

Introduction to the World of Credit Cards

Millions of people around the world use credit cards as a form of payment. Cardholders consider the use of credit cards a simple and easy method for paying for goods and services. Likewise, merchants benefit from the use of credit cards, because it simplifies the process by which they receive funds for purchased goods. How a transaction travels from a retail establishment to the cardholder's account can be a complex process. This section provides a basic explanation of the credit transaction, how it processes and how settlement is paid to the merchant.

What are Credit Cards?

Credit Cards provide customers with a convenient way to purchase goods and services without requiring cash or checks at the point of sale. Credit cards are issued with a personal line of credit (LOC) against which the customer makes purchases and/or obtains cash advances. The customer makes monthly payments to the issuer of the credit card either in full (the entire balance) or on a revolving basis with a minimum payment requirement each month.

As credit card transactions occur, retailers and financial institutions must submit these transactions to their designated acquirer for processing and payment.

Credit Card Types include:

- MasterCard
- Visa
- American Express
- Discover
- Diners Club/Carte Blanche (DCCB)
- JCB
- Private Label
- Fleet

Overview of the Credit Industry

MasterCard and Visa are considered bankcards because they are issued through financial institutions. American Express and DCCB are commonly referred to as T&E cards because they were originally marketed to the travel and entertainment industries – like hotels and restaurants.

Managing card processing

Identifying each credit card type in the system is simple since each brand begins with a specific number or range of numbers. ORION PAYMENT SYSTEMS has the capability of supporting MasterCard, Visa, American Express, Discover, Diners Club/Carte Blanche and JCB credit cards on a merchant's terminal. Although we can support all credit card types, we can only process settlement (pay merchants) for MasterCard, Visa, DC/CB and JCB (Japanese Credit Bureau) transactions. Processing consists of authorizing each transaction, capturing them, and settling/making payment back to the merchant.

Card Types:

- MasterCard - authorization, capture, payment. Credit card numbering system begins with a 5
- Visa - authorization, capture, payment. Credit card numbering system begins With a 4
- Diners Club/Carte Blanche - authorization, capture, payment
- American Express - authorization, capture. Credit card numbering system begins with a 3
- Discover - authorization, capture. Credit card numbering system begins with a 6
- JCB (Japanese) - authorization, capture, payment (not widely used today)

Components of the credit card

Credit cards are issued as a plastic card with the full credit card account number embossed on the face of the card along with the cardholder name and card expiration date.

On the back of all credit cards is a black magnetic stripe (mag-stripe). Within this mag-stripe are specific cardholder information, including the card account number, cardholder name and other security information pertaining to the cardholder. The mag-stripe plays a key role in the execution of an electronic transaction. If the terminal has Track 2 capabilities, it can read the account number, expiration date and bank information from the magnetic stripe and print it on the receipt. If it has Track 1 capabilities, it can read all of the above as well as the cardholder's name.

Overview of the Credit Industry

There are a variety of credit card security options from which each issuer can choose in order to further secure the card. These include:

- Hologram
- Valid expiration date
- MC's unique security character "M"
- Printed account number on signature panel
- Visa's first four numbers of card printed above first four embossed numbers
- The words "Visa" or "MasterCard" printed in the signature panel
- Photograph of the cardholder

Developments in the Industry

Throughout the past twenty years, new developments have occurred, shaping the industry and its cardholders. These developments include the following:

- Affinity Cards/ Secured Cards/ Prestige Cards
- Electronic Funds Transfer
- Debit Cards
- Annual Fees

Affinity Cards, Secured Cards, & Prestige Cards

Credit association companies have produced a number of related products closely resembling the credit card in an attempt to increase the number of cardholders. The market quickly became saturated during the 80s, and it was obvious that issuers would have to find other uses for the card to stimulate growth. Many of these marketing strategies have proven to be extremely successful and continue to expand the cardholder base.

The first strategy implemented was affinity cards. Affinity cards originated in 1985 by both MasterCard and Visa and consist of the following three types: product benefit, lifestyle, and personality. Product benefit cards reward cardholders for their amount of usage. Lifestyle cards are targeted to cardholders with a particular interest or belonging to a certain organization, such as a charitable organization, business association, alma mater, etc. Typically the interest group will receive some form of compensation for members using the card. The last type of affinity cards, personality, attempts to lure cardholders according to specific aspects of their personality, such as their hobbies. Affinity cards enjoyed a very successful start and continue to increase in popularity.

Secured cards were also introduced, allowing consumers with a poor credit history or lower average income to obtain a credit card. Secured cards require

Overview of the Credit Industry

the cardholder to establish an account at the issuing bank or put up an initial deposit, therefore “securing” the card.

“Prestige” cards, which include “gold” versions of the standard credit card, were marketed to more affluent cardholders. Gold cards typically offer the cardholder more extensive benefits with higher credit limits. American Express, Diners Club, and Carte Blanche initially introduced gold cards to the T&E market. MasterCard and Visa did not issue gold cards until the early 1980s, but they quickly became leaders in the market, competing only with American Express for the top position.

Electronic Funds Transfer

Electronic Funds Transfer (EFT), which was introduced many years back, did not become truly popular until the early 1980s. EFT systems automatically debit the cardholder’s account while crediting the merchant’s account for the sale. This process occurs through the point-of-sale terminal. EFT first appeared in 1969. Six years later, American Express would utilize EFT by adding this feature to their gold cards, allowing cardholders to obtain traveler’s checks from selected dispenser machines. MasterCard and Visa realized the potential that EFT systems possessed and began planning to design a national network to allow consumers to obtain cash at selected machines across the country. Before they could implement this system, various banks consolidated and introduced their own national network of ATM’s during the late 70s and early 80s. Visa and MasterCard cardholders could use these ATMs, but the bank operated them. Years later, both Visa and MasterCard gained control of the majority of ATMs across the country.

What are Debit Cards?

Debit cards are an alternative means of payment for customers at the point-of-sale. If a debit card is used to pay for goods or services, the cardholder’s checking account is automatically deducted for the amount of the purchase. With the debit card, the consumer still has the advantage of convenience, but s/he is not burdened with the annual fees and interest rates of credit cards. Because of this, debit cards have become attractive to consumers that prefer carrying credit cards instead of cash. Debit cards have become increasingly popular over the last few years. In addition to the standard ATM debit cards, many banks also issue the Visa Check Card and/or MasterCard’s Master Money Card – both of which can be used in either an on-line or off-line debit arena.

What is on-line versus off-line debit? The difference between these two debit choices is whether a PIN (personal identification number) is used at the point-of-sale. When a PIN is used the transaction becomes “on-line” and funds are immediately withdrawn from the cardholders available funds. When an off-line debit transaction occurs, funds are not withdrawn until the transaction processes – usually 2-4 days after the sale. Debit card transactions remain the fastest

Overview of the Credit Industry

growing point-of-sale payment method today. As customers and merchants realize the convenience and ease of using debit cards to purchase merchandise and services, acceptance of this payment method grows.

Off-Line Debit Cards

- Swiped through credit card terminals and processed like credit cards.
- Issued by a Visa/MasterCard member financial institution.
- Funds are debited out of the cardholder's checking account (DDA) after the transaction has been processed as compared to credit cards, which debit a revolving credit account or monthly pay off account.
- Visa's off-line product is called the Visa Check Card.
- MasterCard's off-line product is called the Master Money Card.
- Accepted anywhere Visa and MasterCard are accepted.
- No established lines of credit. If funds are not available, a decline response will be given.
- Merchants are charged regular interchange fees.
- Look like regular ATM cards and carry the Visa or MasterCard logo on the card.
- Signature required.

On-Line Debit Cards

- ATM cards.
- Funds are immediately and automatically withdrawn from the cardholder's DDA at the time of purchase.
- Separate hardware equipment (pin pad) is needed, in addition to the terminals, to allow the cardholder to enter their Personal Identification Number (PIN) at the time of purchase for security.
- If a cardholder returns something purchased by debit, the merchant can either give cash back or an in-store credit.
- Dual utility usage: at ATMs to obtain cash or at the point of sale to buy goods.

Overview of the Credit Industry

Annual Fees

The last major development in the industry centered on annual fees imposed by issuers. Around 1990, annual fees slowly began to diminish. In an attempt to stay competitive, companies such as MasterCard and Visa have removed most annual fees on their basic cards. This has caused losses in revenues as well as stiffer competition to attract new cardholders.

What are Commercial Cards?

Commercial Cards – corporate, business, purchasing – are issued to businesses as an alternative way to finance expenses such as supplies, T&E, etc. These cards also provide users with specific reporting advantages. By using a commercial card, cardholders have itemized records of all their purchases, simplifying reimbursement procedures and helping track expenses. This specialized reporting is possible because of specific data captured at the point-of-sale. MasterCard and Visa each provide issuers with the ability to issue commercial card products.

What are Private Label Cards?

A private label card is a credit card issued under the name of a particular merchant organization. Merchants offer them as an incentive for cardholders to spend money at their business. Cardholders receive benefits for using the private label card instead of Visa, MasterCard or American Express. Some of the benefits are special discounts, deferred payment schedules, frequency points, etc. Private label cards carry the insignia of the retailer that issued the card; however, in reality, the financial institution that the retailer contracted with issued the card.

There are many private label card segments, such as department stores, retailers, gas stations, loyalty programs, and co-branded cards. Merchants issue private label cards to:

- add convenience to the cardholder for shopping at that establishment
- advertise for their “store”
- use them as a marketing research source
- Use them as a revenue stream.

The merchant’s primary goal is to increase his/her revenue.

Private label card acceptance not only provides cardholders with benefits. Emphasis can be placed on the value-added services that are unique to private label acceptance and that set us apart from other processors. Private Label

Overview of the Credit Industry

programs can also be used as the final leverage needed to win a prospective merchant's credit card business.

In order for a merchant to begin issuing private label cards, the merchant must contract with a financial institution that will sponsor the private label card program. The merchant first works with the financial institution to develop a program that will fit its needs. The financial institution can customize these programs for each merchant that it works with, enabling the merchant to provide extra benefits to its cardholders that standard credit card issuers cannot offer. The financial institution is responsible for sponsoring, designing, and tracking the programs for the merchant. It is also responsible for the billing statements, collecting the payments, and reimbursing the merchant. Revenue for the financial institution is a percentage of the purchase price paid by the merchant, as well as finance charges paid by the cardholder. Financial companies primarily target the retail industry. Department stores, furniture stores, and gas stations are examples of retailers that offer and accept private label cards.

-
- **Pre-Paid Card** - Used to provide a more convenient form of payment to a customer who would otherwise tender cash or a check. In some cases, a merchant may choose to offer a discount when a consumer adds value to the card. This application is relevant in the petroleum industry.

What is EBT?

Electronic Benefits Transfer (EBT) is the automation of cash or cash-like benefits through electronic authorization, data capture and settlement processes. This is accomplished with the use of plastic magnetic-stripped cards at the point-of-sale terminal. The end result is the elimination of coupon benefits distribution. The electronic process results in increased security, thereby reducing fraud and benefit misuse.

The US Government has mandated that all federal financial support services and entitlements be distributed through direct electronic deposit by the year 2002. Initially, the effort to implement federal related EBT will be on a small scale, which will include the Food Stamp program and the Aid to Families with Dependent Children program.

EBT Contractors

There are currently three EBT processors in the country. They include: Citibank, Deluxe, and Transactive. The combination of Deluxe and Citibank is considered a fourth processor.

Overview of the Credit Industry

Transaction Flow

An EBT transaction and settlement is similar to a debit card transaction and includes the following:

- Federal and state agencies provide and update authorization files to the EBT processors (Citibank, Deluxe, and Transactive). These agencies also deposit funds via the automated clearing house (ACH) to the banking relationships that support the recipients' checking accounts.
- ORION PAYMENT SYSTEMS will have its proprietary host capture credit, debit, check, and EBT applications loaded in a terminal at a merchant location.
- EBT recipients, utilizing a magnetic-stripped card and Personal Identification Number (PIN) issued by the states and/or EBT processor, may initiate a transaction at the terminal. ORION PAYMENT SYSTEMS transmits the transaction to the MPS gateway over a dedicated line. The authorization is returned to the ORION PAYMENT SYSTEMS host who then logs the response and forwards the approval or decline message to the terminal at the merchant's location. The terminal then prints a receipt with all the pertinent Regulation E data and/or the reason for the decline or error. An ending account balance will also be printed.

What is a VAR (Value Added Re-seller)?

The term of VAR (Value-Added Reseller) was derived from the original term of VAP (Value-Added Provider), which refers to a person or business that adds "value" to products before reselling them at a profit. That value is usually in the form of technical knowledge, custom credit card software, support services, training, installation and consulting.

Value-Added Resellers (VARs) reflect the idea and understanding that businesses can add value via services without necessarily reselling product. Therefore they can be integrators, developers, consultants, or all three.

There are three types of Value-Added Resellers (VARs).

1. **Total Solution VARs.** They sell turnkey or custom solutions that include hardware, software and services.
2. **Vertical VARs.** Resellers who sell to or consult with customers in specific market segments such as medical, education, government, hospitality, financial, etc.
3. **Horizontal VARs.** Resellers who sell to or consult with no specific market segment but may have a target customer size or product specialty.

Overview of the Credit Industry

When working with a VAR, ORION PAYMENT SYSTEMS does not control the software, deployment or provide the primary support. We do work with the VAR to provide them with ORION PAYMENT SYSTEMS specifications.

VARs typically drive the customer relationship. They build functionality into the software that manages the merchant's business. For instance, in the retail industry, a cash register and its supporting software may control inventory, perform price searches, produce reports as well as accept credit/debit card transactions. The cost for such a system is a committed investment by the merchant. If the VAR chooses not to certify with Global, then we have only limited influence, resulting in the need to have strong relationships with the VARs.

VARs produce all types of software ranging from low-end, off-the-shelf software to very costly software that is customized for a particular merchant. Since they interface with the networks, VARs must complete a certification process with each network.

What is ECP?

Electronic Check Processing (ECP) is a transaction via ACH or facsimile draft sent by a merchant to directly debit or credit a customer's checking or savings account. ECP transactions are often used for recurring payments, such as monthly membership fees, and are available in the United States and Canada.

What is ACH?

The Automated Clearing House (ACH) provides for the exchange and settlement of electronic payments between financial institutions.

What is EFT?

Electronic Funds Transfer (EFT) is the Canadian and International equivalent to ACH, allowing electronic payments between merchant banks and accounts.

What is payment processing?

When you paid for something with a plastic card, you probably noticed the sales person swipe the card through a terminal, enter the amount, and then hand you the receipt to sign. Sounds easy, doesn't it? What happened in the few seconds it took your receipt to print is what we call 'payment processing'.



Payment processing involves the collection of credit card and merchant data activity. In many cases, the merchant uses a terminal, similar to a telephone, to enter cardholder and transaction data. As the credit card is swiped through the reader, the terminal verifies its validity, contacts the credit card company to make sure funds are available and, finally, stores the sale transaction with all the others the merchant has processed that day. At the end of each sales day, the terminal 'calls' Global Payment Systems one last time to report total sales, which in turn, starts the process by which the merchant is reimbursed for cardholder purchases. Given this scenario, Global Payment Systems becomes the telephone operator, making sure all the 'calls' got sent to where they needed to go and the merchant was able to communicate effectively.

In payment processing, the preferred method of data transmission is electronic. This technology is much faster and less expensive for the merchant. Error is also reduced dramatically, because the less number of times a human comes into contact with information, the more the number of possible errors is reduced! In addition to being faster and cheaper, electronic processing helps merchants prevent fraud.

Before electronic processing technology was available, merchants manually created paper sales drafts and created a manual batch ticket daily to submit to their bank for processing. If their bank or acquirer was not local, the merchant had to mail their tickets, thus creating an even longer time period for receiving credit. Because tickets were manually created, this opened the door for both human error and fraudulent activity. Although the majority of merchants today are processing electronically, we still have some merchants that occasionally submit paper drafts for processing.

Overview of the Credit Industry

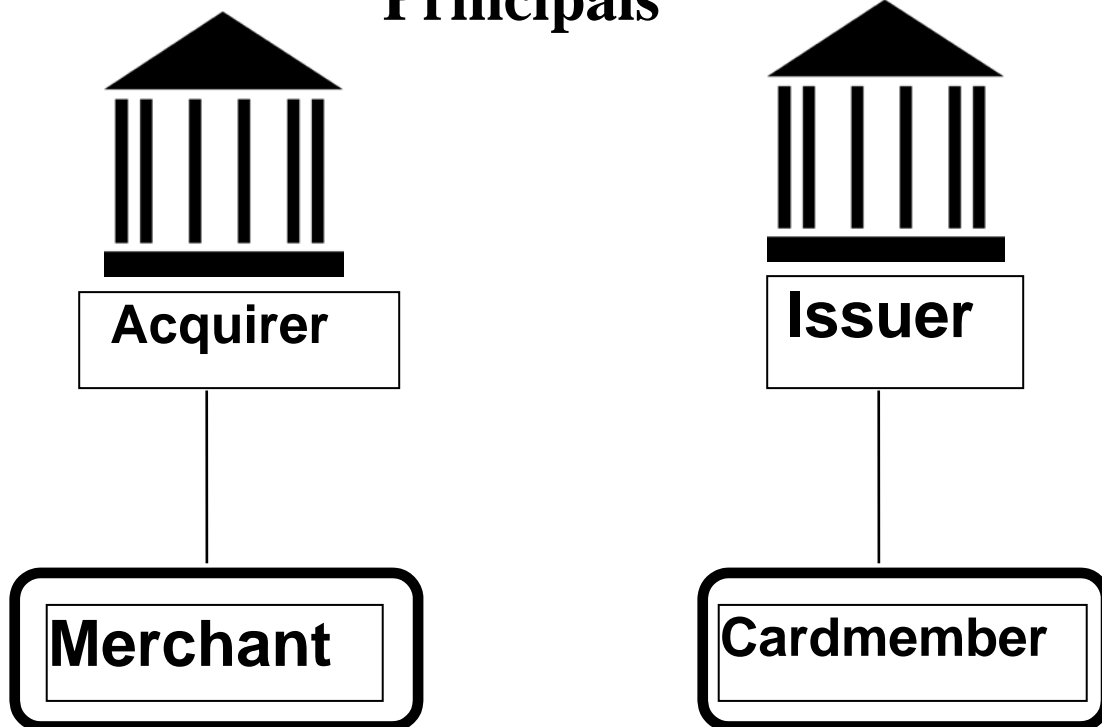
Who defines the processing industry?

ORION PAYMENT SYSTEMS is one piece of the 'puzzle' when it comes to the credit industry. As mentioned earlier, ORION PAYMENT SYSTEMS is also known as an *acquirer*. This is because we literally 'acquire' transactions from a merchant's terminal in order to separate each one out and process it. Other responsibilities of an acquirer are establishing processing fees, tracking merchant activity, and managing the merchant relationship within the processing industry. Many financial institutions are both issuers and acquirers. As issuers they maintain the cardholder relationship. As acquirers they maintain the merchant relationship.

Bank Card Associations



Principals



Overview of the Credit Industry

The Bankcard Associations – Visa and MasterCard – set the policies and procedures that the Principal players must follow. Although they function under a dual program, for processing and issuing credit card transactions, all Visa and MasterCard rules and regulations are established independently. ORION PAYMENT SYSTEMS is responsible for operating merchant processing within these established guidelines. Merchants are assigned a unique number to be used when accepting Visa and MasterCard credit cards as a form of payment.

American Express and Discover are independent companies that issue their own credit cards and process transactions. Merchant relations are typically established by American Express and Discover. Account numbers are assigned, by these card companies, allowing the merchant to accept these card types. Once the numbers are assigned, the merchant may elect to process directly with these card companies or with another acquirer. In either case, American Express/Discover sets the fees to be charged and manages the payment process to the merchant on every deposit.

Diners Club/Carte Blanche can operate like American Express and Discover, or operate similar to the bankcard associations. If the merchant elects to process directly with a principal acquirer, the DC/CB transactions can process along with Visa/MasterCard transactions. No additional merchant identification (account) number is needed. In this environment, the principal will pay the merchant for the total of Visa, MasterCard and DC/CB transactions.

JCB (Japanese Credit Bureau) is the largest card issued in Japan.

The Issuers are licensed, principal members of Visa and MasterCard. The issuer:

- Issues a card to approved cardholder
- Receives and pays for transactions received via the Visa/MasterCard interchange system
- Bills and collects payment from the cardholder

The issuer solicits potential cardholders, screens them for creditworthiness, processes their application, and issues them a card. When the cardholder uses a card to make a purchase, the issuer approves or declines the transaction (directly or through a stand-in), receives it through interchange, reimburses the acquirer via interchange, and bills the cardholder on their monthly statement. If the cardholder chooses to “revolve” the balance, (they do not pay the entire balance upon receipt of statement), the issuer collects finance charges on the unpaid balance.

Overview of the Credit Industry

The Acquirer solicits, screens and accepts merchants into their program. The financial institution is a member of Visa and MasterCard and holds written agreement with merchants to:

- Accept merchant sales drafts
- Provide the merchant with credit card authorization, terminal instructions, and support services
- Handle and process credit card transactions

An acquirer is defined as follows: *A licensed association member that maintains the merchant relationship and acquires data relating to a transaction from the merchant or card acceptor and submits the data into interchange either directly or indirectly.* As mentioned earlier, Orion is an example of an acquirer. Orion is responsible for recruiting merchants, screening applications for creditworthiness, training merchants on acceptance procedures and receiving transactions from merchants to submit to issuers via interchange. Once transactions have been submitted to interchange and paid by the issuer, it is Global Payment Systems responsibility, either directly or through a third party processor, to ensure that the funds reach the merchant's deposit account. Global Payment Systems also represents the merchant in all chargeback and retrieval transactions. A third party processor is a company that is contracted to perform any of the data processing and/or payment functions of either an issuer or an acquirer.

The Cardholder submits a bankcard application to an issuer. Upon approval by the issuer, a line of credit is established and a credit card is issued. A cardholder is defined as follows: *The person to whom a financial transaction card is issued or an additional person authorized to use the card.* If you carry any sort of financial card in your wallet, such as a credit or debit card, then you are an example of a cardholder.

Merchants are any company that meets the qualification standards of an association and an acquirer. The merchant enters into a written agreement with an acquirer to accept credit cards as payment and to abide by the terms of the agreement.

The **Front-End** is the electronic network that captures the transaction data then transmits it to the processing center. The **Back-End** is the processing company that submits all transaction data to the interchange system.

Overview of the Credit Industry

- The front-end network is the system that communicates directly with the merchant's POS device. The front-end network transfers transaction information to the appropriate acquirer. It separates transactions from the batches and sends the bankcards to the acquirer's back-end network and the non-bankcards to the appropriate card association. Examples of front-end networks are Orion Payment Systems, Orion's proprietary front-end or Global Payment System (GPS, formerly MAPP), a front-end network serving as a vendor for Global. Other terminology used to describe a front-end network includes network, vendor, processor, host or front-end system.
- A back-end network receives transaction information from the front-end network and routes transactions to the card association for billing the cardholder. A back-end network also processes payments for the acquirer and sends the payments to a merchant's deposit account. The back-end network maintains merchant files, creates billing files, and provides reporting and accounting functions to the acquirer.

- *Interchange*

Interchange is the name of the fee paid by the acquirer to the issuer for every sales transaction. The associations independently establish interchange fees for their respective networks. The fees and the processing requirements are subject to change every spring and fall. Fees are generally assessed as a rate on the sale amount and per transaction charge. The fees are collected daily from acquirers via the settlement process.

Interchange is driven by several factors based on merchant processing procedures, and is therefore generally defined according to market segment, such as:

Retailers and Restaurants
Hotels and Car Rentals
Direct Marketers
Paper Merchants

Interchange fees and corresponding processing requirements are defined as *categories*. There are approximately 40 different VISA and MasterCard interchange categories.

When a merchant is priced, we consider the merchant's processing procedures and we assign them to an interchange category. This is called "*targeting*". A merchant is then priced according to how we *target* them for interchange.

Examples of merchant processing procedures that affect interchange are:

- whether or not the card was present for the transaction
- whether or not the cardholder's address was verified

Overview of the Credit Industry

- whether or not the authorization was obtained on the same day as the sales transaction
- whether or not the transaction is submitted by the merchant with the required timeframes

For example, a retailer who processes 100% of his transactions with both the card and the cardholder present, obtains a cardholder signature on every receipt, and authorizes and settles transactions within the same 24 hr period, would qualify for one specific interchange category. A direct mail company on the other hand, processing 100% of their transactions *without* the card and cardholder present, *without* obtaining a signature and *waiting 3 – 5 days* following the initial authorization to post the sale, would qualify for a completely different interchange category.

Each transaction submitted is reviewed by the associations for compliance with interchange requirements and then qualified at a particular interchange level. This is called “*qualification*”.

The interchange fee is settled daily between the issuers and acquirers according to whether or not the transactions submitted by the acquirers “qualified” at the targeted interchange levels.

If merchants do not comply with the processing requirements of their interchange category, the transactions will not qualify at the targeted level and will *downgrade* to a lower (more expensive) interchange category.

These non-qualified transactions or *downgrades* result in higher interchange expense to the acquirer. It is very important that we target merchants appropriately during the setup process, so that in the end, we will cover our interchange expenses. Otherwise, it will be necessary to charge our merchants an additional fee to cover this additional expense.

Overview of the Credit Industry

Merchant Pricing

Several factors are taken into consideration when establishing merchant pricing.

- Merchant Processing Procedures - How will business be conducted at the point of sale? What interchange category should the merchant be targeted for? What is the risk level associated with this particular type of Business? What is the potential for chargeback's and fraud?
- Annual Credit Card Sales Volume - What is the total anticipated annual sales volume for this merchant? Do they anticipate \$50,000 per year in credit card sales or \$5,000,000?
- Average Ticket Size - What is the average sale amount for this merchant? What is the total anticipated annual transaction volume for this merchant? Will \$250,000 in annual credit card sales volume equate to 500 - \$500 transactions or 12,500 - \$20 transactions?

How do the Players work together?

Bankcard processing is a communications system with banks at each end of the system and Visa and MasterCard in the middle. A single bank can both issue credit cards and process card transactions.

The bank issuing a credit card to a consumer is called the **issuer**. The issuer receives an application from an individual, family, small company or large corporation, investigates their creditworthiness and, upon approval, issues a credit card. Credit cards have specified monthly payment terms, may charge an annual fee and impose interest if the entire balance is not paid within a specified time frame, usually 20 days from the date of billing. The cards also have credit limits, ranging from a few hundred to thousands of dollars, depending upon the credit worthiness of the consumer. Some credit cards are set up to revolve with a minimum monthly payment requirement while others are issued under the guidelines that full payment must be made monthly. In addition, the issuers provide monthly statements to **cardholders** itemizing their purchases and card balance; manage any disputes filed by cardholders; and monitor transaction activity.

The institution that processes credit card transactions for a **merchant** is called the **acquirer**. The acquirer arranges to accept bankcard transactions from the merchant. A fee is charged for this service. Each acquirer determines its own fee structure for each of its merchants. Typical fees include discount rate, authorization fee, capture fee, monthly fee, annual fee, supply fee, etc. The discount fees vary depending on the merchant's average transaction amount, the volume of transactions, the type of merchant and how the transactions are authorized, captured and processed. Merchant fees may be quoted as a flat percentage of the merchant's credit card volume, known as a "bundled" rate, or

Overview of the Credit Industry

may be a percentage plus additional fees, known as an “unbundled” rate. In addition, the acquirers are responsible for servicing merchant accounts, provide deposit statements, research disputes and monitor account transaction activity.

Merchants have the option of accepting whatever card types they choose by simply contacting the appropriate card association or acquirer and contract for these services. Once the merchant has completed the appropriate set up requirements, he/she may begin to accept credit cards as forms of payment.

As transactions occur, they are captured by the **front-end network** (host). The **front-end network** (Global Payment Systems) communicates with the back-end provider for settlement of all transactions through the **interchange system** to the **issuers**.

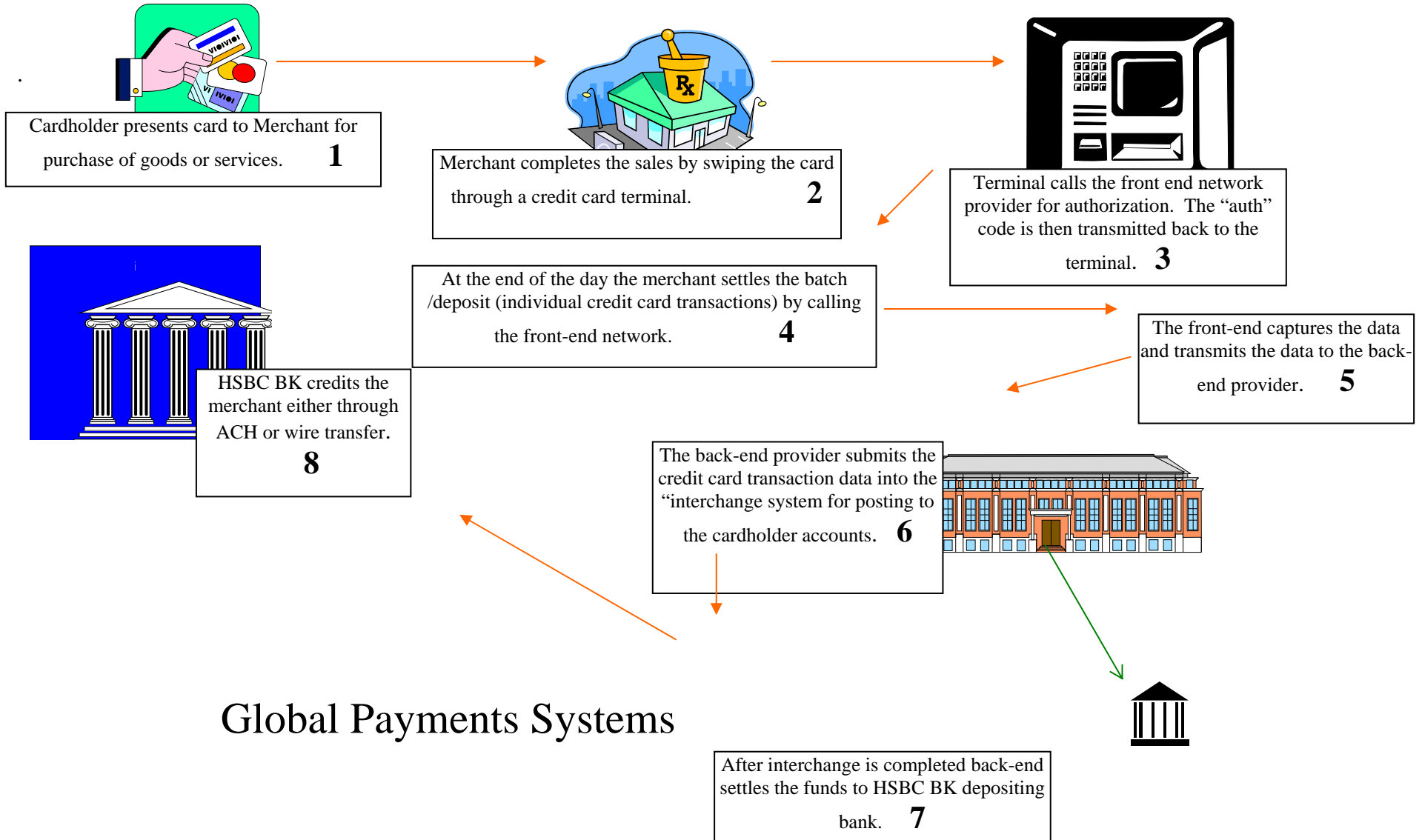
What is the Transaction Process - Retail?

As transactions (sales) occur in the traditional merchant environment, the merchant swipes a credit card through a POS (Point of Sale) terminal. The terminal transmits the transaction information through the front-end (host) network, which acts as a clearinghouse, to the issuer of the credit card and receives an approval or denial of the transaction. Once approved, the cardholder signs the sales slip to confirm the validity of the purchase. The merchant gives the customer one copy of the receipt while retaining a copy for his/her records. At the end of the business day, the merchant's transactions are sent electronically through the terminal for processing. The acquirer then credits the merchant's account for the amount of the credit card sales.

Merchants are assessed fees by Orion for the processing services provided. In most cases, merchants are billed (debited via ACH) for these fees at the end of a month. Fees assessed to merchants may vary, but in most cases merchants are charged a qualified or a non-qualified rate.

The card-issuing bank receives the settlement information from the card associations and stores it until the end of the cardholder's billing cycle. At that time, a statement is prepared and mailed to the cardholder for payment.

Retail Transaction Flow



Components of the Transaction Process

There are various ways that a transaction can be authorized, captured, processed, and deposited to a merchant's account. The following is a general overview of the transaction process.

Types of Credit Card Transactions

- **Sale:** The POS device dials for approval (on-line) and, if approved and settled, the issuer bills the cardholder for the purchase amount.
- **Credit:** The terminal does not dial out for approval; therefore the transaction is off-line. Once the transaction passes through interchange, the cardholder's account will be credited with the amount.
- **Void:** A void occurs when a transaction existing in an open batch is canceled and removed from the batch. The terminal does not dial out for approval (off-line) for a void transaction. The initial transaction is not sent through interchange and does not appear on the cardholder statement. A batch is any number of transactions collected throughout a period of time and settled into interchange at one time.
- **Pre-auth:** A pre-auth is an on-line transaction (terminal dials for approval) for which an approval is given but is not stored in the POS device. An approval, in all transactions so far described, serves to place a hold on the cardholder's credit limit until such time as a transaction is processed using the pre-authorization or the authorization expires.
- **Post-auth:** A post-auth is an off-line transaction commonly known as a "Force." In this case, a transaction is created and placed in the merchant's batch using an existing authorization (see pre-auth). Post-auths are commonly used when the terminal has responded with a CALL response.

Authorization

In order to prevent use of a card by an unauthorized person and/or abuse of credit by the cardholder, both Visa and MasterCard have established data banks in regional authorization centers. The data banks contain information on all card numbers issued. Additionally, Orion Payment Systems provides authorization services for other card types, such as Discover, American Express, Diners Club/Carte Blanche, JCB, and private label cards. These data banks are linked electronically and can be accessed quickly worldwide via telephone lines, voice operator, credit card terminal, electronic cash register or computer.

Authorization can be obtained by:

Electronic authorization: A method performed by a credit card terminal, PC batch or computer mainframe transmission. The terminal or computer has a phone number and a merchant number programmed in it. The terminal or computer dials the authorization phone number and transmits the credit card number and expiration date, as well as the transaction amount. The transaction is either approved or declined. There are a few merchants who still use voice authorization, but typically voice approval service is used only for down time, referrals or suspicious transactions.

Voice authorization: A method performed by using a telephone to call either a voice operator or a computer that communicates with touch-tone phones. The merchant dials the authorization phone number and gives the merchant number, credit card number and expiration date and transaction amount to the voice operator or computer. The transaction is either approved or declined.

Capture

Differences Between Host and Terminal Capture

The POS terminal operates like a smart telephone. It has phone numbers programmed in its memory that call the "host". The host is a large computer capable of obtaining approvals and recording credit card and check guarantee transactions. The terminal calls the host to begin the communication process. For a credit card transaction, the terminal gives the host the merchant number, type of credit card, credit card number and expiration date, as well as the amount of each transaction.

Under the host capture system (HCS), the host computer stores all transactions in its memory. All transactions must dial the host. The terminal stores transactions for the purpose of printing and reviewing reports. Because the host has a record of all transactions, it can automatically close the terminal's batch and send the transactions for processing. With HCS a merchant does not have to manually close the batch in order to be funded for the transactions.

Under the terminal capture system (TCS), the terminal stores all transactions in its memory. Credits, voids, adjustments, and post authorizations do not dial the host. The terminal stores the transactions until the batch is closed. Because the terminal has a record of all transactions, the batch must be manually closed to send the transactions for processing. With TCS, a merchant must manually close the batch in order to be funded for the transactions.

Benefits of Host Capture

Host based products capture all card types and are very effective for retail stores and service businesses. Mail and telephone order merchants cannot use host capture if their merchandise is not always available for immediate shipment.

A host capture merchant can be set up to manually close the batch, but is usually set up using an automatic batch close. Previous batch information remains in the terminal until deleted by the merchant or until deleted due to memory restrictions.

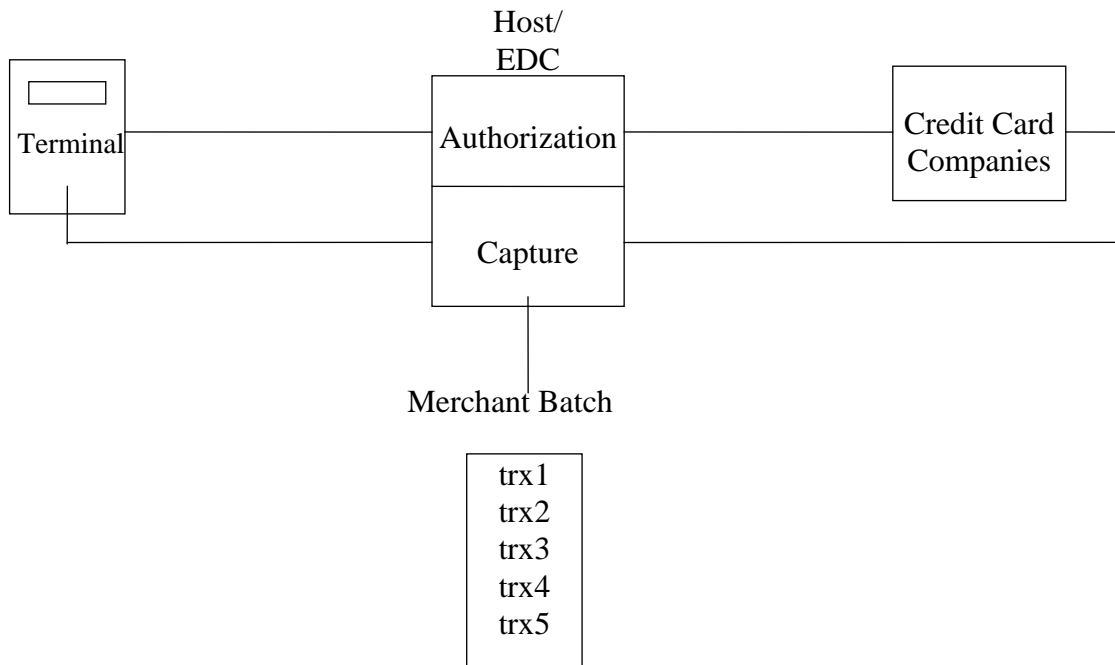
HCS is a simple system. With the automatic close feature, the merchant does not have to worry with manually closing a batch. This ensures that each day's transactions are sent for processing and funding. For merchants utilizing a printer, a batch report and deposit report can be generated. The batch report displays a closing total of all transaction types and a complete review of each individual transaction. The deposit report displays sales, returns and net amount for each card type captured.

Recap of Host Capture

- All transactions must dial the host.
- Batch and deposit reports are available.
- Only retail merchants can accept American Express draft capture on the host capture system.
- Automatic close will occur at a single set time each day; there is no flexibility.
- Previous batch transaction detail remains in the terminal for several days for report printing.

With each transaction, the terminal transmits data to the network. The network channels the information to its EDC system. The EDC system is set up to identify the transaction and to route it for authorization to the appropriate card company. Once an approval is granted, the transaction is captured. The approval message is then routed back to the terminal. (Under a host-based system, a reference number is also assigned to the transaction if an authorization is received.) This process takes only a few seconds to occur.

Host Based



Benefits of Terminal Capture

Terminal-based products capture all card types and are typically used by restaurant, car rental and lodging merchants. They are also available for retail merchants. Mail and telephone order merchants should use terminal capture if their merchandise is not always available for immediate shipment.

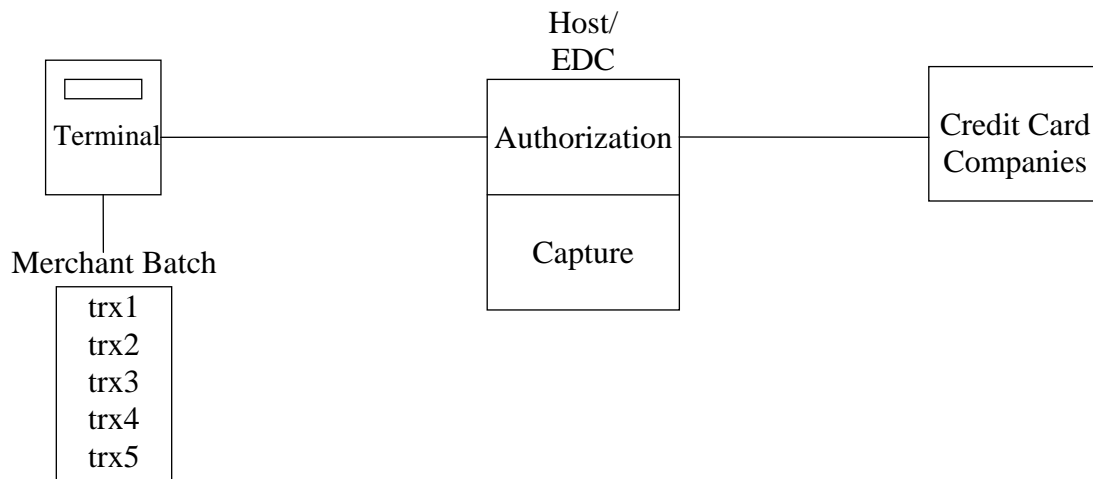
A terminal capture merchant must manually close the batch to send the transactions for processing. The merchant may perform the batch close function as many times a day as necessary. The merchant must close at least once during a 24-hour period so that transactions will meet the Visa and MasterCard interchange requirements.

TCS is also a simple system. The automatic batch close feature, however, is not an option. For merchants utilizing a printer, a batch report and deposit report can be generated. The batch report displays a closing total of all transaction types and a complete review of each individual transaction. The deposit report displays sales, returns and net amount for each card type captured.

Recap of Terminal Capture

- Credits, adjustments, voids, and post authorizations do not have to dial the host.
- Batch and deposit reports are available.
- Separate restaurant, lodging and retail packages are available.
- The batch must be closed manually. The close function may be performed as many times a day as necessary, but must be performed at least once each business day.
- Once a batch has been closed, its transaction information can no longer be retrieved.

Terminal Based



The terminal is programmed with:

1. MID (TID) merchant or terminal identification number
2. phone number

With each transaction, the terminal will transmit:

1. MID (TID) merchant or terminal identification number
2. cardholder number
3. expiration date
4. dollar amount

The terminals are typically programmed with different phone numbers resulting in more than one way to access the network.

Terminal Requirements

To operate a credit card terminal, the merchant is required to have an electrical outlet and a telephone jack.

The terminal is programmed to identify the specific merchant account. Part of the programming includes a Terminal Identification Number (TID). The TID number is unique to each terminal and helps to identify every transaction coming from each merchant. Other information in the programming includes telephone numbers used to dial out for authorization and settlement. The programmed telephone numbers allow each transaction to be authorized and each batch to settle for payment at the end of the day.

Processing

Processing is the step in the bankcard transaction flow where the captured transactions are submitted to the appropriate card associations for routing to the various card-issuing banks. This is accomplished through the use of two separate computers, a Member Interface Processor (MIP) and Visa Access Point (VAP), which communicate with Visa and MasterCard respectively. These systems are located in Salem and Tampa. Global Payment Systems also transmits files to the other card companies - Discover, American Express, Diners Club/Carte Blanche, JCB, and various private label or fleet card companies.

Settlement

The settlement process involves the transfer of money from the card-issuing banks through the card associations and to the acquirer. Upon receipt of funding, Global Payment Systems an automated clearing house (ACH) file to be sent to the merchant's designated depository bank.

Global Payment Systems does not provide settlement and funding services on behalf of Discover and American Express issuers. These are handled directly by the card issuing companies. Global Payment Systems may be settling Diners Club/Carte Blanche and JCB transactions or forwarding them to the respective companies for settlement.

Payment

Payments to merchants are sent directly into the merchants' bank accounts through the Automated Clearing House (ACH) or by a wire transfer.

Global Payment Systems is considered a "non-bank" bank. Because of this, a customer cannot open a demand deposit account (DDA) with Orion. In order for merchants to receive payment for transactions processed, they must specify an account for Orion to access. This account is known as the settlement account. The merchant can have a settlement account at any bank of its choice.

What is the Transaction Process – Direct Response?

Direct Response payment processing is the term used to define non-face-to-face credit card transactions. This includes catalogs, mail order, infomercials, telephone sales, and an increasing amount of internet sales. Since the card is actually not present at the time of sale, merchants must capture the credit card information in other ways. Consumers usually provide their credit card information over the telephone or on written or online order forms.

After receiving the credit card information, the merchant transmits an authorization request, via Global Payment Systems, to the cardholder's bank. If the authorization indicates the card is valid and there are enough funds available to reimburse the merchant, the transaction is submitted to the bank, and the merchant sends the product to the consumer. Some merchants use third party processors, such as fulfillment companies to ship products, and for other services. In those cases, the transaction information may be submitted to the third-party processor, who, in turn, forwards it to the acquirer.

The process then becomes similar to the retail side, as the acquirer then credits the merchant's account for the amount of the credit card sale. The settlement information is stored until the next billing cycle. Then, the cardholder receives a statement, outlining purchases, and remits payment.

