



# Exploring Payment Processors: Unraveling the Mechanics Behind Seamless Transactions

In today's fast-paced digital world, payment processors play a crucial role in facilitating transactions between buyers and sellers. From online shopping to bill payments, these behind-the-scenes players ensure that payments are processed seamlessly and securely. But how exactly do payment processors work? Who are the largest providers? And what factors should you consider when choosing one for your business? We're diving into the intricacies in our guide.

Payment processors play a crucial role in the digital payment ecosystem, handling transactions between merchants and customers efficiently. Our guide aims to answer fundamental questions about payment processors, shedding light on their operations, regulations, and more.





# WHAT ARE PAYMENT PROCESSORS?

Payment processors are companies or services that handle transactions between merchants and consumers by facilitating the transfer of funds from a customer's bank account or credit card to a merchant's account

When a customer makes a purchase using a credit or debit card, the payment processor acts as an intermediary between the bank that issued the card and the merchant's bank. These processors are responsible for authenticating the card details, ensuring there are sufficient funds, and finally approving or declining the transaction. They enable secure and efficient processing of payments by ensuring that sensitive financial information is encrypted and transferred safely, often incorporating fraud detection mechanisms to protect both parties.

Payment processors also handle various payment methods beyond traditional cards like digital wallets. Furthermore, they often provide additional services like recurring billing, currency conversion, and analytics to help businesses streamline their financial operations. Overall, payment processors play an essential role in the ecommerce industry by providing a convenient and secure way for individuals and businesses to make and receive payments online.

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# ARE BANKS PAYMENT PROCESSORS?

While banks offer many financial services related to payments, they are not technically considered payment processors. However, they often collaborate with or provide the underlying infrastructure for payment processors. Banks may issue credit and debit cards and provide merchant accounts that are necessary for processing payments, but the actual transaction process is usually managed by specialized payment processing companies.

# WHO ARE THE LARGEST PAYMENT PROCESSORS?

Several major players dominate the payment processing industry globally. Some of the largest payment processors right now include:

## PAYPAL

With over 300 million active users worldwide, PayPal is one of the most popular payment processors. Its user-friendly interface allows users to pay for goods and services securely without sharing their financial information with merchants.

## SQUARE

With Square, merchants can easily create an account and start processing transactions in just a few minutes. Square offers a range of payment solutions, including in-person, online, and mobile payments. The platform also provides real-time analytics, inventory management, customer loyalty programs, and other useful features to help businesses streamline their operations.

## ADYEN

Based in the Netherlands, Adyen supports multi-channel payment processing, catering to both online and in-store transactions.

## STRIPE

Stripe is a developer-friendly payment processor that has gained popularity for its robust API infrastructure, ease of integration, and advanced features like fraud detection and multi-currency support.

## BRAINTREE

Acquired by PayPal in 2013, Braintree offers robust payment processing solutions for ecommerce businesses. It supports various payment methods and has advanced fraud prevention tools.

## AUTHORIZE.NET

One of the oldest players in the game, Authorize.Net has been providing secure online payments since 1996. It offers a variety of features like recurring billing and virtual terminals.

## AMAZON PAY

As an extension of Amazon's ecommerce empire, Amazon Pay allows customers to use their existing Amazon accounts to make purchases on other websites.

## GLOBAL-E

Global-e is a payment processor that specializes in cross-border ecommerce transactions. It offers businesses the opportunity to expand their reach by providing a seamless and user-friendly payment solution for international customers.

## KLARNA

Klarna is a popular payment processor that offers customers a flexible and convenient way to pay for their purchases with “Buy Now, Pay Later” (BNPL), monthly financing, and flexible credit lines. With Klarna, customers have the option to take advantage of their variety of payment options both online and in-store.

## AFTERPAY

Another BNPL provider, Afterpay is a payment processor that has gained traction in recent years. Afterpay allows customers to split their purchases into four installments, with the first one paid at the time of purchase and the remaining three payments spread out over six weeks. This payment method has become popular among shoppers who are looking for more flexible payment options and want to manage their budget better.

## AFFIRM

Affirm is another BNPL-friendly payment processor that allows consumers to split purchases into multiple payments over time rather than paying the full amount at once. Affirm partners with various merchants, providing their customers with an alternative payment option that is interest-free and transparent with no late fees.

## BONUS:

### SHOPIFY PAYMENTS

Shopify Payments is Shopify’s native payment service that allows ecommerce businesses (over 1,000,000 globally) to manage their online transactions and accept payments. It’s a payment gateway\* powered by Stripe and is directly integrated into each consumer’s Shopify account by default.

### SHOP PAY

Shop Pay is an online checkout service that allows customers to save their shipping and billing information for faster checkout on Shopify stores. It also offers features such as order tracking and package protection. Shop Pay is fast, flexible, and gives you Shop Cash to spend as an added benefit.

#### **\*FYI: What is a Payment Gateway?**

A payment gateway is a technology that acts as an intermediary between an online merchant and their customers’ financial institutions. It securely facilitates the transfer of funds from a customer’s credit card to a payment processor and acts as a digital checkpoint, encrypting and securely transmitting sensitive online transaction data. By verifying the customer’s payment method, checking for fraud, and coordinating with the payment processor for transaction approval, businesses can offer a secure and seamless payment journey for online shoppers.



# WHO REGULATES PAYMENT PROCESSORS?

Payment processors are regulated by various governmental and financial authorities to ensure the integrity, security, and transparency of financial transactions. In the United States, key regulatory bodies include:

## THE FEDERAL RESERVE

Oversees the nation's monetary policy and regulates financial institutions to maintain stability.

## THE CONSUMER FINANCIAL PROTECTION BUREAU (CFPB)

Ensures consumer protection in the financial sector.

## THE OFFICE OF THE COMPTROLLER OF THE CURRENCY (OCC)

Regulates and supervises national banks and federal savings associations.

## THE PAYMENT CARD INDUSTRY SECURITY STANDARDS COUNCIL (PCI SSC)

Establishes security standards (PCI DSS\*) to protect cardholders' data.

**\*FYI:** The Payment Card Industry Data Security Standard (PCI DSS) is a set of rules and guidelines designed to help organizations keep credit card information safe and secure.



# HOW DO PAYMENT PROCESSORS MAKE MONEY?

Payment processors generate revenue through various streams, including:



## TRANSACTION FEES

Processors charge merchants a percentage of each transaction (interchange fees) or a flat fee per transaction.



## ADDITIONAL FEES

Additional services, like fraud detection, chargeback\* management, and currency conversion.



## MONTHLY FEES

Merchants may be required to pay subscription fees for access to payment processing services.



## VALUE-ADD SERVICES

Value-add services like advanced analytics and financial management tools provide extra income.



## EQUIPMENT LEASING

Fees for leasing equipment such as point-of-sale terminals.

### \*FYI: What Are Chargebacks?

Chargebacks refer to the process of reversing a transaction between a merchant and consumer. This occurs when a customer disputes a charge on their credit or debit card statement and requests for the amount to be refunded by their issuing bank. Chargebacks can happen for various reasons, such as fraudulent activity, incorrect billing, or unsatisfactory product or service.

# ARE PAYMENT PROCESSORS SUBJECT TO GLBA?

The Gramm-Leach-Bliley Act (GLBA) primarily applies to financial institutions, addressing the security and privacy of consumer financial information. While not specifically targeted at payment processors, those involved in handling consumer financial data must adhere to GLBA's requirements to ensure data privacy and protection.

## HOW DO PAYMENT PROCESSORS ADDRESS THE COMPLEXITIES OF CROSS-BORDER TRANSACTIONS FOR BUSINESSES?

Cross-border transactions present unique challenges, such as differing currencies, exchange rates, and regulatory requirements. Payment processors address these complexities by leveraging advanced technology to provide:



### MULTI-CURRENCY SUPPORT

They offer real-time currency conversion services to handle multi-currency transactions seamlessly.



### RISK MANAGEMENT

Implement robust fraud detection and prevention systems to mitigate risks associated with cross-border transactions.



### REGULATORY COMPLIANCE

Payment processors navigate international regulatory landscapes to ensure compliance with local laws and standards.



### SETTLEMENT AND RECONCILIATION

Efficiently manage settlement processes to ensure timely and accurate fund transfers between different countries.



# HOW DO PAYMENT PROCESSORS RECONCILE TRANSACTIONS?

Transaction-level reconciliation is a critical process for payment processors, as they must ensure that all transactions are accurately recorded and matched to corresponding amounts in accounts. This involves cross-verifying transaction data across various records, including bank statements, merchant accounts, and internal general ledgers. Automation tools and advanced software solutions are often used to streamline the reconciliation process, reducing errors and improving efficiency.

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## WHAT ARE THE MAIN ISSUES ENCOUNTERED DURING ORDER-TO-CASH RECONCILIATION?

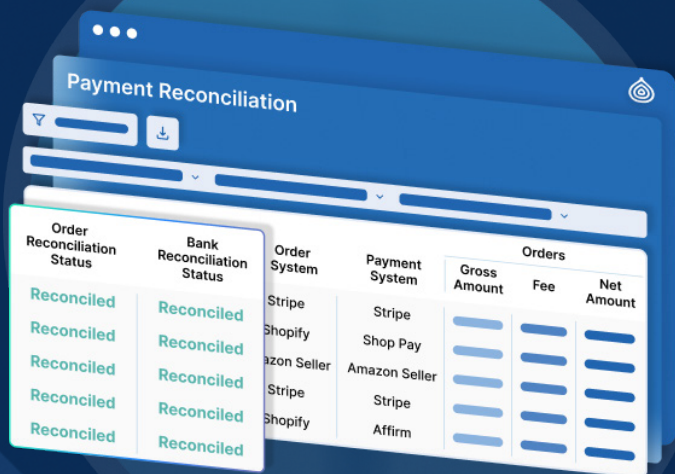
Despite advanced systems, payment processors may encounter several issues during order-to-cash reconciliation. This includes:

- Discrepancies between transaction records (payment processors data) and bank statements (the actual cash received in the bank).
- Manual human errors in data entry or processing.
- Technical glitches, software errors, and communication lags or breakdowns between systems.
- Delays in transaction clearing.
- When a payment involves a mix of different avenues like gift cards, store credit, credit card payments, and reward program points.
- Inaccuracies in merchant fees, unaccounted chargeback amounts, and misfiled order categories.
- Varying Goods and Services Tax (GST) rates.

# HOW DOES BLUE ONION HELP?

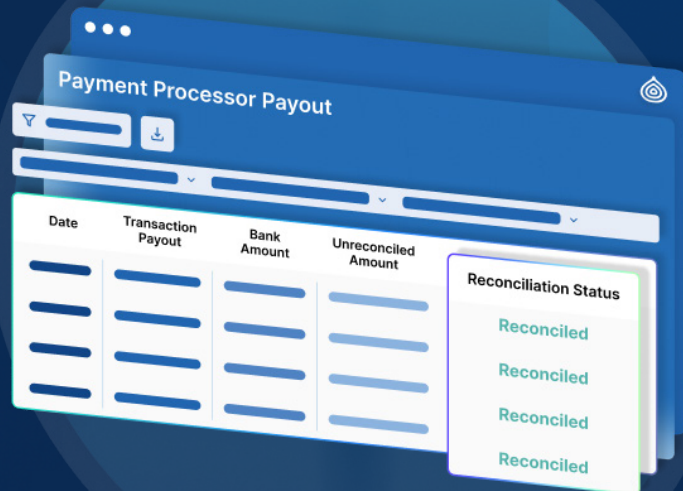
Blue Onion connects directly with order and billing systems, payment gateways and processors, and bank accounts with our 300+ highly-engineered integrations. By meticulously tracking every order from the point of sale through the payment processor to the payout in the bank, teams have a complete view of each transaction, ensuring no data is overlooked and errors are reduced. By consolidating financial data from your order system, payment processors, and bank account, Blue Onion facilitates seamless, automated reconciliation and audit trails across multiple platforms.

With Blue Onion, you can also effortlessly track payments across multiple sales platforms, currencies, and payment methods. Our intelligent system automatically matches payments to each order and refund transaction, providing you with a clear view of your payment processing fees, chargebacks, and cash flow.



The screenshot shows the 'Payment Reconciliation' interface. It features a table with columns for 'Order Reconciliation Status', 'Bank Reconciliation Status', 'Order System', 'Payment System', and 'Orders' (subdivided into 'Gross Amount', 'Fee', and 'Net Amount'). The 'Order Reconciliation Status' and 'Bank Reconciliation Status' columns are populated with 'Reconciled' in green text.

Order Reconciliation Status	Bank Reconciliation Status	Order System	Payment System	Orders		
				Gross Amount	Fee	Net Amount
Reconciled	Reconciled	Stripe	Stripe			
Reconciled	Reconciled	Shopify	Shop Pay			
Reconciled	Reconciled	Amazon Seller	Amazon Seller			
Reconciled	Reconciled	Stripe	Stripe			
Reconciled	Reconciled	Shopify	Affirm			



The screenshot shows the 'Payment Processor Payout' interface. It features a table with columns for 'Date', 'Transaction Payout', 'Bank Amount', and 'Unreconciled Amount'. A 'Reconciliation Status' dropdown menu is open, showing 'Reconciled' in green text.

Date	Transaction Payout	Bank Amount	Unreconciled Amount	Reconciliation Status
				Reconciled
				Reconciled
				Reconciled
				Reconciled

**Disclaimer:** The information provided in this article is intended as general guidance only and is not intended to be nor should it be considered legal or financial advice. You should consult with your CPA to review your business' specific accounting issues and challenges.