

US Payment Handbook

Third Edition

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Introduction

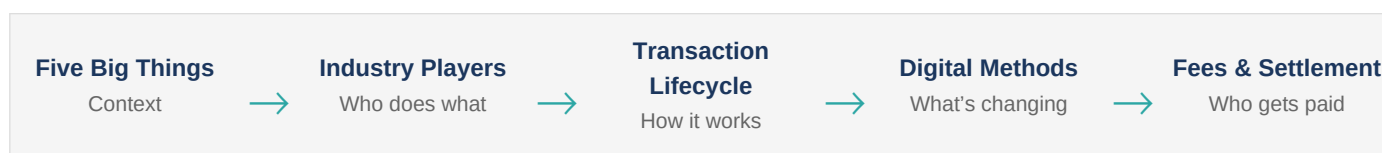
When the first edition of this handbook was published in 2012, it served a specific purpose: a quick overview for anyone new to the United States who would work in the payment industry. The second edition, published in 2014, expanded the scope to include Americans already working in payments who needed a concise reference guide.

The payment landscape has transformed dramatically since then. The COVID-19 pandemic accelerated digital payment adoption by years. Mainstream adoption of digital wallets, the rise of real-time payments, embedded financial services, and significant regulatory changes have reshaped the industry.

This third edition is written with those changes in mind. The goal remains the same: **to help you move from using payment methods as a consumer to having a working knowledge of the US payment industry in under an hour.**

In the next sixty minutes, we will cover:

- The big things you really need to know about the US market
- The main types of businesses in the payment industry
- A complete walkthrough of electronic payment transactions
- New payment rails and technologies gaining significant market share
- How transaction fees are distributed among participants



Five Big Things

Important context you need before diving into the US payment industry. The US market remains unique globally. Here are five critical facts.

1. Banks are still the foundation, but non-bank players have expanded roles.

Banks remain the only entities that can hold federally insured electronic funds, and bank-to-bank transfers remain the foundation of money movement. However, the distinction has blurred with the rise of fintechs and Banking-as-a-Service (BaaS) platforms that allow non-bank entities to offer bank-like services through partnership models. Non-bank payment facilitators and digital wallets can now handle significant aspects of the payment process, though they ultimately must partner with banks for final settlement.

2. Regulatory oversight has increased, but it remains fragmented.

Unlike the centralized payment authorities in other countries, the US payment landscape is regulated by multiple bodies: the Federal Reserve, CFPB, OCC, FDIC, state banking authorities, and card network rules. The regulatory framework has evolved significantly, with the CFPB taking a more active role and new federal regulations addressing real-time payments and digital assets.

3. Companies increasingly occupy multiple roles in the ecosystem.

The trend of companies occupying several positions in the payment stack has accelerated. Tech giants, retailers, and financial institutions now operate across multiple areas. A single entity might function as a payment facilitator, digital wallet provider, consumer lender, card issuer, and financial data aggregator. This “super app” approach has created more vertically integrated payment experiences but has raised new questions about competition, data privacy, and regulatory oversight.

4. The US has begun prioritizing security alongside convenience.

While the US market traditionally valued convenience over security, the implementation of EMV chip cards, contactless payments, advanced fraud detection, and stronger authentication methods has brought security more into balance. Digital wallet adoption has accelerated, providing both convenience and enhanced security through tokenization and biometric authentication.

5. The adoption cycle is accelerating.

The US payment market has historically been slow to adopt new technologies. Changes that once took 7–10 years to become mainstream can now achieve widespread adoption in 3–5 years. The COVID-19 pandemic created a step-change in consumer and merchant behavior that permanently compressed adoption timelines.

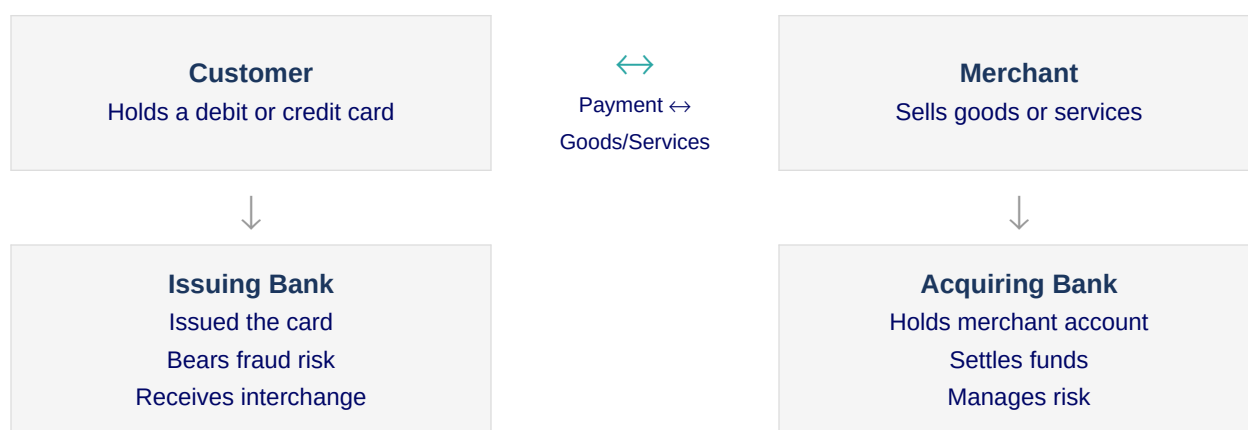
#	Key Fact	What It Means
1	Banks = Foundation	Every payment ultimately settles through the banking system, even when non-banks handle the
2	Fragmented Regulation	Multiple regulators mean complexity for companies operating nationally. No single authority gove
3	Multi-Role Companies	The lines between issuer, acquirer, processor, and facilitator are blurring. Vertical integration is a
4	Security + Convenience	EMV, tokenization, and biometrics have finally brought the US closer to global security standard
5	Faster Adoption	3–5 year cycles are replacing 7–10 year cycles. The pandemic permanently accelerated change

The Merchant and Customer

At the heart of commerce is someone buying goods or services from someone who sells them. For the purposes of this handbook, we focus on the exchange of value: goods or services from a merchant for some form of electronic payment from the customer.

All customer and business banks are in the deposit business, and banks use those funds to invest and earn more capital. Banks are federal and state licensed institutions that handle checking and savings accounts for customers and merchants. A bank can also issue loans and credit lines and manage government and corporate securities.

The customer's money is held in the bank that they have chosen, which we call the **issuing bank**. The merchant has their own bank, named the **acquiring bank**, providing services to them too.



Issuing Bank

The issuing bank provides deposit accounts and related banking services to customers. The primary account types — checking and savings — are known within the payment system as a **DDA (demand deposit account)**. These accounts reside in a core banking system, the electronic heart of the bank.

The bank issues a debit card that gives the account holder direct access to their deposited funds through ATMs, bank branches, digital interfaces, and when buying goods and services from merchants. Almost all debit cards operate on the Visa, Mastercard, American Express, and Discover networks. Contactless tap-to-pay has become the dominant in-person payment method.

Issuing banks also provide loans and lines of credit, offering Visa and Mastercard branded credit cards. Mobile wallets like Apple Pay, Google Pay, and Samsung Pay have become standard features, allowing customers to digitize their physical cards. When a customer applies for a credit card, the issuing bank creates an account and approves a revolving line of credit, bills the customer monthly, and carries the risk for that account holder.

Digital Wallet Providers

Digital wallet providers like Apple, Google, Samsung, and PayPal are not issuing banks themselves. They provide digital interfaces that store **tokenized** versions of payment cards issued by traditional banks. Tokens replace actual card numbers, enhancing security without changing the fundamental relationship between the customer and their issuing bank.

Affinity Partners

To expand their customer base, issuing banks partner with organizations to offer co-branded credit cards. The issuing bank typically provides a sign-up bonus and a share of transaction income back to the affinity partner. For example, a Delta Airlines Platinum American Express card: the issuing bank is American Express Bank, the affinity partner is Delta Airlines, and the card network is American Express.

Acquiring Bank

The acquiring bank — also known as the merchant acquirer — provides the same deposit services to businesses as an issuing bank would to consumers, plus the specialized infrastructure for accepting electronic payments from customers. At the other end of the transaction process, the acquiring bank accepts deposits from issuing banks whose cardholders have purchased from the merchant.

Merchant Services

Whether you are selling handmade crafts at a farmers' market or are the CTO of Walmart, there are thousands of companies in the United States that will supply or create products and services to match your requirements for payment acceptance.

Tier	Segment	Profile	Typical Providers
1	Enterprise	>\$500M card revenue or >6M txns/year	Direct channel, relationship, proprietary systems

Tier	Segment	Profile	Typical Providers
2	Mid-Market / Chains	\$25M–\$500M, 1–6M txns/year. Regional chains, franchisors	Value-added resellers (VARs), integrators
3	SMBs	10M+ businesses accepting payments.	Resellers, agents, the US merchant base.
4	Micro-Merchants	Food trucks, gig workers, freelancers, crafters, etc.	PayFolx, Square (Clover), Stripe, Braintree, PayPal, Shopify

Transaction Lifecycle

There are over 600 million payment cards in circulation across the United States, used for over 45 billion transactions per year. On the other side, there are more than fifteen million points of sale and ecommerce sites accepting payment cards.

Consider the sheer volume of continuous traffic, the thousands of variables evaluated for risk, the millions of fraud points assessed, and the billions of possible card-issuing-bank and merchant-acquiring-account combinations that must be reliably matched and recorded — all completed in milliseconds.

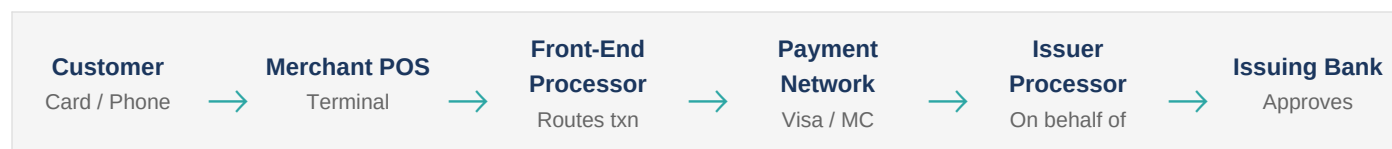
Making a Purchase

A price is set by the merchant or negotiated between customer and merchant. The customer must agree to the price before proceeding, including shipping, taxes, discounts, and any gratuity. By starting a payment transaction, the customer is making a **promise to pay**. The most fundamental element of electronic commerce is the recording of an agreement — it begins with a confirmation that funds are available and an authorization for those funds to be used as payment.

Authorization

At the core of the authorization process is a merchant's payment processor validating with the customer's issuing bank whether the customer has sufficient funds or credit to cover the transaction amount.

The merchant's point of sale system generates an authorization request that includes a **merchant identification number (MID)**, the payment card information (or tokenized version for digital wallets), and the transaction amount. Additional data such as IP addresses, ZIP codes, or CVV numbers can be added to further assist with authorization and reduce processing rates.



Front-end processors handle transaction authorization and route transactions to the appropriate payment network. The network identifies the correct issuing bank and directs the request. In most cases, an issuer processor handles the request on the issuing bank's behalf.

The issuing bank verifies funds and either authorizes or declines the transaction. If authorized, an authorization code is returned via the same path back to the merchant.

Key Point: At this stage, no funds have been transferred. The customer's promise to pay has been validated, but actual money movement happens later during settlement.

Pre-Authorization

Pre-authorization is used by hotels, car rental companies, gas stations, and similar merchants. It places a hold on a portion of a credit line or available funds to ensure sufficient funds are available for an imminent purchase. The final authorization replaces the pre-authorization, and the transaction is then captured and settled normally.

Capture

To capture a transaction is to combine the approval amount and authorization code into a billable transaction record in a settlement file.

Terminal Capture: The process of building a capture file on a point of sale terminal or ecommerce gateway that includes all authorized transactions, which is later sent to a back-end processor for settlement. At the end of the working day, the batch file is closed and sent.

Host Capture: The front-end processor routes the authorization and automatically captures it for settlement, requiring no further action from the merchant.

Settlement

Settlement is the process in which a transaction is accepted for financial settlement between an issuing bank and a merchant's acquiring bank.

The back-end processor generates clearing files from the capture files, applying all fees, discount rates, and interchange for all participants. The back-end processor clears multiple batches of transactions with the payment networks, which clear them with the issuing bank.

A critical part of settlement is the **Automated Clearing House (ACH)**. While traditional ACH processing takes 1–3 business days, the introduction of Same Day ACH and the Federal Reserve's FedNow service have accelerated settlement times significantly.

The acquiring bank credits the merchant's account with the cleared funds. To balance the transaction, the issuing bank debits the customer's account or bills them for amounts owed plus applicable fees.

Phase	What Happens	Timing
Purchase	Customer agrees to price and initiates payment.	Instant
Authorization	Processor validates funds with issuing bank. Authorization code returned.	Seconds
Capture	Authorized transactions combined into settlement batch.	Hours (end of day)
Settlement	Funds transferred from issuer to acquirer to merchant account.	1-3 days (accelerating)

Additional Transaction Types

Beyond standard purchases, the payment system supports several other transaction types:

Void

The cancellation of a transaction within a short window (typically about 15 minutes). When voided, the transaction is not captured for settlement. No funds move.

Refund

When a merchant returns funds paid by a customer — for lost or damaged goods, undelivered services, or returned merchandise. A refund usually occurs after the original transaction has already settled. The refund is processed as a separate transaction that credits the customer’s account.

Chargeback

Occurs when a transaction is in dispute, initiated by the customer. The payment processor debits the original purchase amount from the merchant’s account and returns it to the customer. The merchant must respond with evidence that the products or services were provided. Modern processors offer sophisticated tools including real-time fraud detection, chargeback alerts, and representment automation.

Digital Payment Methods

The landscape of digital payments has expanded dramatically:

Method	How It Works	Key Players
Mobile Wallets	Use NFC for in-store payments and support in-app / online purchases	Apple Pay, Samsung Pay, Google Pay, Venmo, Cash App
QR Code Payments	Gaining traction in the US for restaurant payments, loyalty programs, and cashless transfers	Alipay, WeChat Pay, QR Payments
Buy Now, Pay Later	Interest-free installment payment options at the point of sale	Klarna, Afterpay, Affirm, PayPal

Method	How It Works	Key Players
Cryptocurrency	Small but growing portion of retail payments. Processors	PayPal, Block (Square), Coinbase

PayPal, Block (Square), Coinbase settlement in traditional

Embedded Finance

Embedded finance integrates financial services directly into non-financial platforms and applications, creating seamless payment experiences.

Banking-as-a-Service (BaaS)

BaaS platforms enable non-bank companies to offer banking services by providing the necessary technology infrastructure and regulatory compliance through partnership with licensed banks. This model has enabled companies like Uber, DoorDash, and Shopify to offer financial products to their users without becoming banks themselves.

Embedded Payments

Payments that disappear into the background of the consumer experience: ride-sharing apps that process payment automatically, food delivery services that handle payment and tipping in-app, subscription services that manage recurring billing, and IoT devices that can initiate payments. The common thread is that the payment happens without the consumer needing to think about it.

Embedded Lending

Point-of-sale financing has evolved beyond traditional BNPL to include a wide range of embedded lending options. Merchants can offer custom financing at the moment of purchase through partnerships with lenders, making credit decisions instant and integrated into the checkout flow.

Real-Time Payments

The US payment system has historically lagged behind other countries in real-time payment capabilities, but that gap has closed considerably.

System	Launched	Speed	Availability	Key Feature
Traditional ACH	Legacy	1–3 business days	Business hours, business days	Batch processing; low cost; ubiquitous
Same Day ACH	2016	Same day	Multiple windows, business days	Faster than traditional but not instant

System	Launched	Speed	Availability	Key Feature
RTP (The Clearing House)	2017	Seconds	24/7/365	Immediate settlement, irrevocable, rich data
FedNow (Federal Reserve)	2023	Seconds	24/7/365	Fed-operated; immediate availability; broad access

Real-time payment systems are reducing reliance on cards for certain payment types, decreasing settlement times, enabling new business models based on immediate payment confirmation, and improving cash flow for businesses of all sizes.

Transaction Fee Distribution

The average transaction fee charged to the merchant in the United States is approximately **2.5%**, though this varies widely by merchant type, card type, and transaction volume. This fee is typically described as the **discount rate**.

Transaction Type	Typical Discount Rate
Customer Present (CP) — in-store, terminal	1.75% – 3.0%
Customer Not Present (CNP) — online, phone	2.8% – 5.0%

The interchange fee is a component of the discount rate determined by the payment network using complex fee tables based on the risk associated with the merchant's standard industry classification (SIC) code and the characteristics of the payment card being used.

Fee Breakdown: \$100 Transaction

Participant	Approximate Share	Amount on \$2.50 Fee	What They Do For It
Issuing Bank (Interchange)	70%	~\$1.75	Issued the card, bears fraud risk, funds the rewards program.
Card Network (Assessment)	10%	~\$0.25	Operates the authorization network, sets rules and standards.
Processor (Markup)	~15%	~\$0.375	Routes, authorizes, captures, and settles the transaction.
Acquirer	~5%	~\$0.125	Holds the merchant account, manages risk, settles funds.

\$100 purchase → \$2.50 total fee → \$97.50 deposited to the merchant. The \$2.50 funds the entire infrastructure of electronic commerce.

Afterword

If you've reached this point, you now have a working understanding of how electronic payments operate in the United States. You understand the key players, how a transaction moves from initiation to settlement, how fees are distributed, and what's changing with digital wallets, embedded finance, and real-time payments.

All of the information presented here is a starting point. You should now be able to have a conversation with someone in the industry and understand what they are talking about. The payments industry continues to evolve rapidly, with new technologies, business models, and regulatory frameworks emerging regularly.

If you are new to the industry and want a career-focused companion to this handbook — covering the company landscape, entry-level roles, how to get hired, and what your first ninety days look like — see **Breaking Into Payments: A Career Field Guide**, available at bnlv.com.

If you have enjoyed this reference or have suggestions for how it could be more useful, please reach out.

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