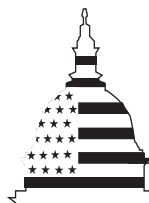


July 2000

# AUTOMATED TELLER MACHINES

## Issues Related to Real-time Fee Disclosure



G A O

Accountability \* Integrity \* Reliability

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G A O

Accountability \* Integrity \* Reliability

United States General Accounting Office  
Washington, D.C. 20548

General Government Division

B-284431

July 11, 2000

The Honorable Phil Gramm  
Chairman  
The Honorable Paul Sarbanes  
Ranking Minority Member  
Committee on Banking, Housing and Urban Affairs  
United States Senate

The Honorable James A. Leach  
Chairman  
The Honorable John J. LaFalce  
Ranking Minority Member  
Committee on Banking and Financial Services  
House of Representatives

As required by the Gramm-Leach-Bliley Act of 1999,<sup>1</sup> we explored the feasibility of providing real-time disclosure of all fees that would be charged to automated teller machine (ATM) cardholders during electronic fund transfers conducted at ATMs.<sup>2</sup> A myriad of fees are associated with ATM transactions, including fees charged to the card-issuing financial institution and fees levied on the customer, either on a per-transaction basis or a monthly or annual basis. Customers are rarely charged a transaction fee when they use the ATMs of their card-issuing financial institution.<sup>3</sup> However, cardholders may be charged both a surcharge<sup>4</sup> and a “foreign” ATM fee<sup>5</sup> when they use an ATM that is not owned by the card-

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<sup>1</sup>P. L. No. 106-102, § 704 (1999).

<sup>2</sup>In this report, “real-time” means the moment at which a cardholder performs an ATM transaction. “Electronic fund transfer” activities that can be performed at ATMs include making deposits or withdrawals of funds and transferring funds from one account to another. Credit card advances are not electronic fund transfers but are, instead, extensions of credit. Therefore, they are not included in the scope of this study.

<sup>3</sup>Any fee assessed by a card-issuing financial institution on its customers when they use their financial institution’s ATMs is known in the industry as an “own-bank ATM fee” levied in an “on us” transaction.

<sup>4</sup>ATM surcharges, which are assessed by the ATM owner when noncustomers use their ATMs, are already required by law to be disclosed at the ATM. No similar requirement currently exists for foreign or own-bank ATM fees, which are levied by the card-issuing financial institution. Information on the surcharge fee amount, charged by the ATM owner and now disclosed to customers at the time of an ATM transaction, is stored at the ATM machine or the computer that operates it.

<sup>5</sup> Any fee assessed by a card-issuing financial institution on its customers when they use an ATM that is not owned by their bank is known in the industry as a “foreign fee” levied in an “on-them” transaction.

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issuing financial institution. In this report, these financial institutions, which include banks, thrifts, and credit unions, will be referred to as “banks” except where distinctions among these institutions are relevant.

As agreed with your offices, we focused our study on the real-time disclosure of foreign ATM fees levied by the card-issuing bank. Specifically, we obtained and analyzed information on (1) alterations to the ATM system that would be needed to support real-time foreign fee disclosure; (2) estimated costs and time frames associated with implementing real-time foreign fee disclosure; (3) potential competitive impact on ATM industry participants, defined to include various sized banks, ATM networks, ATM owners, and third-party processors; (4) potential impact on consumers; and (5) alternatives to real-time foreign fee disclosure.

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## Results in Brief

According to ATM industry representatives, real-time foreign ATM fee disclosure is technically feasible but would require extensive restructuring by all major participants in the ATM industry.<sup>6</sup> They said that extensive alterations to the current infrastructure—hardware and software systems—would be needed to support both the real-time foreign fee disclosure scenarios we examined in detail and more simplified real-time disclosure options. Currently, the U.S. ATM system is built on technology that allows an ATM cash withdrawal or other electronic fund transfer activity to be performed with a single message transmission for authorization and settlement of the transaction.<sup>7</sup> To provide real-time foreign ATM fee disclosure, the ATM industry could adopt one of several possible disclosure scenarios. Each of these scenarios would require card-issuing banks, networks, and ATM owners to revise and upgrade their hardware and software, in addition to modifying functions such as message processing, calculation of ATM fees, and stand-in processing.

Most of the industry representatives we contacted indicated that there were too many unknowns, including dependencies on other industry participants, for them to estimate with any precision the costs or timeframes involved with implementing real-time ATM fee disclosure. The cost estimates, for software and hardware changes alone, that we were able to obtain from some industry representatives ranged from \$5 million for a large third-party processor to tens of millions of dollars for large

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<sup>6</sup>Discussions on infrastructure changes and cost estimates, as they relate to real-time ATM foreign fee disclosure, also apply to the real-time disclosure of own-bank ATM fees.

<sup>7</sup>In banking transactions, settlement is the process of recording the debit and credit positions of the parties involved in a transfer of funds.

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banks. Time frame estimates ranged from 2 to 3 years to implement real-time ATM fee disclosure.

Banks, networks, and ATM owners of all sizes would likely incur significant fixed costs to install, test, and certify the hardware and software that would be needed to implement real-time ATM fee disclosure. However, some industry representatives suggested that the burden of real-time fee disclosure might fall more heavily on smaller firms and organizations. They suggested that economies of scale would give larger banks, networks, and ATM owners an advantage. Representatives of smaller banks predicted that they would be hurt if some larger banks chose to minimize the costs of disclosure by restricting access to their ATMs to their own cardholders. Finally, representatives of independent service organizations (ISO) suggested that the added costs of real-time disclosure could induce some ATM operators to shut down operations at some locations.

The potential consequences of foreign fee disclosure may offset consumer benefits. If consumers are unaware of foreign fees for ATM transactions or dissatisfied with the way they are disclosed, then they might benefit from real-time fee disclosure. However, the banking regulators reported that they received very few complaints on the disclosure of ATM fees, which suggests that cardholders were not dissatisfied with the disclosure they received from their banks. In addition, the consumer groups we interviewed did not advocate real-time disclosure of foreign fees; instead, their concerns focused on the fairness of the surcharge, which we did not address in our review. Further, industry surveys suggested that only a minority of ATM cardholders pay foreign fees and that the number of foreign ATM transactions they make is declining.<sup>8</sup> At the same time, industry representatives suggested that requiring real-time foreign fee disclosure could produce unintended consequences, which we believe could, at least in part, offset any potential benefits of disclosure.

Some ATM industry representatives suggested other options for enhanced disclosure of foreign fees that would be less costly and burdensome than real-time disclosure at the ATM. For example, they suggested augmenting the existing required written disclosure with more prominent written reminders in monthly statements or modifying the general statement on the ATM screen that a consumer's bank may levy a fee in addition to the surcharge amount to include an average or range of the foreign fee amount.

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<sup>8</sup> Debit Card Directory 2000 Edition, Faulkner and Gray, p. 9.

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Representatives of the ATM industry who reviewed a draft of this report agreed, overall, with the information presented. We added some information or clarified some points based on their suggestions. Their comments and our responses are summarized on pages 35 to 36. We are not making recommendations in this report.

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## Background

ATM transactions involve several different participants or entities beyond the cardholder and the card-issuing bank. In this report, the term “ATM industry” is used to refer to card-issuing banks, ATM owners, ATM networks, and third-party processors. Other ATM industry participants or components that were not the main focus of our study include ATM manufacturers, software providers, and armored car companies.

ATM cards are issued by banks, thrifts, and credit unions. Card-issuing banks are not required to own or operate ATMs. For example, some credit unions issue ATM cards to their customers without installing and maintaining their own ATMs and, instead, rely on the ATMs owned by other institutions. Nevertheless, most banks own and operate ATMs. The card-issuing banks, or their third-party processors, maintain a database of the cardholder account information (e.g., personal identification numbers (PIN), usage limits, account status, etc.) that specifies the accounts that can be accessed via the ATM card.

ATM networks allow the ATM cards of member institutions to be used at the ATMs of another member institution. ATM networks, which can be proprietary, regional, or national, consist of a network switch—a device that determines over what path to send a unit of data—and a set of prescribed operating rules that are used by all of the member institutions. ATM networks route transactions between the ATMs and the card-issuing banks through the network switch and act as a clearinghouse to settle those transactions. Regional networks connect the card-issuing bank with ATM owners that are located in a particular region of the United States. National networks connect the card-issuing bank with ATM owners that are located throughout the United States and outside of the United States to route and then initiate settlement of cross-territory ATM transactions. These networks perform hundreds of millions of transactions monthly.

ATM owners can be banks, merchants, or ISOs—companies that specialize in offering ATMs. In 1999, there were about 227,000 ATMs in the United States.<sup>9</sup> According to some of the industry representatives, banks currently own about 60 percent of the ATMs and merchants, and ISOs own the

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<sup>9</sup> Bank Network News data as of March 31, 1999.

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remaining balance. Banks, thrifts, and credit unions own and operate the ATMs on their premises and at off-premise locations and sites, such as supermarkets, gasoline stations, and airports. Merchants, such as convenience stores and retailers, may own the ATMs on their premises or contract with banks or ISOs to place ATMs on their premises. ISOs may own their ATMs as well as provide ATMs under contract to both banks and merchants (for which the ISOs provide processing, either directly or indirectly).

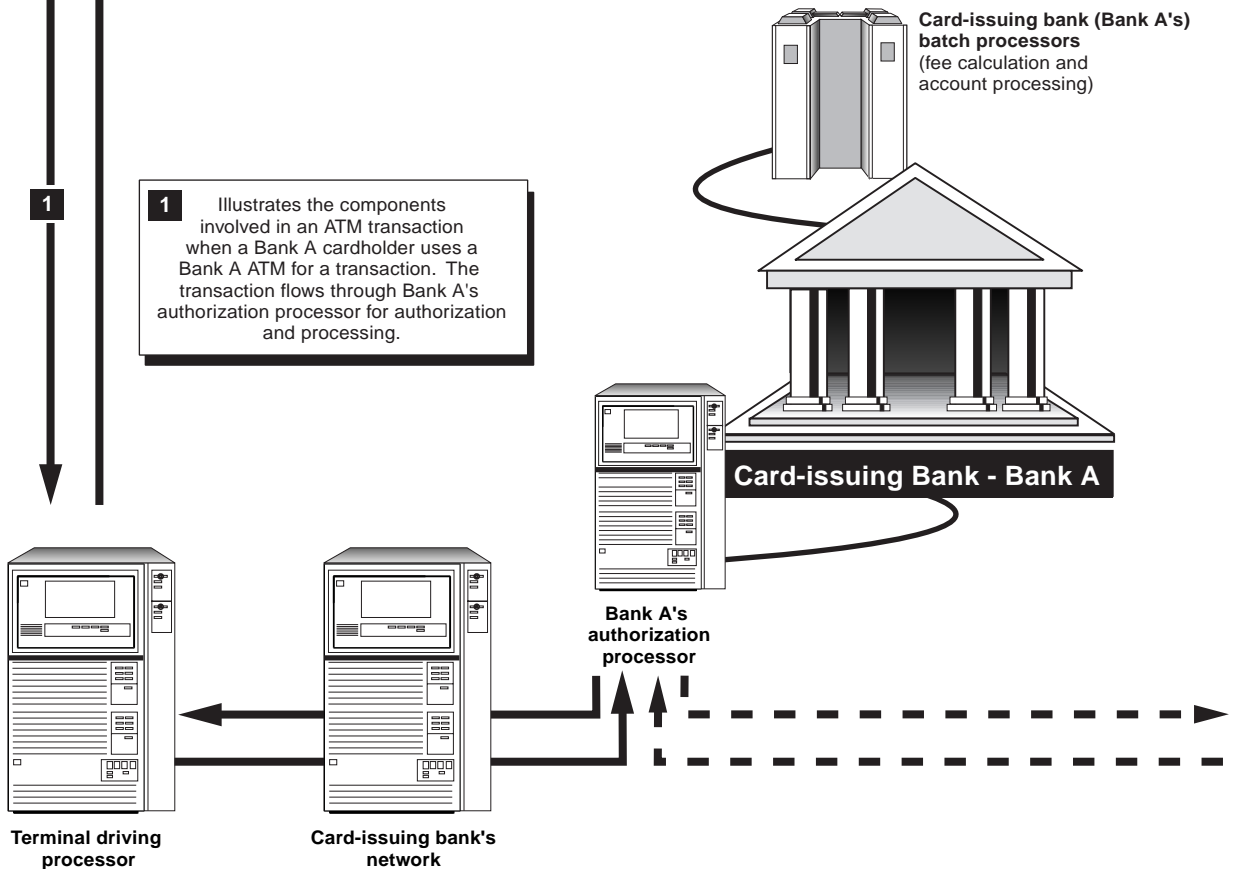
Figure 1 depicts the relationship among a card-issuing bank, a regional or national network, and an ATM owner in ATM transactions.

Figure 1: Relationship Among the ATM Industry Participants

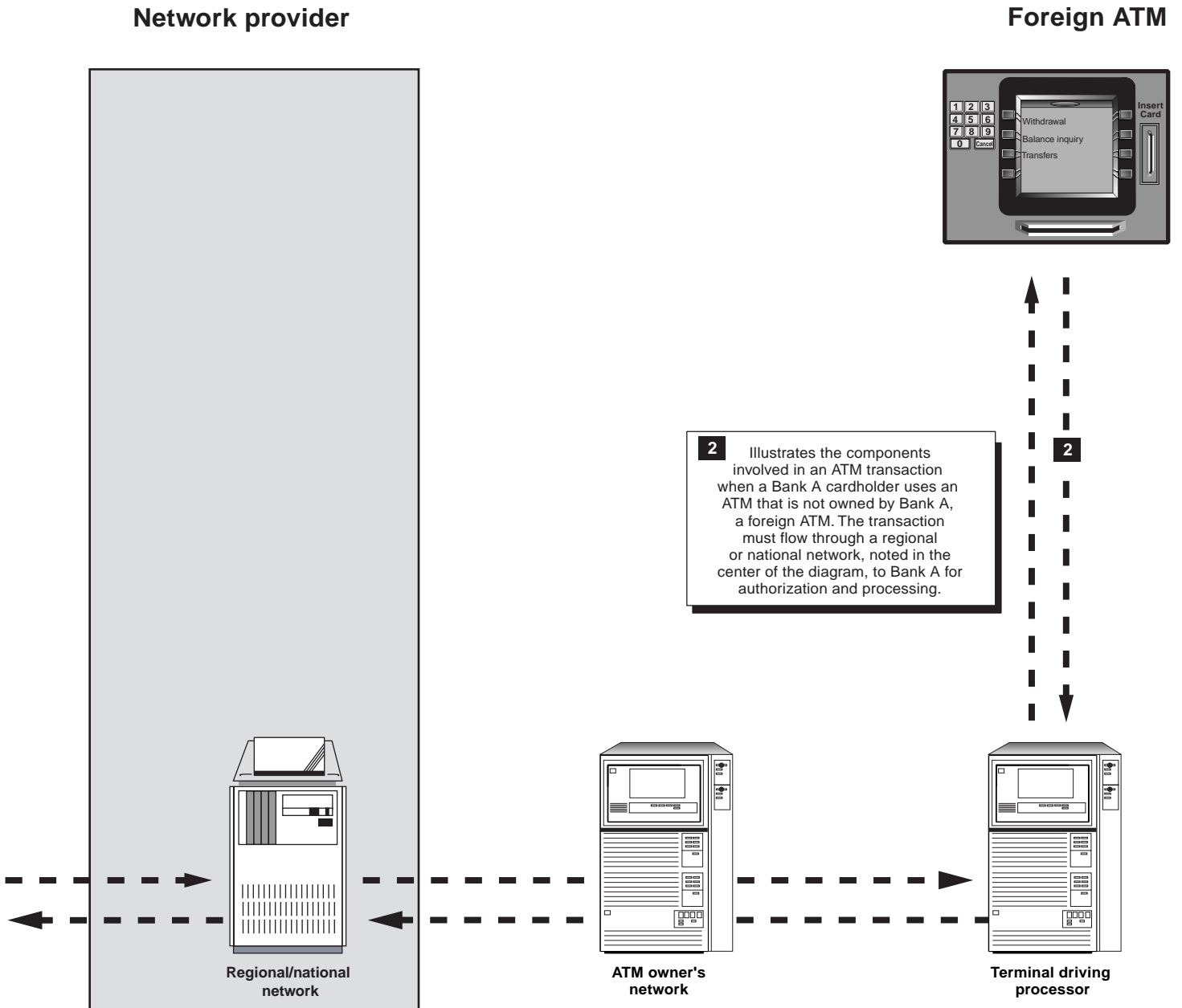
**Card-issuing Bank  
(Bank A ATM)**



**1** Illustrates the components involved in an ATM transaction when a Bank A cardholder uses a Bank A ATM for a transaction. The transaction flows through Bank A's authorization processor for authorization and processing.







Source: GAO analysis of industry data.

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While many banks perform their own processing, many rely on third-party processors. Third-party processors, which can be a bank or nonbank entity, perform various data processing services for ATM participants. The types of services performed by third-party processors can vary greatly, depending on the needs of the card-issuing bank, ATM owner, or network. For example, third-party processors can provide transaction processing and data processing. Transaction processing involves switching and routing transaction information to and from relevant parties. Data processing includes billing, account balancing, clearing, and settlement of ATM transactions. Third-party processors also can act as the “driver” or operator of an ATM. That is, they may maintain the software at the terminal or the communication links. ISOs also can serve as third-party processors.

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## Current Fee Structure of the ATM Market

As shown in table 1, a cardholder and the card-issuing bank may be required to pay several fees to perform an ATM transaction. The amount of the fee a cardholder must pay depends upon the type of banking relationship that the cardholder has with the card-issuing bank and who owns the ATM used for the transaction. Fees may also vary according to the type of ATM transaction performed. A small percentage of financial institutions, estimated to be from 1 to 7 percent of banks and thrifts, charged their cardholders a fee for transactions performed at their own ATMs in 1998.<sup>10</sup> A larger percentage of financial institutions, estimated to be from 61 to 78 percent of banks and thrifts, offered at least one account type that charged the cardholder a foreign fee when the transaction is performed at an ATM not owned by the bank in 1998.<sup>11</sup> ATM owners may also charge a surcharge or “convenience” fee for transactions performed at their ATMs with cards that they did not issue. Thus, cardholders that use ATMs that are not owned by their card-issuing bank may pay two fees—a foreign fee and a surcharge.

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<sup>10</sup> Annual Report to the Congress on Retail Fees and Services of Depository Institutions, June 1999, Federal Reserve System. Data was reported by institution type (bank versus thrift) and by the size of the institution (small, medium, and large).

<sup>11</sup> *Ibid.*

**Table 1: Types of ATM Fees Levied on the Card-Issuing Bank and Cardholder**

| Type of fee                     | Who pays fee?     | Who receives fee? | Who sets fee?     | Description   |
|---------------------------------|-------------------|-------------------|-------------------|---|
| Own-bank ATM fee <sup>a</sup>   | Cardholder        | Card-issuing bank | Card-issuing bank | Fee paid to the card-issuing bank by the cardholder when using card-issuing bank's ATM.                   |
| Foreign fee <sup>b</sup>        | Cardholder        | Card-issuing bank | Card-issuing bank | Fee paid to the card-issuing bank by the cardholder when using an ATM not owned by the card-issuing bank. |
| Surcharge <sup>b</sup>          | Cardholder        | ATM owner         | ATM owner         | Fee paid to the ATM owner by the cardholder using cards not issued by the ATM owner.                      |
| Network membership <sup>c</sup> | Card-issuing bank | Network           | Network           | Fee paid to the networks for the costs of operations, advertising, and other promotional expenses.        |
| Switch <sup>b</sup>             | Card-issuing bank | Network           | Network           | Fee paid to the networks for routing transaction information over the network.                            |
| Interchange <sup>b</sup>        | Card-issuing bank | ATM owner         | Network           | Fee paid to the ATM owner for the costs of deploying and maintaining shared ATMs.                         |

<sup>a</sup>Own-bank ATM fees may be set on an annual, quarterly, monthly, or per-transaction basis.

<sup>b</sup>Fee is paid on a per-transaction basis.

<sup>c</sup>Membership fees are usually paid on a monthly or annual basis.

Source: GAO based on Congressional Budget Office and Federal Reserve System data.

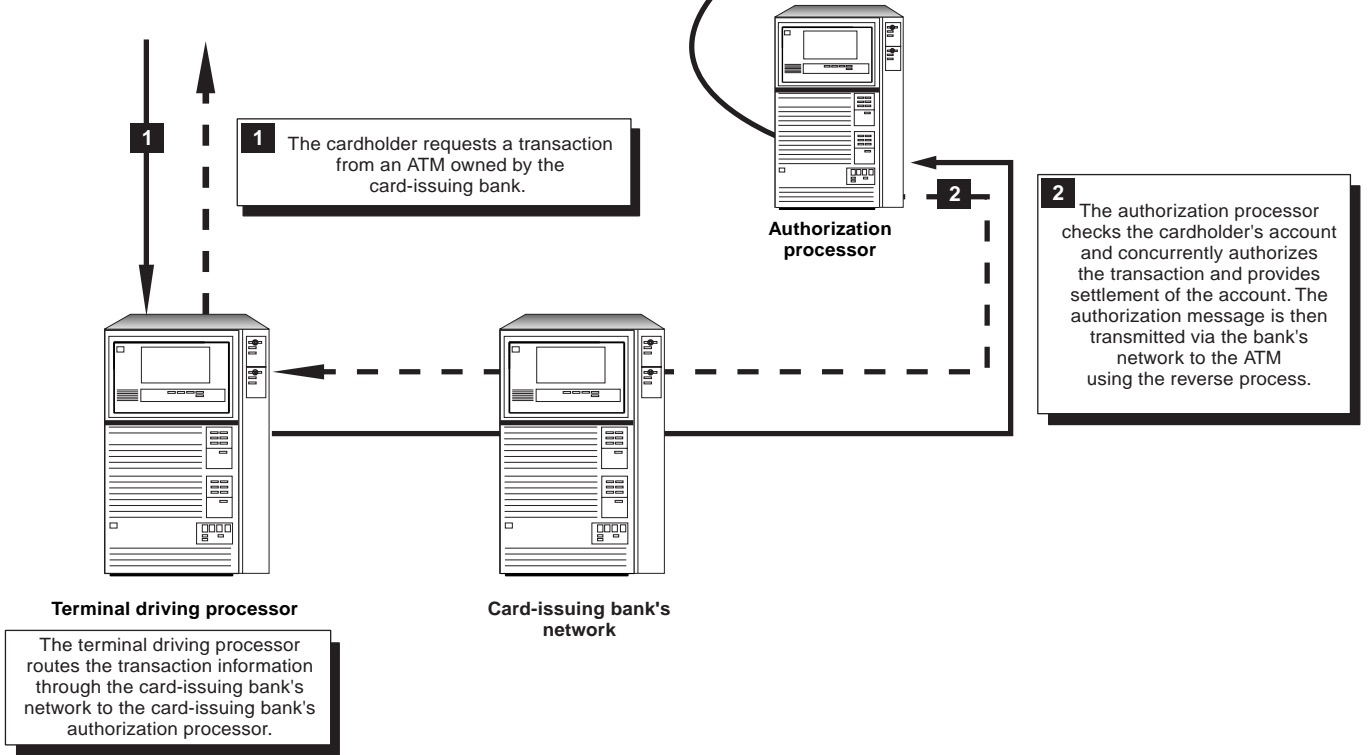
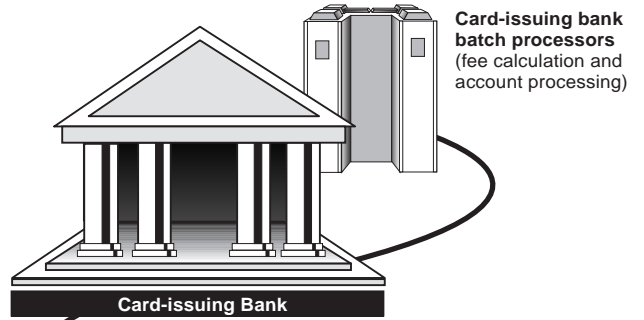
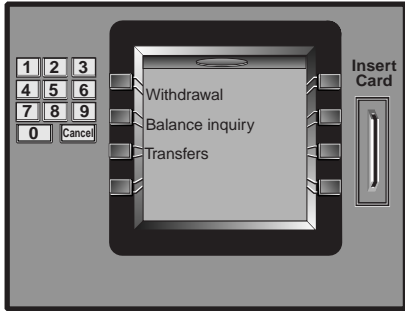
The card-issuing bank also incurs several fees to process ATM transactions. The card-issuing bank may pay a “membership” fee to each of the networks that routes their transactions. (Nonbank ATM owners pay a “sponsorship” fee to a financial institution to become member of a network.) In addition, these networks charge the card-issuing bank a “switch” fee for each ATM transaction they process. The card-issuing bank also pays an “interchange” fee to the owner of the ATM that processed the cardholder’s transaction.

## Typical ATM Transaction Flows

Figure 2 is a simplified illustration of the transaction flow of an electronic fund transfer activity at an ATM owned by the card-issuing bank. Most ATM cardholders conduct transactions at ATMs owned by their card-issuing bank (referred to as on-us transactions). When the cardholder requests the transaction at the ATM, the terminal driving processor transmits the message through the bank’s network to the authorization processor. The authorization processor checks the cardholder’s account and concurrently provides authorization and settlement of the transaction. The authorization message is then transmitted to the ATM.

Figure 2: Transaction Flow Using ATMs Owned by the Card-Issuing Bank

**Card-issuing Bank  
(Bank A ATM)**



Source: GAO analysis of industry data.

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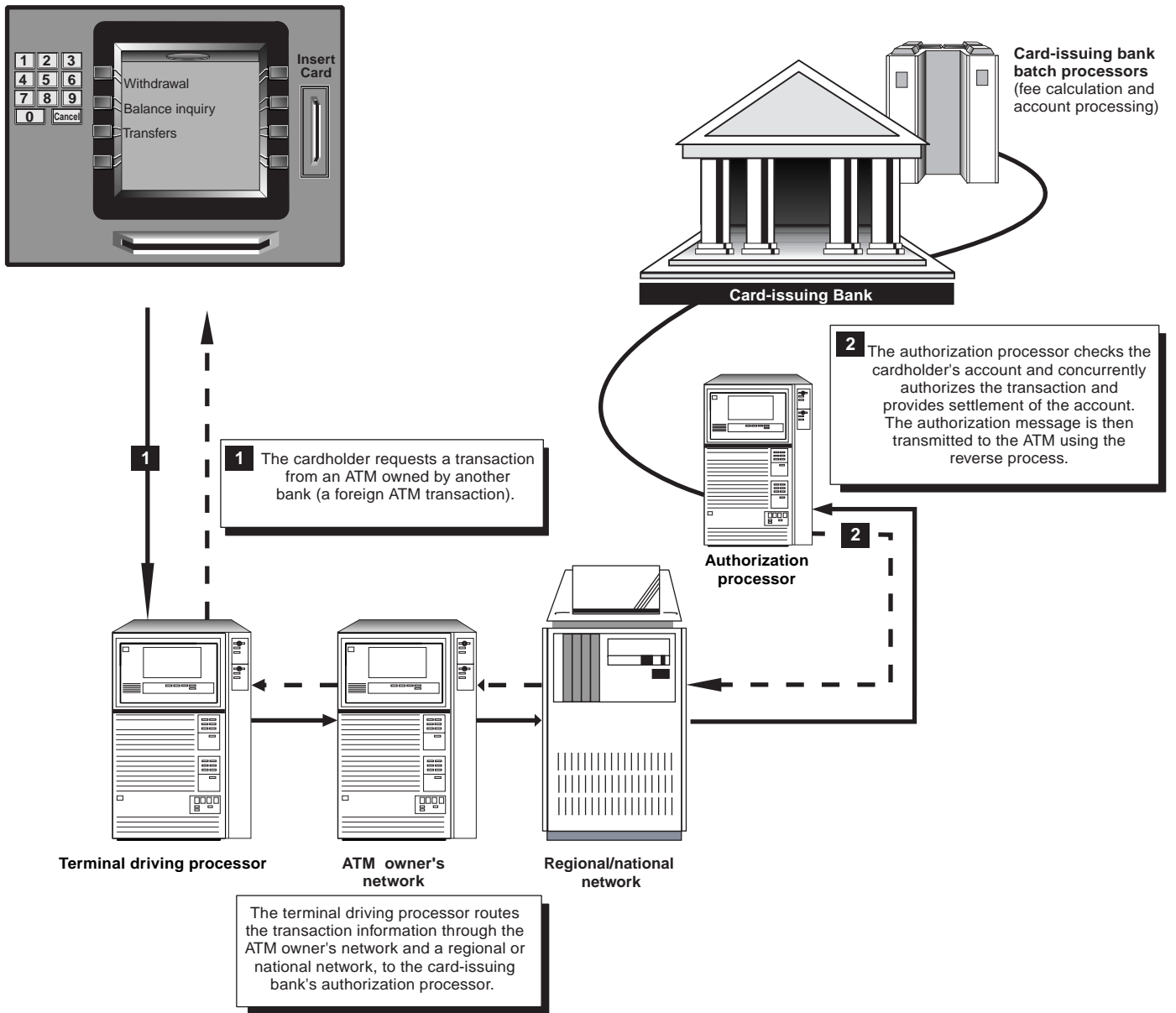
Figure 3 illustrates a simplified transaction flow for a cardholder performing an electronic fund transfer activity at an ATM that is not owned by the card-issuing bank (referred to as a foreign ATM transaction).<sup>12</sup> The cardholder requests the transaction at the ATM. The terminal driving processor routes the message through the ATM owner's network to a regional or national network. The message is then routed through the internal network of the cardholder's bank to the authorization processor. The authorization processor checks the cardholder's account, authorizes the transaction, and provides settlement of the account. The authorization message is then transmitted to the ATM via the bank's network, a regional or national network, the ATM owner's network, and the ATM's terminal driving processor to the ATM.

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<sup>12</sup>Foreign ATM transactions are also referred to as "on-them" transactions.

Figure 3: Transaction Flow at ATMs Not Owned by the Card-Issuing Bank

Foreign ATM



Source: GAO analysis of industry data.

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## Current Fee Disclosure Requirements

The Electronic Fund Transfer Act (EFTA),<sup>13</sup> which was amended by provisions of the Gramm-Leach-Bliley Act of 1999 (GLBA), is the federal statute that primarily governs the disclosure of ATM fees. The rules and regulations that implement EFTA's disclosure requirements are set forth in the Federal Reserve's Regulation E.<sup>14</sup> As shown in table 2, Regulation E requires a bank to provide initial and periodic disclosures that reflect the amount of fees assessed for an electronic fund transfer, such as a withdrawal at an ATM. Banks must provide disclosures required by Regulation E, including the amount of any fee associated with electronic fund transfers at an ATM, at the time a consumer signs up for an ATM card or before the first electronic fund transfer. Banks are to also provide a statement that includes the amount of any fees assessed for electronic funds transfer for each month in which at least one transfer has occurred and provide a quarterly statement if no transfer has occurred. In addition, Regulation E requires banks to deliver written notice at least 21 days before the effective date of any change in fees. The GLBA amendments cover the disclosure of fees imposed by ATM operators (i.e., surcharges), including those that are not banks. The act requires operators to post a sign on the machine and a message on the screen or the receipt that a fee will be charged and the amount of the fee. This sign must be posted before the customer is irrevocably committed to completing the transaction.<sup>15</sup> However, in the period November 12, 1999, the date of the enactment of GLBA, through December 31, 2004, this clause is not applied to ATMs that lack the technical capability to support the necessary on-screen or receipt-based disclosure.

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<sup>13</sup>15 U.S.C. §1693 et seq.

<sup>14</sup>12 C.F.R. §205.

<sup>15</sup>The Federal Reserve's Regulation E currently requires ATM owners to notify cardholders of any surcharge fees if the fee is included in the amount of transfer either by posting a sign at the ATM or on the terminal screen. Regulation E requires that cardholders be given the opportunity to cancel the transaction if the fee is displayed on the terminal screen. Representatives of the ATM networks stated that it is also a standard ATM network industry requirement that a notice of surcharge be displayed at the ATM.

**Table 2: ATM Fee Disclosure Requirements**

| <b>Statute</b>                 | <b>Foreign fee</b>  | <b>Surcharge</b>   |
|--------------------------------|---|--|
| Regulation E                   | <p>Financial institutions are required to disclose fees:</p> <ul style="list-style-type: none"> <li>•at the time the consumer contracts for EFT service or before the first EFT is made, and</li> <li>•on a statement for each month in which at least one transfer occurs, or</li> <li>•on a quarterly statement if no transfers occur in 3 months.</li> </ul> <p>Financial institutions must provide written notice at least 21 days before effective date of any change in fees.</p> | <p>Financial institutions that own ATMs are required to:</p> <ul style="list-style-type: none"> <li>• notify the consumer of any surcharges if the fee is included in the amount of transfer by providing a receipt and by posting a sign at the ATM or on the terminal screen, and</li> <li>•give the consumer the opportunity to cancel the transaction if the fee is displayed on the terminal screen.</li> </ul> |
| Gramm-Leach-Bliley Act of 1999 | Not applicable  | <p>All ATM owners must notify the consumer of any surcharges by posting a notice</p> <ul style="list-style-type: none"> <li>•on the ATM, and on the screen or on a receipt, and</li> <li>•before the consumer is irrevocably committed to completing the transaction</li> </ul>  |

Note: Regarding the surcharge, the regulation generally provides for exceptions to these requirements for transfers initiated outside of the United States.

Source: GAO analysis of Regulation E (12 C.F.R.§205) and Gramm-Leach-Bliley Act of 1999 (P. L. No. 106-102, §§702-03 (1999)).

## Scope and Methodology

To obtain and analyze information on alterations to the ATM system that would be needed to support real-time ATM fee disclosure, we obtained documents from and interviewed representatives of selected card-issuing banks, ATM owners, ATM networks, third-party processors, and relevant trade associations. In preparing interview topics and questions, we drew on the expertise of our specialists in research design, computer systems, and economics. Our discussions focused on the technical feasibility of the current ATM systems to support real-time fee disclosure for electronic fund transfer activities, as defined in the EFTA and on U. S. ATM operations only.

After gaining an understanding of the current ATM system, our computer system analysts developed several real-time fee disclosure scenarios. These scenarios included disclosure of fees on a real-time basis, disclosure of generic and customized card-issuing bank fee schedules, and disclosure



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of a flat-rate foreign fee. We presented these disclosure scenarios to selected industry representatives and obtained their views regarding the feasibility and associated technical requirements of these disclosure scenarios. In reporting our results, we focused on the real-time fee disclosure scenario that would most closely fulfill the disclosure contemplated by the legislative mandate and discussed with congressional contacts. This real-time fee disclosure scenario provides for the disclosure of the amount of fees that would be charged to a consumer at the point of the ATM transaction and gives the consumer a chance to accept or reject the fee before completing the transaction.

Our congressional contacts agreed that the scope and complexity of topics to be discussed precluded our selection of a statistically valid random sample of card-issuing banks and ATM owners. Instead we selected these entities by asset size; type (bank, thrift, credit union, nonbank ATM owners); number of ATMs; and primary region of operation. We discussed the technological issues of real-time fee disclosure with 10 banks and two nonbank ATM owners. The asset size of these banks ranged from \$620 million to about \$572 billion; and combined, they own approximately 24,000 of the 227,000 ATMs. In addition, we interviewed representatives from two national ATM networks and four regional networks. We also met with two of the larger ATM third-party processors in the United States.

We supplemented information obtained from the above selected entities with industry viewpoints obtained during meetings conducted with five major trade associations representing segments of the ATM industry. These meetings included representatives of several banks and networks mentioned earlier. The five trade associations were

- American Bankers Association, a national trade association representing financial institutions of all sizes;
- Consumer Bankers Association, a national trade association representing retail banking interests of financial institutions;
- Electronic Funds Transfer Association, an inter-industry trade association dedicated to the advancement of electronic payment systems and commerce;
- Independent Community Bankers Association, a national trade association representing community banks; and
- Network Executives Council, a group affiliated with the Electronic Funds Transfer Association, that represents regional ATM networks.

To obtain estimates of the costs and time frames associated with implementing and operating real-time ATM fee disclosure, we requested

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and obtained information from the industry representatives that we contacted. Specifically, we asked that the representatives provide us with estimates of the cost to their firms to provide and support real-time ATM fee disclosure and the needed implementation time frames under the above-mentioned disclosure scenarios. As agreed with congressional contacts, we did not construct our own independent estimates of the costs and time frames. We also did not verify the accuracy of the data provided by the industry representatives regarding costs and time frames.

To obtain information on the potential competitive impact on banks and the other components of the ATM industry, we obtained and analyzed available studies of economic factors associated with ATM fees and usage. In addition, we discussed this issue in our meetings with representatives from banks and other ATM owners, ATM networks, third-party processors, trade associations, and other independent sources, including the federal banking regulators, the Congressional Budget Office, and the Antitrust Division of the U.S. Department of Justice.

To obtain information on the potential consumer impact of implementing real-time ATM fee disclosure, we reviewed relevant federal laws and regulations governing electronic fund transfer activity and consumer protection. We also interviewed officials from (1) the federal banking regulatory agencies (Federal Reserve System, Office of Comptroller of the Currency, Federal Deposit Insurance Corporation, Office of Thrift Supervision, and National Credit Union Association); (2) representatives of consumer groups that have been active on ATM fee issues (Public Interest Research Group and Consumers Union); (3) the ATM industry; (4) trade associations; and (5) other independent sources.

To identify other alternatives to real-time ATM fee disclosure, we discussed this issue during our meetings with ATM industry participants and consumer groups. In addition, we interviewed selected experts in electronic commerce technology to obtain their input regarding potential alternatives and options regarding real-time ATM fee disclosure. We conducted our review from December 1999 to May 2000 in Washington, D.C.; San Francisco, CA; Sacramento, CA; New York, NY; and Portland, OR, in accordance with generally accepted government auditing standards.

We requested comments on a draft of this report from (1) the senior executives responsible for ATM services at five financial institutions; (2) the president of a state league of credit unions; (3) the president of a regional network (who is also a representative of the Network Executives Council); (4) the executive vice president and general counsel of a regional

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network; (5) a director and general counsel of two consumer groups; (6) an academic, who consults in banking issues; and (7) an executive director and representatives of two trade associations. In mid June 2000, we met with these senior officials in two groups, except for the consumer group representatives who had not responded to our request. Their oral comments are presented and discussed on pages 35 to 36. We also requested comments from the managing counsel of the Division of Consumer and Community Affairs of the Federal Reserve Board (FRB) of Governors. We requested FRB comments because the EFTA requires FRB to issue relevant regulations. The FRB official provided technical comments that we incorporated.

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## Real-time ATM Fee Disclosure Is Feasible but Would Require Hardware and Software Changes

ATM industry representatives said that real-time ATM fee disclosure is technically feasible but would require extensive restructuring by the ATM industry. Real-time ATM fee disclosure could be provided in several different ways. However, they said that all of the options likely would require ATM owners, ATM networks, card-issuing banks, and third-party processors to substantially change their infrastructure, (i.e., their hardware and software systems including communications equipment, message processors, and databases).

Currently, electronic fund transfer activities performed at an ATM rely on a complex sequence of synchronized tasks to be performed in less than a minute by the ATM, the data transmission networks, and the banks' processors. The ATM system is built on technology that allows an ATM cash withdrawal or other electronic fund transfer activity to be performed with a single ATM transmission for authorization and settlement of the transaction. To provide real-time foreign ATM fee disclosure, the current ATM system would have to be modified to (1) obtain the foreign fee information from the cardholder's bank, (2) display the foreign fee information to the cardholder, (3) allow the cardholder to accept or reject the fee, and (4) transmit fee acceptance or rejection information to the bank to consummate the electronic fund transfer activity. Industry representatives said that ATM owners likely would need to modify or replace their ATMs and terminal driving processors to support the display of foreign fee information and provide a means for cardholders to accept or reject the fee. In addition, the industry representatives stated that real-time ATM fee disclosure would require that changes also be made to the following functions:

- message processing,
- calculation of ATM fees, and
- stand-in processing.

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Because the ATM industry does not handle these functions in a standardized way, each ATM participant would have to consult with those it interacts with in conducting ATM transactions to determine the specific implementation method for these changes. While the current ATM system could be adapted to support real-time foreign ATM fee disclosure, ATM participants do not share a common view of how this might be accomplished.

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## Message Processing Changes

Each regional and national ATM network requires its members to adopt specified message formats, message flows, and other processing requirements.<sup>16</sup> Message flows and message formats are defined for all ATM transactions, including the request and authorization of transactions, settlement of transactions between ATM participants, and administrative messages. Because the ATM foreign fee information is not currently relayed from the card-issuing bank to the ATM owner, industry representatives said that new message flows and message formats would need to be defined to support real-time fee disclosure. Once defined, every participant in an ATM transaction would need to modify their software to handle the new formats. Although the majority of regional and national ATM networks based their message formats on an international standard,<sup>17</sup> each network dictates its own variation of this message format. Therefore, there is not an exacting standard that is used by the regional and national networks. So, for example, if a bank has connections with four different networks, it likely will need to modify more than one piece of software to connect to each of the four networks.

### A “Two-Messages” Solution

The industry representatives indicated that there are different ways to modify the message flows and message formats to support real-time fee disclosure. One possible design solution we discussed with industry participants is shown in figure 4.

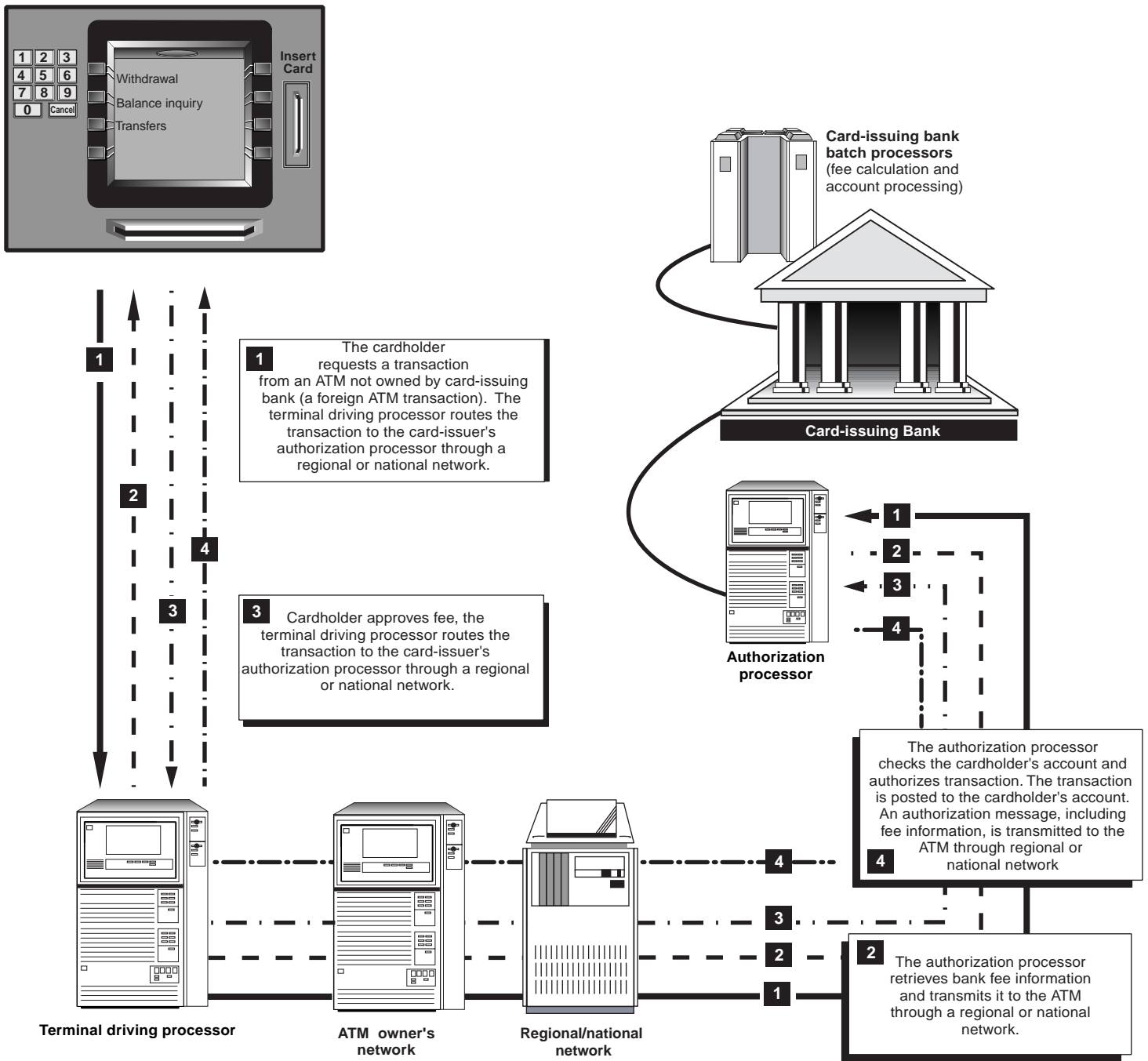
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<sup>16</sup>A message format describes the specific contents of a message, including the description, length, and format of each field. A message flow describes the sequence of messages required to support a transaction, including the request message and corresponding subsequent response or error messages.

<sup>17</sup>ISO 8583 is the International Standard designed as an interface specification enabling messages relating to financial transactions to be exchanged between systems adopting a variety of applications specifications.

Figure 4: A "Two-message" Solution

Foreign ATM



Source: GAO analysis of industry data.

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In this scenario, following a cardholder's transaction request at an ATM, the ATM and terminal driving processor would request the foreign fee information from the card-issuing bank. The bank would retrieve the foreign fee information and return it to the ATM. The ATM would display the foreign fee information to the cardholder for acceptance. Following acceptance, the ATM and terminal driving processor would route the transaction back to the card-issuing bank. The bank would send an authorization message back to the ATM and the transaction would be completed. This design option would require two transmissions through the network instead of the one transmission that is normally required in the current system. In addition, new message formats would need to be defined for the fee request and the fee response information.

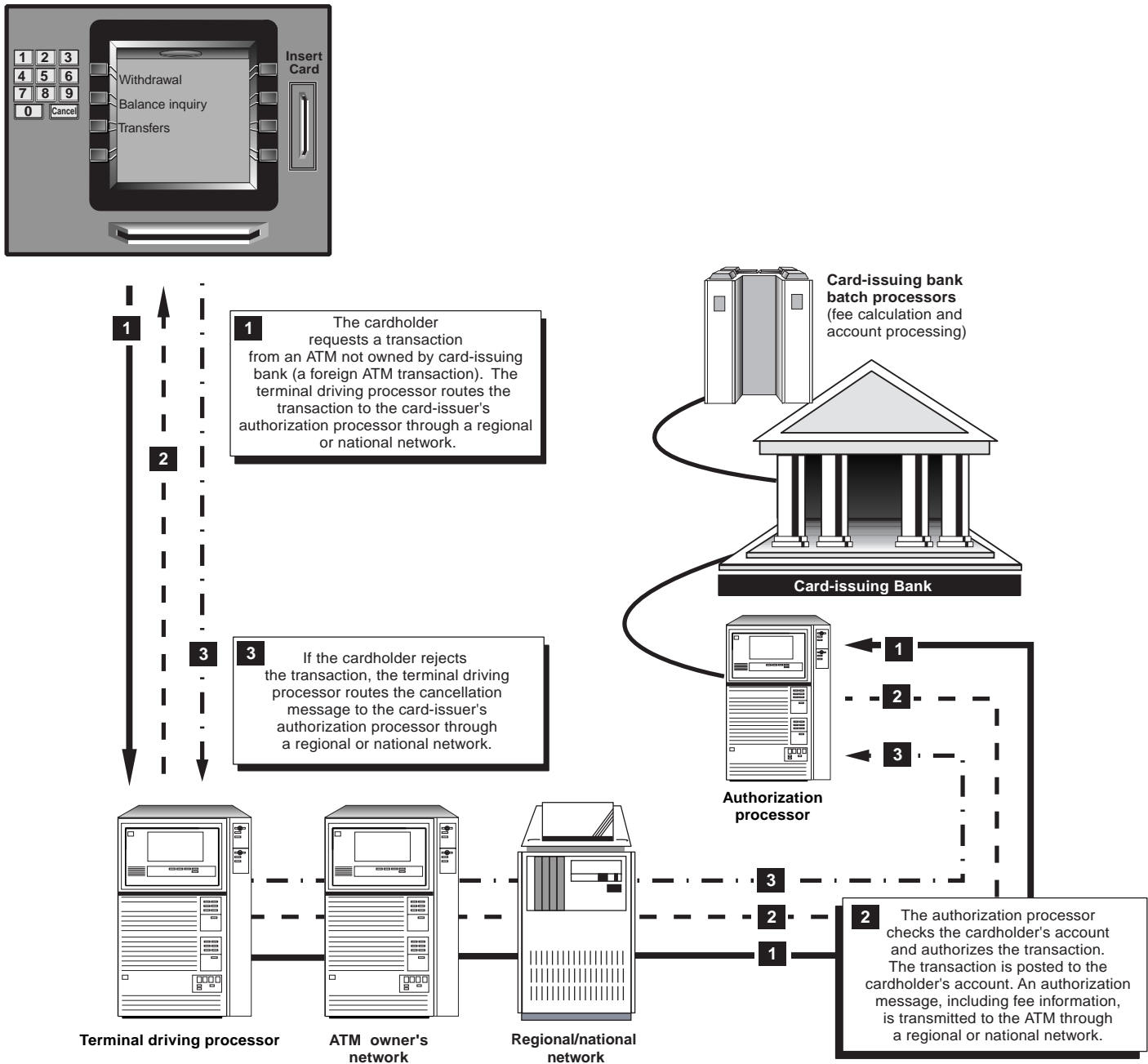
An additional transmission with a message to obtain the foreign fee information could double the network traffic required to perform most transactions on both the bank's system and the network's. The industry participants we contacted have said that the current ATM infrastructure is not capable of handling a doubling of transaction volume. They said to handle the increased transaction volume, networks would have to purchase and install additional hardware and software, including new processors and data communications equipment. They said the extra pass or message would also lengthen the time it would take to complete an ATM transaction by 11 to 17 seconds. Currently, according to industry estimates, a basic cash withdrawal takes between 23 and 33 seconds.

#### A "One-Message" Solution

Another design solution discussed with the industry participants would involve only one network transmission and would require the expansion of the current transaction response messages to include the foreign fee information. In this scenario, there would be no separate fee request. The cardholder's transaction request would be transmitted as it is currently, and the response message would be modified to contain the foreign fee information. However, the ATM would have to generate a reversal transaction to credit the customer's account for funds already deducted at the time of authorization if the customer were to reject the fee and abort the transaction. Except in the case of fee rejection, only one network pass would be required in this scenario, as illustrated in figure 5.

Figure 5: A "One-message" Solution

Foreign ATM



Source: GAO analysis of industry data.

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If the fee were rejected by the cardholder, an existing reversal message<sup>18</sup> would need to be modified to relay the fee rejection and the cancellation of the transaction by the cardholder. The message formats for transaction responses and reversal messages would require modification to relay the new data. In addition, industry representatives said that a transaction reversal is usually not performed instantaneously and that customers' funds may not be immediately restored.

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## Calculation of ATM Fees

Real-time foreign ATM fee disclosure would involve changes in the basic infrastructure of a bank's computer systems because most of the systems are not currently designed to calculate ATM fees on a real-time basis. The banks we contacted said they have separate computer systems to handle on-line processing<sup>19</sup> and periodic batch processing,<sup>20</sup> whether the processing is done in-house or outsourced to a third-party processor. These banks' on-line processors support ATM, point-of-sale, telephone, and teller access to current account information. The banks' batch processors support posting paper checks and automated clearing house transactions, preparing monthly statements, and calculating service charges and are run on a periodic basis—usually daily or monthly, depending on the process. The authorization processors and terminal driving processors previously described are on-line processes that support ATM transactions at a bank. However, the banks said their ATM fees are calculated with the other account-activity based service charges on the batch processors. Figure 6 illustrates batch processing in relation to an ATM transaction.

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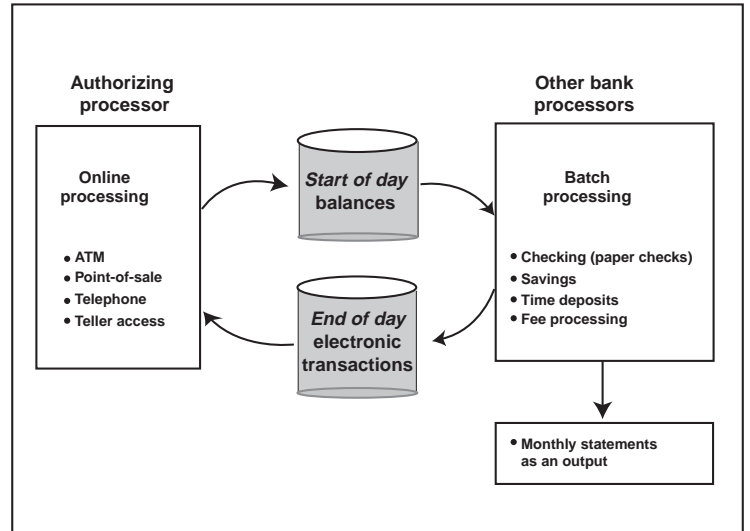
<sup>18</sup> Reversal messages currently exist to support cancellation of transactions due to power failures, shortage of cash in the ATM cash dispenser, etc.

<sup>19</sup> On-line processing involves processing on real-time basis.

<sup>20</sup> Batch processing involves processing a group of transactions at one time. Transactions are collected and processed against the master files at the end of the day or some other time period.



**Figure 6: Batch Processing in Relation to an ATM transaction**



Source: GAO's adaptation of a diagram from Bank of America.

Because the fees are calculated based on consumer behavior over a defined period on a separate platform from the ATM processing, the authorization processor does not have real-time access to the foreign fee information. These banks would need to move the calculation of the ATM fees from the batch processors to the on-line processors, resulting in software changes in both the batch and on-line processors.

Banks typically offer a variety of account options to their customers to allow for relationship banking, wherein customers can opt to either pay fees or maintain a certain account activity level or account balance and be able to conduct foreign ATM transactions and other account activities without a fee. While some pricing plans assess a flat fee per transaction on each customer, others offer variable rate structures, based upon the number of ATM transactions performed or the balances maintained by the customer. Variables, such as account activity and average balance, are not known until the end of the statement cycle.<sup>21</sup> The bank representatives said that to provide real-time fee disclosure in an accurate manner, banks might need to modify the software that calculates fees in this manner to use alternative data, such as the average balance or account activity from the previous month. Another possible industry response would be to eliminate

<sup>21</sup>Financial institutions commonly prepare statements over the course of a month in account groups called cycles.

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using these variables to assess fees. Any such change in how fees would be assessed and charged would also result in software changes to their processing systems.

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### Stand-In Processing

According to industry representatives, real-time fee disclosure may require networks to store foreign fee information to allow for stand-in transactions. Stand-in processing is a service provided by networks to their members to ensure continuation of cardholder service when a network cannot communicate with the on-line ATM processor of the card-issuing bank. In addition, some of the industry representatives said that some banks do not maintain an on-line ATM processor and stand-in processing is their normal mode of operation. To provide stand-in processing, networks typically need a list of the card and account numbers, PINs, and an account status. In order for networks to continue providing stand-in processing in an environment wherein real-time fee disclosure would be required, the networks would need to store foreign fee information from card-issuing banks. Networks would also need to make software changes to handle the fee disclosure on behalf of their client card-issuing banks. Depending on the implementation method, this process could require the banks to provide more detailed account information to the networks to perform the complex calculations required.<sup>22</sup> In addition, network representatives said that networks might also have to make substantial investments in computer hardware to store the additional, necessary data.

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### More Simplified Disclosure Options Would Require Similar Changes

We considered the feasibility of other possible options for disclosing the foreign ATM fees in ways that would circumvent the complex issue of calculating individual consumer's fees. We considered the feasibility of banks providing information on their ATM fee schedules or the particular pricing plan that a customer had selected. We also considered the feasibility of disclosure if each bank adopted a flat-rate foreign fee. Based on our understanding of the ATM system infrastructure and according to industry representatives, as in the case with real-time fee disclosure, these options would also require extensive changes to their hardware and software systems, in addition to modifying the message processing and stand-in processing functions.

Instead of calculating and displaying the exact foreign ATM fee for each ATM transaction, banks could disclose the schedule of fees for each

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<sup>22</sup>Due to the potential sharing of account information by ATM participants, bank officials we interviewed expressed concerns about possible antitrust and privacy issues. We explored antitrust implications with an official at the Department of Justice. On the basis of the disclosure scenarios we described, the official said he did not foresee unavoidable antitrust concerns. We asked Federal Reserve officials about privacy concerns, but they said that they were unable to comment at this time.

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banking plan it offers. A more customized option would be for the bank to identify a customer by his/her banking plan during the ATM transaction and disclose only the fee schedule relevant to that customer. Customers would be shown the fee they might be charged; but to calculate the actual fee, they would have to know the status of other fee determinants, such as account balances, the number of transactions already made during the statement cycle, etc.

Industry representatives said that either alternative would still require changes to their hardware and software and the various functions as discussed previously. For example, ATMs would have to be able to display the banking plans offered by all the banks whose cards could be used at the ATM. Banks typically offer a variety of account options and pricing plans, which are typically lengthy and complex, as illustrated in figure 7.

Figure 7: An example of a bank’s fee schedule

| CHASE   |   | Self Service Banking   | Better Banking®                              | Select Banking®                              |
|---|---|--|--|--|
| Monthly Average Balance to Avoid Fees   | Checking or Linked Accounts   | \$1,500 or \$3,000   | \$3,000 or \$4,500                           | \$25,000                                     |
| <b>If Below Minimum Balance</b>   |   |  |  |  |
| Monthly Maintenance Fee   |   | \$9.50   | \$9.50<br>\$11.00 Checking with Interest     | \$25.00                                      |
| Transaction Fees  |   | \$0.50 (\$1.00 per non-Chase ATM withdrawal)   |  | None, however Excess Activity fee may apply. |
| Excess Activity Fees  |   | \$1.00 each transaction after first 40. Please see Important Information below for excess transactions subject to this fee.                                  |  |  |
| <b>If Above Minimum Balance</b>   |   |  |  |  |
| Monthly Maintenance Fee   |   | None   | None   | None   |
| Transaction Fees  |   | \$1.00 per non-Chase ATM withdrawal. Excess Activity fee may apply   | None, however Excess Activity fee may apply. | None   |
| Excess Activity Fees  |   | \$1.00 each transaction after first 40. Please see Important Information below for excess transactions subject to this fee.                                  |  | None   |
| <b>Accounts qualifying for combined balance requirement are Checking/Checking with Interest, High Yield Savings, Money Market, CDs and IRAs at The Chase Manhattan Bank. For Select Banking: Simplified Employee Pension and certain qualified retirement plans are also included; Premium Rates – Balance requirement is \$50,000 (deposits only) or deposits plus Vista Funds – See Relationship and Checking Products disclosure). Self Service Banking customers will be subject to Better Banking balance requirements in any month in which there are certain transactions as described in the Relationship and Checking Products disclosure.</b> |   |  |  |  |
| <b>High Yield Savings &amp; Money Market</b>  |   |  |  |  |
| Monthly Average Balance to Avoid Maintenance Fees   |   | If linked to Self Service, Better Banking or Select Banking: None. If not linked: \$2,500.   |  |  |
| Monthly Average Balance to Avoid Transaction Fees   |   | If linked to Self Service Banking, Better Banking or Select Banking: see applicable Checking or Linked Account Balance Requirements. If not linked: \$2,500. |  |  |
| <b>If Below Minimum Balance</b>   |   |  |  |  |
| Monthly Maintenance Fee   |   | \$7.00 per account   |  |  |
|   |   | \$0.50 (\$1.00 per non-Chase ATM withdrawal)   |  |  |
| <b>Important Information regarding Transaction and Excess Activity Fees.</b>  | <p><b>Transaction Fees</b><br/>Fees are charged on all accounts (except Select Banking) for the following transactions when the required monthly average balance is not maintained: checking/savings/money market ATM withdrawals (domestic), Chase Banking Card debits, checks paid, teller withdrawals, checks cashed by a teller and non-Chase pre-authorized debits.</p> <p><b>Excess Activity Fees:</b><br/>In addition to the below balance transaction charges described above, all accounts will be charged \$1.00 per excess transaction in any month in which there are more than 40 of the following: checking/savings/money market ATM withdrawals (domestic), deposits (excluding ACH credits), checks paid, teller withdrawals, checks cashed by a teller and non-Chase pre-authorized debits. Select Banking customers who do not meet the minimum balance requirement and exceed 40 transactions will be assessed the excess activity fee.</p> <p>All accounts except Select Banking will be charged \$3.00 for each ATM withdrawal occurring outside of the United States regardless of balance or other transactions.</p> |  |  |  |

Source: Courtesy of Chase Manhattan Bank.

These representatives said that transmitting and displaying that volume of information would not only add to the challenges of altering the current ATM infrastructure, but it would lengthen the time needed to perform an ATM transaction and challenge the display capabilities of many ATM terminals. They said that the infinite variations in account and ATM transaction pricing, which sometimes depend on relationship banking, could create complications in displaying customized foreign fee information.

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Several banks said that if real-time foreign fee disclosure were required, they might adopt a flat-rate foreign fee to avoid the cost of calculating fees for each ATM transaction. Adopting flat rate fees would not eliminate the cost of additional messages for an ATM to obtain the fee from a card-issuing financial institution or overcome the problems of stand-in processing that we discussed earlier.

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## Total Costs and Implementation Time Difficult for ATM Industry Participants to Estimate

We asked card-issuing banks, ATM networks, ATM owners, and third-party processors to estimate the cost and the time it would take to provide real-time foreign fee disclosure. According to many of the ATM industry representatives, the effort and costs associated with providing real-time fee disclosure would be extensive. However, industry representatives said that the lack of specific details about how real-time ATM fee disclosure would be implemented and their dependencies on other ATM industry participants made it difficult to estimate the cost and time frames with any precision. Several ATM industry representatives enumerated the types of changes that would be required and a few provided qualified dollar estimates of costs and time required.

Representatives of card-issuing banks stated that they would incur extensive costs to make the necessary software and hardware changes needed to support real-time ATM fee disclosure. For example, the representatives stated that one of the major costs of disclosing the actual fee for an ATM transaction would be to move cardholder fee calculations from a batch-processing mode into a real-time environment. The representatives of one large bank stated that the bank could not support real-time fee disclosure with its current infrastructure, which uses a batch system that runs at night to calculate cardholder fees. Not being able to calculate fees in batch-processing would require the banks to simplify their fee structures and would affect their ability to maintain relationship banking. Because such changes would represent a fundamental shift in their ATM processing system, the industry representatives were unable to estimate the total associated costs. Card-issuing banks likely would incur additional costs to upgrade their ATM hardware and software. For example, some industry representatives estimated that it would cost tens of millions of dollars for changes to a large bank's hardware and software to provide real-time foreign fee disclosure. Regarding operating costs, one trade association estimated that the card-issuing banks might have to absorb an additional \$1 billion per year in processing costs—effectively doubling the fees associated with the current volume of ATM transactions—if real-time ATM fee disclosure required two, instead of one, ATM transmissions.

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Representatives of ATM networks also indicated that they would have to make major upgrades of their hardware and software systems if real-time ATM fee disclosure were required. For example, one of the representatives stated that his network system was currently operating at close to full capacity and that replacement of its hardware and software systems would be needed to handle the additional traffic that likely would be associated with real-time ATM fee disclosure. While these network representatives were not able to provide a precise estimate of these costs, they estimated that it could be in the billions of dollars for the industry as a whole. In addition, all of the representatives said that extensive software changes would be needed to implement any message formatting changes that would be necessary to support real-time ATM fee disclosure. According to some of the ATM network representatives, any hardware and software changes would necessitate extensive testing and recertification of the systems, which would add significantly to the cost of providing real-time ATM fee disclosure.

The industry representatives stated that ATM owners likely would incur major costs to upgrade their ATMs to handle real-time fee disclosure. According to the representatives, many of the older or less sophisticated ATMs currently in use may not have the necessary display and processing capacity needed to handle real-time ATM fee disclosure. As a result, these ATMs would have to be replaced or upgraded. As of November 1999, the cost of new ATMs ranged from \$15,000 to \$50,000 per machine, depending on functions.<sup>23</sup> According to the ATM industry representatives, real-time ATM fee disclosure also likely would result in increased transaction time. This could result in the need for ATM owners to deploy more ATMs to provide the same level of service. Furthermore, some of the ATM industry representatives stated that real-time ATM fee disclosure may prompt ATM owners to upgrade their machines using dial-up connections to leased lines connections because dial-up technology was not intended to support an extended dialogue or interaction between the ATM and the bank.<sup>24</sup> According to representatives of a third-party processor, the annual cost of leasing a dial-up ATM ranges from \$4,000 to \$6,000 versus \$10,000 to \$12,000 for a leased-line terminal. In addition, they stated that the monthly communication costs for a dial-up connection is about \$30 to \$45 compared with \$250 to \$400 for a leased-line connection. The ATM

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<sup>23</sup>This information was taken from ATM Fact Sheet, American Bankers Association.

<sup>24</sup> ATMs link to the networks using either leased lines or dial-up connections. Leased lines provide communication connectivity between the ATM and the network on a continuous basis. Dial-up connections are established between the ATM and the network only when there is a transaction to be conducted and are terminated when the transaction is completed.

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industry representatives stated that all ATMs likely would need to have software upgrades, such as rewriting the software that controls the screen displays, in order to support real-time ATM fee disclosure.

According to representatives of the third-party processors, they would need to upgrade their software systems and some of their hardware systems to support real-time ATM fee disclosure. However, they stated that the real cost issue was not primarily related to changes in technology but in the extensive testing effort that would be required, which would involve all ATM industry participants. One third-party processor estimated that it would cost her firm from \$5.1 to \$7.9 million in one-time expenditures to provide real-time ATM fee disclosure. Moreover, she estimated that it would take from 24 to 36 months to make the necessary changes to the firm's software and hardware systems. Two ATM industry representatives compared the effort and costs involved in providing real-time fee disclosure to the Year 2000 readiness effort.<sup>25</sup>

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## Foreign Fee Disclosure May Disadvantage Smaller Competitors

Some industry representatives suggested that the burden of real-time fee disclosure might fall more heavily on smaller firms and organizations. They suggested that economies of scale would give larger banks, networks, and ATM owners an advantage. Representatives of smaller banks predicted that they would be hurt if some larger banks chose to minimize the costs of disclosure by restricting access to their ATMs to their own cardholders. Finally, representatives of ISOs suggested that the added costs of real-time disclosure could induce some ATM operators to shut down operations at some locations.

Banks, networks, and ATM owners of all sizes likely would incur substantial costs to install, test, and certify hardware and software required to implement real-time ATM fee disclosure. Industry representatives said that larger firms, which can exploit economies of scale, would be in a better position to absorb these costs. They can spread any fixed costs of providing real-time disclosure over a larger number of transactions, resulting in a smaller increase in the average cost of providing service.<sup>26</sup>

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<sup>25</sup>The Year 2000 readiness effort involved an inherent flaw in computer programs and database files—the absence of century designators—that unless corrected could have rendered entire computer systems inoperative. There are various estimates of the total costs associated with the Year 2000 compliance effort. According to the President's Council on Year 2000 Conversion, the U.S. financial industry spent an estimated \$10 billion to prevent Year 2000 problems.

<sup>26</sup> Some small banks and ATM owners contract with third-party processors, whose size may allow them the same economies of scale as large banks.

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Similarly, network officials said that larger networks might be in a better position to absorb the costs associated with foreign fee disclosure. They stated that implementation costs likely would be recovered by charging higher fees; and the more transactions a network can process, the faster it can recover these costs.

Industry representatives of smaller banks voiced concerns that the largest banks, which operate thousands of ATMs, might attempt to minimize the costs of disclosure by restricting access to their ATMs to their own cardholders.<sup>27</sup> This could hurt small banks that rely heavily on ATMs owned by larger banks to service their customer base.

Industry representatives also suggested that ISOs that primarily supply inexpensive ATMs for installation at lower volume locations and their client base—primarily merchants and smaller banks—would be especially disadvantaged if real-time ATM fee disclosure were required. These ATMs typically use low-cost, dial-up connections instead of the more expensive leased line connection. According to industry representatives, dial-up technology may be impractical to support the kind of communication required to offer cardholders an accept or reject option. In addition, industry representatives estimated that 10 to 15 percent of the low-cost ATMs typically deployed by these ISOs do not have the display capacity to support on-screen disclosure. According to industry representatives, these ISOs and their client base may not be able to afford to purchase and operate more sophisticated ATMs.

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## Unintended Consequences of Foreign Fee Disclosure Could Partially Offset Benefits

If consumers are unaware of foreign fees for ATM transactions or dissatisfied with the way they are disclosed, then they might benefit from real-time fee disclosure. However, the banking regulators reported that they received very few complaints on the disclosure of ATM fees, which suggests that cardholders were not dissatisfied with the disclosure they received from their banks. In addition, the consumer groups we interviewed did not advocate real-time disclosure of foreign fees; instead, their concerns focused on the fairness of the surcharge, which we did not address in our review. Further, industry surveys suggested that only a minority of ATM cardholders pay foreign fees and that the number of foreign ATM transactions they make is declining.<sup>28</sup> At the same time,

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<sup>27</sup> If real-time disclosure of ATM fees is required and a bank decides to limit the use of its ATMs to its customers only to avoid the need to disclose foreign fees, it would still have to address the issue of real-time disclosure of applicable own-bank ATM fees and foreign fees for its customers.

<sup>28</sup> Debit Card Directory 2000 Edition, Faulkner and Gray, p. 9.



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industry representatives suggested that requiring real-time foreign fee disclosure could produce unintended consequences, as discussed below.<sup>29</sup>

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## Disclosure of Real-time ATM Fees May Provide Limited Consumer Benefits

Generally, consumers can make better-informed choices when they are aware of costs at the time of a purchase. For example, disclosure of the ATM surcharge at the time of a transaction provides cardholders information with which to decide whether a transaction is worth the fee they must pay the ATM owner for using the ATM. Receiving this information only after completion of the transaction would be too late for ATM cardholders who would not have made the transaction if they had known the cost in advance.

However, regulators found little evidence of consumer dissatisfaction regarding fee disclosure. Regulators maintain databases of consumer complaints against institutions they regulate. We asked the Federal Deposit Insurance Corporation, Federal Reserve System, National Credit Union Association, Office of the Comptroller of the Currency, and the Office of Thrift Supervision to search their databases for complaints filed in 1999 about inadequate disclosure of foreign fees. While their complaint categories did not identify this particular issue, the regulators reported that they received very few complaints on ATM fees to suggest that cardholders were dissatisfied with the disclosure they received from their banks. Regulators reported that approximately 31 complaints involving electronic fund transfer service charges were filed in 1999.<sup>30</sup> The regulators said that they did not consider consumer complaints on ATM fees a major concern. Consistent with the low volume of complaints received by banking regulators, a recent industry-sponsored survey of 700 ATM cardholders in 7 states found that 86 percent felt that their banks kept them adequately informed about applicable ATM fees.<sup>31</sup>

Representatives from consumer groups we interviewed did not advocate real-time disclosure of foreign fees and recognized that the cost of implementing fee disclosure could lead to higher fees. They added that while they were opposed in principle to surcharges imposed on

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<sup>29</sup> Industry representatives also told us that real-time fee disclosure may create problems for international transactions. Specifically they said that U.S. ATMs might reject transactions made with ATM cards not issued by U.S. banks and that U.S. cardholders might be confused by ATMs abroad that do not display foreign fees. Our work focused on cardholders' transactions in the United States, since any change in disclosure requirements would apply only to U.S. institutions.

<sup>30</sup> As a point of reference, according to the American Banker Association, there were 11 billion U.S. ATM transactions in 1999.

<sup>31</sup> "ATM Surcharging: The Consumer Perspective," prepared by Dove Consulting Inc., and Analytica Inc., April 2000. The survey included a few questions on foreign fees.

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cardholders by ATM owners, they did not oppose fees charged by card-issuing banks.

It is unclear how many consumers would benefit from real-time fee disclosure. The Federal Reserve reported that in 1998 about three-quarters of the banks and thrifts they surveyed offered accounts for which ATM cardholders would be charged a foreign fee.<sup>32</sup> However, a small percentage of cardholders actually pay foreign fees, since, according to representatives from banks and consumer groups, many customers choose account plans for which the fee is waived. According to industry estimates, at least one half, and perhaps as many as two-thirds of ATM cardholders have the types of accounts that can exempt them from foreign fees. These cardholders likely would not benefit from additional disclosure. Some banks offer account arrangements that provide a specified number of free ATM transactions per month. Fee disclosure might help these cardholders, when they do not know whether they have exceeded their allotted free transactions. Customers who pay a foreign fee on all transactions and are unaware of the foreign fee their bank charges, could also benefit from disclosure of this fee on an ATM screen. However, once cardholders are aware of the fee, they would obtain no additional benefit from disclosures. Thus, the benefits of real-time fee disclosure likely would be “one-time” rather than repeated.

In addition, the imposition of surcharges appears to have discouraged cardholders from using foreign ATMs. In the 3 years prior to 1996, foreign transactions had been growing at 9 percent per year. In 1997, they declined by 2 percent.<sup>33</sup> Industry representatives said that cardholders are pursuing alternatives to foreign ATMs, such as surcharge-free point-of-sale terminals where consumers can request “cash back” when making a purchase. In addition, they pointed out that cardholders can make greater use of ATMs at their own banks. The fact that many cardholders are avoiding using foreign ATMs to avoid surcharges also reduces the potential number of cardholders who would benefit from foreign fee disclosure, according to industry representatives.

Under current ATM fee disclosure requirements, it is likely that cardholders who pay a foreign fee on ATM transactions already have been informed about the fee. Regulation E requires banks to disclose the fee

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<sup>32</sup>Annual Report to the Congress on Retail Fees and Services of Depository Institutions, Board of Governors of the Federal Reserve System, June 1999, p. 7.

<sup>33</sup> Competition in ATM Markets: Are ATMs Money Machines? (chapter IV), July 1998, Congressional Budget Office.

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when a customer opens an account and to reflect the fee in monthly statements in any month in which a fee is charged. Regulators said that their examinations showed no problems with compliance with these requirements. The surcharge fee disclosure sign and the ATM message remind customers that the surcharge fee is “in addition to any fees that may be assessed by your bank.” To the extent that ATM cardholders already know the foreign fee they are paying, additional disclosure adds no benefit.

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**Consumer Benefits Could Be Partially Offset by Increased Fees, Inconvenience, and/or Reduced Account Options**

Industry representatives explained that requiring foreign fee disclosure could produce unintended consequences. They suggested that the cost of providing disclosure might result in higher fees for ATM transactions, longer transaction and waiting periods at the ATM, reduced access to ATMs, and fewer options in banking arrangements. On the basis of our analysis and discussions with regulators, economists, and consultants, we believe that these unintended consequences could, at least in part, offset the benefits of disclosure.

Industry officials observed that foreign fee disclosure could result in higher costs for conducting ATM transactions. They explained that card-issuing banks might attempt to recover the costs of implementing and providing disclosure of foreign fees. To do so, they might increase the fee for making foreign transactions or raise other account fees. Industry and consumer group representatives said that ultimately bank customers likely would bear some or all of the cost of fee disclosure.

Displaying the foreign fee and giving the cardholder the option to accept or reject the transaction would increase the time it takes to perform an ATM transaction. Currently, according to an industry estimate, a basic cash withdrawal takes between 23 and 33 seconds. Industry officials estimate that if a second transmission is required to disclose foreign fees at the ATM, it would require 8 to 12 seconds to process the fee inquiry and another 3 to 5 seconds for the cardholder to accept or reject the transaction. One official suggested that this increased waiting time would be especially unpleasant because cardholders would see the same fee in every transaction. The added time required to perform ATM transactions also would add to the waiting period at ATMs during times of heavy usage. Industry representatives said that this might require additional investments in ATMs to provide the current level of service.

Foreign fee disclosure might also reduce the availability of ATMs. Industry representatives said that many ATMs—especially those not owned by banks—are only marginally profitable or are losing money. As previously

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discussed, some owners of ATMs may conclude their current transaction volume cannot justify the cost of modifying or replacing existing ATMs. Consequently, ATM cardholders may find that ATMs at some locations are no longer available. Further, industry representatives said that large banks, which operate ATMs in many states, may find it advantageous to limit use of their ATMs to only their cardholders, rather than make the changes required to disclose foreign fees to nonaccount cardholders. This would be harmful for smaller banks that own few ATMs since their cardholders rely heavily on ATMs owned by larger banks.

Requiring disclosure of foreign fees could also result in more denied transactions at ATMs if foreign fee information is not available when networks are “standing in” for card-issuing banks. To provide fee disclosure, foreign fee information from card-issuing banks would have to be stored at another location in addition to the cardholder’s bank to ensure continuation of cardholder service when a network cannot communicate with the on-line ATM processor of the card-issuing bank. If this foreign fee information were not available, transactions would have to be denied. Industry officials said that these denials would occur regularly because host systems are routinely taken off-line at night for maintenance.

Industry representatives said that foreign fee disclosure might lead banks to limit account options to customers. For example, several representatives suggested that banks could eliminate the cost of real-time fee calculation by moving to a flat rate foreign fee. Other representatives suggested that banks that currently charge foreign fees might seek to avoid the disclosure requirement by abolishing these fees and raising charges elsewhere to cover the costs of ATM transactions. Still other representatives believed that these actions would harm customers and reduce competition because it would reduce ATM options a bank could offer to differentiate its product from those of its competitors.

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## Alternative Options to Enhance Fee Disclosure

Some industry representatives suggested that if enhanced disclosure of foreign fees were required, this could be accomplished with less costly alternatives. For example, they suggested that fees could be displayed more prominently on the monthly statements sent to cardholders. We also noted that additional sheets disclosing fees could be added to the monthly statements.<sup>34</sup> Another alternative that industry representatives suggested was modifying the existing surcharge message display on the ATM screen

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<sup>34</sup>It is possible that future advances in technology may make it easier and cheaper to provide real-time disclosure. For example, if ATMs were upgraded to accept “smart” cards containing a computer chip, it might be possible to store some of the information about fees on the card.

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so that it would be more noticeable. Currently this message includes a general notice stating that “this fee is in addition to any fees that may be assessed by your financial institution.”

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## Agency Comments and Our Evaluation

The ATM industry representatives who reviewed a draft of this report said either that they found it to be objective and balanced, or that, overall, they agreed with the information presented. They discussed some issues that they felt should be added or clarified in the draft. Where appropriate, we added information in the text to address the issues that they raised. The industry representatives raised four additional points that we include below.

First, some of the representatives said that an ATM might not always distinguish an ATM card from a credit card inserted at an ATM to obtain a cash advance. Changes to the ATM industry infrastructure in addition to those referred to in this report would be required, according to the representatives. We recognize that consumers can use credit cards at ATMs, but, as required in the mandate for this study and as noted in this report, our work focused on electronic fund transfer activities, as defined in EFTA, conducted using an ATM card. We acknowledge the industry representatives’ point that use of other types of cards at ATMs could compound necessary modifications to the industry’s infrastructure to accommodate real-time fee disclosure.

Second, some industry representatives said they thought this report should place greater emphasis on the potential effect of real-time fee disclosure on the efficiency of the ATM industry and less on the potential costs. This report addressed both efficiency and cost, as required by the congressional mandate.

Third, some industry representatives were concerned that some readers might get the impression that real-time fee disclosure would be onerous only for small institutions rather than for all industry participants. Our report notes that the burden might fall more heavily on small institutions but states that extensive restructuring would be needed by the entire ATM industry.

Finally, in commenting on alternative options to enhance fee disclosure, some industry representatives noted that providing additional paper disclosure would not be as easy as it might seem. For example, the industry representatives said that additional paper enclosures could increase mailing and other costs. Further, the representatives questioned the need for more fee disclosure given the lack of consumer concern or

complaints regarding fee disclosure. Our primary focus in this report was limited to the feasibility, cost, and time frames of real-time fee disclosure. Therefore, while we did not examine whether additional fee disclosure was desirable, additional foreign fee disclosure in or on monthly statements would be a less costly way of achieving additional disclosure.

We are sending copies of this report to Representatives Marge Roukema, Chairwoman, and Bruce F. Vento, Ranking Minority Member, House Subcommittee on Financial Institutions and Consumer Credit; Senator Charles Schumer, member of the Senate Committee on Banking, Housing, and Urban Affairs; the Chairman of the Federal Reserve Board; the Comptroller of the Currency; the Chairman of the Federal Deposit Insurance Corporation; the Chairman of the National Credit Union Administration; and the Director of the Office of Thrift Supervision; and other interested parties. We also will make copies available to others on request.

If you or your staff have any questions regarding this letter, please contact Thomas J. McCool or Kay Harris at (202) 512-8678. Key contributors to this report are acknowledged in appendix I.



Thomas J. McCool  
Director, GGD/Financial Institutions  
and Markets Issues



Keith Rhodes  
Director, AIMD/Office of Computer and Information  
Technology Assessment

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# GAO Contacts and Staff Acknowledgments

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## GAO Contacts

Thomas J. McCool (202) 512-8678  
Kay Harris (202) 512-8678

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## Acknowledgments

In addition to the persons named above, Davi D'Agostino, Richard Hung, Harry Medina, Robert Pollard, and Karen Tremba made key contributions to this report.



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