

# The Merchant's Guide to Integrated Payment Processing



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# Introduction

Many business owners and rising star entrepreneurs hit roadblocks when it comes to credit and debit card processing. They understand money, they understand payments, and they know it is in their best interest to secure the best rates possible anytime money changes hands. The problem? Most professionals, business owners, and entrepreneurs all become experts in their business and their respective fields – not in payments.

Now you can sigh a deep breath of relief because **you don't have to know everything about payments** in order to find the right solutions for your business. All you need is a friend in the industry.

We have designed this guide to cover the finer points of credit and debit card processing, important definitions, and how the whole ecosystem works, so all you need to take away is what to look for to find the right payment solutions provider for your needs.

Easy enough? Let's get started!



# The Who's Who of Payment Processing

There are a lot of moving parts and many parties involved in each card transaction. Knowing and understanding the players of the card processing industry can set you up for success when evaluating the best solutions to meet your needs.

Acquirer: The acquirer, also known as the acquiring bank, is the bank or financial institution that processes credit or debit card payments on behalf of a merchant. The acquirer allows merchants to accept card payments from the card-issuing banks through the card brand franchise. The acquirer deposits money into the merchant's bank account and is the only institution in the payment process that truly handles the merchant's money. In contrast, the Core Processor handles the transaction data, and the Merchant Service Provider (MSP) facilitates signing up merchants to accept network-branded cards and servicing their accounts. Underwriting can occur with the acquiring bank or the Merchant Service Provider, or both.

The acquiring bank plays a central role in the clearing and settlement process. The core processor passes the merchant's transactions along to the card brands and the total deposit amounts to the acquiring bank in order for the merchant to receive payment. The acquirer depends on the core processor to pass along the merchant transactions.

The advantage to working with a payment solutions provider/merchant services provider is that they can work with any bank. If the MSP or payment solutions provider (PSP) works with multiple banks, the merchant can change banks and may not have to change credit card processing systems. The PSP can shop around for the best pricing and solutions for their merchants. If the merchant is processing directly with a bank, the merchant will have to know where to get the best rates, secure those rates for themselves, and ultimately change both accounts if they ever want to switch to a new bank. The right PSPs are in actuality more flexible, lower priced, and have more available solutions for their merchants.

Cardholder: The cardholder is the consumer purchasing goods or services from the merchant. They get approved for a card by the issuer. The issuing bank is a licensed member of Visa® or Mastercard® and holds agreements with and issues cards to consumers who apply. The cardholder starts the payment cycle with a purchase and ends it by paying for their credit card balance with interest or fees from their issuing bank or payment network.



Core Processor: Merchants require a core processor to pass the details of each card transaction to the consumer's issuing bank for authorization. Within seconds, the processor will send the response back to the merchant as to whether the card is authorized or declined. Finally, the core processor sends the details of the captured and settled authorizations to the merchant's acquiring bank. Core processors only work with banks with whom they are set up. Merchants must process with a core processor that their acquirer uses. Merchants do not need to seek a core processor on their own, as this will be provided by the acquirer or payment solutions provider.

It is important to understand the difference between a **core processor**, such as Global Payments/TSYS and Fiserv/First Data, and a **payment solutions provider/ merchant services provider**. Even though the latter are sometimes referred to simply as "processors," it is not correct terminology. Payment solutions providers can be more advantageous for your business than directly engaging a core processor, as they are able to maximize the solutions each core processor has to offer in the merchant's favor. The payment solutions provider works as a guide through the payments process.

**Gateway:** Payment Gateways serve to protect sensitive consumer data during the transaction process and allow the secure transfer of payment data between the buyer and the seller. The Gateway is a merchant service that securely sends credit and debit card information from a website or brick-and-mortar store to the payment networks for processing and then returns transaction details and responses from the payment network back to the merchant. Gateways are required to provide a secure connection to transmit information and must maintain data security and compliance standards. A quality payment Gateway will be easy to use and will provide essential functions, such as encryption, as well as authorization requests and fulfillment.

Independent Sales Organization (ISO), Merchant Service Provider (MSP), and Payment Solutions Provider (PSP): The companies that manage credit and debit card processing for merchants are referred to as ISOs, MSPs, and PSPs. The terms can be used almost interchangeably, with some key differences.

ISO is a loose term for any third-party sales representatives or organizations who represent the issuing banks for Visa. MSP is the term used for Mastercard transactions. PSP is a neutral term for a company that provides payment solutions to merchants and is not beholden to a specific card or bank.

**Independent Software Vendors (ISVs):** ISVs are software developers who build the integrations between the payment Gateway and the accounting software, eCommerce, and/or point-of-sale (POS) software, and offer various payment processing features and functionality.

**Issuer:** The issuer, also known as the account issuer or issuing bank, is the bank or financial institution who offers the credit or debit card to the consumer. They underwrite the cardholder, set the credit limit, and issue the card agreements. They pay for the transaction on behalf of the cardholder and collect payment from the cardholder. Issuers also provide customer service and handle issues of fraud and lost or stolen cards for the cardholder. The issuer is responsible for verifying the cardholder data and authorizing the amount of the transaction based on available funds. Some of the main issuing banks are Bank of America, Chase, US Bank, Wells Fargo, and Discover. American Express is both a card network and an issuer. Issuers are not in the business of processing the transactions.

**Merchant:** A merchant is any type of business who sells goods or services to consumers. Credit cards are typically the most common payment method used for these transactions. Merchants require a Merchant Account with a payment solution provider in order to process payments.

**Network:** The credit card network, also known as the payment network, payment processing network, card association, or card brand, is the bridge between the cardholders, merchants, and issuers. They set the interchange rates and assessment fees that the merchant pays with each transaction. These fees are non-negotiable and consistent for every business, every acquirer, and every issuer. The credit card network includes brands like Visa, Mastercard, American Express, and Discover.

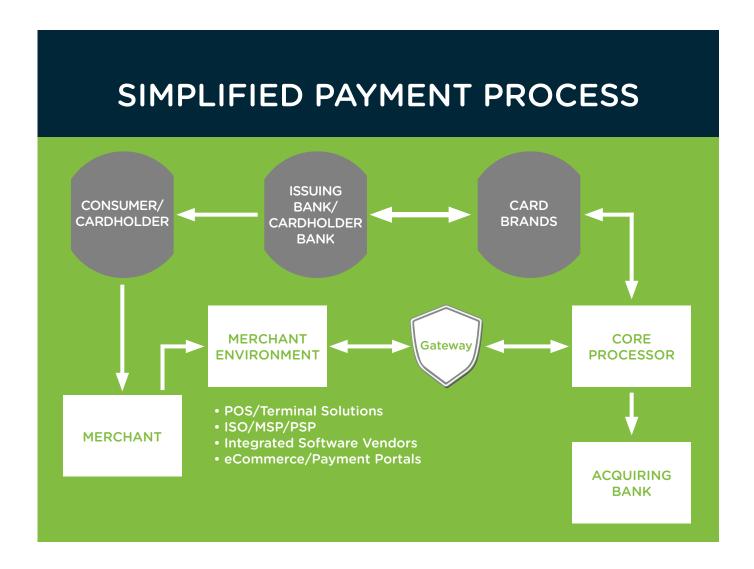
These definitions cover the nine major players you need to know in order to understand the fundamentals of payment processing. The following section will illustrate how they interact together to complete the transaction process.

For additional terms and glossary definitions, skip to the end of this guide.



# The Basics of a Card Transaction

Below is a simplified example of the card payment process:



When a consumer makes a purchase, their card information immediately enters the merchant environment and begins the steps to **processing a transaction**. The above boxes in white show the transaction process (explained further on page 8) and the boxes in grey show the steps for **settlement**.

### The 9 Basic Steps of a Single Card Transaction

**STEP 1:** The **customer** uses a credit or debit card to pay a **merchant**. The transaction and card data is collected within the merchant environment with the specific payment systems they have in place, including point-of-sale (POS), eCommerce, or **independent software vendors**.

STEP 2: The data is transmitted by the **merchant** through the **Merchant Service Provider (MSP) or Independent Sales Organization (ISO)** software via the **Gateway** to the **Core Processor**.

**STEP 3:** The **processor** sends the transaction details to the appropriate **card network**.

**STEP 4:** The **core processor** checks the status of the **consumer's** account through its direct integrations into the **card brand networks**. The card brands hold all of the consumer account card balances on behalf of the consumer's **issuing banks (issuers)** that lie within the card network.

**STEP 5:** The **card network** sends the approval code through the **core processor** and merchant environment systems back to the **merchant** to complete the sale.

**STEP 6:** The **card network** sends the transaction details to the consumer's **issuing bank (issuer)**.

**STEP 7:** For settlement, the **merchant** sends a batch of the daily transactions to the **core processor** to provide the transaction details to the **card brands** and the **merchant's acquiring bank**.

**STEP 8:** The **merchant's acquiring bank** deposits the funds in the **merchant's** account. The acquiring bank is the only key player allowed to directly send money to the merchant for transactions made, per card brand regulations.

**STEP 9:** The **consumer's issuing bank** sends the consumer a monthly statement of credit card transactions and the **issuing bank** gets paid from the consumer. The funds for debit card transactions are automatically withdrawn from the **consumer's bank account** as soon as the transaction is approved, instead of at the end of their billing cycle like credit card transactions.

# **Fees and Pricing**

Are you getting the best rates with your merchant services provider? How would you know? The cost of processing credit or debit cards can get out of hand if you are not able to keep a close eye on your monthly merchant statement. If you think your monthly merchant statements are confusing, you are not alone. It is very possible that your merchant statement is confusing by design. If you look into your processing fees and start rate shopping, you might find some good reasons to switch to another processor.

When it comes to lowering your fees, knowledge is power, and there are several ways you may be able to lower your fees. Before you can effectively negotiate or shop around, it is important to first review some basics on how to interpret your statement, so you can understand the different fees and costs.

# Where did my money go? An explanation of a fee.

If you have fees that are not clear on your statement, it is a good idea to contact your payments provider and ask them to explain the fees charged.

Not all merchant statement fees are negotiable. It is important to understand the difference between Base Cost vs. Markups.

**Base cost** - These should be the majority of your costs and are the hard costs of processing credit or debit cards for your merchant account. A typical percentage of base cost is 75%-80% of your total cost. Here is an example of a base cost:

**Transaction fees** - This is a flat fee that is charged for every transaction. You agreed to the rate when you signed up.

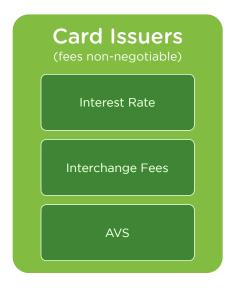
Markups - Markups are also called merchant discounts. The markup costs are like paying the retail price of the cost of processing the card. A reasonable markup cost should be around 10%-25% of your total bill. Here are some examples of markup fees:

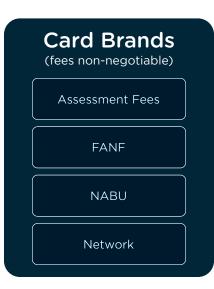
**Monthly fees** - The monthly fees are not usually labeled as monthly fees on your statement and you may or may not need all the services. Check with your processor if you have questions.

**Miscellaneous fees** - These fees can be added at any time for a variety of reasons.

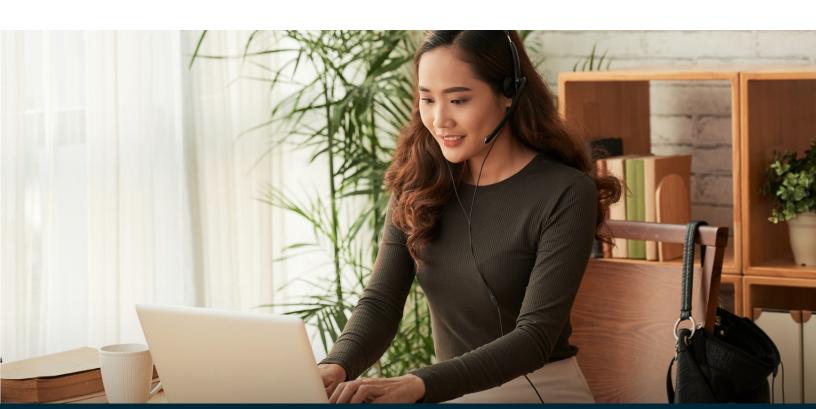
# Who gets the fees?

The fees a merchant is charged for payment processing can go to a number of providers. Fees from the card issuers and the card brands are non-negotiable and remain consistent across merchant service providers. The MSP/ISO may have some fees that are negotiable.









### Processor pricing models

Historically, card processing was sold and distributed through credit card companies' network of banks, but they quickly began outsourcing processing to third parties (MSPs).

The company who sets the rates for your credit and debit card processing can be called by many names: merchant services provider (MSP), payment solutions provider (PSP), independent sales organization (ISO), or even just "credit card processor" (although that term should be used most often to describe the core processor that connects merchants to the card brand networks). We use the term "payment solutions providers" most often because it encompasses the true role of your payments company today.

Your payment processing solution provider should provide more than just good rates; they should also provide PCI compliance assistance, transparent education on the payments industry, and automated and integrated solutions specific to your business needs.

### Know your pricing structure options.

There are three main types of pricing structures that payment processing solution providers will offer: flat rate, tiered pricing, and interchange plus. The flat rate will have a flat percentage with a transaction fee, and no additional fees. Tiered pricing will offer fully qualified, mid-qualified and non-qualified rates, along with hard costs that are billed separately. Interchange plus is a structure in which the merchant pays the hard cost associated with each transaction, plus an agreed upon markup fee from the payment processing provider.

# Flat Rate One flat percentage plus a transaction fee

# Fully Qualified, Mid-Qualified & Non-Qualified rates, along with some hard costs billed separately



#### Flat Rate

Offered by merchant account aggregators (e.g. Square, PayPal, etc.)

Examples: Swipe: \$1,000 sale x 2.75% = \$27.50 fee

Keyed: \$1,000 sale x 3.50% + \$0.15 = \$35.15 fee

Flat rate pricing is simple and easy to understand but may not be the best solution for most businesses. A flat rate is a simple, non-negotiable fee charged either per transaction or per dollar amount, similar to the following example: for a \$1,000 transaction, there is a 2.75% charge for a swipe (\$27.50) or a 3.5% charge for a keyed entry + \$0.15 (\$35.15). There is also a monthly cost, typically about \$10-\$30. Merchant fees may be deducted daily. With a flat rate, you may end up paying more per transaction than tiered pricing, but this can sometimes help you avoid incurring extra fees.

- Average monthly costs of \$10-\$30
- Merchant fees deducted daily
- No individual merchant account number
- Lack of comprehensive underwriting to pre-screen fraudulent transactions
- Limited chargeback assistance merchant almost never wins



# **Tiered Pricing**

Tiered rates, also known as "bundled pricing," work a little differently. The processor is bundling the interchange fees into tiers so it is less clear what the charge is per card type. The 3-tier pricing typically offered by card processors provides a charge per swipe, based on a percentage that may look like this:

	Swiped	Keyed
Fully Qualified	1.65%	2.1%
Mid-Qualified	2.1%	2.6%
Non-Qualified	2.85%	3.5%

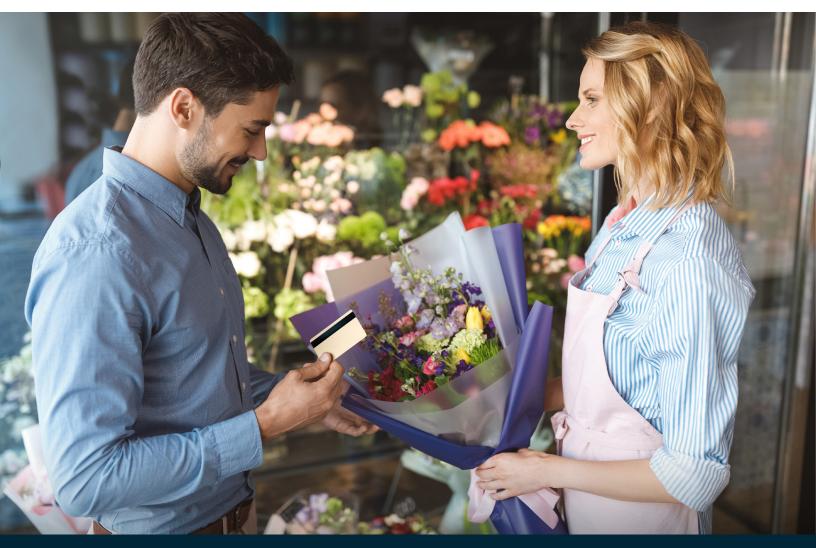
Considering the merchant services provider can bundle as they wish, generally, fully qualified provides the lowest rates for swiped transactions with consumer cards only. Mid-qualified includes manual key entered, card not present, telephone orders, or swiped rewards cards. This pricing model is often compared to flat rate pricing as the better of the two, but it depends on the specifics of your business and processing needs. Tiered pricing can be expensive if the contract is full of hidden fees and surcharges. These fees are set by the processing company and can vary by provider.

If your reporting and merchant statements are confusing, you won't know if you have been overpaying for months, or even years. It is important to find an industry expert you trust to do a full merchant statement analysis to look for any hidden fees.

A blend between tiered pricing and interchange pricing can also be called "base plus differential" pricing: where the merchant has a base rate on all cards and pays the difference on cards that have a higher interchange rate than the base. At first glance this can look like a fair pricing structure, but the payment processor is still using the same structure as tiered without benefiting from interchange at all. In fact, in this scenario, the processor is profiting on all cards that fall below the base while still charging the merchant (and not paying for) any cards that are above the base. These processors are having their cake and eating it too, which is why you will never see the words "qualified" and "unqualified" on those statements. They don't want their merchants to have insights into how their pricing structure works.

# **Interchange Plus**

The most transparent pricing can be found in **Interchange Plus.** Under this fee structure, the merchant pays the true **interchange** plus assessment fees. The markup from the payments solutions provider is transparent. Interchange rates range from 0.05% - 2.45%. The payment solution providers will charge a small percentage over or markup above the interchange rate plus a transaction fee, depending on the risk assessment of the merchant. This fee structure is also known as cost-plus, pass through pricing, or wholesale pricing. The advantage to interchange plus over flat rate or base plus differential is that the merchant is solely paying the card's rate plus a transparent and consistent markup on the total volume.



# **Benefits of Integrated Payments**

Using an automated and integrated payment solution helps minimize double entry and saves you time.

Some integrated solutions will not be **seamlessly integrated**, requiring you to first input the items and populate categories before you can process transactions. Eliminating manual entry ensures your business saves time and money and reduces the risk of entry error, so you can receive payments faster than ever.



Does your processor have an integration with the current business systems you use today? Payment solutions that are built natively within the platforms you already use allow you to move, transition, and flow information seamlessly between the systems you use to run your business. Make sure your card processor makes it easy to accept and reconcile payments for faster reconciliation and better cash flow.

# Your payment solution can impact:

- Your cash flow
- Your workflow efficiency
- Your bottom line
- Your customer satisfaction

# Selecting a Payments Provider

Most merchants agree that it is important to get the best rates, but there is a lot more to consider. Merchants need their payments provider to be a trusted friend and guide in the payments industry.

#### **Key Provider Considerations**

- Is PCI compliance assistance provided at no additional cost?
- Do merchant statements provide line-item detail, and are they easy to read?
- Does the provider have omni-channel integrated payment capabilities?
- How quickly can you access your funds?
- Does the provider operate at a 99% uptime or better?
- Is 24/7 live support offered?
- Are you working with an all-in-one merchant services provider?

Make sure you are not paying for unnecessary fees and ensure the payment solution you select offers simple and seamless integration to the business systems you use today.

## **Key Feature Considerations**

- Tokenized card data
- Daily, automatic batch reporting
- Next day funding available
- **EMV** chip functionality
- Multi-currency capable

- Integrated online payment portal
- Multiple payment options available
- Secure 24/7 online reporting
- No or low installation, maintenance, or setup fees

# **PCI Compliance**

The Payment Card Industry Data Security Standard (PCI DSS) is a set of security standards designed to protect customer credit card data by maintaining a secure credit card processing environment. Businesses that are not PCI compliant may be subject to fines, sanctions, and loss of privileges from the clearinghouse that processes credit card payments. Businesses that fail to protect customer data can also be subject to lawsuits and governmental prosecution.

#### **Quick Tips for PCI Compliance:**

Build and maintain a secure network:

Avoid discontinued card processing solutions that are no longer supported and maintained to meet PCI compliance standards, such as PC Charge.

Develop a relationship with a trusted provider in payments.

Do not try to install your own network that will store customer data. This could expose your business to vulnerability if mistakes are made in the installation or update process.

Use payments providers offering free PCI compliance assistance that can guide you through the process.





Access the PCI Data Security Essentials **Evaluation Tool for Small Merchants** 

Go to: www.pcisecuritystandards.org/pci security/small\_merchant\_tool\_resources

# **Uptime Versus Downtime**

Don't miss out on potential payments due to costly IT and payment processing downtime. **IHS Markit reported** that businesses could be losing around \$700 billion every single year due to IT downtime.

Customers who come to your store or visit your website can either be wowed by how convenient and smooth the payment process is - or they can be disappointed by wait times, error messages, and convoluted systems. Some payment processors operate with 99% uptime - and you shouldn't accept anything less.



#### What to look for:

Properly ensuring smooth transactional processes is key to preventing downtime. If your processor is returning responses, that means the system is receiving the requests but the responses break down. This is when you suffer from downtime. Consistent API response is required, and your payment provider should have failover systems in place in case one of their servers goes down.

Failover: a method of protecting computer systems from failure, in which standby equipment automatically takes over when the main system fails.

This failover strategy ensures that if one server goes down, the environment is brought up in another server. For example, if Server A goes down, all processing should shift to a second server, Server B, which can then install automatically and be up and running again within seconds. Redundancies in this system help to protect merchants from the risks and costs of downtime. Routing from one server to another is only part of the solution your processor should implement, however. What is most important is that you, the merchant, request to know what the downtime is for your processing provider. If it is not 99%, demand to know why and start exploring your other options.

# **Next Steps**

Contact REPAY to be your trusted payments industry experts, so we can help you implement the best payment solutions for your business.

If you are already processing credit and debit cards with another provider, contact the REPAY team for a no-obligation, 100% free merchant statement audit today!

#### **About REPAY**

REPAY provides integrated payment processing solutions to verticals that have specific transaction processing needs. REPAY's proprietary, integrated payment technology platform reduces the complexity of electronic payments for merchants, while enhancing the overall experience for consumers and businesses.

Contact us to learn more! www.repay.com

# Glossary - Key Payment Terms to Know

Merchants have successful businesses to run, and there is rarely time to learn the numerous payment processing terms that make up the payments industry. However, informed merchants are in a better position to negotiate lower rates and improved overall service. Knowledge is power, and we know savvy merchants want powerful, integrated payments solutions for their businesses.

#### **Fees and Pricing**

**Address Verification Service (AVS)** - AVS is required by Visa, Mastercard, and American Express for card-not-present sales. Transactions without AVS will result in higher fees.

**Ancillary Fees** - Ancillary fees are often "the devil in the details" part of your contract. Some examples are annual/monthly fees, batch fees, support fees, PCI DSS non-compliance fees, PCI DSS compliance fees, settlement fees, clearing fees, return discount fees, 3rd-party Gateway fees, early termination fees, statement fees, monthly service fees, and monthly minimum fees. There are others not listed so be prepared to ask your payment service provider to disclose all fees when you negotiate your plans.

**Authorization Fee** - This fee takes place each time an authorization request occurs between the merchant and the authorizing network. Fees include sales, post-authorization, and refunds.

**Chargeback** - When a customer disputes a purchase with their card issuer, the acquirer will reverse the sale and charge the merchant for the disputed transaction. Be sure to monitor your chargeback to sales ratio and avoid a 1% or higher ratio of your total sales. If you go over 1%, you may be penalized or your account may be canceled.

**Merchant Statement** - It is important for your business that you get comfortable with reading your merchant statements. Before you can effectively negotiate or shop around, you must first review some basics on how to interpret your statement, so you can understand the different fees and costs. Luckily, REPAY offers free merchant statement audits and analysis where you can walk through your statement line by line and get answers to any questions you may have.

**Processor Costs** - These are often non-negotiable by the merchant. These may or may not include markup by the payments company to cover costs generated by the merchant, including support, technology fees, PCI compliance fees, and more.

**Rewards** - Businesses pay increased fees for rewards programs like cash back, airline miles, hotel points, and more. If you have a rewards card, assess the cost/benefit results.

#### **Payment Process**

**Authorization** - Once a credit or debit card is processed, an encrypted transaction is called out to the cardholder's issuing bank. In a matter of seconds, the sale will either be approved or declined. If there is a problem with the card, you will receive a call center response to call the customer's card issuer. Once it is approved, a request is sent by the card issuer to the merchant's bank to pay the merchant. If the sale is declined, it is usually due to a low balance for debit cards or the credit limit has been reached for credit cards.

**Batch Processing** - Batch processing refers to the merchant processing many transactions at the same time. This technique is used to save money and labor over time by automating and processing multiple transactions as a single group.

**eCommerce Sales** - eCommerce is the merchant's internet storefront that collects sales orders and authorizes the credit card transactions in real-time. eCommerce orders allow merchants to streamline B2C or B2B orders with an integrated sales order and credit card processing solution.

**Integrated Credit and Debit Card Processing** - When you integrate card processing with the business systems you already use, you save time and money. You cut out manual data entry, reduce the risk of error, decrease fees, and grow your revenue. It is also important for merchants to know that not all integrated payment processing solutions are created equal. A fully integrated solution will seamlessly flow between all your necessary integrations, automatically pulling and retrieving information without additional manual intervention.

**Point-of-Sale (POS)** - POS hardware allows merchants to collect card data within stores, over the phone (keyed entry), or out in the field with a mobile card swiper.

**Recurring Billing** - Recurring billing automates the invoicing for products or services in the ERP or accounting system for subscription or club membership customers. This could be set for weekly, monthly, or annual renewals. Be careful because not all payment processing providers offer automated recurring billing.

#### **Payment Security**

**Wireless Payment Terminal** - Any wirelessly connected payment terminal used to collect credit or debit cards through the internet.

**Cryptography** - Cryptography is the mathematical process of encrypting or scrambling text to protect the data while it is entered, stored, and transmitted. Decryption takes place once the data is ready to be read by the receiver.

**Europay, Mastercard, and Visa (EMV) Chip Technology** - EMV chips reduce the risk of fraud more common with magnetic stripe swipers.

**Payment Card Industry Data Security Standard (PCI DSS) -** PCI DSS was formed in 2004 by Visa, Mastercard, Discover, and American Express to set up and enforce security policies and procedures for all businesses that process credit and debit cards. Security standards focus on network, firewalls, wireless LAN, hacker prevention, authentication, and password protections.

**PCI Compliance** - All merchants or businesses that process, store, or transmit credit card information must maintain a secure environment. Any business that handles cardholder data must be PCI compliant. Most payment service providers charge an extra fee for understanding and becoming compliant. While charging PCI non-compliance penalties is universal within the industry, many card processing companies will charge PCI compliance fees regardless of your current compliance status.

**Self-Assessment Questionnaire (SAQ)** - Merchants are required to fill out a SAQ annually to confirm they are meeting the standards of PCI compliance.

**Virtual Private Network (VPN)** - A VPN is a secure connection to the internet using encryption to transmit sensitive data.

**Data Encryption** - Data encryption makes data useless to cyber attacks when it's made unreadable by cryptography. Only the intended recipient of the data can decode the information. Any system that stores and/or processes cards must encrypt the data to ensure PCI compliance. SEE Cryptography

**Gateway** - While the payment processor connects merchants to credit card networks, the payment Gateway connects the merchants with the processor. Just like the physical point-of-sale terminal at a brick-and-mortar store, the payment Gateway acts as the liaison to link transactions taking place on a website and the payment processor. Gateways are required to provide a secure connection to transmit information and maintain safety compliance and standards.

**Tokenization** - Similar to encryption, tokenization takes the primary account number (PAN) and issues a different number called a token. If your data is hacked by cyber-criminals, they will have no use for the tokens.

**Virtual Payment Terminal** - No POS hardware is required with a virtual payment terminal. You simply log in to your payment account and process cards online. This is used for eCommerce or card not present or phone orders. Merchants use batch processing to upload multiple orders when real-time entry is not required.