

**FEDERAL RESERVE BANK  
OF NEW YORK**

[ Circular No. **10424** ]  
January 9, 1991 ]

**ALL-ELECTRONIC ACH PROPOSAL**

**Comment Requested by March 27**

*To All Depository Institutions, and Others Concerned,  
in the Second Federal Reserve District:*

Following is the text of a statement issued by the Board of Governors of the Federal Reserve System:

The Federal Reserve Board has issued for public comment a proposal to require depository institutions that originate or receive commercial automated clearing house (ACH) transactions through the Federal Reserve Banks to establish electronic access to the Reserve Banks for ACH services.

Comments are due by March 27, 1991.

Specifically, the Board proposed that:

- beginning January 1, 1993, a per transaction surcharge on commercial ACH transactions be assessed on depository institutions using nonelectronic ACH deposit or delivery alternatives: and
- beginning July 1, 1993, commercial ACH services be provided only to those institutions that have electronic access to the Reserve Banks for ACH services.

In addition to these measures, the Board anticipates that ACH service fees pertaining to physical input or output media, including magnetic tapes, diskettes, or paper, will be increased significantly, beginning in 1992, to further encourage transition to electronic access alternatives.

The Federal Reserve will be able to significantly improve its ACH service by increasing the speed of delivery of ACH payments and reducing the risks associated with ACH transactions if the origination and receipt of all ACH transactions were electronic. These improvements cannot be achieved, however, if a portion of ACH endpoints continues to send and receive ACH transactions via nonelectronic media.

The Federal Reserve has encouraged users of its ACH service to access the service electronically and has offered a number of electronic access alternatives designed to meet the needs of depository institutions. Many depository institutions find these alternatives attractive and have readily converted to electronic access for ACH services.

However, the Board believes that an additional impetus will be necessary to complete the transition to a fully electronic ACH service so that all commercial ACH participants could benefit from the resulting service improvements.

Enclosed is a copy of the Board's proposal; additional, single copies may be obtained at this Bank (33 Liberty Street) in the Issues Division on the first floor, or by contacting our Circulars Division (Tel. No. 212-720-5215 or 5216). Comments thereon should be submitted by March 27, 1991, and may be sent to the Board, as indicated in the notice, or to Carol W. Barrett, Vice President, Electronic Payments Function of this Bank.

E. GERALD CORRIGAN,  
*President.*

## Text of All-Electronic ACH Proposal

FEDERAL RESERVE SYSTEM  
[Docket R-0718]  
Federal Reserve Bank Services

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Request for comment.

**SUMMARY:** The Federal Reserve would be able to significantly improve its automated clearing house (ACH) service by increasing the speed of the delivery of ACH payments and reducing the risks associated with ACH transactions if the origination and receipt of all ACH transactions were electronic. These improvements cannot be achieved, however, if a portion of ACH endpoints continues to send and receive ACH transactions via nonelectronic media. In the past, the Federal Reserve has encouraged users of its ACH service to access the service electronically and has offered a number of electronic access alternatives designed to meet the needs of depository institutions. Many depository institutions find these alternatives attractive and have readily converted to electronic access for ACH services. The Board believes that an additional impetus will be necessary to complete the transition to a fully electronic ACH service so that all commercial ACH participants could benefit from the resulting service improvements. Therefore, the Board is requesting comment on a proposal to require depository institutions that originate or receive commercial ACH transactions through the Federal Reserve Banks to establish electronic access to the Reserve Banks for ACH services. Specifically, the Board proposes that:

[Enc. Cir. No. 10424]

1. beginning January 1, 1993, a per transaction surcharge on commercial ACH transactions be assessed on depository institutions using nonelectronic ACH deposit or delivery alternatives; and
2. beginning July 1, 1993, commercial ACH services be provided only to those institutions that have electronic access to the Reserve Banks for ACH services.

In addition to these measures, the Board anticipates that ACH service fees pertaining to physical input or output media, including magnetic tapes, diskettes, or paper, will be increased significantly, beginning in 1992, to further encourage transition to electronic access alternatives.

The Board believes that this proposal would improve the efficiency of the ACH mechanism by ensuring timely posting of ACH payments to customer accounts and by allowing greater flexibility in ACH processing schedules, thus facilitating the use of the ACH for a broader range of payment applications. The proposal would enhance the integrity of the ACH mechanism by reducing the time lag inherent in ACH transactions, thereby reducing risk, as well as by providing greater security and improving contingency and disaster recovery capabilities.

**DATE:** Comments must be submitted on or before March 27, 1991.

**ADDRESS:** Comments, which should refer to Docket No. R-0718, may be mailed to the Board of Governors of the Federal Reserve System, 20th and C Streets, N.W., Washington, DC 20551, Attention: Mr. William W. Wiles, Secretary; or may be delivered

to Room B-2223 between 8:45 a.m. and 5:00 p.m. All comments received at the above address will be included in the public file and may be inspected in room B-1122 between 9:00 a.m. and 5:00 p.m. Monday through Friday.

**FOR FURTHER INFORMATION CONTACT:** Louise L. Roseman, Assistant Director (202/452-3874), or Gayle Brett, Manager (202/452-2934), Division of Federal Reserve Bank Operations and Payment Systems; for the hearing impaired only: Telecommunications Device for the Deaf, Dorothea Thompson (202/452-2077).

**SUPPLEMENTARY INFORMATION:**

BACKGROUND. The ACH is a value-dated electronic payments mechanism that supports both debit and credit payments. In ACH debit transactions, funds flow from the depository institution receiving the transaction to the institution originating the transaction. Typical debit payments include the collection of insurance premiums, mortgage and loan payments, consumer bill payments, point-of-sale transactions, and corporate cash concentration transactions. In ACH credit transactions, funds flow from the originating institution to the receiving institution. Typical ACH credit payments include direct deposit of payroll and corporate payments to contractors and vendors. In 1990, the Reserve Banks estimate that they will have processed approximately 470 million commercial debit transactions having a value of \$3.06 trillion and 400 million commercial credit transactions having a value of \$920 billion.

Unlike Fedwire, in which funds transfers are processed individually and settled immediately at the time of processing, ACH is a batch-processing system in which transactions are generally deposited at the Reserve Banks for processing one or two days before the settlement day. ACH transactions are processed and delivered to receiving institutions during one of two scheduled processing cycles: the day cycle and the night cycle.

Currently, approximately 8,300 (or 80 percent) of the 10,500 endpoints receiving commercial ACH services directly from the Reserve Banks do not have electronic data communications links with the Reserve Banks for ACH services. These nonelectronic endpoints receive ACH transactions using magnetic tape, diskette, or paper media. Some nonelectronic endpoints use messengers to deposit and pick up ACH output. Other nonelectronic endpoints, more remotely located, generally receive ACH output by Federal Reserve check courier or by mail.

Because of the additional time required to deliver ACH output to nonelectronic endpoints, ACH credit payment information necessary to update customers' accounts may not be available to some receiving institutions until after the opening of business on the settlement day (and these receiving institutions may not be able to determine with certainty the timing of delivery of ACH output). In addition, nonelectronic delivery restricts the Federal Reserve's ability to offer schedules for ACH deposit and distribution that better meet the needs of depository

institutions and their customers. The time between origination and settlement of a transfer is longer in the current environment than would be possible if all endpoints were electronic, thus making the ACH system unattractive for certain payment applications and increasing the risk in the system. Moreover, the level of security and the disaster recovery capability associated with nonelectronic receipt and delivery of ACH payments are lower than those associated with electronic transmission.

PROPOSAL TO IMPLEMENT AN ALL-ELECTRONIC ACH. The Board believes that the Federal Reserve could implement significant improvements to its ACH service if all participating institutions accessed the service electronically for the origination and receipt of ACH transactions. In general, these improvements cannot be achieved if a portion of ACH endpoints continue to send and receive ACH transactions via nonelectronic media. The Federal Reserve offers ACH participants a number of electronic access alternatives designed to meet the needs of depository institutions. If the benefits of an all-electronic ACH are to be realized within the next few years, however, the Board believes that the Federal Reserve will have to encourage more actively the development of an all-electronic ACH network.

The Monetary Control Act directs the Federal Reserve to consider, in its pricing principles, the provision of an adequate level of service nationwide. This provision relates not only to the availability of the service to all depository institutions,

but also to the level of service that is provided. The Board believes that the establishment of an all-electronic ACH is consistent with the Monetary Control Act and Federal Reserve policies concerning payment services in that it will enable the Federal Reserve to make major improvements to its ACH service.

The Reserve Banks have already taken steps to require electronic access for new commercial ACH participants. Beginning January 1, 1991, new ACH receiving endpoints (including endpoints that currently receive only ACH government transfers but begin to receive commercial transfers) will be required to receive ACH transactions from the Federal Reserve electronically; beginning July 1, 1991, new originating institutions will be required to send ACH transactions to the Federal Reserve electronically.

In order to complete the implementation of an all-electronic ACH network by July 1, 1993, the Board proposes that beginning January 1, 1993, a per transaction surcharge on commercial ACH transactions originated and received would be assessed on depository institutions using nonelectronic ACH deposit and delivery alternatives. The Board anticipates that the per transaction surcharge would likely increase ACH transaction fees by 50 to 100 percent. The Board also proposes that beginning July 1, 1993, commercial ACH services would be provided only to those institutions that have electronic access to the Reserve Banks for ACH services.

In addition to these measures, the Board anticipates that the ACH fees pertaining to the use of nonelectronic input or

output media would be increased by 50 to 100 percent, beginning January 1992, to further encourage all nonelectronic endpoints to convert to electronic access alternatives as soon as possible.

The Board believes that increasing the ACH non-automated input and output fees and assessing the per transaction surcharge would encourage many depository institutions to convert to electronic access in advance of the proposed mid-1993 deadline, and would thus result in a more orderly conversion to an all-electronic environment. The Board does not anticipate that these proposed fee increases, if implemented, will result in an overrecovery of the costs of providing ACH services.

The proposed program would apply only to institutions that originate or receive commercial ACH transactions. The Federal Reserve and the Department of the Treasury have held preliminary discussions regarding an all-electronic government ACH service. The Federal Reserve will work with Treasury to develop a program to encourage institutions that receive only government ACH transactions to convert promptly to electronic access.

BENEFITS OF AN ALL-ELECTRONIC ACH. In considering major service enhancements, the Federal Reserve evaluates the public benefits that would be derived. The Board believes that the establishment of an all-electronic ACH would facilitate the adoption of significant improvements in the ACH payments mechanism that would promote the efficiency and integrity of the



payments system. These benefits are consistent with the Federal Reserve's role in the payments system, as articulated in the Board's policy statement "The Federal Reserve in the Payments System." [55 FR 11648, March 29, 1990]

1. Timely delivery. One of the primary benefits of an all-electronic ACH would be to increase the speed with which ACH payments are delivered. This would ensure that all institutions, regardless of their volume or location, receive ACH output on a timely and consistent basis. Timely delivery of ACH payments is important to both originating and receiving depository institutions and their customers, because it enables receiving institutions to post the payments to their customers' accounts sooner and to provide prompter availability of funds, consistent with the objectives of the Expedited Funds Availability Act and ACH rules.<sup>1</sup> Currently, some institutions that receive ACH output by mail do not have sufficient time to process the payments and update their customers' accounts by settlement day. Even with courier delivery, transportation delays may cause untimely crediting of customers' accounts. Electronic delivery of ACH

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<sup>1</sup>Regulation CC (12 CFR 229.10(b)) requires that depository institutions make the proceeds of ACH payments available to their customers on the business day following the banking day the institution has received both payment in finally collected funds and the payment instructions. ACH rules require that depository institutions make the proceeds of ACH credit transactions available to customers on the settlement day; moreover, institutions are encouraged to make the proceeds of payroll transactions available at the opening of business on the settlement day.

payment information to all receiving institutions would assure ACH participants that the receiving institutions would receive the ACH payments in sufficient time to ensure prompt posting. This, in turn, would reduce customers' complaints regarding late posting and delayed availability of payroll and other credit transactions and would strengthen the confidence of both the beneficiary and the originating company in the use of the ACH mechanism.

2. More flexible processing schedules. An all-electronic ACH would enable the Reserve Banks to make significant improvements to their processing schedules. ACH processing schedules are currently constrained by the timing of the check courier dispatches, since the check couriers deliver ACH output to many receiving institutions. This constraint limits significantly the Federal Reserve's flexibility to modify the ACH service to better meet the needs of depository institutions and their customers. The elimination of the constraints of courier and mail delivery in an all-electronic environment will facilitate the establishment of later deposit deadlines for originating time-critical ACH payments, such as hourly wage payrolls, cash concentration, check truncation, and point-of-sale transactions. Such changes to the ACH processing schedule may facilitate the use of the ACH for a broader range of payment applications.

3. Reduced risk. Institutions in an all-electronic ACH environment would be able to reduce the risks associated with

ACH transfers because the time required from the deposit of ACH transactions at a Reserve Bank until the delivery of those transactions to receiving institutions would be reduced. If the commercial ACH service were all-electronic, originating institutions would no longer find it necessary to deposit ACH payroll and other credit payments (which frequently have a large aggregate value) at the Reserve Banks two days before the settlement day in order to facilitate the delivery of the transaction data to the receiving institutions in time to post to customers' accounts by the opening of business on the settlement day. Because an originating institution is obligated to settle for all credit items submitted to the Federal Reserve for processing, decreasing the time between the submission of credit items and settlement reduces its credit risk. More timely deposit and delivery of debit return item transactions through electronic transmission would also reduce credit risk to the originating depository institution and its customer, because the originating institution would receive the return item one or two days sooner than if it had been received by the Reserve Bank in paper form.

4. Higher level of security. An all-electronic ACH network would result in a higher level of security for all ACH payments. Article 4A of the Uniform Commercial Code (Section 4A-202(b)) allocates liability for an unauthorized transfer based on whether the receiving institution employed a commercially

reasonable security procedure.<sup>2</sup> The Reserve Banks currently offer data encryption and other security procedures to electronic endpoints to ensure the confidentiality of ACH transactions and the authenticity of the sender. These procedures provide a significantly higher level of security than for physical ACH deposit and delivery alternatives.

5. Improved contingency processing and disaster recovery capabilities. The recent power disruption in New York City's financial district and last year's earthquake in San Francisco have highlighted the need for reliable contingency processing and disaster recovery procedures for payment services. Electronic access to the ACH service would eliminate the delays associated with delivering physical input and output media to and from a remote site in a contingency processing or disaster recovery situation. A depository institution also could send payment file corrections to its Reserve Bank more quickly through electronic transmission than if physical delivery of the payment file were necessary, reducing the likelihood of a delay in normal processing, as well as in a contingency processing situation.

ELECTRONIC ACCESS ALTERNATIVES. The Federal Reserve currently offers depository institutions several alternatives to facilitate electronic access to the Reserve Banks for a variety

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<sup>2</sup>The revised ACH operating circular incorporates Article 4A provisions with respect to those ACH credit transfers that are subject to Article 4A.

of Federal Reserve services, including ACH. Different access alternatives are available to meet the needs of depository institutions, depending on their volume of transactions.

For the ACH service, medium- to high-volume institutions can use one of two computer-interface alternatives with dedicated leased-line communications links. The Reserve Banks can provide transmission ("bulk data") software that institutions interface with their host systems; alternatively, institutions or their vendors can develop software using the Federal Reserve's Computer Interface Protocol Specifications (CIPS) to customize their ACH processing systems to meet the needs of their operating environment.

Low- to medium-volume institutions can use an intelligent-terminal system that has been certified by the Federal Reserve. Depository institutions may use Reserve Bank-provided Fedline or vendor-supplied intelligent-terminal software. The Fedline software fully supports the ACH service, as well as other Federal Reserve services. The Federal Reserve assists depository institutions in identifying sources that offer reasonably priced equipment that is compatible with the Fedline software.

The Reserve Banks also recently introduced the FLASH-Light intelligent-terminal software product for low-volume institutions. FLASH-Light, which is a receive-only system, enables the Reserve Banks to transmit ACH output electronically in a format that allows the receiving institution to print the

ACH payment information. FLASH-Light also will be enhanced to provide Fedwire funds transfer advices of credit beginning the third quarter of 1991.

The Federal Reserve will continue to seek additional cost-effective electronic access alternatives that are consistent with the System's network and security standards. The following table lists the Federal Reserve's 1991 electronic access alternatives and associated fees.

**1991 ELECTRONIC ACCESS FEES**

Connection Fees

Dial - Receive Only (FLASH-Light)	\$30/Month
Dial - Full Service (Fedline)	\$65/Month
Multi-Drop Leased Line	\$300/Month
Dedicated Leased Line	\$700/Month
High Speed (>9.6 kbps)	Circuit Cost plus Overhead

Start-Up Fees

Installation/Training	
FLASH-Light	\$100
Fedline and Computer Interface	\$300
Encryption	Actual Cost
Certification of Non-Federal Reserve Software	\$0 to \$8,000

Vendors currently offer or are developing several electronic access products that conform to the System's network protocol and data security standards. These products may provide viable alternatives for nonelectronic endpoints using magnetic tapes for origination and receipt of ACH transactions and for electronic endpoints using electronic connections that do not conform to System communication protocol specifications, such as "datalink" or "dataline" connections.

To enable low-volume FLASH-Light users and institutions using third-party service providers to originate return item and

notification of change transactions, all Reserve Banks plan to offer a database service with telephone voice-response access by December 31, 1992. (Several districts currently offer this service.) The service would create the return item or notification of change transaction from the information about the originated transaction that is stored on a database and additional information that the depository institution keys into a touch-tone telephone. The fee for this service currently ranges from \$1.25 to \$2.00 per return item, which is higher than the fee for an electronically originated return item transaction but less than the fee the Reserve Banks charge for converting a paper return item to an electronic transaction. The Reserve Banks would continue to accept for processing paper return item and notification of change transactions only in instances where technical problems or missing forward transaction information preclude the use of the database service to generate the return item or notification of change transaction.

In lieu of establishing an electronic connection directly with the Federal Reserve, depository institutions may access the Federal Reserve's ACH services through a correspondent institution or other service provider that has established an appropriate electronic connection with the Federal Reserve. Where a correspondent or other service provider acts as the sending and/or receiving point for a participating depository institution, it is deemed the agent for the participating institution. In order to achieve the full benefits of an

all-electronic ACH service, institutions that choose to receive their ACH payments through a correspondent or other service provider are encouraged to arrange for delivery of the payments from the service provider in a manner that ensures timely receipt by the institution.<sup>3</sup>

The proposed conversion to an all-electronic ACH should provide depository institutions or their service providers ample time to modify their automated systems and adjust their operations to the new requirement. Nonelectronic endpoints should allow sufficient lead-time when requesting electronic access to provide for ordering equipment, testing, and training their staffs. Therefore, nonelectronic endpoints should schedule their conversion to electronic access by the end of the third quarter of 1991 in order to avoid the higher nonelectronic input and output fees, and not later than the end of the third quarter of 1992 in order to avoid the transaction surcharge.

The Board recognizes that this proposal will require an initial investment in equipment and staff training and may

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<sup>3</sup>A receiving institution is deemed to have received its ACH transfers when the transfers are received by that institution's correspondent bank or other service provider, for the purposes of when the receiving institution must make the funds available for withdrawal under Regulation CC. In addition, under Regulation E (12 CFR 205.10(a)(2)) the receiving institution must credit the beneficiary's account for a preauthorized credit as of the day the funds for the transfer are received. Thus, the receiving institution should ensure that, if it receives its ACH transfers through a correspondent or other service provider, it receives the transfers on a timely basis.



increase ongoing operating expenses for certain ACH participants. This additional cost may cause some participants to reevaluate their participation in the ACH mechanism. While the Board is sensitive to this concern, it believes that the benefits of an all-electronic ACH mechanism to all ACH participants justify the additional cost that will be incurred.

A fully electronic ACH service complements other major ACH initiatives that the Federal Reserve is pursuing to improve the efficiency of the ACH mechanism. The Reserve Banks plan to further consolidate their ACH operations and to implement a new production system for ACH services. These initiatives should enable the Federal Reserve to reduce its overall cost of providing ACH services in the longer term, which will reduce the cost to ACH participants as well.

The Board is requesting comment on all aspects of this proposal. The Board specifically requests comment on the following:

1. Would existing nonelectronic endpoints encounter any significant obstacles that would prevent them from converting to electronic access by July 1993?
2. Would increasing ACH nonelectronic input and output fees and assessing a per transaction surcharge be effective in facilitating the transition of both high-volume and low-volume institutions to an all-electronic commercial ACH service by mid-1993? Should the per transaction surcharge be subject to a minimum surcharge level (of, for example,

\$100 per month) to provide further incentive to low-volume institutions to establish an electronic connection prior to the mid-1993 deadline?

3. Could an all-electronic commercial ACH service be achieved by mid-1993 by pricing incentives alone, that is, without a mandatory deadline?
4. Do the electronic access alternatives provided by the Reserve Banks and commercial vendors address the needs of nonelectronic ACH participants? If not, what additional electronic access alternatives that meet Federal Reserve standards for reliability and security should be considered for future development?
5. Are there additional (or alternative) initiatives that could be taken that would provide for an all-electronic ACH by mid-1993?

COMPETITIVE IMPACT ANALYSIS. In March 1990, the Board formalized its procedures for assessing the competitive impact of changes that have a substantial effect on the payments system participants. The Board believes that this proposal will have no adverse effect on the ability of other service providers to compete effectively with the Federal Reserve in providing similar services. The New York Automated Clearing House, which provides commercial ACH services in the Second District, currently requires that its members send and receive ACH transactions through electronic connections. Other service providers predominantly serve ACH participants through electronic access

alternatives. The Board anticipates that correspondent institutions and other ACH service providers generally would support the Federal Reserve's efforts to establish an all-electronic ACH service.

By order of the Board of Governors of the Federal Reserve System, December 19, 1990.

(signed) William W. Wiles

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William W. Wiles  
Secretary