

# BEST PRACTICE GUIDE



## DEBIT ROUTING OPTIMIZATION

OVERVIEW	
Also known as...	Routing, PINless, Debit, Debit Routing
Who does this impact?	All merchants who are interested in routing to alternative domestic debit networks for the first time, or looking for best practices & tips on their current routing strategy
What is it?	<p>A guide for merchants who are interested in routing transactions to an alternative domestic debit network for the first time, or those who currently route but would like to optimize and ensure they have the right procedures in place to constantly monitor their strategy.</p> <p>This guide covers all debit routing Cardholder Verification Methods (CVM) (Signature, PIN-Debit and PINless in both brick &amp; mortar as well as eCommerce) and includes both debit message types (Single &amp; Dual)</p>
Objective	Merchants will be able to describe the step-by-step process for optimizing their debit routing implementation
Audience	MAG Merchant Members

## FREQUENTLY USED TERMS & ACRONYMS IN THIS GUIDE

TERMS/ACRONYM	WHAT IT MEANS
Single Message	Single-message transactions are completed through one message that is sent to the issuer which includes both the request for authorization and settlement. As such, a second message for settlement is not required to be sent to the consumer's bank. The majority of Single-message transactions require the customer to enter a PIN that is verified real-time by the consumer's bank. PIN transactions are inherently safer and much less prone to fraud since the consumer's bank is validating the PIN is correct before approving the authorization request. Single message may also be supported through a PINless transaction in which the PIN is not required.
Dual Message	Dual-message transactions are processed in two steps. The first step involves "authorizing" the transaction by checking with the consumer's bank to make sure funds exist in the cardholder's account. The second step involves the periodic bundling of authorized transactions and sending them to the consumer's bank for posting to the cardholder's account. This process was invented in the 1960s and is modeled after the process used to clear and settle paper checks.
ROI	Return on Investment – the analysis conducted to determine the savings received after investments are made to implement something.
BOPIS	Buy Online/Pick-up In-Store
CVM	Cardholder Verification Method (such as PIN entry, signature)
CDCVM	Consumer Device Cardholder Verification Method

<b>MSR</b>	Magnetic Stripe Read
<b>PINless</b>	PINless debit technology allows a debit card to be processed through the Domestic Debit Networks without the cardholder needing to enter a PIN.
<b>AVS</b>	Address Verification Service
<b>3-D Secure/3DS</b>	An additional layer of security that merchants can implement in their eCommerce environments to benefit from liability shift on certain transactions successfully authenticated by the issuer where the cardholder enters additional information such as a password on the issuer's website during the checkout process.
<b>Tokenization</b>	The process of substituting a sensitive data element with a non-sensitive equivalent, referred to as a token, that has no meaningful value. The token is a reference that maps back to the sensitive data through a tokenization system.

## DEBIT ROUTING BACKGROUND AND OVERVIEW

Prior to debit reforms which became law in 2011, competition had been narrowing for years on network routing services on debit cards in the marketplace. Providers who had both a Signature network and PIN network were striking deals to be the exclusive network on the card. In some cases, issuers removed any PIN network and only supported the Signature network on the card.

This practice created significant market inefficiencies that increased debit swipe fee prices to businesses and consumers. It also greatly inhibited the ability of domestic debit networks, who through the requirement of dual factor authorization by use of a PIN, were inherently more secure, to compete for both issuer and merchant business.

In 2010, Congress attempted to make debit swipe fees more reasonable by introducing competition to an industry historically dominated by the major global payment networks which had always set swipe fees for their member banks. Lack of competition and centralized price-fixing, at the behest of the global payment network brands on behalf of their collective member banks, led to significantly increased swipe fees for retailers that accept payment cards. In turn, these increasing costs have been absorbed by retailers and over time shared with their customers. This created a negative impact to both parties with limited control and influence for retailers because of the business model — a model that had resulted in a non-functioning marketplace requiring intervention.

Two major things happened as a result of debit swipe reform:

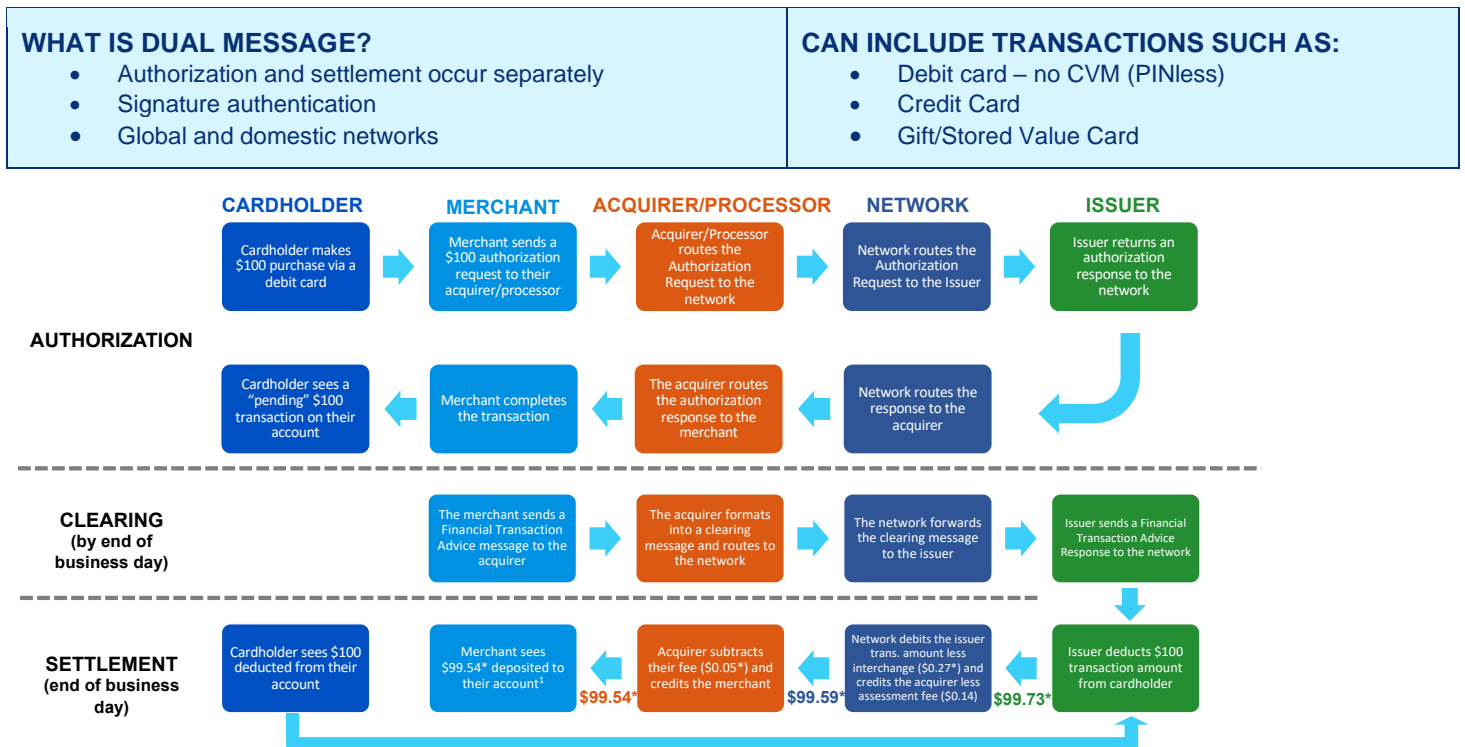
- First, Congress ensured there was a choice of network on debit transactions. This means that issuers were required to enable two unaffiliated payment networks on every domestically issued debit card by April 2012. Networks were subject to an exclusivity prohibition as of October 2011. Now that retailers have choice, all networks have the ability to compete for the merchants' debit transaction volume. This has led to lower, more competitive costs to businesses and innovation across the debit industry to grow their respective network volumes and market share. The Federal Reserve Board (Fed) release dated June 29, 2011, specifically states "Issuers and networks are also prohibited from inhibiting a merchant's ability to direct the routing of the electronic debit transaction over any network that the issuer has enabled to process them. The merchant routing provisions are effective on October 1, 2011."
- Second, the Fed set a limit on bank fees for debit transactions charged by financial institutions with assets in excess of \$10 billion at 21 cents plus five basis points and a one cent fraud adjustment fee. The law requires this limitation to be based upon the reasonable and proportional cost of a debit transaction.

Many consumers and retailers have benefited from these reforms; however, due to a lack of knowledge, resources, or clarity on the financial value to their business, some retailers haven't implemented a routing optimization strategy. These retailers are not receiving the financial value rightfully theirs by virtue of the regulations.

Current debit reforms require competition for network routing services to be made available on every debit account, including debit accounts stored in digital wallets and on-line. Network routing is the behind-the-scenes technology dictating how information about a debit transaction is sent between payments system stakeholders. Unfortunately, many barriers still remain in enablement of routing and PINless support; however, the industry continues to work towards addressing those barriers such that merchants obtain the full value and intent of these reforms.

# DUAL MESSAGE DEBIT

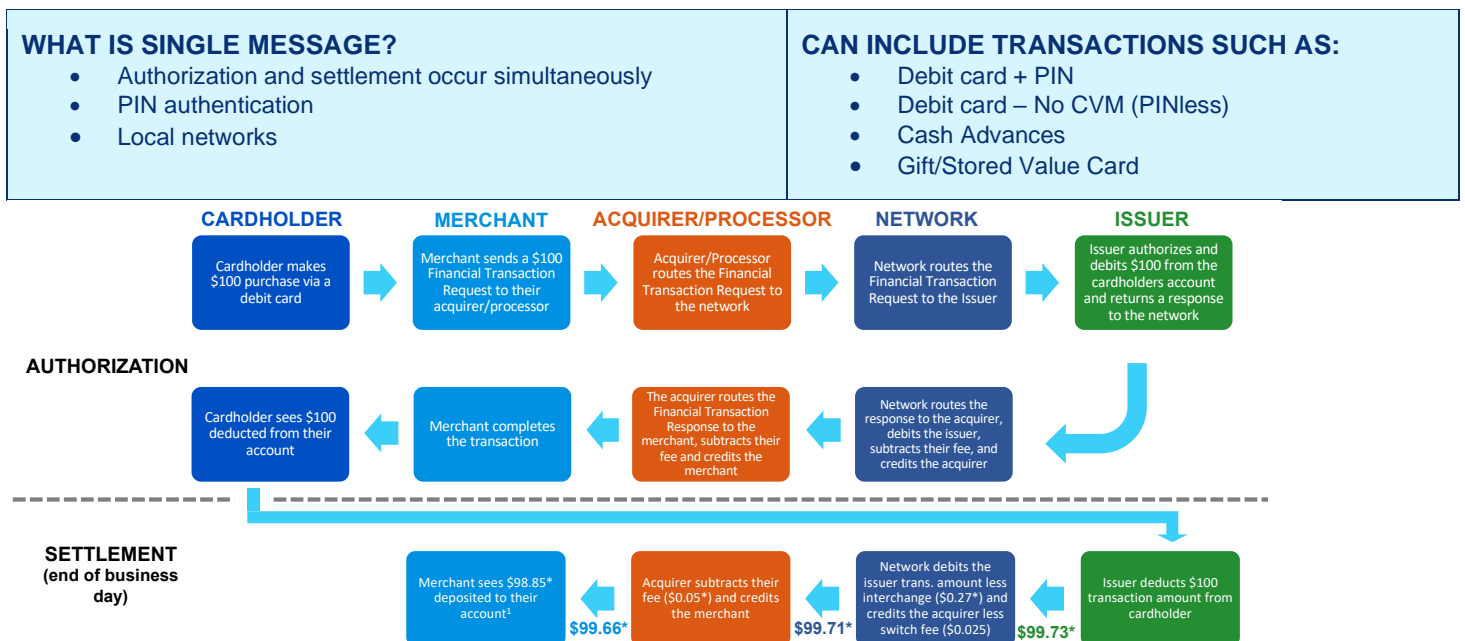
There are two main routing message paths transactions can take.



\*Settlement amounts above are for illustration purposes only, and fees deducted will vary. Note that for most banks (unregulated, or those with less than \$10Bn in assets) the fees are typically much greater.

<sup>1</sup>Merchants may receive net settlement (transaction amount less all fees), or gross settlement (transaction amount, and then fees are deducted separately) depending on their agreement with their acquirer

# SINGLE MESSAGE DEBIT



\*Settlement amounts above are for illustration purposes only, and fees deducted will vary. Merchant may receive net or gross settlement depending on their acquirer agreements. Note that for most banks (unregulated, or those with less than \$10Bn in assets) the fees are typically much greater.

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# THE ROAD TO DEBIT ROUTING OPTIMIZATION

## REQUEST SAVINGS ANALYSIS FROM YOUR ACQUIRER

- First, ensure your acquirer supports the routing capabilities you seek (i.e. PINless, Dual Message, etc.).
- Request a debit routing savings opportunity analysis from your acquirer. Be sure to validate the method, assumptions, and data used to complete the analysis (transaction fees, network fees, performance metrics, volume, timeframe of data, etc.) to guarantee the validity and accuracy of the results.
- Confirm that your acquirer is using your actual rates vs. using published rates that may not be applicable to your merchant business. In addition, be sure that the savings analysis includes any possible exclusivity or volume commitment arrangements you may have with global networks.
- Starting with your acquirer is important because they have the data on which cards processing through your system are eligible to route to a domestic network – data typically not presented to merchants in generic acquirer reporting.



When pulling together the savings analysis and preparing to discuss with the debit networks, factoring in authorization approval rates could make a difference in overall savings. Higher approval rates *could* be achieved on a domestic debit network, regardless of agreed upon transaction costs.



Acquirers may have commitments with a global network(s) for overall processing volumes so it is important to ask your acquirer if there are any transaction volume processing limitations that your organization may be subject to or impacted by.

## BUILD RELATIONSHIP WITH DOMESTIC DEBIT NETWORKS

With the data from your acquirer, now is the time to reach out and establish a connection with the domestic debit networks.



Even without the data from your acquirer, the debit networks should be able to provide an estimate based on global network market share, but it's always helpful to be armed with as much data as possible on your transactions before having these conversations.

## DEBIT NETWORK CONTACT INFORMATION

NETWORK	CONTACT	WEBSITE	PHONE	ECOMMERCE SUPPORT	PINLESS SUPPORT	PINLESS ISSUER SUPPORT
STAR	<a href="#">Mary Knich</a>	<a href="#">Click Here</a>	407-201-0419	<ul style="list-style-type: none"> <li>• Purchase</li> <li>• Recurring Bill Pay</li> </ul>	<ul style="list-style-type: none"> <li>• Single Message</li> <li>• Dual Message</li> </ul>	Mandatory
AFFN	<a href="#">John Broda</a>	<a href="#">Click Here</a>	973-600-7450	<ul style="list-style-type: none"> <li>• Purchase</li> <li>• Recurring Bill Pay</li> </ul>	<ul style="list-style-type: none"> <li>• Single Message</li> </ul>	PINless support is defaulted, but issuers are able to opt-out
PULSE	<a href="#">PULSE Network</a>	<a href="#">Click Here</a>	800-420-2122	<ul style="list-style-type: none"> <li>• Purchase</li> <li>• Recurring Bill Pay</li> </ul>	<ul style="list-style-type: none"> <li>• Single Message</li> <li>• Dual Message</li> </ul>	Mandatory
SHAZAM	<a href="#">Dave Osterman</a>	<a href="#">Click Here</a>	515-288-2828	<ul style="list-style-type: none"> <li>• Purchase</li> <li>• Recurring Bill Pay</li> </ul>	<ul style="list-style-type: none"> <li>• Single Message</li> <li>• Dual Message</li> </ul>	Mandatory
NYCE / CULIANCE	<a href="#">Kim Cromer</a>	<a href="#">NYCE CULIANCE</a>	904-438-6565	<ul style="list-style-type: none"> <li>• Purchase</li> <li>• Recurring Bill Pay</li> </ul>	<ul style="list-style-type: none"> <li>• Single Message</li> <li>• Dual Message</li> </ul>	Mandatory



#### TRANSACTION PRICING WITH DOMESTIC DEBIT NETWORKS

Debit networks will typically present a tiered pricing approach at the beginning. For example, if merchant sends X transactions per month to this network, those transactions will be priced at \$Y.

**Merchants should work with each debit network and negotiate pricing – they are vying for your business and should be flexible.**



#### BEFORE REACHING OUT TO THE DEBIT NETWORKS, IT'S HELPFUL TO HAVE THE FOLLOWING AVAILABLE:

1. Merchant IDs for the channels you are optimizing
2. Analysis for acquirer
3. Existing pricing details capabilities

## IMPLEMENTATION OF NEW/OPTIMIZED ROUTING STRUCTURE

Considerations during implementation:

- Merchants accepting tips may need to consider the various PINless products and select the one that addresses tipping (specifically table pay options, prompting for tip before or after authorization is a critical decision point)
- QSR's should consider in-app options in addition to face-to-face PINless options based on customer interaction model differing from table-side dining
- Ensure POS provider and Acquirer can support preference in AID selection and individual transaction routing to maximize the benefit for all transaction types
- Consider transaction processing needs around BOPIS
- For eCommerce transactions, evaluate the risk profile of cardholder taking into account the alternate forms of authentication available (i.e. 3-D Secure, Tokenization, AVS)
- For contactless transactions, ensure PINless is implemented to minimize friction and maximize touchless experiences
- Determine your CVM limit to set your risk tolerance (what transaction amount do you want to add some friction?)
- PIN or Signature will be required if a contactless transaction amount is above the CVM limit
- Payment terminals must support the **US Common Debit AID** in order to be able to route any debit transaction to a domestic debit network (including contactless)

## VERIFY AND SET UP REGULAR OPTIMIZATION REVIEW

- Once volume has started routing, verify it was implemented correctly by:
  - Validating interchange qualification reports to ensure savings are in line with initial estimates.
  - Compare volume reports from your acquirer with reporting directly from each debit network.
- Once your routing strategy is implemented and live, now is the time to set up regular reporting cadences with your acquirer and the domestic networks such as adding this component to your Quarterly Business Reviews.



#### REVIEW YOUR ROUTING STRATEGY OFTEN

- Anytime you have a contractual change with your acquirer
- If something unique changes in your business model
- During Spring/Fall Release cycles
- Minimum of once annually

## PINLESS FRAUD LIABILITY BY NETWORK

As of July 2022\*

TERMINAL TYPE	CARD TYPE	NETWORK	TRANSACTION AMOUNT	CHARGEBACK LIABILITY
EMV Enabled	MSR	AFFN	Any Amount	Issuer
		Culiance		
		NYCE		
		STAR Access		
		ACCEL NO PIN+		
		Pulse		
		SHAZAM	Over \$100	Merchant**
			Under \$100	Issuer
		STAR PINless POS	Over \$100	Merchant**
			Up to \$100	Issuer
		ACCEL NO PIN	Over \$100	Merchant**
			Up to \$100	Issuer
	Chip	AFFN	Any Amount	Issuer~
		Culiance		
		NYCE		
		STAR Access		
		ACCEL NO PIN+		
		Pulse	Over \$50	Issuer <sup>1</sup>
			Under \$50	Issuer
		SHAZAM	Over \$100	Merchant**
			Under \$100	Issuer
		STAR PINless POS	Over \$100	Merchant**
			Up to \$100	Issuer
		ACCEL NO PIN	Over \$100	Merchant**
			Up to \$100	Issuer

TERMINAL TYPE	CARD TYPE	NETWORK	TRANSACTION AMOUNT	CHARGEBACK LIABILITY
Not EMV Enabled	MSR	AFFN	Any Amount	Issuer
		Culiance		
		NYCE		
		STAR Access		
		ACCEL NO PIN+		
		Pulse		
		SHAZAM	Over \$100	Merchant**
			Under \$100	Issuer
		STAR PINless POS	Over \$100	Merchant
			Up to \$100	Issuer
		ACCEL NO PIN	Over \$100	Merchant**
			Up to \$100	Issuer
	Chip	AFFN	Any Amount	Merchant
		Culiance		
		NYCE		
		STAR Access		
		ACCEL NO PIN+		
		Pulse		
		SHAZAM		Merchant**
		STAR PINless POS		
		ACCEL NO PIN		

\* Note, the table above represents current program rules **AS OF JUNE 2022** and may change in the future. Always contact the network directly for their most current rules.

\*\* Issuer may dispute amount of transaction over \$100 with valid fraud reason (Example: \$125 transaction with a valid dispute reason, issuer can dispute only \$25).

~ For transactions less than \$50, Issuer does not have any chargeback rights. If over \$50, issuer may chargeback if they believe merchant intentionally processed a transaction, they knew to be fraudulent.

<sup>1</sup> Issuer may dispute transaction if card is PIN preferring, PIN was not entered, and card was reported lost/stolen at time of transaction



## CONSIDERATIONS WHEN WORKING WITH YOUR ACQUIRER

Make sure the deals you have in place with networks can be executed by your provider. To ensure this, you must engage your service provider along the way as deals are negotiated to gain their perspective including the ability to execute OR initiate discussions with the network before making a decision on your service provider.

Determine what level of control you want to have in managing your routing tables. Acquirers have various levels of flexibility and options from full oversight and management at the acquirer level to enabling merchant independence on routing table management.



- ✓ **MERCHANTS SHOULD DIRECTLY NEGOTIATE WITH THE DEBIT NETWORKS** – if you have the resources to do so – instead of having your acquirer do full-service negotiation on your behalf. This will ensure the end solution will be in your best interest and will grant you full visibility into the overall optimization process (you should always have full control over their routing choices/options available).
- ✓ **MANAGE YOUR OWN ROUTING TABLES** – if you have the resources do to so – whether this is direct (physically managing yourself through a tool or with raw data) or directing your acquirer to do so on your behalf through contractual agreements (ensure contractual language takes into account your wishes and penalties if not executed correctly).

### ADDITIONAL CONSIDERATIONS

- Consider additional support from acquirer on routing table management.
- Always validate and check your acquirer is routing transactions according to your direction. This can be done by verifying with debit network on transaction counts, etc.
  - Reporting you receive from your acquirer should have domestic debit network volume separately from your global network volume.
  - If cost savings is not materializing as was originally expecting, use this as a cue to investigate further with your acquirer on whether transactions are being routed correctly.
- Acquirer should provide regular reporting to identify opportunities for ongoing optimization of routing as circumstances will change such as issuer portfolio shifts, average tickets changing, debit transaction volume fluctuations, changes in consumer usage behavior, new partnerships, new lines of business, etc.
- Monitor acquirer reporting for declined transactions to analyze customer-facing issues that can be within your control to resolve (i.e. over the limit).
- Before paying for any acquirer platform enhancements to support routing optimization, be sure to discuss with them the capacity to leverage the enhancement as incremental value to their broader client base (and therefore shouldn't be a cost that you alone absorb).

### QUESTIONS TO ASK YOUR ACQUIRER:

- Is there anything that would limit my ability to negotiate with the debit networks?
- Do you offer routing management as a service?
- Can you provide sample reports of raw data I can receive with my routing volume?
- Does the acquirer support both E-commerce and Bill Pay functionality?
- How does the acquirer handle dispute defenses?
- Does the acquirer offer granular self-service reporting for debit transactions?
- What is the ease of implementation for integrating with the acquirer?
- What is the onboarding process for connecting with the individual networks?



# ACQUIRER PINLESS SUPPORT

As of June 2022^

	TRANS. AMOUNT	INDUSTRY / CHANNEL	MESSAGE	ACQUIRER PLATFORM	NETWORKS COMPATIBLE WITH
ADYEN	Any amount	Digital businesses, Mobility, Platforms & Marketplaces, Subscription, Retail, Food & beverage, Hospitality	Single Message - Card Not Present (eCommerce + Bill Pay)	Single Platform	STAR, NYCE, PULSE, Accel
			Dual Message - Card Not Present (eCommerce)		STAR, NYCE, PULSE, Accel
	PINless < \$50	Retail, Food & beverage, Hospitality	Single Message - Card Present		Star, NYCE, Pulse
			Dual Message - Card Present (Restricted use cases for all networks)		Star, NYCE, Pulse

	TRANS. AMOUNT	INDUSTRY / CHANNEL	MESSAGE	ACQUIRER PLATFORM	NETWORKS COMPATIBLE WITH
BANK OF AMERICA	\$50 or less	Large Merchants	Dual	North w/ Prop	9 Networks*
			Single / Card-Present Only	Buypass w/ Prop	9 Networks*
		Mid/Large Petro/Supermarket		Buypass w/ Memphis	9 Networks*
		Retail		North/Nashville w/ South	9 Networks*
		Retail, Petro		Buypass w/ North	9 Networks*
		SMB, Mid/Large Retail		North (Nashville/Cardnet) w/ North	9 Networks*

\*ACCEL, STAR, NYCE, SHAZAM, PULSE, MAESTRO, CULIANCE, AFFN, JEANIE

	TRANS. AMOUNT	INDUSTRY / CHANNEL	MESSAGE	ACQUIRER PLATFORM	NETWORKS COMPATIBLE WITH
ELAVON	\$50 or less	QSR, C-Store, Retail	Single / Card-Present Only	Converge	Q2 2022
				Fusebox	Q1 2022
	Any amount	e-Commerce, Hospitality, Airlines, Petro, Restaurants - Tip Accepting	Dual Message	Converge	Q3 2022

	TRANS. AMOUNT	INDUSTRY / CHANNEL	MESSAGE	ACQUIRER PLATFORM	NETWORKS COMPATIBLE WITH
FIS / WORLDPAY	Any amount	AFD	Dual - CP	Core	Q2/Q3 2022
		All	Single - Card Present		Yes
		All + Bill Payment	Single - CNP		Yes
		General Retail, QSR, etc.	Dual - CNP		Yes
		Restaurant (tip)	Dual - CP & CNP		Q2 2022

FISERV	TRANS. AMOUNT	INDUSTRY / CHANNEL	MESSAGE	ACQUIRER PLATFORM	NETWORKS COMPATIBLE WITH
	Any amount	eCommerce	Single, Dual	Compass	STAR, NYCE, PULSE, Accel
		SMB, Mid/Large Retail		North	STAR, NYCE, PULSE, Accel
	\$50 or less	Retail, Petro	Single / Card-Present Only	Buypass	9 Networks*
		SMB, Mid/Large Retail		North	9 Networks*
	Greater than \$50	Mid/Large Petro/Supermarket	Single	Buypass	STAR (2022), NYCE, PULSE, ACCEL, SHAZAM
		SMB, Mid/Large Retail		North	STAR (2022), NYCE, PULSE, ACCEL, SHAZAM

\*ACCEL, STAR, NYCE, SHAZAM, PULSE, MAESTRO, CULIANCE, AFFN, JEANIE

J.P. MORGAN CHASE	TRANS. AMOUNT	INDUSTRY / CHANNEL	MESSAGE	ACQUIRER PLATFORM	NETWORKS COMPATIBLE WITH
	Configurable by network; \$100 or less	QSR	Single Message / Card Present	All FE's (front end)	Available
		Restaurant	Dual Message / Card-Present Only		Not Available
		Travel & Entertainment			Not Available
	No limits	eCommerce	Single & Dual Message / CNP		Available
	Configurable by network; \$100 or less	General Retail	Single Message / Card Present		NYCE, PULSE, ACCEL, STAR, Shazam and MAESTRO
		Grocery/Convenience			NYCE, PULSE, ACCEL, STAR, Shazam and MAESTRO
	Pre-auth limit configurable by network; Max \$125	Petro AFD	Dual Message / Card-Present Only	Tandem/Retail FE	NYCE, PULSE, ACCEL, STAR, Shazam

^ Note, the tables above represent current programs **AS OF JUNE 2022** and may change in the future. Always contact the acquirer directly for their most current capabilities.

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