# Merchant Account Basics

A compilation of Braintree blog posts

Braintree™ PAYMENT SOLUTIONS

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# I. A Brief History of the Credit Card Processing Industry

Most people think that 'credit card processing' is a rather recent invention, but it actually dates back to the early 1800s. While plastic wasn't used then, merchant and financial intermediaries did extend credit on durable goods. In the early 1900s, the larger hotels and department stores began to issue paper cards to their most valued customers.

In 1949, Diners Club launched the first general merchandise charge card. It was primarily used for travel and entertainment expenses for a more well-to-do customer. Diners quickly expanded their network across the nation and charged merchants a hefty 7% fee per transaction.

In the 1950s, Bank of America launched the first general credit card. At the time, banking regulations limited the geographic reach of individual banks, so Bank of America found it difficult to compete with Diners' nationwide access. To overcome this limitation, Bank of America licensed their card to other banks. Initially they were successful but soon became overwhelmed with the administrative task of processing all of the paper slips from member banks. In effort to address the growing needs, Bank of America decided to spin off the organization and it eventually became known as Visa.

In light of Bank of America's success with their card, a competing network of banks launched a third network in 1966 known today as MasterCard. American Express was launched in 1958 and Sears, Roebuck, and Co. launched the Discover Card in 1986.

Issuing credit cards has turned into big business. These financial institutions that issue cards to consumers make money through outstanding balance fees, annual fees, and late payment fees. On the front end, when consumers make purchases with their cards, financial institutions make roughly 2.00% (the actual amount depends on the size of the sale).

The fees that banks charge when credit cards are used for purchases are known as Interchange. The industry has come under fire during the past few years because interchange fees have risen 117% in the past five years. Interchange prices are fixed regardless of volume (although the top 200 or so merchants have negotiated better interchange rates, but are under NDA), which has irked many larger retailers.

Roughly 80% of all U.S. families have some type of credit card (the average consumer has more than 3), making plastic a payment method that is expected to be around for a long time.

## II. Industry Overview

There is a lot of confusion surrounding credit card processing and merchant accounts. Some of the most common areas of confusion are the different types of organizations that sell the services, what entities actually process the transactions and the fees and pricing structures that continue to form an unsolvable mystery for most merchants. I'm going to provide a broad overview that will hopefully help make sense of this complicated industry.

### The necessity of merchant accounts

Some merchants prefer accepting credit cards because they are a much more convenient and cost effective way of collecting payments from customers. Other merchants, while it still may be convenient, struggle to pay the relatively high fees on their already-thin margins. Either way, merchants can make a number of improvements in their credit card acceptance by becoming more informed.

### Providers of merchant accounts

If you want to get a new merchant account or switch from your existing provider, one thing is for sure: there is no shortage of companies that are anxious to earn your business. You can find merchant service providers by looking in the yellow pages, searching online, talking to your bank, or just waiting for the next sales person to either call you or walk into your business (which shouldn't be long). The key is choosing the RIGHT provider for your business.

### Not all merchant service providers are made equal

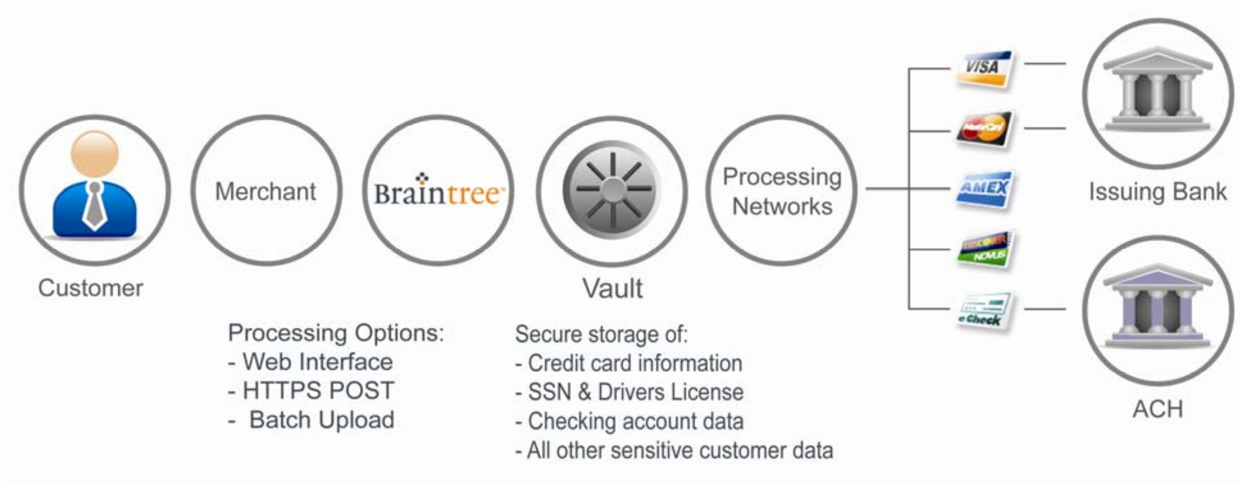
There are really two types of merchant service providers: processors and resellers (resellers are known in the industry as Independent Sales Organizations (ISOs) and/or Merchant Service Providers (MSPs)). Your first thought is probably that you would rather go with a processor to cut out the middle man, but I'll show you why it's not that clean-cut. Before I started Braintree, I worked for a processor and saw firsthand some of the limitations they had in providing solutions to merchants. I'll provide more detailed descriptions of both options and then offer an assessment of their differences.

1) **Processors** - Also known as Acquirers, processors are distinguished by their ability to actually process a transaction. To be a 'processor', a company must have the technical capability to receive transaction data from a merchant via a telephone line or the internet and then communicate with the appropriate financial institutions to approve or decline transactions. Processors must also be able to settle completed transactions through financial institutions in order to deposit funds into the merchant's bank account.

The processing industry is highly concentrated with the top five processors maintaining over 70% of all transaction volume. Processors can be banks or non-banks.

While processors do maintain a direct sales force of their own, they primarily work through ISOs to acquire and maintain their merchant base. A processor's business model is really one of economies of scale. They are essentially volume shops that outsource the sales function to ISOs. I don't have data on this but I would guess that over 80% of the 7 million U.S. merchants work with an ISO.

Here is simple diagram of the transaction flow. I took the liberty of putting my company in the value chain, but because Braintree is an ISO, there is a processor behind the scenes doing the actual transaction processing. Because most everything is private labeled, it's difficult for most merchants to discern whether their service provider is a processor or an ISO. Be careful not to be improperly influenced by this. Most sales people try to use the 'we're the processor' line to gain additional credibility when in reality it doesn't really matter.




**2) ISOs -** ISOs resell the products or services of one or multiple processors. They can also develop their own or aggregate other value-added products and services. ISOs range from a little sketchy to best in class providers.

### There are two types of ISOs

a. **Banks** - Banks of all shapes and sizes are ISOs. Wells Fargo, for example, is an ISO of First Data. Your local community and large regional banks are most likely ISOs. Banks entered into the merchant services business because it was a natural fit with their product and service offerings. It is a way for them to increase average revenue per customer. Most, but not all banks, will private label the services so that it's difficult to distinguish whether they are a processor or ISO. The benefit of working with a bank is that you can consolidate your financial services. The drawback is that you usually get 'out of the box' type solutions and service.

b. **Non-banks** - These types of ISOs range from some of the most dynamic and capable providers to firms that don't represent the industry very well.

## Industry Dynamics
There are a few dynamics that make the industry landscape quite interesting. First, there are very few barriers to entry due to the lack of certifications, licenses, and capital requirements. Secondly, there really is no active regulatory body that oversees and enforces acceptable practices. So naturally, with these two market conditions, merchants need to be mindful and thorough in selecting a provider.

## Processors vs. ISO's
In comparing the two, ISOs offer all of the products and services that processors do (because they are reselling) but processors can't always offer the same products and services as ISOs. This is because ISOs can resell for multiple processors and can either develop their own technologies or aggregate solutions from other providers. ISOs have largely been the most successful creators of value-added services while attempts by processors have usually been pretty clunky. ISO's also tend to be smaller, which usually (but not always) leads to better customer service.

Processors are usually a safer bet for newer merchants that are still learning about the industry. Most still maintain what I consider less-than-upfront pricing practices, but with their services it is less common to hear about some of the more serious problems that merchants encounter when they deal with the wrong ISO.

As for price, in most cases, there really is very little to no difference.

I argue, and fully disclose my vested interest, that in nearly any situation a best in class, non-bank ISO can provide more value than a processor.

## Business specifics
The rates, terms, and conditions of your merchant account will largely depend on your type of business and the provider you choose. Business types are first divided into two buckets: card present (swiped) and card-not-present (non-swiped). Card present merchants, such as restaurants and brick-and-mortar retailers are low risk and have fairly simple needs. Card-not-present merchants are much more difficult because the risk level is substantially higher when people are transacting business via the internet, telephone, etc.

Other risk factors that will affect your merchant account are the types of goods that you're selling, delivery times, whether or not a deposit is required, and about 20 other variables. Most underwriting groups use some sort of actuarial model to determine their guidelines.

To give you an idea of one risk merchant service provider face, here is an example. Let's say that you sell $100,000 in books online. Within 48 hours of selling those items, the customer's money is deposited into your bank account. If you take that $100k and skip town without shipping the books to the people who bought them, the merchant service provider is stuck with the $100k bill because customers are going to contest and win the charge with their banks. So for a few hundred dollars a month in revenue, the risk better be pretty manageable for the provider.

### Filling out the paperwork to set up your merchant account

Most companies have a two-page application that will require you to fill out both personal and business information. Many people are justifiably concerned about giving out personal information including their social security number. However, unless you are a publicly traded company, I don't know of a merchant provider that will underwrite a business without it.

When asked why all of the personal information is needed, most companies will point to the Patriot Act that was passed in Congress shortly after 9/11. It basically requires all financial institutions, which include credit card processors, to collect specific identifying information about their customers.

You will also be required to sign a personal guarantee before the application is approved. Most merchants will respond that they incorporated so that they wouldn't be required to sign a personal guarantee. The underwriter will respond by asking why they should have more faith in your business than you do. Both sides have valid points. I think that the issue boils down to whether or not the business will deliver the goods or services that were purchased under the accepted terms and conditions. . The personal guarantee is not so much useful in collecting money, but is instead used as a deterrent against fraudulent and irresponsible behavior.

## III. What is Visa's Role in Credit Card Processing?

Visa dominates the credit card industry maintaining nearly a 70% market share of all U.S. credit cards that are in circulation. Despite their dominance, Visa's role is usually not well understood by merchants or consumers.

Visa is now a publicly held company primarily owed by 13,000 U.S. financial institutions. Visa provides much of the necessary infrastructure to support financial institutions in issuing and processing debit and credit cards. Financial institutions like Capital One and your local bank issue credit and debit cards because they make what's called Interchange every time that card is used.

Visa does not issue credit cards, set fees or determine the interest rates that will be charged on a Visa branded card. The issuing members have the latitude to determine those fees.

Visa USA makes most of their $2.9 billion in revenue two ways. First, they get a fixed .0925 basis points on all money that is spent using their co-branded cards (that's $.095 cents on a $100 transaction). Their second stream of revenue is from Data Processing, which means facilitating the transaction and settlement of transactions.

Here are some statistics to put their U.S. operations in perspective:

- 6.3 million businesses accept Visa
- $1.3 trillion dollars of goods were purchased with Visa branded cards, up 17% from last year
- Visa processes on average 100 million transactions per day

Card type usage statistics:

- Consumer credit cards - $588MM in sales volume, 282MM cards, 10% growth
- Debit and prepaid cards - $574MM in sales volume, 192MM cards, 23% growth
- Commercial - $159MM in sales volume, 26MM cards, 26% growth

## IV. Industry Definitions

**Acquirer** - the financial institution that processes credit card transactions. An acquirer is also normally interchangeably referred to as a 'Processor' even though they are different.

**ACH** - (Automated Clearing House) A system of the U.S. Federal Reserve Bank that provides electronic funds transfer (EFT) between banks. It is used for all kinds of fund transfer transactions, including direct deposit of paychecks and monthly debits for routine payments to vendors. The ACH is separate and distinct from the various bank card networks that process credit card transactions. ACH operations are done in a batch mode, which can take up to 72 hours before the money is actually transmitted. A return notification is sent if there are insufficient funds in the account.

**Authorization** - The approval given from the customer's bank that a transaction has been approved. When a card is authorized, a unique code is generated for each specific transaction.

**AVS (Address Verification System) -** In 1996, Visa/MasterCard started requiring businesses who manually key in credit card transactions to have a special fraud prevention feature on their credit card processing equipment. This feature is referred to as an address verification system (it checks to see that the billing address given by the customer matches the credit card).

**Bankcard** -A debit or credit card issued by a bank or other financial institution, such as a MasterCard® or Maestro card.

**Batch** - A submittal of transaction information to credit card Acquirer to be settled to the merchants bank account.

**Capture** - The submission of a credit card transaction for processing and settlement.

**Card Association** - a specific credit card company, e.g. Visa, MasterCard, American Express, Discover, JCB, etc.

**Cardholder** -The customer to whom a card has been issued or the individual authorized to use the card.

**Chargeback** - A chargeback occurs when a card holder disputes a credit card transaction with his or her credit card issuer. The card issuer initiates a chargeback against the merchant account. The amount of the disputed transaction is immediately withdrawn from the merchant's bank account, and the merchant has 10 days in which to dispute the chargeback with proof of purchase, signature, proof of delivery, etc. A chargeback fee is usually assessed to the merchant on top of the actual transaction. See also retrieval request.

**Chargeback defense** - A customer who does not receive his goods or services, or says he did not place an order, can ask his issuing bank to charge back the merchant. The Issuing Bank sends the chargeback request to the merchant bank, which forwards it to the merchant asking to validate the charge. Information such as the amount, an invoice, customer signature, or shipping documents, and the shipping address (used in AVS during the authorization) are needed to defend against a chargeback.

**Clearing** - The process of exchanging financial transaction details between an acquirer and an issuer to facilitate posting of a cardholder's account and reconciliation of a customer's settlement position.

**Co branded card** - A credit card issued jointly by a member bank and a merchant, bearing the "brand" of both.

**Corporate card** - A bankcard issued to companies for use by company employees. The liability for abuse of the card typically rests with the company and not with the employee.

**Credit card processors (or third-party processors)** - Merchant services providers that handle the details of processing credit card transactions between merchants, issuing banks, and merchant account providers. Web site operators usually must first establish their own merchant account before contracting for credit card processing services.

**Currency conversion** - The process by which the transaction currency is converted into the currency of settlement or the currency of the issuer for the purpose of facilitating transaction authorization, clearing and settlement reporting. The currency of transaction is determined by the acquirer; the currency of the issuer is the preferred currency used by the issuer, and most often, the currency in which the cardholder will be billed.

**Debit card** - A plastic card used to initiate a debit transaction. In general, these transactions are used primarily to purchase goods and services and to obtain cash, for which the cardholder's asset account is debited by the issuer.

**Electronic draft capture (EDC)** - A system in which the transaction data is captured at the merchant location for processing and storage.

**Electronic funds transfer (EFT)** - (also see ACH) A system of the U.S. Federal Reserve Bank that provides electronic funds transfer (EFT) between banks. It is used for all kinds of fund transfer transactions, including direct deposit of paychecks and monthly debits for routine payments to vendors. The ACH is separate and distinct from the various bank card networks that process credit card transactions. ACH operations are done in a batch mode, which can take up to 72 hours before the money is actually transmitted. A return notification is sent if there are insufficient funds in the account.

**Interchange fee** - The fee that the Card Association charges the merchant to get the funds into his bank (merchant bank) and to get the billing information to the cardholder's bank (issuing bank). Interchange fees are based on following credit card regulations and capturing appropriate data including card swipe, address, and electronic signature as needed. These fees are also based on the timeliness of the settlement of transactions.

**Issuer** - A financial institution that issues a credit card to a consumer or business.

**Issuing bank** - The bank that maintains the consumer's credit card account and must pay out to the merchant's account in a credit card purchase. The issuing bank then bills the customer for the debt.

**Merchant** - Any business that accepts credit card payments.

**Payment gateway** - Software used to transfer payment information from the merchant to acquiring bank.

**Purchasing card** - Designed to help companies maintain control of purchases while reducing the administrative cost associated with authorizing, tracking, paying, and reconciling those purchases.

**Processor** - A company who communicates with the issuing banks to authorize and settle complete credit card transactions.

**Reserve account** - A portion of the revenue from a merchant's credit card transactions, held in reserve by the merchant account provider to cover possible disputed charges, chargeback fees, and other expenses. After a predetermined time, holdbacks are turned over to the merchant. Note: Merchant account providers almost never pay interest on holdbacks.

**Retrieval request** - A retrieval request is what happens when a cardholder cannot remember a credit card transaction, or the bank wants to order information for some reason. The card issuer initiates a retrieval request, in which the merchant has 10 days to respond with the order information or the retrieval request will turn into a chargeback. There is usually a retrieval request fee issued against the merchant also in these cases.

**SSL (secure socket layer)** - A system for encrypting data sent over the Internet, including e-commerce transactions and passwords. With SSL, client and server computers exchange public keys, allowing them to encode and decode their communication.

**Settlement** - The process by which merchant and cardholder banks exchange financial data and value resulting from sales transactions, cash disbursements and merchandise credits.