be available on weekends and holidays, the Board would conduct an analysis to determine when it may be beneficial to expand discount window availability times.[58] Approximately 10 commenters recommended that the Federal Reserve extend discount window availability to include weekends and holidays. Commenters noted that the ability to access funding during weekends and holidays will be critical, particularly while participants are still familiarizing themselves with 24x7x365 payment operations after the FedNow Service first becomes available.

The Board recognizes that the ability of participants in the FedNow Service to access funding during weekends and holidays will be important. The Board also expects that initially the need for overnight credit on weekends and holidays will be limited, given that net value of payment inflows and outflows related to FedNow Service transactions will likely represent a small portion of banks' master account balances. In addition, as outlined in the next section, the FedNow Service will provide participants with a liquidity management tool that will assist with liquidity management in a 24x7x365 environment. Therefore, the Board has determined that, as proposed, the discount window will continue to be available until the close of the Fedwire Funds Service, Monday through Friday, under the same terms as today. The Reserve Banks will monitor account balance activity and review the need for overnight credit on weekends and holidays as the FedNow Service matures.

8. Liquidity Management Tool

In the 2019 Notice, the Board discussed the importance of banks' ability to manage liquidity needs associated with instant payments, given that such payments involve real-time gross settlement between banks on a 24x7x365 basis. For example, a participant in the FedNow Service could experience unexpectedly high outgoing payment volume that exceeds the participant's liquidity available in its master account for settlement. If this outflow occurs during hours when the Fedwire Funds Service is not operating, the participant may incur an overdraft of its master account that it cannot address through a liquidity transfer from another FedNow Service participant, possibly resulting in an overnight overdraft. An analogous liquidity management issue can arise for participants in a private-sector instant payment service that is backed by a joint account at a Reserve Bank.[59] The Board explained in the 2019 Notice that the Federal Reserve would explore expanded hours for the Fedwire Funds Service and National Settlement Service (NSS) as an option to provide such liquidity management functionality.[60]

Approximately 20 commenters, largely representing small and midsize banks, trade organizations, and other interested parties, addressed the need for a liquidity management tool. Commenters noted that tools to manage liquidity on a 24x7x365 basis should be available at the launch of the FedNow Service and suggested that those tools could include automated transfers between FedNow Service participants, based on preestablished account thresholds and limits. Half of these commenters suggested that expansion of Fedwire Funds Service and NSS hours would allow for efficient liquidity management in a 24x7x365 environment.

The Board agrees with commenters that the ability to manage liquidity needs resulting from the 24x7x365 real-time nature of instant payments is important, both for the FedNow Service at launch and for instant payment services more broadly. As a 24x7x365 service, the FedNow Service will inherently be able to support liquidity transfers around the clock and therefore will incorporate a liquidity management tool (FedNow LMT) as a core feature.[61] The FedNow LMT will enable participants in the FedNow Service to transfer funds between one another to support liquidity needs related to payment activity in the FedNow Service. The tool will also support participants in private-sector instant payment services backed by joint accounts at a Reserve Bank by enabling transfers between the master accounts of such participants and their joint account.

Because of the general importance of liquidity management for instant payment services, the Board recognizes the importance of flexibility related to the way that participants in such services might look to access the FedNow LMT. As a result, users of the FedNow LMT will not be required to be full FedNow Service participants. For example, participants in a private-sector joint account-based instant payment service, or providers of liquidity to FedNow Service participants, will be able to access the FedNow LMT functionality without joining as a full FedNow Service participant because they would not need the FedNow Service's full set of features for sending Start Printed Page 48533and receiving instant payment transactions involving end users.[62]

The Reserve Banks anticipate imposing certain controls on the FedNow LMT to ensure that use of the functionality is limited to liquidity transfers in support of instant payments. Such controls will include transaction-value limits or limits on the hours of the functionality, such as when transfers are not possible through other Federal Reserve services. Controls related to the FedNow LMT, service terms, eligibility requirements, and enrollment processes will be announced prior to the launch of the FedNow Service through established Reserve Bank communication channels.

9. Network Access

In the 2019 Notice, the Board explained that participating banks would access the FedNow Service through the FedLine® network, which would be enhanced to support the service's 24x7x365 processing.[63] The Board received seven comments related to network access, all of which were generally supportive of accessing the FedNow Service through the FedLine network. Several of these commenters noted that use of the FedLine network to access the FedNow Service will streamline onboarding processes generally, as the Federal Reserve has existing relationships with most banks in the United States. Several of these commenters also noted that it will be important for the Federal Reserve to work with service providers and processors in order to ensure that smaller institutions without direct FedLine connections are also able to access the service. One small bank commenter recommended that the Reserve Banks assess whether any contemplated upgrades to FedLine components could disproportionately affect smaller institutions that may not have the ability to test or maintain enhanced components.

As proposed, the FedLine network will serve as the channel through which participating banks access the FedNow Service. Participating banks will need to test and deploy enhanced or upgraded FedLine components to enable the FedNow Service. Depending on their electronic connection with the FedLine network, banks would need to maintain adequate telecommunications services to support the transaction time requirement (see the *Payment Flow and Message Type* section). The Board recognizes that this need for adequate telecommunications services could present potential challenges for small and midsize banks that rely on telecommunication services through their internet service providers. As a result, the Federal Reserve intends to review and update its policies, standards, procedures and guidelines related to network access to provide direction and information to banks of all sizes regarding network access requirements for bandwidth, latency, and availability.

10. Request for Payment

In the 2019 Notice, the Board sought comment on the incremental value and timing of including request-for-payment functionality in the FedNow Service. Request-for-payment functionality would involve a specific nonvalue message type. This message type would support participants' ability to provide a potential receiver the capability, through an end-user service, to prompt a sender to initiate a standard credit transfer through the FedNow Service. The Board explained that this functionality may increase the use of instant payments by allowing end users to more easily conduct certain types of transactions, such as bill payments.

Approximately 30 commenters, largely representing trade organizations, small and midsize banks, and other interested parties, addressed request-for-payment functionality. Nearly all of these commenters agreed that such functionality would support widespread use of instant payments. Six commenters highlighted that request-for-payment functionality offers similar benefits to a debit (“pull”) transfer but allows the payment sender to actively authorize any payment to the receiver. Of those that specified a timeline for introduction of request-for-payment functionality, approximately 10 commenters supported its inclusion as a feature at the launch of the FedNow Service. Seven commenters suggested that this functionality be considered for future releases of the FedNow Service, indicating that it may add unnecessary complexity to the first release.

The Board agrees that request-for-payment functionality may enable a wider variety of transactions and help facilitate broader adoption of instant payments. The Board also does not believe that inclusion of the feature will introduce unnecessary complexity to the technical design of the FedNow Service. Therefore, the request-for-payment message type will be available as part of the FedNow Service at launch.

11. Fraud Prevention Tools

In the 2019 Notice, the Board stated that, while participating banks would continue to serve as a primary line of defense against fraudulent transactions, the FedNow Service could offer fraud prevention tools to support participating banks in fulfilling that role or other tools at the payment-system level. Approximately 75 commenters raised topics related to fraud prevention tools, and over half of these commenters, largely representing small and midsize banks, trade organizations, and service providers, indicated that tools for monitoring and alerting participants to potentially fraudulent transactions should be included in the FedNow Service. Many of these commenters made specific suggestions about how such tools should be designed. For example, approximately 15 commenters recommended that tools should automatically stop potentially fraudulent transactions. Approximately 15 commenters recommended that FedNow Service participants have the ability to set controls to restrict payments by value, volume, and other characteristics. Finally, a few commenters suggested that the Reserve Banks assign a “score” to payment transfers in order to communicate potential fraud risk to participants. Commenters also suggested other tools that could support a safe and secure instant payment ecosystem. Approximately 25 commenters, largely representing small and midsize banks, recommended that the Reserve Banks develop a database that facilitates sharing of payment fraud information among instant payment stakeholders. The majority of these commenters specified that the database would rely on information contributed by FedNow Service participants. Additionally, approximately 15 commenters recommended that the Reserve Banks leverage their position as network operator to analyze network-wide data in order to identify patterns of potentially fraudulent activity.

Based on public comments and analysis by the Reserve Banks of available fraud prevention tools and technology, the FedNow Service will include a set of fraud prevention tools at launch and in future phases. At Start Printed Page 48534implementation, the tools available to participating banks to assist them in their role as the primary line of defense against fraudulent transactions will include (1) the ability to set lower transaction value limits, (2) the ability to specify certain conditions under which transactions would be rejected, such as by account number, and (3) reporting features and functionality, including reports on the number of payment messages that were rejected based on a participant's settings. The first two tools will allow banks to proactively set parameters that limit transaction activity in the FedNow Service, based on banks' knowledge of their own customers. The third tool will provide summary information that banks can incorporate into their fraud-monitoring activities. The Federal Reserve intends to explore other features that could be made available as part of future releases to aid participating banks in managing fraud risk, such as value limits that could be tailored to certain uses, aggregate value or volume limits for specific periods (for example, per business day), or centralized monitoring performed by the FedNow Service such as functionality that leverages advanced statistical methods and historical patterns to identify potentially fraudulent payments.

D. Features for Consideration in Future Releases

The Reserve Banks intend to take a phased approach to developing and expanding the FedNow Service, as discussed earlier. The Board believes this approach will most effectively meet the need for the Federal Reserve to move quickly while still offering additional features as part of later releases intended to improve overall accessibility, safety, and efficiency of instant payments in the United States. For example, the service will seek to, as part of later releases, support alias-based payments through directories and application programming interfaces (APIs), both of which are discussed in further detail later in this section. Other features to be explored for later releases include support for bulk payments or enhanced remittance information. The Federal Reserve recognizes that market needs and the technology related to instant payments are constantly evolving and intends to continue engaging with stakeholders in order to be flexible in its approach when augmenting the features and functionality of the FedNow Service. Based on this engagement, additional features and service enhancements will be introduced over time. Any additional functionality will be announced through established Reserve Bank communication channels.

1. Support for Alias-Based Payments

In the 2019 Notice, the Board explained that the Reserve Banks intended to engage with industry stakeholders to understand more fully the benefits and drawbacks of various approaches to providing directory services.[64] Directory services can enable alias-based payments by connecting a receiver's alias (such as phone number or email address) with the receiver's banking information to ensure that a payment is routed to the correct end user in a way that is private and secure. Approximately 80 commenters, largely representing small and midsize banks, trade organizations, and fintechs, addressed the inclusion of directory services as part of the FedNow Service. All of these commenters noted that directory services would be a critical tool to enable alias-based payments, and approximately 40 commenters provided specific recommendations as to how the Reserve Banks should provide access to directory services to FedNow Service participants. Commenters' recommendations varied widely, with approximately 20 commenters suggesting the Reserve Banks provide a centralized link to existing directories. Another 20 commenters suggested the Reserve Banks develop their own directory, either as an independent service or in addition to a centralized link to existing directories. Additionally, several commenters highlighted potential risks and complexities associated with implementation and maintenance of directory services, such as the need for controls to ensure secure collection, storage and management of public identifiers.

The Board recognizes that originating a payment using only the public alias of a receiver is becoming increasingly common, especially for individuals seeking a quick and convenient way to send money to each other. The Board also recognizes that banks of all sizes across the country wish to offer this type of service to their customers, and some of these banks are expecting the FedNow Service to provide the infrastructure necessary for them to enable end-user services for alias-based payments.

The Board also agrees that facilitating aliased-based payments, through a directory service or other means, is a desirable feature for the FedNow Service and could help drive adoption of instant payments. At the same time, as indicated elsewhere in this notice, the Federal Reserve's goal is to launch the service as soon as practicably possible. Therefore, the Federal Reserve has made a conscious decision to focus first on the core interbank clearing and settlement functionality necessary for supporting instant payments to facilitate an expeditious launch. Offering a directory service or similar feature at launch would add complexity that would extend the time frame necessary to launch the service. As a result, the FedNow Service will not include a directory service or other approach to support alias-based payments at launch, but instead will seek to provide this supplemental feature in a future release of the FedNow Service.[65]

The Federal Reserve is actively exploring various approaches based on suggestions from commenters to provide participants in the FedNow Service the means to facilitate alias-based payments.[66] One approach would be to connect to one or more existing directories that could provide routing information for all or a subset of participants in the FedNow Service. Given that existing alias-based directories are typically embedded within proprietary payment services (mostly for person-to-person payments), contain information only for a closed user group, and are not designed for broader open access, this approach raises several considerations that will need to be further explored.[67] The Federal Reserve is also exploring options for building a directory, which could function independently or supplement existing directories. This approach would mean that all participants in the FedNow Service would be able to provide and update alias information for their account holders to a Federal Reserve directory, if they wish to accept alias-based payments through the FedNow Service. Both of these approaches present a host of legal, security, and operational Start Printed Page 48535challenges that would need to be resolved. Because of these complexities and challenges, many of which were highlighted by commenters, additional analysis on the appropriate approach is needed.

In addition to these potential options, the Federal Reserve will continue to explore other avenues for how the Reserve Banks might offer alias-based payment functionality as a feature of the FedNow Service after launch. The Board fully acknowledges the industry's need for clarity regarding an alias-based capability in the FedNow Service, and the Federal Reserve will communicate its progress through established Reserve Bank communication channels.

2. Application Programming Interfaces (APIs)

The Board received approximately 20 comments regarding the use of APIs within the FedNow Service. An API is a type of software technology that enables computer systems or applications to connect to each other, allowing information to be shared across the systems.[68] Commenters, representing small and midsize banks, fintechs, and service providers, noted that APIs could be useful for allowing banks or their service providers to submit requests for various informational reports or allowing third parties to develop value-added services related to the FedNow Service.

The Board recognizes that the use of APIs facilitates the provision of value-added end-user services and provides useful tools for a number of purposes, such as providing real-time service status updates, providing downloadable information like message specifications as part of automated services, or even initiating and receiving transactions. The Federal Reserve will continue to engage with industry stakeholders as it explores the best ways to support APIs in the FedNow Service and will provide updates through established Reserve Bank communication channels.

E. Interoperability

In the 2019 Notice, the Board indicated that, in a market structure with multiple operators of instant payment services, the ability to achieve ubiquity in instant payments is advanced when customers of a bank participating in one instant payment service are able to reach the customers of a bank participating in another instant payment service.

Over half of the comment letters received in response to the 2019 Notice emphasized the importance of the FedNow Service having interoperability with the existing private-sector service. Of the approximately 100 commenters that addressed interoperability, approximately 40, largely representing small and midsize banks and trade organizations, addressed issues related to timing. Approximately 20 commenters stated that interoperability should be available at service launch. Approximately 10 commenters did not specify whether the service should be interoperable at launch, but noted that the Federal Reserve should balance the importance of an expeditious launch against achieving interoperability. Another 10 commenters stated that interoperability is not critical at launch of the FedNow Service.

Approximately 25 commenters, largely representing large banks, small and midsize banks, and trade organizations, recommended that the FedNow Service rely on common rules and standards with the existing private-sector service to support interoperability. Many of these commenters recommended that the FedNow Service offer the same message types that are currently available with the existing private-sector service. Additionally, a group of approximately 20 small and midsize banks expressed the concern that they may be disadvantaged if they join the FedNow Service and cannot send payments to or receive payments from banks participating in the existing private-sector service that are not also FedNow Service participants.

The Board agrees with commenters on the importance of interoperability. Nationwide reach is one of the Federal Reserve's primary policy objectives for instant payments, and interoperability between the FedNow Service and the existing private-sector service can help advance this goal. The Federal Reserve, however, cannot accomplish interoperability for instant payments alone. The industry—banks, bank service providers, and service operators—must work towards this common goal, as it has in the past with other payment services.

Interoperability could take different forms. As noted in a recent paper by the U.S. Faster Payments Council, three primary models of interoperability have been used to accomplish nationwide reach in other types of payments, two of which the Board believes are more suitable for instant payments.[69] The first model, which is used in card payments and wire transfers and is likely to be most relevant to instant payments, relies on the sending bank routing payments through a specific service based on the path(s) available to reach the receiver; if there is more than one path, the sending bank may choose the service it uses based on specific criteria, such as price and features. In this model, nationwide reach can be achieved if banks choose to participate in the same service, such that there is always at least one path between any two banks. Further, banks can choose to participate in additional services as part of this model.

The second model is interservice message exchange, in which banks choose to participate in one service, and a payment originated through that service can be cleared, settled, and received through another service. ACH payments use this model, which is designed for bilateral exchange between two service operators. This model can achieve nationwide reach by connecting individuals and businesses across the country through their banks, which are in turn connected to a service operator that enables the message exchange arrangement with the other service operator. The message exchange model, however, poses several additional complexities (such as technical message exchange and common settlement) and would require the commitment and active engagement by the existing private-sector service.

The form and timeline for achieving interoperability depends on the level of commitment and engagement across the industry. The Federal Reserve is committed to working towards compatible standards and operating procedures with the existing private-sector service, which will enable interoperability through the model of payment routing, and has initiated discussions on this subject with the existing private-sector service toward that end. The Federal Reserve is also committed to using the widely accepted ISO 20022 standard and other industry best practices to remove unnecessary and burdensome incompatibilities that Start Printed Page 48536could be a barrier to payment routing interoperability. The Federal Reserve is open to interoperability based on interservice message exchange in the future, after introduction of the FedNow Service.

F. Cost Recovery & Service Fees

In the 2019 Notice, the Board concluded that, due to considerations specific to new services, long-run cost recovery for the FedNow Service will fall outside of the traditional 10-year period for cost recovery typically applied by the Board to mature services. Similar to how cost recovery has been applied to new services in the past, the Board determined that until the service reaches maturity with relatively stable costs and revenues, FedNow Service fees will be based on transaction costs associated with mature volume estimates.

In the 2019 Notice, the Board requested comment on factors that may be relevant to consider in evaluating the long-run cost recovery of new Federal Reserve services compared with mature services. Approximately 15 commenters raised topics related to long-run cost recovery for the FedNow Service. Of these comments, 9 supported the Board's proposed approach to cost recovery, with several commenters expressing the concern that if the traditional 10-year cost recovery were applied to the FedNow Service, fees would be prohibitively high. Two commenters stated that the Board should apply the traditional 10-year cost recovery period to the FedNow Service. Several commenters also suggested that the Federal Reserve make additional information public about its cost estimates and long-term cost-recovery strategy.

The Board agrees with the majority of commenters that applying the traditional 10-year cost recovery period to the FedNow Service, when volumes are low and potentially variable while fixed costs are high, could result in unnecessarily volatile prices or prohibitively high service fees. Such an outcome would negatively affect service usage, and ultimately undermine the Federal Reserve's public policy objectives in providing the FedNow Service. In addition, the cost recovery provisions in section 11A of the Federal Reserve Act state that the Board's pricing principles for Federal Reserve services should give due regard to competitive factors and the provision of an adequate level of service nationwide.

Therefore, the Board continues to expect long-run cost recovery for the FedNow Service to occur outside the 10-year period typically applied by the Board to mature services. The Board also expects that fees will be based on transaction costs associated with mature volume estimates until the service reaches maturity with relatively stable revenues and costs. This approach will limit prohibitively high service fees, and allow for realization of the public benefits the Board identified in its approval of the FedNow Service. As part of this approach to cost recovery, the Board will monitor progress toward matching revenues and costs and will regularly confirm its expectation that the service will meet cost recovery objectives over the long run. To provide transparency as part of this process, the Board will also regularly disclose the service's cost recovery.

In addition, approximately 40 commenters, representing small and midsize banks, trade organizations and individuals, raised topics related to FedNow Service fees. Approximately 15 of these commenters recommended that the FedNow Service rely on a per-item fee schedule, as opposed to volume-based pricing. Additionally, 4 commenters suggested that FedNow Service fees align with market practices at the time of service launch. Another group of 4 commenters recommended that both the sender's and receiver's banks be assessed fees for a FedNow Service transfer. Other commenters recommended that the Reserve Banks communicate the service fee schedule as soon as possible, to provide participants adequate time to prepare for onboarding.

The Board recognizes the need for additional specificity on service fees in advance of the FedNow Service's launch. Based on prevailing market practices, the Board expects that the fee structure will include a combination of per-item fees, charged to the sender's bank and potentially to the receiver's bank, and fixed participation fees. The ultimate fee structure and schedule will be informed by the Federal Reserve's assessment of market practices at the time of implementation. The Reserve Banks will publish the initial fee schedule for the FedNow Service well before its launch through established communication channels.[70]

IV. Competitive Impact Analysis

The Board conducts a competitive impact analysis when considering an operational or legal change to a new or existing service, such as the FedNow Service.[71] In the 2019 Notice, the Board conducted an initial competitive impact analysis for the FedNow Service and requested comment on that analysis. In light of the comments received and the Board's additional assessment, the Board has conducted a final competitive impact analysis.

As part of a competitive impact analysis, the Board determines whether the proposal has a direct and material adverse effect on the ability of other service providers to compete effectively with the Federal Reserve in providing similar services. In order to do so, the Board first identifies relevant private-sector providers of similar services and then compares those providers' services with the FedNow Service. In instances where any differences create direct and material adverse effects on the ability of the private-sector providers to compete effectively, the Board then considers whether such effects were due to either legal differences or a dominant market position deriving from such legal differences. If the Board determines that the material adverse effects were the result of legal differences or the Federal Reserve's dominant market position, the Board evaluates the potential public benefits of the new service in order to determine whether those benefits could be reasonably achieved with a lesser or no adverse competitive impact. Based on these considerations, the Board then either modifies the proposal to lessen or eliminate the adverse impact on competitors' ability to compete or determines that the payment system objectives may not be reasonably achieved if the proposal is modified. If reasonable modifications would not mitigate the material adverse effect, the Board then determines whether the anticipated benefits of the new service are significant enough to proceed with the service even though it may adversely affect the ability of other service providers to compete with the Federal Reserve in that service.

A. Relevant Private-Sector Providers of Similar Services

In conducting a competitive impact analysis, the Board first identifies relevant private-sector providers of similar services. As part of its initial competitive impact analysis, the Board identified one comparable private-sector service for instant payments in the United States, which has been operational since November 2017 (the existing private-sector service). Like the Start Printed Page 48537FedNow Service, the existing private-sector service conducts payment-by-payment final settlement of interbank obligations on a 24x7x365 basis for instant payments. Unlike the FedNow Service, which will settle in central bank money using master accounts, the existing private-sector service relies on an internal ledger maintained by its operator to conduct settlement, which is supported by funds held in a joint account at a Reserve Bank.[72] One commenter suggested the Board broaden its definition of relevant service providers in performing its competitive impact analysis to include entities, such as card companies that offer end-user solutions that may compete with instant payment solutions. The Board recognizes that the FedNow Service may affect additional private-sector entities that may be indirect competitors to or users of the FedNow Service. However, because these entities do not provide interbank RTGS services for instant payments, the Board does not view them as private-sector providers of similar services and, therefore, has not considered them as part of its final competitive impact analysis.

B. Material Adverse Effects on the Ability of Relevant Service Providers To Compete Effectively

After identifying relevant private-sector providers of similar services, the Board compares those providers' services with the FedNow Service. The purpose of this comparison is to identify differences between private-sector and Federal Reserve services. Ultimately, it is difficult to create total parity between the Federal Reserve and private-sector providers in their provision of payment services. Certain differences may provide advantages in the Federal Reserve's provision of priced services, while other differences may provide competitive advantages to private-sector entities.[73] The Board's competitive impact analysis therefore focuses on those differences that could create a *direct and material adverse effect* on the ability of the private-sector services to compete effectively with the Federal Reserve.

As part of its initial competitive impact analysis, the Board identified specific differences between the FedNow Service and the existing private-sector service. The Board requested comment on whether these differences, in addition to any other differences identified, had a direct and material adverse effect on the ability of the existing private-sector service to compete effectively with the Federal Reserve.

1. Use of Master Accounts

In order to participate in the FedNow Service, participants must use a master account at the Reserve Banks (directly or indirectly), whereas the existing private-sector service uses a separate joint account that each participant must prefund (directly or indirectly through a funding agent). As part of its initial analysis, the Board noted that use of master accounts may provide an advantage to the FedNow Service because funds remain in participants' Federal Reserve master accounts, earning interest and counting towards reserve requirements, and can be used for other purposes.[74] Unlike funds held in a master account, prefunding held in the existing private-sector service's joint account does not earn interest or count toward reserve requirements and is not available for other purposes that may arise, such as satisfying payment or liquidity needs outside the existing private-sector service.[75]

Approximately 15 commenters addressed the potential competitive advantages that the use of master accounts may provide the FedNow Service. These commenters raised different options for ways the Federal Reserve could mitigate the effects of this difference. Approximately 10 commenters also stated the Federal Reserve should pay interest on the balances held in the joint account and count these balances towards reserve requirements in order to mitigate the FedNow Service's potential competitive advantage of settling in master accounts. A few commenters also pointed to the excess balance account (EBA) model as a potential example that the Federal Reserve could follow with the existing private-sector service.[76] Two commenters suggested that expanding the Fedwire Funds Service and NSS hours to provide the ability to move funds to and from the joint account outside current operating hours for liquidity management purposes could ameliorate any adverse effect. In addition, one commenter suggested that the Federal Reserve could segregate funds used for transactions in the FedNow Service and not pay interest on those balances.

Commenters offered differing views on the impact of these potential advantages. Only two of these commenters offered views on the materiality of these potential advantages. One commenter suggested the decision to pay interest on balances in the joint account and allow balances in this account to count towards reserve requirements would materially influence its decision on how to route payments and manage funds. Another commenter stated that the FedNow Service's use of master accounts would not affect the existing private-sector service's ability to compete and that the FedNow Service enhances competition.

Taking into account the comments received and the provision of additional liquidity management features that will be available as discussed in Section III, the Board has assessed that the use of master accounts by the FedNow Service is a difference that will not create a direct and material adverse effect on the ability of the existing private-sector service to compete effectively.[77] Only Start Printed Page 48538one commenter stated that the inability of funds held in the joint account to earn interest would materially affect its decision to join the existing private-sector service. But, as discussed earlier, the Federal Reserve's provision of the liquidity management tool will enable banks to move excess funds in and out of the joint account, thereby allowing banks to minimize the balances in the joint account on an ongoing basis. Additionally, following the Board's decision to reduce reserve ratios on all transaction accounts to zero, which was announced on March 15, 2020, reserve requirements have been effectively eliminated for all depository institutions.[78] Thus, there is not at this time any advantage relating to master account balances' being eligible to count towards satisfaction of reserve requirements. The Board, however, remains committed to creating as much competitive parity as possible, including by paying interest on the joint account.

2. Access to Intraday Credit

Participants in the FedNow Service will have access to intraday credit under the same terms and conditions as apply to participation in other Federal Reserve services. Such intraday credit would lower the risk that payments will be rejected because of lack of funds. The Federal Reserve expects banks to manage their master accounts at all times in compliance with Federal Reserve policies.

In the existing private-sector service, participants are able to use intraday credit available to them under the Federal Reserve's PSR Policy to fund the joint account. Access to intraday credit in funding the joint account mitigates the risk of payment transactions in the existing private-sector service being rejected. As part of the Board's initial competitive impact analysis, the Board noted that access to intraday credit for funding a joint account would be limited to the current operating hours of the Fedwire Funds Service, resulting in continued risk of rejected payments because of lack of prefunding outside those hours. However, as noted in Section III, the Reserve Banks will provide a mechanism for transferring liquidity. As a result, participants in the existing private-sector service could use this functionality to transfer funds from their master accounts to the joint account, for example by using intraday credit if they so choose, including during times when transfers are not possible through other Federal Reserve services. Therefore, the Board has determined that there is no direct and material adverse effect on the ability of the existing private-sector service to compete effectively because participants in both the existing private-sector service and the FedNow Service will have access to intraday credit during non-Fedwire Funds Service hours.

3. Additional Differences

Commenters mentioned differences in addition to those noted in the Board's initial competitive impact analysis. One commenter stated that the Federal Reserve is not subject to antitrust laws and suggested that the private sector has no remedy if the Reserve Banks engage in monopolistic or anticompetitive activity, so the Federal Reserve should commit to act in the public interest and ensure strong competition in the instant payments market. The same commenter also suggested that the limits on number of participants and reporting required on joint accounts that support settlement of instant payments, which is not required for any other private-sector retail payment system, provides a competitive advantage for the FedNow Service if it is not subject to similar requirements.

The Reserve Banks are subject to section 11A of the Federal Reserve Act, which was added in part to ensure that the Reserves Banks were competing fairly with the private sector in the provision of financial services.[79] Because the requirements imposed by section 11A are designed to ensure a level playing field with the private sector, such as the establishment of pricing principles and requirements that the Reserve Banks recover costs over the long run, the Board does not believe that not being subject to antitrust laws creates a direct and material adverse effect on the ability of the existing private-sector service to compete effectively.

In addition, the Reserve Banks report significant amounts of data to the Board on a regular basis and upon request for the purpose of policy analysis, including transaction-level data that the existing private-sector service does not report. The Board and Reserve Banks also make aggregate value and volume data available publicly. Further, while the Federal Reserve may initially impose limits on the number of participants in a joint account arrangement to ensure use of the account meets the public policy objectives set forth in the Board's joint account guidelines, such as efficient risk management, the Board in its oversight capacity expects the FedNow Service to meet the same public policy objectives before it can launch. In light of this analysis, the Board does not believe that any of these differences create a direct and material adverse effect on the ability of the existing private-sector service to compete with the FedNow Service.

C. Conclusion

Based on this analysis, the Board does not believe that any of the differences identified create a direct and material adverse effect on the ability of the existing private-sector service to complete effectively with the FedNow Service.

By order of the Board of Governors of the Federal Reserve System.

Margaret McCloskey Shanks,

Deputy Secretary of the Board.

Footnotes

1. Additional information about the Federal Reserve's role in the payment system is available in *The Federal Reserve System Purposes & Functions:* Chapter 6, "Fostering Payment and Settlement System Safety and Efficiency," (October 2016). Available at *https://www.federalreserve.gov/aboutthefed/pf.htm.*

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2. As authorized by the Federal Reserve Act, these payment and settlement services involve transferring funds between and among accounts held at the Reserve Banks. Specific services offered by the Reserve Banks include the Fedwire® Funds Service, the National Settlement Service, and FedACH® services. Throughout this notice, these services operated by the Reserve Banks will be referred to as Federal Reserve services.

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3. For a more detailed discussion related to the Federal Reserve's role in the payment system, including discussion related to regulatory and supervisory authorities, see "Federal Reserve Actions To Support Interbank Settlement of Faster Payments, Request for Comments," 84 FR 39297 (Aug. 9, 2019). Available at *https://www.federalregister.gov/d/2019-17027.*

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4. *See* Faster Payments Task Force, "Final Report Part Two: A Call to Action," (July 2, 017). Available at *https://fedpaymentsimprovement.org/wp-content/uploads/faster-payments-task-force-final-report-part-two.pdf.*

The Board has previously used the term "faster payments" but has transitioned in this notice to the term "instant payments" to describe the types of payments the FedNow Service will support and distinguish them from other improvements to payment speed, such as same-day ACH. In addition, for the purposes of this notice, the term "instant payments" will specifically refer to a subset of payments in which an end user receives funds in near real time, with immediate interbank settlement of the payment also having occurred.

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5. *See Faster Payments Task Force, "Final Report Part Two: A Call to Action,"* supra note 4.

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6. U.S. Treasury, "A Financial System That Creates Economic Opportunity: Nonbank Financials, Fintech, and Innovation," (July 2018) at 156. Available at *https://home.treasury.gov/sites/default/files/2018-07/A-Financial-System-that-Creates-Economic-Opportunities-Nonbank-Financi.pdf.*

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7. “Potential Federal Reserve Actions To Support Interbank Settlement of Faster Payments, Request for Comments,” 83 FR 57351 (Nov. 15, 2018). Available at *https://www.federalregister.gov/d/2018-24667*.

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8. “Federal Reserve Actions To Support Interbank Settlement of Faster Payments, Request for Comments,” supra note 3.

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9. For example, in retail payment systems, improvements achieved through Reserve Bank operational roles in the past include facilitating efficient nationwide clearing of checks, supporting the development of the ACH system, and encouraging the nation's transition to a virtually all-electronic check-processing environment.

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10. As described in the 2019 Notice, implementing the FedNow Service is consistent with the requirements of the Monetary Control Act and longstanding Federal Reserve policy criteria for the provision of new financial services.

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11. The GAO found that competition by the Federal Reserve in payment markets has generally had a positive impact, with benefits that include lowered cost of processing payments for end users. U.S. Gov't Accountability Off., GAO-16-614, “Federal Reserve's Competition with Other Providers Benefits Customers, but Additional Reviews Could Increase Assurance of Cost Accuracy” (2016). Available at *https://www.gao.gov/products/GAO-16-614*.

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12. Throughout this notice, the term “bank” refers to any type of depository institution. Depository institutions include commercial banks, savings banks, savings and loan associations, and credit unions.

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13. The following discussion illustrates a completed payment through the FedNow Service in its simplest form. Other steps could occur; for example, a payment could be rejected. In addition, the Federal Reserve may also consider supplementing this message flow and settlement process with additional options to facilitate certain uses of the service in the future.

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14. References to receiver and receiver's bank in this discussion are intended to refer to the beneficiary and the beneficiary's bank, respectively, of a funds transfer.

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15. This does not prevent banks from implementing procedures to resolve erroneous payments, or the ability for the receiver to send a new transaction to return funds in certain circumstances (see the discussion of return transfers as part of the *Payment Flow and Message Types* discussion in section III).

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16. Credit transfers are those where a sender initiates a payment to an intended receiver and require the sender to authorize and initiate each individual payment. Credit transfers are distinct from debit transfers, in which the party that wishes to be paid provides instructions that allow its bank to pull funds from the account of the party that needs to pay for a good or service, subject to the approval of that party and its bank.

Back to Citation
17. Access to intraday credit in the FedNow Service would be provided during its business day under the same terms and conditions as for other Federal Reserve services.

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18. In 2017, the Board approved guidelines for evaluating requests for joint accounts at the Reserve Banks intended to facilitate settlement between and among banks participating in private-sector payment systems. Board of Governors of the Federal Reserve System, “Guidelines for Evaluating Joint Account Requests,” (Issued 2017). Available at *https://www.federalreserve.gov/paymentsystems/joint_requests.htm*. In 2016, Federal Reserve staff received a request from a private-sector service provider to open a new joint account for that organization's proposed instant payment system. The use of a joint account at a Reserve Bank to support settlement mitigates certain risks by reproducing, as closely as possible, the risk-free nature of settlement in central bank money.

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19. Throughout this notice, the term “end users” encompasses individuals and businesses.

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20. The ISO 20022 standard is a message format standard for payments, securities, trade services, payment cards, and foreign exchange. For more information, see *https://www.iso20022.org/*. The standard is published by the International Organization for Standardization (ISO), an independent, non-governmental organization comprised of 161 national standards bodies. For more information, see *http://www.iso.org*. The ISO 20022 standard is increasingly being adopted around the world as part of efforts to modernize payment services, including those used for instant payments.

Back to Citation
21. “Banks” include any type of depository institution, such as commercial banks, savings banks, savings and loan associations, and credit unions. For the purposes of this notice, large banks are defined as having assets of more than $50 billion, while small and

midsize banks are defined as having assets of less than $50 billion. “Service providers” are entities, such as core payment processors, that provide payment services, processing, or operational and technical support to financial institutions. “Private-sector operators” are entities that operate payment systems, such as the existing private-sector service for instant payments and payment card networks. “Other interested parties” include payment standards organizations, a congressional member organization, research and academic groups, consultancies, and regulatory bodies.

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22. As the Board explained in the 2019 notice, the Federal Reserve has played an operational role in the payment system by providing key clearing and settlement infrastructure since its founding in 1913. In fulfilling this role, the Reserve Banks operate services, including check, ACH, and funds transfer services, that provide core infrastructure for financial transactions. The Federal Reserve operating alongside the private sector is consistent with almost every major payment system in the United States. The Board therefore believes offering the FedNow Service is consistent with its historical role in the payment system and is not an expansion of the Federal Reserve's powers. Further, the Board continues to view the Reserve Banks' operation of the FedNow Service as the most effective approach to advance the Federal Reserve's and industry's objective of ubiquitous, safe, and efficient instant payments in the United States. The FedNow Service is expected to provide public benefits ranging from enhanced resiliency, healthy competition, increased innovation, and more equitable access.

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23. Alias-based payments provide a sender with the ability to send payments to a receiver based solely on public identifiers, or aliases, of the receiver, without a sender having to know the bank account number of the receiver. Aliases are generally linked to an email or phone number, or other personal identifier. Directory services can support alias-based payments by connecting an alias with a receiver's banking information to ensure that a payment is routed to the correct end user in a way that is private and secure.

Back to Citation
24. For example, some commenters discussed adoption of standardized messaging formats between the FedNow Service and existing private-sector service, which would allow customers to choose to route a payment to either service. Other commenters discussed intermingling and sharing key processing steps between the services.

Back to Citation
25. Most of these commenters were specifically referring to service providers that manage core banking systems for their bank customers. Typically, core service providers support their customers' daily transaction processing and account management.

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26. Section 11A of the Federal Reserve Act requires the Board to adopt a set of pricing principles for Reserve Bank services and a schedule of fees based on those principles. 12 U.S.C. 248a. The principles adopted by the Board incorporate statutory requirements and include additional provisions consistent with the purposes of section 11A. Board of Governors of the Federal Reserve System, "Principles for the Pricing of Federal Reserve Bank Services," (Issued 1980). Available at *https://www.federalreserve.gov/paymentsystems/pfs_principles.htm*.

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27. Many payments in the United States, such as debit card payments and some electronic bill payments, have traditionally been conducted as debit transfers, with the sender providing information and authorization to the receiver that allows the receiver's bank to initiate a debit to the sender's bank account with funds subsequently credited to the receiver's bank account.

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28. According to a 2018 Federal Reserve study on U.S. payments fraud, in 2015, the fraud rate for ACH debit payments from general-purpose transaction accounts was more than double the rate for ACH credit payments. *See* Board of Governors of the Federal Reserve System, "Changes in U.S. Payments Fraud from 2012 to 2016: Evidence from the Federal Reserve Payments Study," (Oct. 2018). Available at *https://www.federalreserve.gov/publications/files/changes-in-us-payments-fraud-from-2012-to-2016-20181016.pdf*.

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29. Section 13(1) of the Federal Reserve Act permits Reserve Banks to receive deposits from member banks or other depository institutions. 12 U.S.C. 342. Section 19(b)(1)(A) of the act includes as depository institutions any federally insured bank, mutual savings bank, savings bank, savings association, or credit union. 12 U.S.C. 461(b). The Reserve Banks also maintain accounts for additional entities under other statutory authorities.

Back to Citation
30. A master account is the record of financial rights and obligations between account-holding banks and a Reserve Bank.

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31. The Board's proposal that the FedNow Service would rely on a single account structure using master accounts at the Reserve Banks was in response to feedback from the public to the 2018 Notice, in which the Board requested comment on the operational burden banks would face if an instant payment service were designed using a settlement account separate from a master account. Commenters indicated that the benefits of such a design would have to outweigh the added costs of managing two accounts.

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32. The finality of settlement entries does not preclude institutions from implementing procedures to resolve erroneous payments, or the ability for the receiver to send a new transaction to return funds in certain circumstance (see the discussion of return transfers as part of the *Payment Flow and Message Types* section).

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33. Details for participating banks will be specified in technical or operational documentation that will describe the service or in terms as part of the Reserve Banks' Operating Circular for the FedNow Service.

Back to Citation
34. A correspondent bank is a bank that has authorized a Reserve Bank to settle debit and credit transaction activity to its master account for a respondent bank. Correspondent/respondent relationships are established under Federal Reserve Operating Circular 1.

Back to Citation
35. References to the FedNow Service in this section are intended to refer to one or more Reserve Banks acting as sending and receiving banks, in connection with the FedNow Service.

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36. The payment flow proposed in the 2019 Notice included a provisional hold on funds between steps 3 and 4, which may be included in future releases of the service but will not be a component of the first release.

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37. Aspects of the payment flow would be different, for example, if either the sender's bank or the receiver's bank were to use an agent, service provider, or correspondent bank.

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38. More specifically, steps 2-6 will have a defined maximum time period such that transactions not completed within the defined time will be rejected. As a result, the sender's bank will know that it should receive notification of a completed payment or a rejection within the defined time period. In addition, other payment message types, including return transfers, will also have a defined maximum time period. The defined time period will be specified in technical or operational documentation that will describe the service or in terms as part of the Reserve Banks' Operating Circular for the FedNow Service.

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39. The end-user interface will most likely be provided by the sender's bank or a service provider working with the sender's bank.

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40. While specific internal bank processes vary, this step could include authenticating the sender, validating the payment, and performing any screening or other procedures on the payment.

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41. As noted previously, Figure 1 illustrates a completed payment through the FedNow Service in its simplest form. Other steps could occur, for example, if the receiver's bank responds with a negative response. As another alternative, if the receiver's bank needs additional time to determine whether to refrain from crediting the receiver's account for legal or compliance reasons, the service will accommodate such need, with associated notifications, up to an additional specified time period. Additional information and specifications for all the payment flows and processes that will be available as part of the FedNow Service will be provided through existing Reserve Bank communication channels.

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42. In sending a payment message forward to the receiver's bank with an advice of credit, the FedNow Service “executes” the payment message that it received from the sender's bank.

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43. At this stage in the flow, the receiver's bank will have the option of sending a message through the FedNow Service to the sender's bank indicating that the payment has been posted to the receiver's account.

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44. The receiver's bank agrees to make the funds associated the payment available to their customer in near real time after receiving notification of settlement in step 7. The sender's bank debits the sender according to its internal processes or policies, which could occur at various points in the payment flow, for example, as part of step 2. In addition, the sending and receiving banks may notify their customers that the payment has been completed.

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45. Nonvalue message types include a request for return, discussed as part of the return transfer payment message type in this section; request for payment, discussed later (see the *Request for Payment* section); and administrative messages such as payment status request, report request, or request for additional information about a payment.

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46. The ISO 20022 Real-Time Payments Group (RTPG) is composed of more than 70 international stakeholders, with representation from payment associations, payment service providers, financial institutions, international and domestic clearinghouses, regulators, and others. The RTPG publishes usable sets of ISO 20022 usage guidelines that can be found here: *https://www.iso20022.org/catalogue-messages/additional-content-messages/iso-20022-real-time-payments-group-rtpg.*

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47. Transactions that are in process when the FedNow Service switches from one day to the next will continue to be processed. The settlement date of such transactions will be the date when Step 6 shown in *Figure 1* occurs (debits and credits to the designated master accounts of the sender and receiver banks or their correspondent banks).

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48. This approach mirrors the approach used by the Reserve Banks for recording Fedwire Funds Service transactions that occur after the service's opening at 9 p.m. eastern time (ET) and before midnight ET, where these transactions are recorded as occurring on the next business day.

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49. Most of these commenters did not suggest a specific time zone for the calendar day.

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50. Today, the Fedwire Funds Service closes at 6:30 p.m. ET and re-opens for the next business day at 9:00 p.m. ET on the same calendar day. As of March 2021, the service is expected to close at 7:00 p.m. ET. On weekends and holidays when the Fedwire Funds Service is closed, the FedNow Service close will still align with this closing time. The schedule for funds transfers through the Fedwire Funds Service is provided in the Reserve Banks' Operating Circular 6.

Back to Citation
51. For FedNow Service participants, interest on reserve account balances will be calculated each day of the week based on that day's closing balance.

Back to Citation
52. Banks will be able to choose whether to receive daily reports according to business day, for example, if participants do not wish to receive reports on weekends and holidays.

Back to Citation
53. Intraday credit is generally available to banks that are financially healthy and have regular access to the discount window (the Federal Reserve's program for overnight lending to banks). *See* Board of Governors of the Federal Reserve System, "The Federal Reserve Policy on Payment System Risk," Available at *https://www.federalreserve.gov/paymentsystems/psr_about.htm.*

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54. In particular, over the weekend or on a holiday, a FedNow Service participant that faced an unexpected outflow of payments could experience a depletion of its master account balance. Absent intraday credit, a FedNow Service participant in this situation could have its payments rejected by the FedNow Service, to the detriment of that participant and its end-user customers.

Back to Citation
55. Specific changes to the Board's PSR policy will be proposed separately.

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56. To minimize Reserve Bank exposure to overnight overdrafts, the Board charges a penalty fee to discourage institutions from incurring overnight overdrafts. *See* Board of Governors of the Federal Reserve System, “Policy on Overnight Overdrafts,” (Effective July 12, 2012). Available at *https://www.federalreserve.gov/paymentsystems/oo_policy.htm.* If a bank has a negative balance at the end of the business day, it is charged an overnight overdraft penalty for a 24-hour period. The Board expects this would continue to be the case after launch of the FedNow Service, even if an overdraft is cured shortly after on the next business day through incoming FedNow payments or a liquidity transfer from another FedNow Service participant (see the *Liquidity Management Tool* section). On weekends, the Board expects overnight overdrafts will be counted for a 24-hour period (as opposed to the current 72-hour period), since there will be an opportunity to use the FedNow Service to cure overdrafts on Saturday and Sunday. Specific changes to the Overnight Overdraft Policy will be proposed separately.

Back to Citation
57. Participating banks will be able to request intraday balances through the FedNow Service (see the *Reports* section).

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58. The discount window is a Federal Reserve lending facility that helps to relieve liquidity strains for individual banks and for the banking system as a whole by providing a reliable backup source of funding. Additional information on the discount window is available at *https://www.federalreserve.gov/regreform/discount-window.htm.*

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59. A participant in such a service could find that its customers' payment activity has depleted its position on the service's ledger, but the participant has no way to provide supplemental funding to the joint account to support an increase in that ledger position when the Fedwire Funds Service is closed.

Back to Citation
60. In the 2018 Notice, the Board requested comment on the development of a liquidity management tool. Comments received in response to the 2018 Notice generally supported development of such a tool and also supported expansion of hours for existing Federal Reserve services to support other industry needs. Reflecting this input, the Board indicated in the 2019 Notice that the Reserve Banks would explore the expansion of Fedwire Funds Service and NSS hours to provide liquidity management functionality and for other purposes.

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61. The Federal Reserve continues to explore expanded hours for the Fedwire Funds Service and NSS. As explained in the 2019 Notice, further analysis is needed to fully evaluate the relevant operational, risk, and policy considerations with expanded hours for the Fedwire Funds Service and NSS, given the systemic importance of the Fedwire Funds Service.

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62. Liquidity providers may have an interest in providing liquidity to FedNow Service participants without making standard FedNow Service payments. Allowing participation by such liquidity providers could allow small and midsize banks to retain relationships with their existing liquidity providers for purposes of instant payment liquidity management.

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63. FedLine Solutions is a set of electronic connection products that over 10,000 banks (or their agents) use to access Federal Reserve payment and information services. More information is available at *https://frbservices.org/fedline-solutions/index.html.* While the Board is not envisioning doing so at this time, it may consider in the future whether enabling access to the FedNow Service through alternate messaging networks would enhance resiliency or interoperability for instant payments.

Back to Citation
64. The 2018 Notice requested comment on whether a directory service is needed for an RTGS service for instant payments. The question generated a large number of responses, with commenters stating that directories are an important driver for adoption of instant payments because end users value the ability to send payments to receivers based solely on public identifiers, or aliases, without a sender having to know the bank account number of a receiver.

Back to Citation
65. As part of conducting FedNow transactions, participants in the FedNow Service are not precluded from using alias-based payment services that are unaffiliated with the FedNow Service.

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66. In support of alias-based payments, the Federal Reserve may also consider message flows and settlement processes different from the basic credit transfer flow described earlier.

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67. In this context, a closed user group is where the sender and receiver of a payment have signed up with a specific service.

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68. More specifically, in computer programming, an API is a set of routines, protocols and tools used to facilitate interactions between applications. An API specifies how software components should interact with each other, inclusive of formats and processes to facilitate data calls and requests. Among a variety of other uses, an API can be used to retrieve data from one application and process it in another application.

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69. The U.S. Faster Payments Council is an industry-led membership organization whose mission is to facilitate faster payments in the United States. The paper is available at *https://fasterpaymentscouncil.org/userfiles/2080/files/*

Faster%20Payments%20Interoperability%20WP_June%202020.pdf. A third model outlined by the Faster Payments Council, currently used for check payments and certain international payments, is one in which a series of intermediary banks are expected to clear, settle, and route payments. This model can lead to friction in payment flows, which makes this approach less attractive for domestic instant payments.

Back to Citation
70. Following the release of the FedNow Service's initial fee schedule, the Board will also publish FedNow Service fees in its annual service-pricing process for all services.

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71. Board of Governors of the Federal Reserve System, “The Federal Reserve in the Payments System,” (Issued 1984; revised 1990). Available at *https://www.federalreserve.gov/paymentsystems/pfs_frpaysys.htm.*

Back to Citation
72. A joint account enables settlement for participants in a private-sector arrangement to be supported by funds held for the joint benefit of the service's participants. Accordingly, the operator of a private-sector arrangement that relies on a joint account can perform real-time, payment-by-payment settlement by adjusting participant positions on its own ledger, which, in the aggregate, will be equal to or less than the amount held in the joint account. Settlement supported by a joint account can occur at any time or on any day at the settlement-arrangement operator's discretion because settlement takes place on the ledger of the settlement-arrangement operator.

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73. For example, although private-sector providers generally do not need to publish their fees, the Federal Reserve publishes fees for their priced services in a manner that is transparent to competitors and customers alike.

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74. When the Board announced its decision that the Reserve Banks would develop the FedNow Service (August 2019), the maximum reserve ratio on net transaction accounts was 10 percent. On March 15, 2020, the Board announced reserve ratios on all transaction accounts would be reduced to zero effective March 26, 2020.

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75. In adopting guidelines for evaluating joint account requests, the Board explained that the treatment of joint account balances depends on the nature of the private-sector arrangement, including the rights and obligations of the parties involved. Therefore, determining whether balances held in a joint account can be used to meet reserve requirements or are eligible for interest is assessed for each request individually. *See* Board of Governors of the Federal Reserve System, “Final Guidelines for Evaluating Joint Account Requests,” 82 FR 41951, 41956 (Sept. 5, 2017). Available at *https://www.federalregister.gov/d/2017-18705.*

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76. An EBA is an interest-bearing account at a Reserve Bank established for one or more institutions that are eligible to earn interest on balances held at the Reserve Banks and managed by an agent. Only excess balances may be placed in an EBA; the account balance cannot be used to satisfy reserve balance requirements or for general payments or other activities.

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77. The Board recognizes that in addition to the payment of interest and treatment of balances for reserve purposes, additional differences may exist between the existing private-sector service's use of a joint account and the FedNow Service's use of the master account that require participants to manage their account positions in different ways. On the one hand, the FedNow Service's use of master accounts may create burden by requiring consideration of the defined closing and opening of other Federal Reserve services also settling in the same account. Use of master accounts for a service operating 24x7x365, such as the FedNow Service, also adds a layer of complexity to banks' management of their positions to avoid overnight overdrafts and associated penalties. On the other hand, unlike the master account, use of a joint account requires participants to prefund that account, removing liquidity from their master accounts, and to manage their contributions to the joint account in order to ensure funding requirements are met to avoid rejected payments on the ledger of the existing private-sector service. Overall, the Board does not believe these differences are significant enough to have a direct and material adverse effect on the ability of the existing private-sector service to compete effectively. Moreover, the ability to transfer liquidity between master accounts and the joint accounts as described earlier in Section III will further minimize any potential impacts.

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78. See "Federal Reserve Actions to Support the Flow of Credit to Households and Businesses," March 15, 2020. *https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315b.htm.*

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79. 12 U.S.C. 248a.

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