



TARGUSinfo<sup>®</sup>

## **ONLINE TRANSACTION APPROVAL BEST PRACTICES:**

Removing Barriers to Speed,  
Accuracy and Scalability

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# ONLINE TRANSACTION APPROVAL BEST PRACTICES

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## *Executive Summary*

For online retailers who routinely accept card-not-present transactions, quickly verifying a customer's identity is a crucial step in approving sales and shipping orders. The 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.

As the number of online orders has increased, it has heightened the need to create automated systems that provide guidance on whether an order should be accepted, reviewed or declined. Usually, no individual piece of information will indicate whether an order is fraudulent. Effective solutions combine elements of data that are easy to evaluate and provide a quick picture of orders that are readily confirmed as well as those that need a closer look.

AVS was designed to help reduce fraudulent online credit-card transactions, but because of the limitations inherent in the system, a large percentage of transactions are marked as questionable. Even AVS-verified 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 commonly available options for manual review are fraught with two kinds of problems, often caused by missing and inaccurate data:

1. The time required to use multiple tactics and validation services for a transaction
2. The increasing number of online customers who provide telephone numbers that cannot be easily verified through publicly available sources — such as wireless and VoIP-enabled phones

These and a number of other issues can make common manual-review tactics simply very time consuming and not cost effective. Any problem that arises during the manual-review process creates a costly lag between the customer placing the order and the product shipping. Such delays carry with them the potential for cancellations and customer animosity.

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 more effective your decision-making process becomes. You 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 lower your cancellation rates, create more revenue and increase your overall productivity.

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

For all the convenience it offers consumers, the Internet can create a bottleneck at times for online retailers. On one hand, the Internet has introduced online retailers to a whole new world of customers who might never have made it to their brick-and-mortar stores or placed a phone order. On the other, the Internet has also increased the uncertainty as to who is really placing an order using a credit card.

So how can you effectively separate the vast majority of online transactions that are totally legitimate from the more questionable ones? Best practices include something that retailers are already doing — analyzing fundamental contact information such as a name, address and phone number, which are needed to process orders anyway.

Using new techniques, you can get this information to tell you much more than just how to reach a customer. Understanding the relationship between these three pieces of information can help you verify a customer's identity, allowing you to approve good customers and manage your risk.

The alternative can be problematic. An 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 challenging to grueling during the holiday months of November, December and January.

To stay competitive in today's marketplace, you need to approve as many transactions as possible as quickly and as cost-effectively as possible. This typically requires a processing system that considers many factors, such as credit-card validation, name-address-phone correlation, the type of product, order value, location of the device used to submit the transaction, a customer's past order history, email domain type and a comparison of the billing and shipping addresses.

## ***Managing Card-Not-Present Verification Requirements***

Most merchants' credit-card validation systems include the Address Verification Service, or AVS. AVS was designed as a guide to help decide whether to accept transactions based on how closely the customer street address and ZIP code matched the data on file for the cardholder with the credit-card issuer.

Many merchants and credit-card companies use AVS as a valuable tool to reduce fraud. More and more, however, merchants are seeing that an AVS failure does not necessarily mean that a transaction is bad. On the other hand, it's possible for a bad order to sneak past verification by AVS if a fraudster knows how it works. The service also does not incorporate a significant verification factor: AVS results have no connection to the phone number provided.

Data is only as good as the frequency of its updates and AVS has run into issues with credit-card users who have not kept their billing addresses current. Over 3 million Americans change addresses every month<sup>1</sup> and many of them are people who have gone to paperless credit-card statements. Since these consumers pay their bills online instead of receiving paper statements, they often don't feel an urgency to update their addresses with their credit-card providers. The growth rate of consumers using these services is contributing to the growth in AVS false negatives. (For more on the system's functionality, see "Understanding Address Verification Service Limitations," p.8.)

<sup>1</sup> "How Clean is Your Database?" *Target Marketing*. July 19, 2005.



### ***Why Is Phone Data so Hard to Confirm?***

Once Merchants run their transactions through the usual filters for warning flags, phone data can play a key role in determining whether to approve an order. But the difficulty of finding useful phone data for verification is becoming more and more pronounced.

Why? Three reasons: The proliferation of wireless phones, the disappearance of a single phone directory and the rise of broadband telephony.

### ***The Golden Age of Wireless***

Today there are more consumer wireless phones than consumer land line phones in the US. Plus wireless phones are becoming the primary number for many consumers — and the only number for so-called “cord cutters.” Many recent college graduates — as well as future grads — may never own a land line phone. This trend causes several problems for merchants trying to verify their customers’ data. The availability of name and address information for wireless numbers is much more scarce than data for land lines.

### ***Directory Assistance May Not Offer Real Help***

Merchants often look to phone directories for help in validating consumer contact information but today there are more than 600 phone carriers in the US. Many of these carriers do not participate in providing customer contact information to a single Directory Assistance provider. Directory Assistance is still used as the major source for many data providers, but in recent years, the number of entries listed by DA sources has dropped by millions annually. This is largely because of the rise in wireless and VoIP phones, which don’t appear in DA listings. DA coverage is projected to continue shrinking as more consumers switch telephone providers, make their numbers private or go completely wireless.

When merchants can’t verify customers’ phone data because of limited data coverage, it creates vast amounts of manual work to confirm the relationship between customers’ names, addresses and phone numbers.

## ***Current Challenges in Processes Used Today to Handle Online Orders***

The challenge for today’s online retailers is to develop a strategy that fills the gaps left by the traditional defenses against fraud. As the number of online orders has increased for the retail industry, it has heightened the need to create automated systems that use a set of rules to provide guidance on whether an order should be accepted, reviewed or declined. Companies are seeking data sources that will provide them with data coverage on as many potential customers as possible. The data should also provide some indication of potential fraud and fit into a rule set so it can be integrated with automated processes. Usually, no individual piece of information will indicate whether an order is fraudulent. Effective solutions combine easy-to-evaluate pieces of data that provide a quick picture of orders that are readily confirmed and those that need further investigation.

## ***Striking a Balance Between Fraud and Cancellation Rates***

For every step of the verification process, merchants must strike a fine balance between fighting fraud and limiting cancellation rates. Managing an order-review process requires setting realistic goals, since these two rates are related. Trying to drive either rate to zero will have a negative impact on the merchant’s business. For example, adopting stringent fraud rules, such as declining any order that fails AVS, will decrease fraud. But it will also cause a merchant to turn away good customers. What’s worse, the merchant will have a hard time convincing these customers to overlook this negative experience and return for future orders.

On the other hand, a merchant will limit its business if it tries to keep an extremely low cancellation rate without a thorough verification process. Seeking customer satisfaction and maximum revenues, the merchant will likely end up with a higher fraud rate, which can impact interchange rates for all good transactions. The merchant could also incur a higher expense for manual review with this approach.

A more effective solution calls for establishing a system to balance fraud and cancellation rates. The payoff doesn't just come in near-term financial performance, but also long-term scalability.

### *When Orders Require Human Review*

The order-verification process only contains a finite amount of information that can be used in automated decision-making, forcing merchants to send some orders to manual review. Online merchants report a manual-review rate of between 5-15%.

This rate has a huge effect on how quickly merchants can process credit-card transactions. The Top 100 retailers alone processed more than 425 million card-not-present transactions last year.<sup>2</sup> Most were good customers, but if just 5% were questionable and needed to be reviewed for those Top 100 retailers, that amounts to 21.25 million transactions.

Without a semi-automated process in place, it typically takes one to two minutes to verify the easiest orders where publicly available information is available. When orders can't be verified using publicly available data, such as those that include a wireless or private phone number, it can take about 10-15 minutes or more to complete calls to the customer's bank and/or the customer — if they can be reached. The cost quickly adds up. On average, for every 1,000 transactions that a merchant processes per day at a manual-review rate of 7.5%, the merchant will spend six hours on manual review.

The review process requires an employee to look at the given information and use a toolbox of resources to prove the customer's identity. Properly staffing a manual-review team is key, but it's also critical to make sure the team has the right tools to perform efficiently.

### *The Usual Data Sources Leave Huge Gaps*

The four most common methods for manually seeking information to verify customer phone data:

- **Using White Pages or Directory Assistance sources to confirm the phone number or address:** As mentioned above, these sources are struggling to accurately represent the US population's use of phone services.
- **Using paid look-up services:** Many paid data sources have only slightly better information and update rates than Directory Assistance listings and therefore can become quite costly.
- **Calling the bank for verification:** Another strategy is to contact the customer's bank directly. The merchant's request for verification information is at the mercy of the bank's policies, which may block confirmation or provide inconclusive results.
- **Calling the customer directly:** These calls are extremely time-consuming and can be an opportunity for the customer to cancel the order.

<sup>2</sup> *Internet Retailer Top 500 Guide*. Vertical Web Media, 2007.



These options are faced with challenges ranging from missing and inaccurate data to being too time consuming to be cost effective. Some of these options can create a costly lag between order placement and fulfillment. This delay may result in the merchant missing delivery commitments to the customer, which will affect future purchasing decisions. At the end of the day, merchants put forth tremendous effort to keep fraud rates in check. Maintaining such low fraud rates requires the right combination of staff, data resources and tools.

## ***Developing Best Practices for Bottom-Line Impact***

### ***Creating a Powerful Foundation from N/A/P Relationships***

While merchants use many different kinds of data sources to confirm customer information, the relationship between the most basic pieces of customer information — name, address and phone number (N/A/P) — is critical in today's market.

If a merchant can validate the relationship between the name, address, and phone number provided, then a merchant's ability to quickly confirm good orders can be increased substantially. Each of these pieces of information has some value on its own, but when merchants combine them and examine their correlation, these data elements become much more useful.

### ***Using N/A/P More Intelligently***

Phone numbers are unique since they are tied to both the subscriber's name and address. For this reason, confirming the phone number is the starting point for many investigations. From there, the complete N/A/P relationship can be used to quickly review and release orders in both automated and manual processes.<sup>3</sup>

A recent analysis of the Top 100 retailers illustrated the impact of this correlation. Merchants with the ability to verify wireless and other nontraditional phone types could instantly approve and ship 34% of orders that had been sent to manual review. Additionally, they saw a 25% reduction in orders flagged for review by implementing these capabilities earlier in the process.

### ***Identifying Additional Revenue from AVS-Declined Orders***

In an effort to control fraud, some merchants decline orders that have failed AVS, even though the industry is in agreement that an AVS failure does not automatically imply fraud. This practice has become widespread because verifying a high volume of these AVS-declined transactions is extremely costly when using the traditional manual methods.

This better-safe-than-sorry approach keeps merchants safe, but results in not only a significant loss of revenue but also customer animosity.

A recent merchant analysis of cancelled orders that failed AVS showed that 37% of the automatically declined orders could have been safely approved if the orders were verified against a data source that provided coverage for wireless and nontraditional phone types.<sup>4</sup> This translated into millions of dollars of revenue per year that was being canceled unnecessarily.

3 TARGUSinfo analysis of merchant volume, completed July 2007.

4 TARGUSinfo analysis of merchant volume, completed July 2007.

## Developing Your Own Best Practices

When designing your company's best practices for transaction approvals, the objective may include streamlining the approval of good transactions. By minimizing the number that require manual review, you'll reduce the decline rate and more effectively manage fraud. This is the key to boosting revenue and lowering operating costs. 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 starting point for developing your company's unique verification strategy:

**Determine the appropriate balance of fraud vs. cancellation rates:** These two values are related and trying to achieve a value of zero for either one 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 may 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.

**Create a secondary review process to supplement AVS:** Once a transaction fails AVS, is there a second review that can be performed to approve this large universe of orders that has 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.

**Increase the coverage of your data sources:** Find a reliable source for wireless and nontraditional phone types and address data that is user-friendly and easily accessible. This will significantly increase the number of transactions that can be automated and the efficiency of the manual review process.

## Turning Best Practices into Results

The more quality information you have, the easier and more reliable your decision-making process becomes. By accessing the widest coverage of consumer and business contact information available, you can automate more transactions and more efficiently process manual reviews. As a result, you can release more revenue, lower your cancellation rates, increase your productivity and manage fraud.

## Conclusion

Companies that process card-not-present retail transactions need to make sure their order verification process is designed for quick and cost-effective decision-making. Today's competitive business environments have made it critical for retailers to develop a strategy for increasing automation and efficiency for manual approval. As more customers submit wireless and nontraditional phone numbers with their orders, the development of a verification process that can address these requirements is critical to continued success.



## ***Appendix: Understanding the Address Verification Service Limitations***

For merchants who process card-not-present transactions, the Address Verification Service (AVS) takes the place of signature confirmation as a first step in protecting themselves against fraudulent transactions.

AVS works by comparing the data provided by the consumer to the billing information on file with the credit-card issuer. The system returns a code that corresponds to different degrees of “match”.

**While the idea behind AVS is fairly straightforward, there are several limitations to the system:**

- Formatting errors in how data is transmitted will return a negative response, such as “2nd Ave,” vs. “Second Ave.”
- People move frequently and it may take a consumer several weeks to update his or her change of address information with the credit-card issuer but a new mover is likely to spend heavily online during that same time frame.
- Consumers getting statements online may not update the billing address for an extended period of time.
- In cases where the fraudster is planning to redirect a shipment or use an alternate shipping location, AVS will pass.

## *About John Trionfo*

As Director of Risk Management for TARGUSinfo, John Trionfo serves as the general manager for all risk-management activities. He led the creation of the company's automated and Web-based verification platform, On-Demand Verification<sup>SM</sup> for risk management. These solutions provide TARGUSinfo clients with the widest coverage of accurate consumer and business contact information available. Prior to joining TARGUSinfo in 2005, he was VP of Sales at Jinfonet Software, a leading Web-enabled business intelligence software firm. Prior to Jinfonet, John specialized in developing products and bringing them to market as Director of Sales for PresenceWorks and for Emultek, Inc., and as a Regional Director for Red Hat, Inc.

## *About TARGUSinfo*

TARGUSinfo is the trusted source for name, address and phone data that organizations use as they interact with prospects and customers.

With the right knowledge at the right moment, our information services help organizations increase revenue, create more satisfying consumer experiences, produce savings from new efficiency, and manage risk.

Whenever organizations need it, we deliver the most up-to-date consumer and business information possible. Millions of times every day, businesses rely on our data to optimize transactions initiated by their prospects and customers, whether they are over the phone, on the Web or at the point-of-sale.

To provide this unique level of service, TARGUSinfo has built a foundation of data from the nation's telecommunications providers, making our information exceptionally precise, relevant and actionable. Drawing from a proprietary network of over 90 data sources, TARGUSinfo uses patented processes to link together the most complete and accurate name, address and phone data possible. Those linked elements also connect to information such as demographics, location, predictive buying behavior and risk-assessment factors. A real-time query-and-response network delivers this exceptional data to TARGUSinfo customers in sub-second speed, whenever our customers need it.

A privately held company, TARGUSinfo is headquartered in Vienna, Va.



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