

Whitepaper

The insider's guide to pay by bank in the United States

A look behind the curtain at America's most cost-effective payment method.

With insights from the industry's leading experts.



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“It’s a special time for pay by bank in the U.S. – merchants can accept modern bank payments anywhere they take cards and have it feel just as simple for their user.”



Lav Kanneganti | Director of Product at Aeropay

What is pay by bank?

Pay by bank is a payments solution that enables consumers to send funds directly from their bank account to purchase goods and services.

Here's what makes the technology different from traditional bank payments (like eChecks):



Pay by bank couples instant account verification with modern ACH payment processing. Consumer accounts are securely authenticated via application program interfaces (APIs) through a single login to their online banking.

Typically, a data aggregator facilitates this synchronization and uses consumer financial information to initiate and authorize payments.

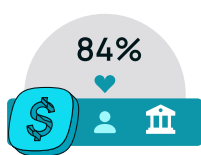
This means payment service providers have real-time access to data and information that enhances decision making and user conversion.

In short, pay by bank provides businesses with access to the low cost of ACH processing, with a modern interface that does not sacrifice approvals or user experience.

Pay by bank data points



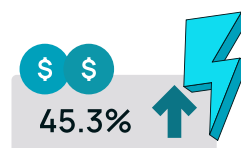
Up to **50%** lower cost than card payments



84% of U.S. consumers prefer pay by bank for certain use cases



In 2024, the ACH network processed **\$86.2 trillion** in total payments value



From 2023 to 2024, Same Day ACH volume soared **45.3%**

Terminology breakdown

Payments infrastructure is shifting in the United States. There are several related terms that are often used interchangeably.

Here's a breakdown of those terms and what they actually mean in the context of U.S. payments:

Account to account (A2A)

This overarching term most accurately describes any form of money movement from one bank account to another.

For example; ACH payments, real-time payouts, pay by bank, and wires all fall under the umbrella of account to account transactions.

Unlike card payments, which rely on card networks (Visa, Mastercard), A2A transactions move funds directly between bank accounts.

Wire transfer

A real-time, irreversible bank-to-bank payment, typically used for large transactions. Wires are processed via networks like Fedwire (U.S. domestic wires) and SWIFT (international wires).

Unlike ACH, which is batch-processed and can take multiple days, wire transfers move money instantly but at a much higher cost.

eCheck

An ACH-based digital version of a paper check that allows businesses and consumers to send payments electronically by authorizing a debit from a bank account.

Unlike pay by bank, which automatically verifies account ownership and balances, eChecks require manual entry of account details and rely on standard ACH processing times (1–3 days), leading to a higher risk of failed transactions.

Open banking payment

These account to account payments use open banking APIs to connect consumer financial accounts to merchants, businesses, or third-party providers.

Instead of manually entering bank details, users authenticate by logging into online banking directly. A third-party facilitates this connection via open banking APIs.

Unlike in Europe, where PSD2 regulations mandate that banks provide open APIs for secure data sharing, the U.S. is still in the early days of a universal open banking standard.

Instead, open banking adoption in the U.S. is voluntary for the time being, meaning:

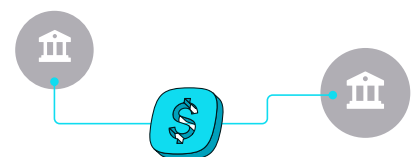
- Not all banks support open banking APIs
- Coverage varies across financial institutions (some banks rely on legacy systems)
- Alternative linking methods are used where open APIs aren't available

To ensure broader coverage, many U.S. payment providers combine open banking with legacy bank authentication methods (like microdeposits or screen scraping) to reach a wider set of financial institutions.

Insider advice

There are many U.S. providers of pay by bank that market their solution as Open Banking Payments. While this description works in places like Europe, it's misleading in the U.S. payments ecosystem. This is because many "Open Banking" providers still use legacy authentication methods like micro-deposits or screen scraping.

Micro-deposits and screen scraping are outdated, high-risk authentication methods. They're brittle (often breaking when banks update their UI), slow, and lack the data richness needed to accurately predict returns and ultimately approve payments.



Pay by bank

Pay by bank is a form of A2A payment that uses credential-based account connections to enhance bank to bank transactions.

Unlike eChecks or wire transfers, pay by bank combines bank account verification with ACH payment processing, creating a secure, low-friction experience.

Ideally, bank-level authentication is facilitated via:

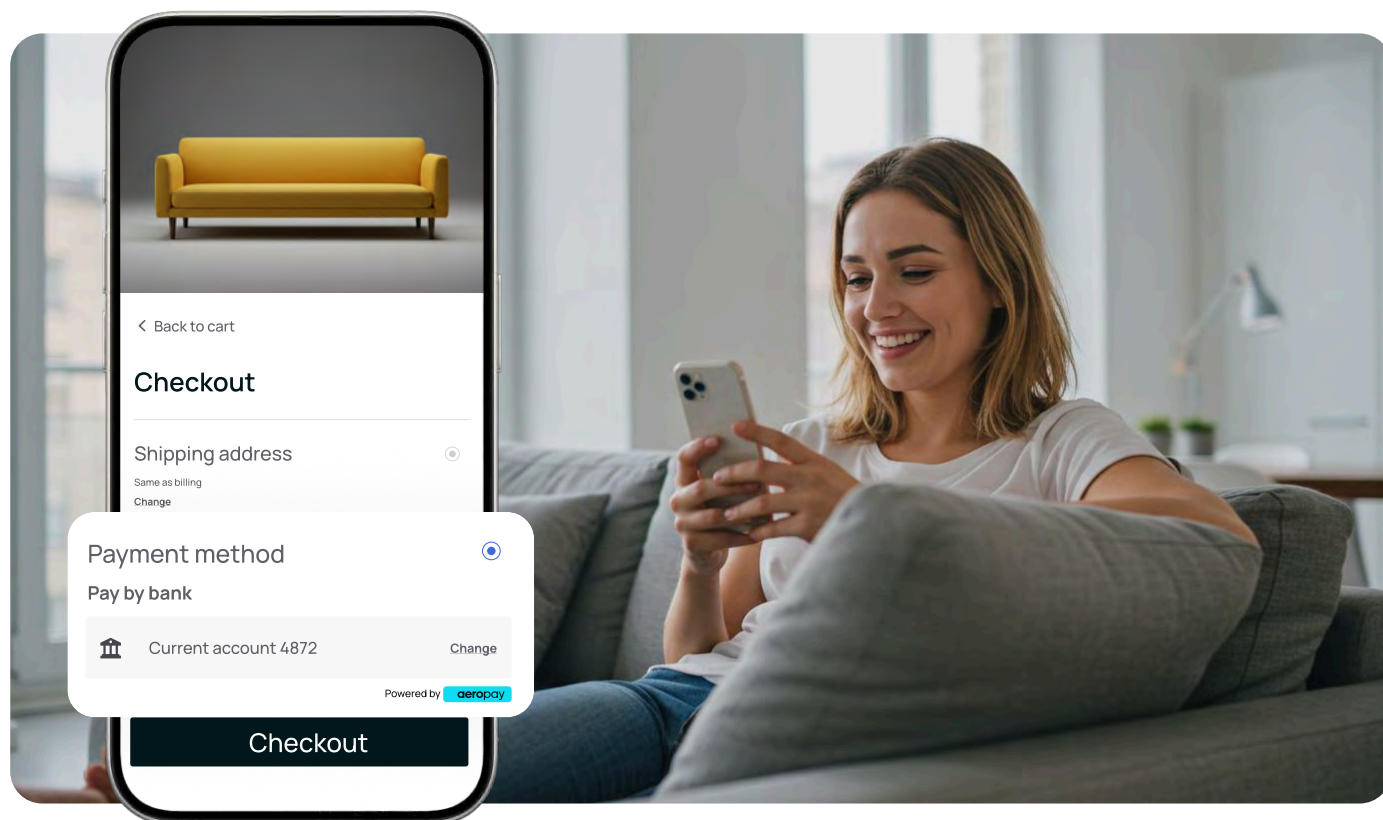
1. Open banking authentication (oAuth) – Banks are instantly verified and linked using open banking APIs
2. Multi-factor authentication – When oAuth connections are not available, users are verified using security measures like one-time passcodes or biometric authentication
3. Instant Account Verification (IAV) – This is a modern alternative that authenticates users instantly, without oAuth connections



Aeropay leverages the most data-rich connection available from 12k+ financial institutions, establishing oAuth connections with over 2,700 of those FIs.

If open banking data isn't available, we use instant account verification instead of legacy authentication methods. IAV enables real-time authentication, without the risks and limitations of methods like screen scraping or microdeposits.

Benefits of pay by bank



Thousands of U.S. businesses are including pay by bank in their payment stack because the technology directly improves their bottom line.

Here are some of the results to expect when you onboard pay by bank

Lower the cost of payment

When consumers pay by bank, merchants pay much lower transaction fees, especially when compared to card processing.

This is because pay by bank transactions use ACH rails to move funds. There's no reliance on card networks, and no interchange fees.

While the exact pricing varies by provider, Aeropay consistently sees businesses save up to 50% on payment processing fees with pay by bank.

1000 x \$10 transactions		1 x \$500 transaction	
Fees associated		Fees associated	
Pay by bank	\$300.00	Pay by bank	\$7.65
Card	\$590.00	Card	\$14.80

Based on industry averages. Exact pricing structure varies.

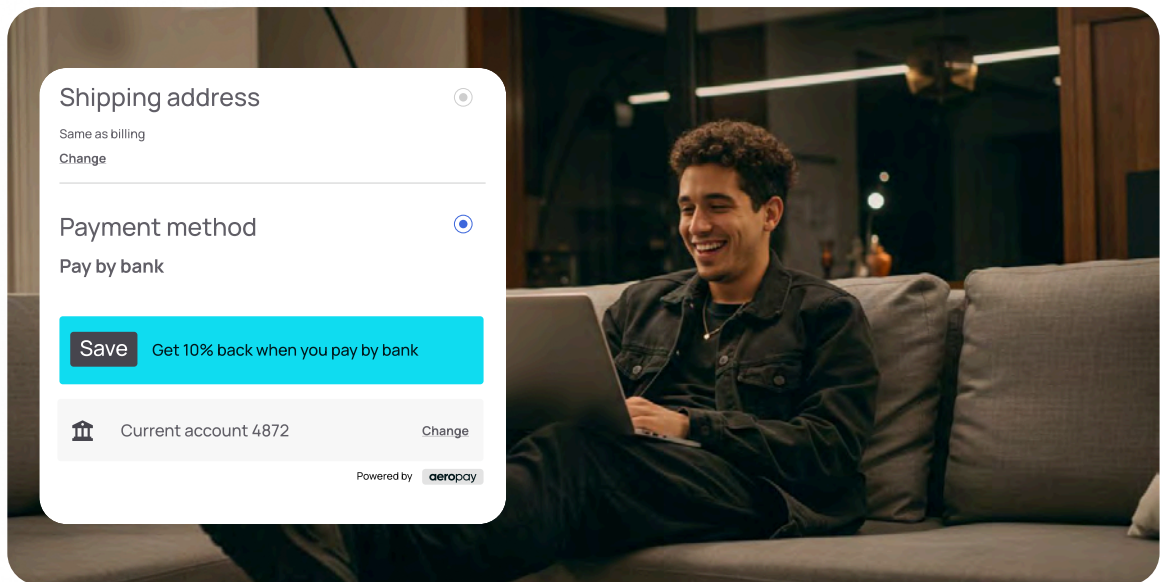
Because pay by bank is inherently more affordable than other digital payment methods—you can easily incentivize its use.

“Incentivizing pay by bank can save your business thousands of dollars.”



Sarah Stapp | CCO at Aeropay





For example, a rideshare company could offer customers a 10% discount on their next ride if they connect their bank for payment.

Once an account is securely linked, embedded solutions can store that user's details for one time payments in the future. Authentication only takes around 5 seconds and can be done using fast biometric methods, like Face ID.

Increase conversion rates

Modern pay by bank solutions focus on simplifying end user onboarding. This means creating a cohesive, branded payment flow that users actually enjoy using.

Additional features like biometric authentication make onboarding so much more convenient that the process can improve customer conversion rates from 65% to 90%.

“Without the right risk management system, pay by bank can be just as expensive as cards.”



Dan Muller | Founder & CEO at Aeropay



Guarantee payment success

Traditional ACH payments are exposed to higher risks like returns for insufficient funds, buyers' remorse, and bad account info. Pay by bank providers like Aeropay remove this uncertainty with a solution called **guaranteed pay by bank**.

Guaranteed pay by bank ensures ACH payments are delivered to merchants without the risk of returns.

Maintain high approval rates

In theory, guaranteed pay by bank solutions enable merchants to accept affordable ACH payments without uncertainty or risk.

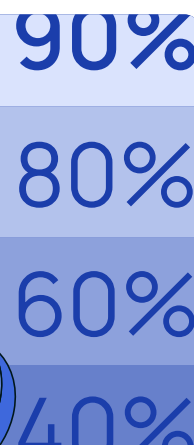
But the average approval rate for many guaranteed pay by bank solutions is between 40% and 60%—which is far from optimal.

This is why **Aeropay's 90% approval rate** is so important.

“Approval rates for guaranteed pay by bank transactions were too low—often just 40% to 60%, so we went out and set a higher standard.”



Sarah Stapp | CCO at Aeropay



Aeropay's machine learning models accurately approve over 90% of guaranteed pay by bank transactions—so merchants don't have to pick between returns or approvals.

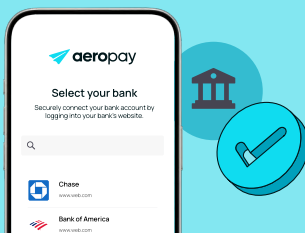
How does pay by bank work?

There are three components to every pay by bank transaction:

1.

Authentication

(for first-time transactions)



For consumers to initiate payment from their bank, they first need to authenticate and link an account to verify ownership and ability to send funds.

This first-time process takes less than 30 seconds with a tool like [Aerosync](#), which verifies most bank accounts instantly.

To establish the bank connection, users login using their online banking credentials. Then, they authorize the payment.

2.

Approval

To stop fraud and reduce risk, pay by bank processors perform real-time fraud and risk detection checks during the approval process.

This confirms only legitimate transactions are processed.



3.

Money movement and settlement

When a pay by bank transaction is approved, the funds flow from customer to business. Depending on the customer bank and the merchant's payment processing partner, there are three different "rails," or networks, the money can move along.



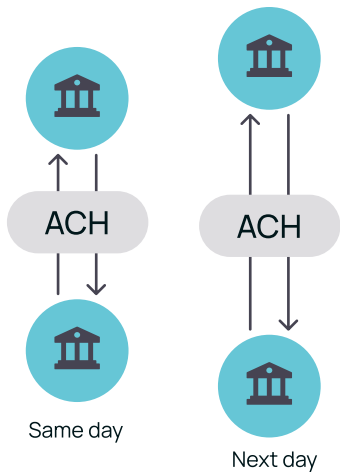
Money movement rails

Note: Based on the current infrastructure in the United States, pay by bank is primarily dependent on ACH rails. However, FedNow and RTP are expanding request for payment capabilities—they'll soon power instant settlement for pay by bank transactions, but currently only support payouts.

1. ACH

The Automated Clearing House offers both ACH credit and ACH debit electronic transactions in a batch environment.

Funds are typically processed either Same Day or in 1 to 3 days, depending on the processing window (First Same Day ACH, Second Same Day ACH, Third Same Day ACH, Next Day ACH).



2. RTP®



RTP from The Clearing House facilitates instant payments on its rails.

Almost all U.S. financial institutions have access to RTP, and more are joining as volume grows. Right now, RTP is primarily used to **send** payments as real-time requests for payment aren't widely available.

3. FedNow

The Federal Reserve's instant payment service also facilitates instant money transfers.

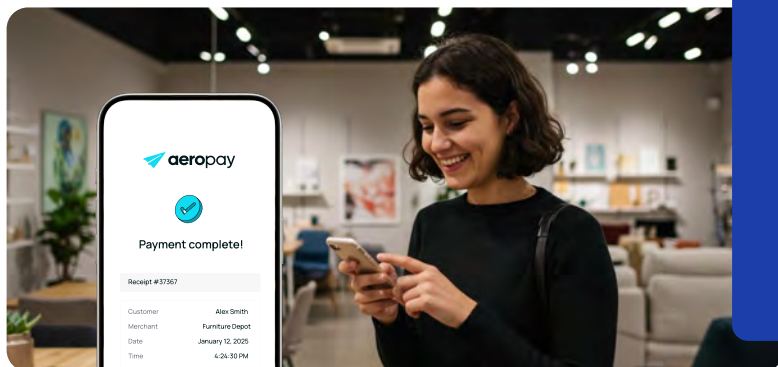
FedNow's 2023 launch is accelerating real-time money movement in the U.S., with additional coverage and ambitious plans for expansion coming soon.



Pay by bank use cases

“In many cases, pay by bank is not a replacement for cards. It’s an additional option at checkout. Businesses are empowered by the opportunity to reduce the cost of accepting payments.”

Sarah Stapp | CCO at Aeripay



Account funding

Consumers use pay by bank to fund digital wallets, top up investment accounts, and deposit directly to gaming platforms. Unlike traditional ACH transfers, which can take days to process, pay by bank provides immediate account verification and accelerated money movement, reducing delays and failed transactions.

Platform payouts

Gig workers, creators, and marketplace sellers can receive earnings directly into their bank accounts with instant or same-day payouts.

Large-sum & small ticket transactions

The cost of high-value purchases like home down payments, tuition, or luxury goods can be reduced with pay by bank.

On the other end, small-ticket transactions, like micro-subscriptions or pay-per-use services benefit from lower flat fees, making pay by bank a more sustainable option than cards.

Recurring payments

Subscription services, utility bills, and rent payments benefit from pay by bank to enable secure, cost-effective auto-debits. With account verification built in, businesses minimize payment failures due to expired credentials or insufficient funds.

In-store payments

Retailers are integrating pay by bank into QR code and mobile checkout experiences, giving customers a frictionless, low-cost alternative to card payments. By linking bank accounts once, users can pay with a single scan and click—no apps or additional logins required.

Dive deeper in this pay by bank discussion

Payments experts Josh Lockhart and Sarah Stapp sat down for a deeper look at the nuances of pay by bank in the United States.

Together, they break down the biggest misconceptions, benefits, and best practices when it comes to this emerging technology.



Josh Lockhart

Aeripay CTO

Josh has a rich background in fintech, with previous leadership roles at PayPal, Braintree, and GoFundMe. As a proud Chicago native and problem solver, he's working to transform money movement in America.



Sarah Stapp

Aeripay CCO

With 15+ years in U.S. payments, Sarah has built an impressive resume at companies like PayPal, Braintree, and Rvvup. She's a self-proclaimed "payments nerd", working to enhance money movement in the United States.

Q.

What are the biggest misconceptions about pay by bank in the U.S.?

Josh



That pay by bank isn't secure.

People assume credit cards are inherently safer, but modern banking APIs now offer similar protections. For example, many banks mask account details using Transaction Account Numbers (TANs), similar to virtual credit card numbers, making unauthorized access much harder.



Sarah

That ACH means slow.

While traditional ACH can take a few days, Same Day ACH and real-time payments have dramatically improved settlement speeds. At Aeropay, for example, we process transactions with T+1 settlement or faster, which is comparable (or even faster) than many credit card networks.

Q.

How much does pay by bank actually cost?

Josh



Pay by bank is significantly less expensive than card processing, but savings really depend on how you implement it. ACH-based transactions are inherently more affordable because there are fewer intermediaries than in the card networks. From what I've seen, pay by bank typically saves merchants anywhere from 30% to 60% compared to card processing.



Sarah

That said, merchants need to be mindful of potential hidden costs. If they don't implement the right risk management tool, high return rates could wipe out the expected cost savings. With the right risk mitigation in place, businesses maximize cost efficiency and maintain smooth transactions.

Q.

Will pay by bank replace cards?

Sarah



I don't think so.

In most cases, the value of pay by bank is as an additional payment option at checkout. Still, we already see a third of small businesses passing card surcharges to customers. I think merchants are getting tired of paying for their customers' credit card points.

My take is that cards will always be relevant in the U.S., but the U.S. financial system needs to find equilibrium to balance innovation, affordability, and access.

“the U.S. financial system needs to find equilibrium—one that balances innovation, affordability, and access.”

– Sarah Stapp, CCO at Aeripay



The modern needs of the U.S. financial system

Q.

How does AI play a role in pay by bank?

Josh



AI effectively makes pay by bank an incredibly effective payment solution. The trade-off for pay by bank was between high acceptance rates and low risk—merchants either approve too many risky transactions or reject too many legitimate ones.

But AI allows us to optimize for both.



Sarah

Exactly. Instead of relying on more data points, AI models work best when they use the **right data** points.

At Aeripay, for example, we analyze transaction history, dispute patterns, and return codes to get higher approval rates while keeping fraud low.

Q.

What should merchants know before onboarding pay by bank?

Sarah



The onboarding process is actually similar to setting up a merchant account.

While card networks impose strict scheme rules, pay by bank providers follow bank-level compliance checks. Merchants should be prepared to provide:

- 1 KYB (Know Your Business) documentation
- 2 Compliance and underwriting checks
- 3 OFAC screening (anti-money laundering and fraud prevention)



Josh

One advantage of pay by bank is that it doesn't have to follow Visa/Mastercard scheme rules, so it's often more flexible—especially for industries like gaming, cannabis, marketplaces, and high-value transactions.

Q.

Why is now the right time to add pay by bank?

Sarah



2025 is the perfect time to adopt pay by bank. It's on the cutting edge.

And businesses in new verticals are unlocking the benefits at an exponential pace.



Josh

I'd add that many consumers are already used to account to account payments in some form.

They've either connected a bank for utilities, sent money via Zelle, or saw a recent notification to link their bank for a discount on their next purchase. Merchants integrating right now are ahead of the curve.

About Aeropay

Aeropay is a payments company that specializes in pay by bank.

We use a proprietary suite of products designed to enhance the end to end payment process, from bank linking to verification to approval to processing.

