



Information Security

Security is foundational to the FedNow Service and the Federal Reserve Banks have designed the service to protect data at each step, aligning with industry best practices.

Key security measures in place.

Digital signatures

- The FedNow Service requires messages exchanged with participants to be cryptographically signed to verify the integrity and authenticity of messages.

Data encryption and tokenization

- Data in the FedNow Service environment is encrypted in transit and at rest.
- Certain sensitive data is tokenized.

Authentication and authorization

- All connectivity into the FedNow Service is mutually authenticated.
- User interface via FedLine® Solutions access is protected by multifactor authentication.
- Throughout the system, role-based access controls and separation of duties will enforce least privilege principles.



This section provides an overview of these security measures, including:

- **Operating Circular compliance**
- **Establishing physical and logical security system components**
- **Message signing and public/private key pairs**
- **Data encryption and authentication expectations**
- **Information access prerequisites**

Protecting the confidentiality, integrity and availability of data that the FedNow Service stores and processes is critical. That's why the Federal Reserve Banks have designed the service with an emphasis on security and resiliency. Data protections put in place are consistent with industry benchmarks set by organizations such as the National Institute of Standards and Technology (NIST).

Establishing and maintaining strong information security practices for the FedNow Service is a collaborative effort. In addition to implementing best practices in the design and processes of the service, the Federal Reserve Banks provide participating financial institutions (FIs) and their service providers information on security standards and requirements.

The Federal Reserve Banks also provide participants with specific requirements related to information security for the FedNow Service.

Operating Circular Compliance

All FedNow Service participating FIs and their service providers must comply with security obligations generally outlined in Operating Circular 8 and Operating Circular 5. These circulars include information about accessing Federal Reserve Financial Services and sending and receiving data.

FIs should consult their legal counsel for other applicable laws and regulations that may apply.

Participant System Security Framework

Because participants access the FedNow Service using FedLine® Solutions, they are expected to have an information security program for physical and logical system components. As part of the [FedLine Solutions Security and Resiliency Assurance Program](#), participants are expected to conduct and attest to the completion of an annual assessment of compliance with the Federal Reserve's FedLine security requirements.

Message Signing and Key Pairs

The FedNow Service uses message signatures as one of multiple layers of security controls to help verify the integrity and authenticity of messages sent and received through the service. Message signing occurs point-to-point (between the FedNow Service and participants) and not end-to-end between participants. All messages exchanged through the FedNow Service require a digital signature, which participating FIs, their service providers or the service can generate.

Participants or their service providers are required to use public/private key pairs to support digital message signing. During onboarding, participants receive tools and instructions on message signing, including details on how to create and manage a key pair.

Encryption and Authentication

FedNow data is encrypted at rest within the Federal Reserve Banks and in transit, requiring participants to manage multiple encryption keys and digital certificates. These requirements may differ based on several factors, including the connectivity method and features being leveraged. Credentials for the service are provisioned as part of the FedNow onboarding process.

Information Access

The FedNow Service is designing a new user interface via FedLine® Solutions for participants connecting to the service via certain FedLine Solutions. The FedNow interface leverages the FedLine Solutions authentication process to enable a consistent user experience.

This guide may and is likely to change from time to time, including as the Federal Reserve Banks obtain feedback from various stakeholders. The Readiness Guide is not an agreement with the Federal Reserve Banks and is not necessarily reflective of the final terms, operating procedures or other documentation for the FedNow Service.

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