

## **Transaction Approval Best Practices:**

Reduce costs and increase revenue by identifying good transactions with greater speed and accuracy

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## **Executive Summary**

For online retailers and other merchants who routinely accept card-not-present transactions, quickly verifying a customer's identity is a crucial step in approving sales and shipping orders. Inability to verify basic customer contact information can result in missed revenue opportunities, higher costs for running your business, cancellations, and a slow response time filling orders.

AVS was designed to be the first line of defense against fraudulent online credit card transactions, but because of the limitations inherent in the system, a large percentage of transactions are summarily denied, and even approved transactions are sometimes suspect. It is up to the retailer to decide whether to reject these transactions out of hand or to subject them to a costly manual-review process.

The generally available options for manual review are fraught with problems ranging from missing and inaccurate data to simply being too time consuming to be cost effective. Online customers increasingly provide telephone numbers that cannot be easily verified through publicly available sources. Mobile and VoIP telephones are not listed in a centralized directory. Even traditional landline telephone directories have become fragmented and are not updated frequently enough to be a reliable source of verification data. The manual review process also creates a costly lag between the customer placing the order and the product shipping. The risk of the customer becoming annoyed or canceling the order is high.

The challenge for today's online retailers is to develop a strategy that fills in the gaps left by the traditional defenses against fraud, by combining them with enhanced data solutions and internally developed best practices. Such a strategy will increase productivity, decrease decline and cancellation rates, lower operational costs and allow retailers to better manage fraud while maximizing revenue.

The more quality information you have, the better your decision process becomes. Merchants can speed up or even automate more transactions by accessing the widest coverage of consumer and business contact information available. Accelerating the approval process can create more revenue, lower your cancellation rates, and increase your overall productivity.

## **Introduction: Linking Approval Rates to Profitability**

It's 2 am. Do you know who your customers are?

The Internet has introduced online retailers to a whole new world of customers who might never have had access to their brick-and-mortar stores. But it has also opened them up to an increased threat of credit card fraud. Being able to sell a \$2000 watch at 2 o'clock in the morning seems like a great way to expand your business and get more sales, but it is also a transaction that is fraught with uncertainty. How can you trust a transaction when you can't check the signature?

The reality is that the vast majority of transactions are totally legitimate, but the need for merchants to protect themselves from online fraud is just as real. Who are the people behind the text boxes on your secure order page? How can you tell the difference between a well-meaning customer and a thief without alienating the well-meaning customer or handing the keys to the store to the thief?

Quickly verifying a customer's identity is a crucial step in approving and shipping orders. Inability to verify basic customer contact information can result in cancellations, missed revenue opportunities, higher costs for running your business and a slow response time filling orders — a situation that changes from exasperating to nightmarish around the third week of November.

To stay competitive in today's marketplace, you need to approve as many transactions as possible as quickly and as cost-effectively as possible. Verifying data for online transactions can be a challenge, especially when you're dealing with hard-to-find phone data. Wireless, VoIP, and cable phone systems do not have centralized directories, while traditional, landline phone service is becoming fragmented and the directory information less reliable. The current systems in place for verifying customer identity with an address and telephone number "on file" are not equipped to deal with today's mobile customer.

The result is that profits are being eaten away by a high manual-review rate that is only getting higher as more customers go "off-the-map" with phone numbers and addresses that can't be verified through traditional sources.

### ***Optimizing approval methods goes straight to the bottom line***

The challenge for today's online retailers is to develop a strategy that fills in the gaps left by the traditional defenses, by combining them with enhanced data solutions and internally-developed best practices. Such a strategy will increase productivity, decrease decline and cancellation rates, lower operational costs and allow retailers to better manage fraud while maximizing revenue.

On-demand data solutions exist that can speed up and even automate the process of approving orders for customers with multiple or hard-to-find verification factors. These solutions provide data coverage for as many VoIP and mobile phone numbers as possible, allowing merchants to approve a much greater percentage of orders more quickly while keeping their fraud rates low.

## Understanding Card-Not-Present Verification Requirements

Consumers put e-retail approval systems through the wringer every day. Some people like to buy expensive watches on impulse at two o'clock in the morning. Some like to send gifts to family and friends all over the world. Some use their personal cards to buy items they would like shipped to the office, and vice versa.

Consumers expect merchants to fulfill each of these types of orders easily, but they can all strain the approval process.

The first step of credit card transaction validation is often the Address Verification System, or AVS. The AVS was designed to approve only the most airtight transactions, where the customer name exactly matches the address and phone number on file with the credit card issuer. AVS is the most common method used to validate the address associated with a credit card. More and more, however, merchants are seeing that an AVS failure does not necessarily mean that a transaction is bad.

A database is only as good as the frequency of its updates, and the vast numbers of Americans changing address every month can slash the effectiveness of AVS. In other cases, AVS can fail when consumers provide an address that can't be easily standardized (refer to the sidebar, *Understanding the AVS*). In these cases, the system often produces a "false positive," flagging the transaction as fraudulent five- to twenty-percent of the time. Actual fraud rates are widely thought to be much lower.

"False negatives" also pose a costly problem because many fraudsters can fool AVS into thinking a ship-to address matches a billing address when in fact only parts of the two addresses are the same.

Many merchants have created automated systems that provide further guidance on whether an order should be accepted, reviewed, or declined. The variables used in an automated review process are selected to provide a high level of coverage, quickly identify indicators of fraud, and be actionable in a defined rule set. Common examples of variables used in automated systems include the type of product, the order value, the customer's IP geo-location, past order history, email domain type, and bill-to / ship-to addresses matching.

For many merchants, one single variable – a ship-to address that is different from the billing address – returns a fraud level as high as fifty percent, and other combinations of variables can also be used as reliable indicators of fraud. These items are used in conjunction with the AVS result to paint a clearer picture of the risk of the transaction.

Call center orders have been added into this process as well. A customer submitting a call center order through an online process often results in one of the most checked common variables to not be available – IP geo-location. Since the customer used a phone to place the order, there is no IP address available to confirm their location. By working with call routing companies, the phone number that someone is calling from can be captured and a location for that phone number can be identified, providing verification on the customer's identity.

### ***Life after AVS: the manual review process***

If a transaction has failed the AVS and other automated processes, it may be either declined outright or sent on for manual review. Most online merchants report a manual-review rate of anywhere from five- to fifteen-percent. The review process involves an individual employee looking at the given information and using a patched-together toolbox of resources to determine if more information can be found to prove the customer's identity.

Unfortunately, the manual review process, much like the AVS, is only as good as the data available, and is also prone to error. Two of the largest drawbacks to the system are the disappearance of a single phone directory, and the increasing number of customers who use several telephone numbers (business, mobile, and a home landline) and more than one address (home and office).

The breakup of Ma Bell is still sending its own shockwaves through the verification system; with more than 600 different phone companies it becomes very difficult to consolidate all of the subscriber information. Directory Assistance is still used as the major source for many data providers, but it has seen a tremendous drop in coverage, to below forty-percent.

Add to this the fact that there are now more mobile phones than landlines, and mobile phones are becoming the primary number for many consumers. This causes several problems when trying to verify an individual because the availability of name and address information for wireless numbers is much more scarce than that for landlines. Until mobile phone providers decide to publish subscriber name and address information, this issue will continue to increase the merchant's risk in accepting these orders.

Emerging technology that delivers phone service over the internet and cable networks also creates additional roadblocks. Phone numbers can be provisioned to be accessed from anywhere, so confirming identity through geo-location becomes difficult. Finding a data source which has access to a high percentage of provider data for these emerging phone technologies would make it easier to identify customers.

#### ***Methods of manual review***

The four most common methods for manually finding more information:

- **Using White Pages or Directory Assistance to confirm the phone number or address:** Subscriber information is fragmented and updated infrequently. Only 2% of mobile phone numbers are listed in the White Pages or with Directory Assistance.<sup>1</sup>
- **Using Free Web-based look-up services:** Web-based solutions are tempting because they are easy to access and free of charge. Unfortunately they are usually powered by advertising and are often out of date, providing very little additional information.
- **Using Paid Web-based look-up services:** Paid sources have only slightly better information and update rates, with the added disadvantage that you have to pay for them.
- **Calling the bank for verification:** Some merchants will call the customer's bank directly. Their request for verification information is at the mercy of the bank's policies, which may block confirmation.
- **Calling the customer directly:** These types of calls are extremely time-consuming, annoying to the customer, and there is no real way to verify the identity of the person on the other end of the phone.

All of these options are fraught with problems from missing and inaccurate data to simply being too time consuming to be cost effective. The manual-review process also creates a costly lag between the customer placing the order and the product shipping. The risk of the customer becoming annoyed or canceling the order is high.

Most retailers accept a high AVS rejection rate and long, arduous manual review process as a necessary evil of doing business online. For example, Company A has experienced an AVS

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<sup>1</sup> "Phones Flagged as Cellular in White Pages Data." Amacai study, July 2006

rejection rate of around 10%, when that merchant's actual rate of fraud (after all of the suspect transactions have been manually approved) is actually less than 1% of the total number of transactions. This leaves a lot of room for improvement in setting up a secondary verification screening process.

The only way to quickly or even automatically approve good orders that have not made it through the initial AVS procedure would be to use a data source that has access to a high percentage of provider data for emerging phone technologies. Merchants need to tap into the most current, complete and accurate consumer and business information that they can obtain. The better the data quality and coverage, the more it enables merchants to release good orders with minimal effort.

## **Practice Makes Perfect: Developing Best Practices to Best Boost the Bottom Line**

### ***Identifying additional revenue from AVS-declined orders***

One common practice is to decline orders that have failed AVS even though the industry is in agreement that an AVS failure does not automatically mean fraud. This practice has become widespread because a high volume of AVS-declined transactions is extremely costly to verify with the traditional manual methods. This better-safe-than-sorry approach keeps merchants safe but results in a high loss of revenue.

Merchant B's policy was to decline all orders that failed AVS, until the merchant decided to look at its declined orders more carefully. What he found was that 37% of the automatically declined orders actually could have been safely approved if the merchant had manually reviewed the orders. This translated into millions of dollars per year of revenue that was being canceled even though the transactions actually had a below-index fraud rate.

### ***Understanding the N/A/P relationship***

The goal of a manual-review process is to confirm the identity of the customer. While many variables individually contribute to identification, the relationship between the most basic customer information — name, address and phone number (N/A/P) — is often overlooked. If a strong relationship exists between the name, address, and phone number provided, your ability to quickly confirm good orders can be increased substantially.

The basic problem with using names as an identifier is that they can be shared, and therefore provide minimal value on their own; there are many people named John Smith, Sue Williams, or David Jones. This is why names need to be linked to either an address or phone number or both to become a powerful identifier during the review process.

Addresses can be used if they are standardized according to the USPS guidelines, but non-standard addresses, apartment numbers, shared housing, and multiple phone numbers at the same address can create confusion and lessen the value of the address as a corroborating identifier. Phone numbers are the only truly unique identifier as they are tied to both the subscriber's name and address. For this reason the phone number is the starting point for many investigations.

There are several ways that the relationship between a name, address, and phone number can be analyzed. The analysis can become complicated by the fact that a single person typically has business and home phone numbers as well as a mobile phone. Understanding the relationship of a customer to his or her different addresses and phone numbers helps determine what additional information is needed to approve an order. Other interesting data points which could shed some light during a review include:

- Has the customer recently subscribed to the phone service?
- Have they taken the time to register on a "Do not call" list?
- Is the phone near the address that was provided?
- Was there a recent change in the phone listing?
- Who is the phone provider and does it match the ISP?

What retailers need to speed up the process is an easily-accessible data source that provides a secondary validation of the customer's identity when the initial AVS scan does not. By using the provided name in conjunction with secondary address and phone number information to identify a

strong relationship between the three, you can quickly add to your bottom line by confidently approving a large chunk of orders without tying them up in a lengthy manual review.

Real-time data solutions exist that offer access to a large amount of customer information, which can be used to quickly triangulate a customer's identity and approve the order quickly or even automatically. These solutions offer an enhancement to current AVS technology by giving access to many possible contact points for each customer.

### ***Using N/A/P more intelligently***

The N/A/P relationship can be used as an excellent screening criterion. Understanding the N/A/P relationship makes it possible to distinguish between easy-to-review orders and those orders that will take a significant time investment. By automatically identifying orders with good N/A/P information, those orders can be cleared through the queue and prepared for shipping while the appropriate amount of effort can be spent on the more difficult cases.

Three relationships have been identified that indicate a strong enough N/A/P relationship to allow a merchant to approve an order without further review. All three can be used to great effect with access to better information about a customer's alternate addresses and phone numbers. The relationships are as follows:

- **Name, address, and phone all match:** This is the strongest relationship where all of the pieces can be connected together by alternate data sources that have more up-to-date information or provide alternate addresses and phone numbers that relate to the name provided. Merchant B found that this group represented 30% of all orders that had been identified by AVS as suspect.
- **Name and address match, phone is mobile:** This relationship identifies consumers who have a landline phone but provided their mobile phone number on the order form. Having access to mobile phone listings allows this type of transaction to be approved immediately and with a high level of confidence.
- **Name and mobile phone number match, no address available:** Again, having access to a data source that can provide addresses along with mobile or other hard-to-find telephone numbers can confirm a strong relationship where the AVS would cause the transaction to fail.

Many companies choose to automatically accept orders that meet certain N/A/P guidelines and other criteria, such as a bill-to / ship-to address match, and an order value that is deemed reasonable for the type of transaction. They have determined that the time and cost savings of automatically accepting these orders outweighs the potential fraud.

### ***Developing your best practices***

The objective in designing your company's best practices for transaction approvals is to streamline the approval of good transactions, thus minimizing the number of transactions that require scrutiny. This is the key to boosting revenue and lowering operating costs.

Every company has its own needs. Maintaining low fraud rates while increasing the speed of the manual review process requires the right combination of staff, strategy, leadership, resources, and tools. The following steps provide a jumping-off-point for developing your company's unique verification strategy:

1. **Determine the appropriate balance of fraud vs. cancellation rates:** These two values are related and trying to make either of these values zero may negatively impact your business. More stringent fraud rules will decrease your fraud but will also cause you to turn away good customers. A low cancellation rate will keep customers happy and

maximize revenue but will lead to a higher fraud rate. Creating a system that balances fraud and cancellation rates will improve your company's financial performance and give you a framework for scaling your verification systems as your company grows.

2. **Create a secondary review process to supplement AVS:** Once a transaction fails AVS, is there a second review that can be performed very quickly or even automatically to approve a large chunk of orders that have a very low fraud profile? Determining the fraud factors that are most common for your particular line of business will help you set the rules for this second screening.
3. **Increase the coverage of your data sources:** Finding a reliable source for unpublished phone and address data that is user-friendly and easily accessible will greatly increase both the number of transactions that can be approved and the speed with which they are approved. Look for a solution that has as much coverage as possible and as much automation as possible.

***Best practices deliver best results***

The more quality information you have, the better your decision process becomes. Speeding up or even automating more transactions by accessing the widest coverage of consumer and business contact information available can create more revenue and lower your cancellation rates by accelerating your review process and increasing your productivity.

By following best practices on verification, many merchants have not only been able to raise the productivity of their transaction reviews, but also to gain confidence in their decision-making. These merchants have reduced the time required to approve transactions, slashed their calls to banks and gained the ability to process more orders per agent. They have also acquired more confidence in their approvals of risky orders and their decisions to decline orders.

Even if you're only manually reviewing 5% of your transactions right now, that adds up to significant savings of time and money.

## **Conclusion**

For companies processing anonymous online retail transactions or enrollment applications, that need to quickly and cost-effectively separate legitimate transactions from those needing further review, the development of a new strategy for quick manual approval is critical for survival. As more and more customers have multiple phone number and addresses and as that information becomes more fragmented and harder to verify, the development of verification best practices combined with improved data sources is the key to continued success.