

# Merchant Guide to the Visa Address Verification Service



## Preface

**The Visa Address Verification Service (AVS) was developed as a risk management tool for merchants doing business by mail or telephone. Available to U.S. merchants that accept Visa® and MasterCard® cards, AVS helps reduce the risk of unknowingly accepting fraudulent mail and telephone order transactions by facilitating verification of the cardholder's billing address with the card issuer. This address information helps you, the merchant, determine whether to accept a particular transaction or to take further follow-up action.**

**By giving you more options and enhancing your ability to make more informed sales decisions, AVS supports and adds value to your efforts to reduce fraud and related operating costs. AVS has helped thousands of merchants improve profitability – in fact, AVS users have enjoyed operating cost savings exceeding \$76 million since 1990.**

**Verifying your customer's billing address for all your Visa or MasterCard mail and telephone order transactions makes good business sense and is one of the fastest, easiest, and most important risk management steps you can take.**

**The *Merchant Guide to the Visa Address Verification Service* was written for two merchant audiences: those currently utilizing this important risk management service, and those considering it, and is structured accordingly:**

**Introducing AVS – for merchants unfamiliar with AVS who want more information about its benefits.**

**Using AVS – for merchants currently using or about to implement AVS who want more specifics.**

**In either case, the Guide should be read by merchant staff responsible for:**

- authorization request management,
- risk or fraud management, and
- customer service.

**Please contact your Visa merchant financial institution.**

## Who Should Read This

## Questions

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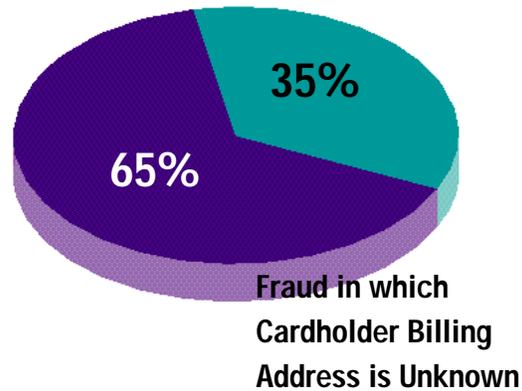
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## Introducing AVS

Responding to the airline and direct marketing industries' requests for help in reducing the risk associated with non-face-to-face transactions, such as tickets by mail and catalog orders, Visa implemented the Address Verification Service (AVS) in 1990. An on-line, real-time service, AVS enabled mail and telephone order merchants and airlines, for the first time, to verify the cardholder billing address with the card issuer quickly and simply as part of the authorization process.

Why is the billing address such an important factor in reducing the risk of mail and telephone order transactions? Because criminals using card account numbers fraudulently usually do not know the account's related billing address – in fact, research shows this to be true about 65 percent of the time. If a card is stolen or lost, or if the account number is copied from a sales receipt, a criminal could use the account number to place fraudulent merchandise orders by telephone – typically for items that could be “fenced” or sold for cash. Since the legitimate cardholder and card issuer might not be aware of the situation for some time, the card could be used repeatedly, leaving merchants vulnerable to unknowingly accepting fraudulent transactions.



That's why Visa developed the Address Verification Service.

### Fast

Because AVS requests are processed through the VisaNet® Authorization System, you may process your AVS requests in a real-time mode, or in a batch mode. In either case, the response time will be as fast as it is today for authorization – just a few seconds. Even better, AVS is as easy to use as it is fast.

### Easy

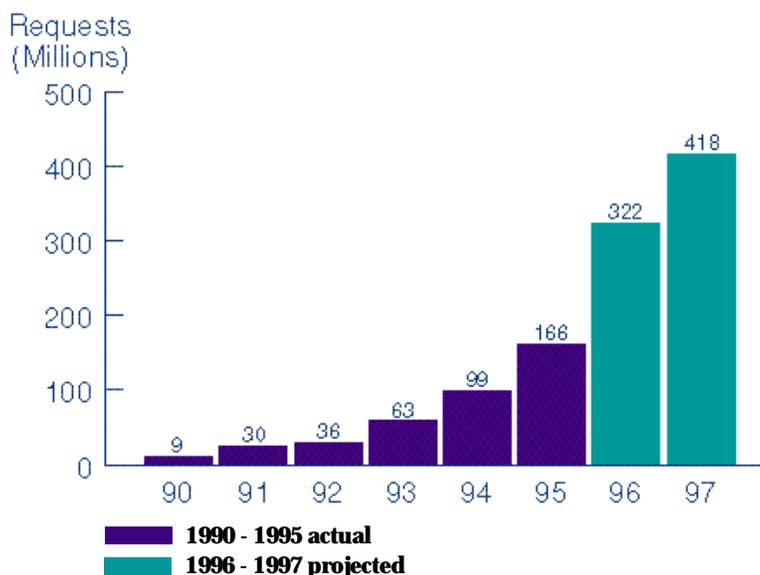
You simply include the cardholder's street address and ZIP Code in your authorization request and Visa sends it electronically to the card issuer. The issuer compares this information with the billing address on its system for that cardholder account and returns the results of the comparison as part of the authorization process. This additional address information will help you make a more informed decision about whether or not to complete a particular transaction.

## Introducing AVS

### Popular with Merchants

With more consumers and businesses today opting for the convenience of shopping from their homes and offices, more merchants are taking advantage of this shopping trend to increase profits and market share by accepting mail and telephone orders. Having access to appropriate risk management tools thus becomes increasingly important in safeguarding the profitability of these non-face-to-face transactions. Merchants have been quick to recognize the value of AVS, as reflected in the steady growth of AVS requests from nine million during the first year of operation in 1990, to over 166 million requests by the end of 1995.

### AVS Growth



## Addressing Risk

Because neither the card nor the cardholder are present at the point of sale, mail and telephone order (non-face-to-face) transactions tend to have a higher incidence of fraud associated with them than retail (face-to-face) transactions. Since the card is not present, many of the fraud detection and prevention devices built into Visa cards cannot be used for mail and telephone order sales. As a consequence, you should exercise greater care and follow good risk control procedures when handling such transactions.

### Reducing Costly Fraud and Chargebacks

When you accept mail and telephone order transactions, you also accept liability for them in the event they prove to be fraudulent. What this means is that the dollar value of the transaction may be “charged back” to you – and that can be expensive, on average, \$135 per transaction. Add to this your costs to process these exception items, and it’s easy to see the potential financial impact to your company’s bottom line. AVS was developed to help you avoid these costly, fraudulent transactions. The following case studies serve to illustrate the value of AVS to merchants, like you, in helping to reduce transaction risk and risk-related costs.

## Introducing AVS

### Case Study #1: AVS Reduces Chargebacks

To understand the impact of AVS on chargeback rates, the activities of two comparable major direct marketing merchants were analyzed. Each processed several million Visa transactions annually, and each had sophisticated risk management systems in place but with one key difference: one merchant had been using AVS for a year; the other had not. The chargeback rate for the merchant using AVS was *six* times lower than the merchant not using AVS and more than *eight* times lower than the industry average.

#### Financial Impact

Additional studies were conducted with the merchant using AVS to determine the specific financial impact of the service. Analysis of the merchant's fraud and chargeback performance before and after AVS revealed that, as a result of AVS, the merchant's fraud losses were cut by more than half, its fraud-related chargebacks dropped by over 60 percent, and its chargeback processing costs declined by more than 80 percent. First-year savings from using AVS totaled more than \$2 million - major plus for that merchant's bottom line!

### Case Study #2: AVS Reduces Fraud

The value of AVS as an indicator of potential fraud was amply demonstrated in a study conducted with a major Visa card issuer. Since the person using a card fraudulently is not likely to know the cardholder's billing address for that card account "no match" AVS result was thought to be a key predictor of potential fraud. Results of the study proved the theory correct.

Fraudulent transactions were analyzed both by type of fraud and by AVS response. Of the total fraudulent transactions studied, 85 percent had received an AVS "no match" response. Within that 85 percent, the AVS "no match" rate was extremely high for each of the three major types of fraud, as shown below.

Type of Fraud	AVS "No Match" Rate
Counterfeit cards	100%
Cards stolen from mail	90%
Lost and stolen cards	65%

**These statistics make a powerful and compelling argument for using AVS.**

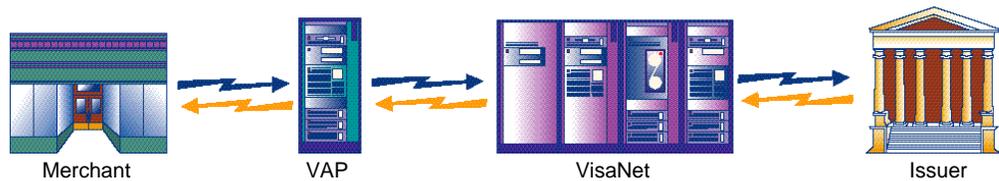
## Introducing AVS

### Connecting to AVS

Depending on your mail and telephone order transaction volume, several options are available to you for connecting to AVS. **Contact your Visa merchant financial institution for more information and to determine which approach best meets your business needs.**

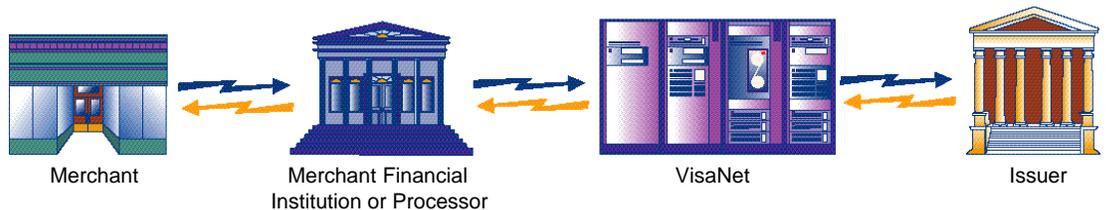
#### Direct Connection to Visa

With a direct connection to Visa, transactions are processed directly from your establishment to Visa via a Visa Access Point (VAP). If your Visa and MasterCard transaction volumes are high, you may want to consider a direct connection to Visa for authorization and AVS.



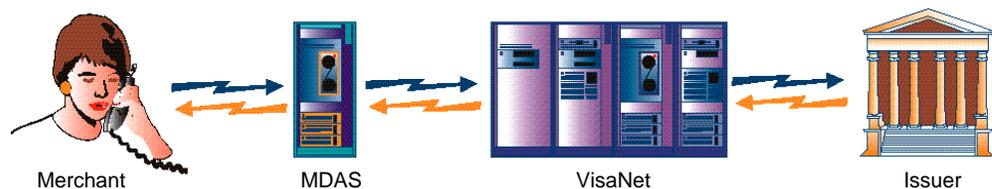
#### Merchant Financial Institution or Processor Connection

Transactions are processed directly from your establishment to either your merchant financial institution or processor and then on to Visa. If your transaction volumes do not warrant a direct connection to Visa, you may access AVS through your merchant financial institution or authorization processor.



#### Via Telephone

The Merchant Direct Access Service (MDAS) connects to AVS via a toll-free telephone number and touch-tone telephone. If your mail and telephone transaction volume is small or infrequent, or electronic access to AVS is not otherwise available to you, you may want to enroll in the Visa Merchant Direct Access Service.



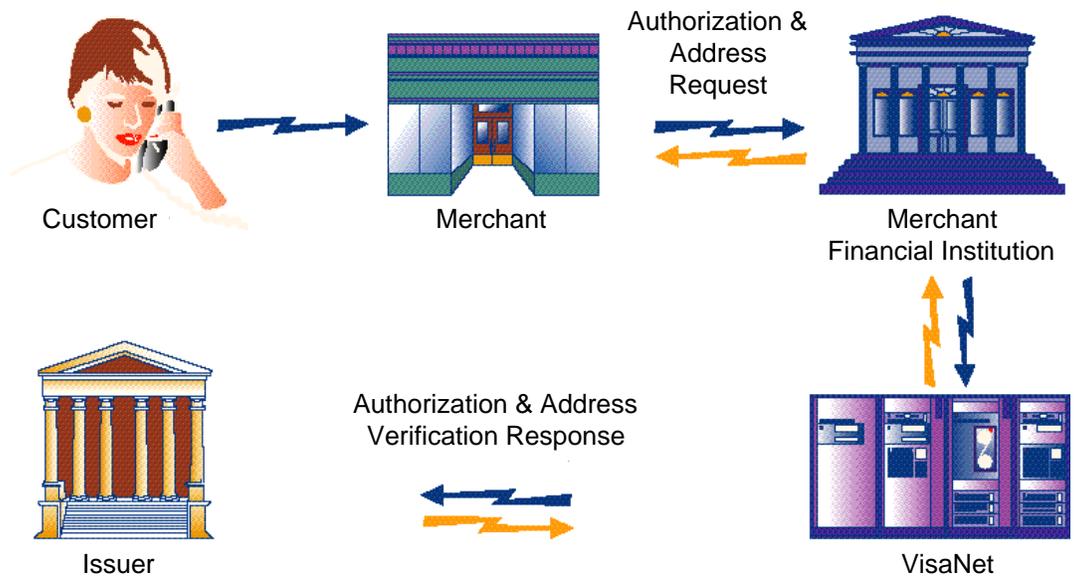
## Using AVS

### How AVS Works

Requesting an address verification is a simple, fast, and very effective way to help you reduce the potential for unknowingly accepting fraudulent mail and telephor order transactions. This section will guide you through the basics and provide the foundation for utilizing AVS to its fullest.

#### Transaction Flow

To show you how the service works, the following illustration charts the flow of a AVS transaction from start to finish.



## Using AVS

You may request an address verification by itself or as part of an authorization request. Both approaches are discussed in this section.

### AVS with Authorization

You may process address verification requests the same way you process authorizations: either in a real-time mode or in a batch mode using an electronic terminal or a personal computer. Real-time requests typically are used for transactions during which the customer waits on-line for a response. The batch mode is geared more toward low-cost processing in which no immediate response is required as is usually the case with mail orders.

Here's how AVS works with an authorization request.

- A customer calls your business to place an order.
- You confirm the usual information such as the merchandise description, price, the Visa or MasterCard account number, expiration date, and shipping address.
- Then, you ask your customer for one new piece of information: the billing address (street address and ZIP Code) for the account being used.
- You enter the cardholder's billing address and the transaction information into your authorization request system, processing both requests at the same time.
- The issuer makes an authorization decision and, at the same time, also compares the cardholder billing address you sent with the billing address it has for that account. It then returns both the authorization response and a single character alphabetic code indicating the address verification results. Your merchant financial institution or processor may modify these alphabetic codes to make them more self-explanatory. We'll talk more about these AVS responses later.

**Note:** *If you receive an authorization "decline" response, do not complete the transaction for that Visa or MasterCard account. This rule holds true even if you receive an "exact match" on the address verification request.*

## Using AVS

### AVS Without Authorization

**You may also send an address verification request without an accompanying authorization request if, for example:**

- **you want to verify the customer's billing address before you request an authorization, or**
- **you sent an AVS and authorization request earlier and received an authorization approval with an AVS "try again later" response.**

### Entering Address Information

**To request an address verification, follow these steps:**

1. **Enter *up to* the first 20 characters of the street address, including apartment numbers. For example:**
  - **549 Jones St Apt 3**
2. **If the address has a number spelled out, convert it to a number. For example:**
  - **232 Fifth Ave**  
**converts to:**
  - **232 5th Ave**

**If the address has no numbers in it, just enter the street name and the ZIP Code. For example,**

- **Park Plaza Central, 94109**  
**enter as:**
  - **Park Plaza Central, 94109**
3. **Enter the 5- or 9-digit ZIP Code**
  4. **Follow your terminal or computer instructions to enter and send this information. That's all there is to it!**

## Using AVS

### AVS Result Codes

One of the following AVS result codes will be returned to you, indicating the issuer’s response to your request for address verification. Your merchant financial institution or processor may modify these codes to make them more self-explanatory, for example, the response may be shown as an “exact match” or as a “no match” rather than as a single letter.

#### Definitions

Code	Definition	Explanation
Y	Exact Match	Street address and 5- or 9-digit ZIP Code match
A	Partial Match	Street address matches, ZIP Code does not
Z	Partial Match	ZIP Code matches, street address does not
N	No Match	Street address and ZIP Code do not match
U	Unavailable	Address information is unavailable for the given account number or the card issuer does not support the service
R	Retry	Issuer authorization system is unavailable, try again later

#### Guidelines for using AVS Result Codes

While Visa cannot recommend any particular approach, the following general guidelines are drawn from direct marketing industry practices and may be helpful to you. You should establish your own policy regarding the handling of transactions based on AVS result codes.

Y	Exact Match	Both street address and ZIP Code match. Generally speaking, you will want to proceed with transactions for which you have received an authorization approval and an “exact match.”
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## Using AVS

### Guidelines for using AVS Result Codes

A	<b>Partial Match</b>	<b>Street address matches, but ZIP Code does not. You may want to follow up before shipping merchandise. The issuer might have the wrong ZIP Code in its file; merchant staff may have entered the ZIP Code incorrectly; or this response may indicate a potentially fraudulent situation.</b>
Z	<b>Partial Match</b>	<b>ZIP Code matches, but street address does not. You may want to follow up before shipping merchandise. The issuer may have the wrong address in its file or have the same address information in a different format; the cardholder may have recently moved; merchant staff may have entered the address incorrectly; or this response may indicate a potentially fraudulent situation.</b>
N	<b>No Match</b>	<b>Street address and ZIP Code do not match. You will probably want to follow up with the cardholder before shipping merchandise. The cardholder may have moved recently and not yet notified the issuer; the cardholder may have given you the shipping address instead of the billing address; or the person may be attempting to execute a fraudulent transaction. “No match” responses clearly warrant further investigation.</b>

**Note:** When you receive a “partial match” or “no match” AVS response, you should take appropriate steps to assure yourself that the customer is not acting fraudulently. Simply asking the customer for another credit card will not reduce your risk if the card is being used fraudulently.

## Using AVS

## Guidelines for using AVS Result Codes

<b>U</b>	<b>Unavailable</b>	<b>Address information is unavailable. The address information for this account is not available; as a result, address verification cannot be performed. You will also receive this response when an issuer does not support AVS. Since you now have no way to verify the address, you must decide whether to investigate further, proceed, or cancel the transaction.</b>
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**Note:** *If you complete a transaction for which you received an authorization approval and an “unavailable” AVS response, and the transaction is subsequently charged back to you as fraudulent, you may re-present the item. U.S. Visa card issuers must support AVS or lose their right to charge back mail/telephone order transactions as fraudulent.*

<b>R</b>	<b>Retry</b>	<b>Issuer authorization system is unavailable, try again later. The issuer’s authorization system may be down (not working). Try your AVS request again later.</b>
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**This discussion of AVS result codes is meant to give you enough information to make your own determination of what works best for you – how you treat these codes may be different than the way another merchant may choose to interpret them. Remember, the choice is always yours – whether to use the Visa Address Verification Service, when to use it, and what procedures you wish to follow for each of the AVS result codes.**

## Using AVS

### Merchant Direct Access Service (MDAS)

#### How MDAS Works

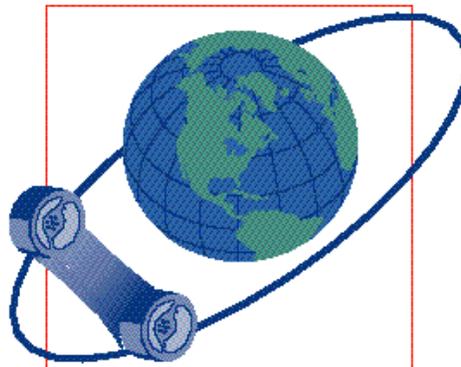
For merchants without access to electronic AVS, verifying a cardholder's billing address with the card issuing institution often follows a tortuous and expensive path, with most callers being transferred from one department to another. Issuers are not generally set up to take phone calls from merchants wanting to check cardholder addresses, and are understandably reluctant to give out customer information. Unless the merchant has access to other risk management tools for validating non-face-to-face transactions, the merchant ultimately is left with two choices: either take the risk or forego the sale.

To solve the problem of verbal address verification with card issuers for mail and telephone order transactions, Visa developed the Merchant Direct Access Service (MDAS).

Designed for merchants that accept mail and telephone order transactions but for whom electronic connection to the Visa Address Verification Service is neither feasible nor economically viable, MDAS offers participating merchants instant access to AVS using a toll-free number and a touch-tone telephone.

To ensure the integrity of the service, each participating merchant is assigned a unique Merchant Access Code. When you dial the toll-free MDAS telephone number, a Voice Response Unit prompts you through the request process in a matter of seconds. You will be asked to enter your access code, the customer's Visa or MasterCard account number, and related billing address information – you will then hear an audio response of the AVS results.

The service is available when *you* need it, 24 hours a day, 7 days a week, 365 days a year. Enrolling is easy – just contact your Visa merchant financial institution.



## Summary and Tips

## Tips For Reducing Copy Requests and Chargebacks

The Visa Address Verification Service can help you reduce the risk of unknowingly accepting a fraudulent mail or telephone order transaction – it was designed for just that purpose. The cost is minimal compared to the average \$135 cost of an item charged back to you as fraudulent. Even if you think it's not important to use AVS for every mail or telephone order transaction, you never know when a loyal customer may have lost his or her card and someone else is attempting to use it fraudulently. If AVS helps you avoid accepting that transaction, not only have you avoided the expense and frustration of a fraud loss, you also have provided exceptional service to your loyal customer – the one whose card might otherwise have been fraudulently used!

That's why so many merchants today consider AVS both an important risk management tool and a wise investment in superior customer service.

In addition to AVS, other steps are available to you that can help you reduce the incidence of copy requests and chargebacks. The following suggestions may be useful to you in this regard.

### Retailers

Since you are not normally considered a direct marketing merchant, your transactions will appear to card issuers as being face-to-face. If you process a mail or telephone order transaction without indicating it as such, the issuer may automatically request a copy or, worst case, assume you forgot to get an imprint of the card or the cardholder's signature on the sales draft and charge the item back for "no imprint" or "no signature." If you are a retail merchant, these tips should help you reduce copy requests and chargebacks.

### Tip #1

When requesting an authorization, use a mail/telephone order transaction indicator to enable the card issuer to recognize the transaction as being non-face-to-face. If your terminal is programmed to allow you to identify non-face-to-face transactions, use the indicator; if your terminal does not have this capacity, contact your Visa merchant financial institution or processor.

### Tip #2

If you are manually processing a mail or telephone order transaction, write "MO/TO" on the customer signature line of the sales draft.

### Tip #3

Copy requests are often the result of cardholders not recognizing transactions on their monthly statements; as a consequence, they may call their card issuer to ask for clarification. The issuer may then generate a "request for copy" of the relevant sales draft to your merchant financial institution. If your establishment stores sales drafts, your merchant financial institution will forward the request on to you.

## Summary and Tips

**Your staff will need to retrieve the merchandise order, make a legible copy of the transaction document, and forward it to your merchant financial institution. Your merchant financial institution will send it to the requesting card issuer and the issuer will send it to the cardholder for review. In most cases, the question is resolved at this point.**

**It's very important to respond to copy requests because if you don't, the issuer could charge the transaction back to you for "non-fulfillment of copy request."**

### **Direct Marketers**

**If you are a direct marketing merchant, these tips should help you reduce copy requests and chargebacks.**

#### **Tip #4**

**Include your customer service telephone number (with area code) in the city field of the clearing record for your mail and telephone order transactions. Many card issuers will include your number on their customer service terminals or print your number on customer statements, thereby enabling cardholders to contact you directly with questions. This approach could help reduce copy requests as well as potential chargebacks.**

#### **Tip #5**

**Include a description of the merchandise in the merchant name field for mail and telephone order transactions. This will give your customers more information to help them recognize transactions on their Visa statements.**

**Note:** *Contact your merchant financial institution or processor for the specific name formats and requirements for these special mail and telephone order options.*



*Visa Address Verification Service  
Adding Value to Mail and Telephone Order Transactions*

## Glossary

<b>Authorization Approval Code</b>	<b>The numeric code given by the card issuer to the merchant when a transaction is approved. This code will be electronically displayed (and printed on the sales draft if the merchant has an electronic printer at the point of sale) or should be hand-written on the draft by the sales associate.</b>
<b>Card Issuer</b>	<b>A financial institution that issues Visa cards to its customers, who are also known as card-holders.</b>
<b>Chargeback</b>	<b>A transaction returned by the card issuer to the merchant financial institution for such reasons as incorrect authorization procedure or a customer dispute. The merchant financial institution may also return the charged back item to the merchant.</b>
<b>Copy Request</b>	<b>A request for a copy of the original sales draft made by the card issuer to the merchant financial institution, often as the result of a cardholder not recognizing a transaction. If the merchant stores its sales drafts, the merchant financial institution will forward the request to the merchant for fulfillment.</b>
<b>Merchant Financial Institution</b>	<b>The financial institution with which a merchant contracts to accept Visa cards as payment for goods and services. Usually, a merchant deposits its sales drafts and credit vouchers with this financial institution.</b>
<b>Merchant Direct Access Service</b>	<b>A Visa service that provides merchants instant access to AVS using a toll-free number and a touch-tone telephone.</b>
<b>VisaNet Authorization System</b>	<b>The electronic system through which authorization requests are processed from the merchant to the card issuer.</b>

