

BUSINESS RESILIENCY STATEMENT FEDWIRE[®] SERVICES

The Federal Reserve Banks operate two core services that support critical U.S. financial markets – the Fedwire Funds Service and the Fedwire Securities Service (collectively known as the Fedwire Services).

The Fedwire Funds Service is the Federal Reserve’s large-dollar electronic payment system. As a real-time gross settlement system, the Fedwire Funds Service initiates, processes, and settles individual payments between participants immediately in central bank money. Once processed, these payments are final and irrevocable. The Fedwire Securities Service provides a system for maintaining and transferring book-entry securities issued by the U.S. Treasury, several federal agencies and government-sponsored enterprises, and certain international organizations. The Fedwire Securities Service provides a real-time delivery-versus-payment system that enables participants to transfer securities to other participants and simultaneously receive final payment for such securities in central bank money; once processed, securities transfers are final and irrevocable.

Systemically important financial market infrastructures (FMIs) are expected to meet the public policy objectives of the *Principles for Financial Market Infrastructures* (PFMI)¹. The Board of Governors of the Federal Reserve System incorporated principles 1 through 24 of the PFMI into part I of the Federal Reserve Policy on Payment System Risk (the PSR policy).² As stated in the PSR policy, the Fedwire Services are expected to meet or exceed the risk management standards set forth in part I of the PSR policy. For detailed information regarding how the Fedwire Services observe the principles in maintaining a robust resiliency program, see the PFMI Disclosure Statements for the Fedwire Funds Service and the Fedwire Securities Service^{3,4}.

The Federal Reserve System has a number of procedures in place to ensure the resilience of the Fedwire Services. These procedures are routinely tested across a variety of contingency situations to ensure timely resumption of Fedwire operations in the event of a local, regional, or widespread disruption. The suite of Fedwire applications and associated recovery procedures are regularly

¹ Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO), *Principles for Financial Market Infrastructures* (Apr. 2012), available at <http://www.bis.org/cpmi/publ/d101a.pdf>. This was further developed and clarified in a note released by the CPMI and the board of IOSCO, *Application of the Principles for Financial Market Infrastructures to Central Bank FMIs* (Aug. 2015), available at <http://www.bis.org/cpmi/publ/d130.pdf>.

² Board of Governors of the Federal Reserve System, *Federal Reserve Policy on Payment System Risk* (effective Sept. 15, 2017), available at https://www.federalreserve.gov/paymentsystems/files/psr_policy.pdf. The Board of Governors has noted that, in applying part I of the PSR policy, it would be guided by the key considerations and explanatory notes in the PFMI.

³ PFMI Disclosure Statements for the Fedwire Funds Service, available at <https://www.frbsservices.org/assets/financial-services/wires/funds-service-disclosure.pdf>, and for the Fedwire Securities Service, available at <https://www.frbsservices.org/assets/financial-services/securities/securities-service-disclosure.pdf>.

⁴ While not subject to the enhanced risk-management and disclosure requirements applied to the Fedwire Services under the PSR policy, the National Settlement Service, a multilateral settlement service owned and operated by the Federal Reserve System, is part of the same resiliency program as Fedwire Funds Service and Fedwire Securities Service.

evaluated and enhanced to address various emerging risk scenarios, such as those that might occur during a cyber event. The below describes what may generally be expected during a business disruption, but is not intended to specifically describe what will happen.

DATA CENTERS

The Reserve Banks operate the applications that are necessary for the operation of the Fedwire Services from several different data centers, which are located with sufficient geographical dispersion to mitigate the effects of most natural disasters, power and telecommunication outages, and other widespread regional disruptions. Wholesale service operations regularly rotate between two primary data centers. The data centers have the necessary staffing, equipment, and security to resume operations and include various contingency features, such as redundant power feeds, environmental and emergency control systems, dual computer and network operations centers, and dual customer service centers. The primary data centers include full same-site processing redundancy to address local failures. The primary data centers also support full cross-site processing redundancy, so either data center can quickly take over production processing if the data center that had been processing production work is, or is expected to be, disrupted.

In the event of a primary data center outage or in advance of an impending event, the affected applications will be recovered to the other primary data center within an established time objective, with a somewhat longer recovery time for the various ancillary applications supporting the Fedwire Services. These recovery objectives are documented requirements in agreements with Reserve Bank service providers. If, in the course of restoring production-processing capability the Reserve Banks detect data loss, they have reconciliation processes in place to identify and inform customers of transactions that may need to be resubmitted.

The wholesale operation sites that support the Fedwire Services are located in different geographic regions of the country to help ensure they can continue to support the Service even in the midst of a widespread disruption. Furthermore, the Reserve Banks split personnel with key recovery and crisis management responsibilities between these locations to help ensure critical operations can be conducted if a disruptive event affects a particular region. Fully trained personnel capable of opening and closing the applications that support the Fedwire Services are located in each of the three separate locations around the country. These personnel routinely provide production support to help ensure their skills remain current.

CONTINGENCY TESTING

Several alternate-site recovery tests are conducted per year for the Fedwire Services. In addition, once a year, the Reserve Banks conduct a third-site test in which core applications are failed over to the backup data center.

Certain large Fedwire Services participants are required to participate in at least two of these contingency tests per year; at least one of these tests must be conducted from the participants' backup processing sites. During the contingency tests, participants test their ability to reconcile and resume processing of their transactions following a Fedwire Funds Service or Fedwire Securities Service application recovery event. The Federal Reserve Banks also coordinates the schedule of these tests so they may occur when other FMI's are conducting similar contingency tests.

Furthermore, full cross-site processing redundancy, including by rotating wholesale service operations

between the primary data centers for production processing, are conducted multiple times a year. The Reserve Banks also coordinate and participate in tabletop exercises to test resiliency procedures. Such tests help to identify risks the Fedwire Services face and pose to others under these scenarios, and the Reserve Banks use that knowledge to help improve Fedwire resiliency.

Lastly, the Reserve Banks have taken a number of steps to minimize the likelihood that an event at one of their locations will affect the operation of the Fedwire Services. For example, Reserve Banks routinely test their own physical security, evacuation and emergency notification plans, smoke-detection systems and fire extinguishers, and uninterruptible power supplies. They also have in place procedures to mitigate the impact of a reduction in staff across multiple locations in a pandemic situation. Specifically, they have cross-trained staff so that they can continue to operate critical activities effectively in reduced-staff scenarios.

Fedwire customers may contact their designated Wholesale Operations Site for additional information.

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