



## Resilience of the FedACH® Service

The Federal Reserve Banks' Automated Clearing House service known as FedACH provides financial institutions and government agencies with the ability to exchange electronic payments through the ACH network. FedACH is used to convey a variety of electronic transactions including pre-authorized recurring payments such as payroll, corporate payments to vendors, benefit payments, insurance premiums, utility payments, converted or truncated checks, and corporate cash concentration. The Federal Reserve is the nation's largest ACH operator processing over 10.7 billion transactions in 2007.

The Federal Reserve System has a number of procedures in place to ensure resiliency of the FedACH application. These procedures are routinely tested to ensure timely resumption of operations of the FedACH application in the event of a regional or widespread disruption. We continue to evaluate and enhance the FedACH application and recovery procedures on an ongoing basis.

### **FedACH Data Centers**

Two data processing centers support the FedACH application. One center supports the primary processing environment and the second center serves as an active, "warm-site" backup facility. The two data processing centers are separately located to mitigate the effects of natural disasters and power and telecommunications outages. In addition, both data centers include various contingency features, such as redundant power feeds, environmental and emergency control systems, dual network operations centers, and dual customer service centers.

- ***FedACH On-site Recovery at the Primary Site***

The primary processing site for the FedACH application includes a high level of redundancy, whereby automatic recovery at the primary site is provided for most component failures.

- ***FedACH Remote Recovery at the Second Site***

The FedACH application transmits and applies transactions to a remote, redundant second site throughout the day. In addition, the Reserve Banks maintain computer hardware and software resources at the second site in a dedicated and active state for FedACH backup use. Should the primary production site or processing environment experience a serious problem or outage, the FedACH application can be operational at the backup site within four to six hours. Because of the batch-processing environment of the FedACH application, the recovery process would require each customer to reconcile the status of files sent or received.

- ***Data Center Operations Support***

Hardware and environmental software specialists are located at multiple sites, including each of the data processing centers that support FedACH. These specialists maintain and monitor the mainframe and distributed environments that support the FedACH application, manage environmental software upgrades, and diagnose and resolve data center problems.

Because data center operations are critical to supporting the FedACH application, staff at each of the data centers can immediately take over the other's processing environments if necessary. Staff operating at the data center for the primary FedACH processing environment is capable of remotely operating the secondary FedACH processing environment. Likewise, staff operating at the data center for the secondary FedACH processing environment is capable of remotely operating the primary FedACH processing environment.

## **FedACH Technical Support Personnel**

- ***FedACH Application Support***

The FedACH application is supported by a team of programmers, implementation, testing, business, and operations staff. Together they are responsible for supporting, and operating an efficient, accessible, and reliable ACH payments system. Because this staff is critical to the FedACH service availability and recovery, they have relocation capability to an offsite location.

The operations staff provides around the clock coverage, monitoring the application to ensure processing deadlines are met. This staff is located in two geographically separated locations. In the event of a disruption at one location, the staff at the alternate location can immediately monitor all FedACH file activity while the relocation to the offsite backup location commences.

- Alternate site support - There will be no disruption to application monitoring or customer support.
- Offsite backup – Operational within 4 hours of declared contingency.

- ***FedACH Central Operations Support***

Operations specialists are located at two separate Central Operations Support Sites. These specialists are responsible for responding to customer inquiries and requests, file monitoring, performing customer setup activities, and other operational tasks. The FedACH Central Operations Support Sites serve as alternate backup sites to each other. In the event of a disruption at one of the Central Operations Support Sites, the other Central Support Site can support all customers within five minutes of notification.

The FedACH Central Operations Support Sites also have offsite backup locations. In the event of a disruption at one of the Central Operations Support Sites, each backup location can be activated within 4 hours of a declared contingency.

## **FedACH Contingency Testing**

The Federal Reserve System invites customers with electronic communication connections to the FedACH service to participate in the FedACH application contingency tests. During the contingency tests, customers test their ability to reconcile and resume processing of their transactions following a FedACH application recovery simulation.