



## Merchant Best Practice Guide

# DEBIT ROUTING OPTIMIZATION

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### QUICK OVERVIEW

<b>Also Known As</b>	Routing, PINless, Debit, Debit Routing
<b>Who does this impact?</b>	All merchants who are interested in routing to domestic debit networks for the first time, or looking for best practices & tips on their current routing strategy
<b>What is it?</b>	<p>A guide for merchants who are interested in routing transactions to a 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) as well as both debit message types (Single &amp; Dual)</p>
<b>Objective</b>	Merchants will be able to describe the step by step process for optimizing their debit routing implementation
<b>Target Audience</b>	MAG Merchant Members

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## 1. FREQUENTLY USED TERMS & ACRONYMS IN THIS GUIDE

TERM / 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
MSR	Magnetic Stripe Read
PINless	PINless debit technology allows a debit card to be processed through the Domestic Debit Networks without the cardholder needing to enter a PIN.
AVS	Address Verification Service
3-D Secure / 3DS	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
Tokenization	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

## 2. DEBIT ROUTING BACKGROUND AND OVERVIEW

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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.

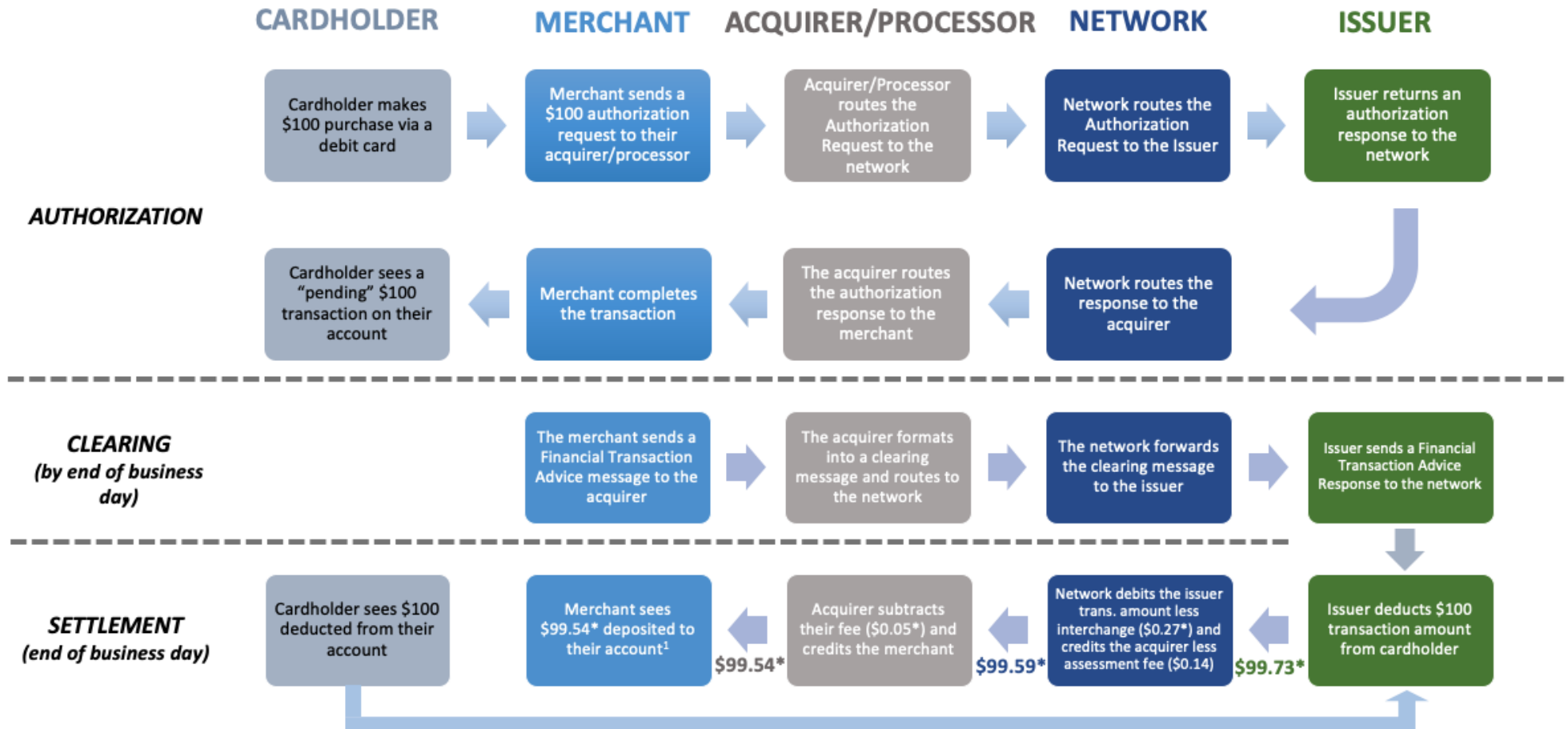
Two major things happened as a result of debit swipe reform:

- 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. Network routing is the behind-the-scenes technology dictating how information about a debit transaction is sent between payments system stakeholders. There are two main routing message paths transactions can take, detailed on the next page.

### 3. DUAL MESSAGE DEBIT

<p><b>What is Dual Message?</b></p> <ul style="list-style-type: none"> <li>• Authorization and settlement occur separately</li> <li>• Signature authentication</li> <li>• Global and domestic networks</li> </ul>	<p><b>Can include transactions such as:</b></p> <ul style="list-style-type: none"> <li>• Debit card – no CVM (PINless)</li> <li>• Credit card</li> <li>• Gift/Stored Value Card</li> </ul>
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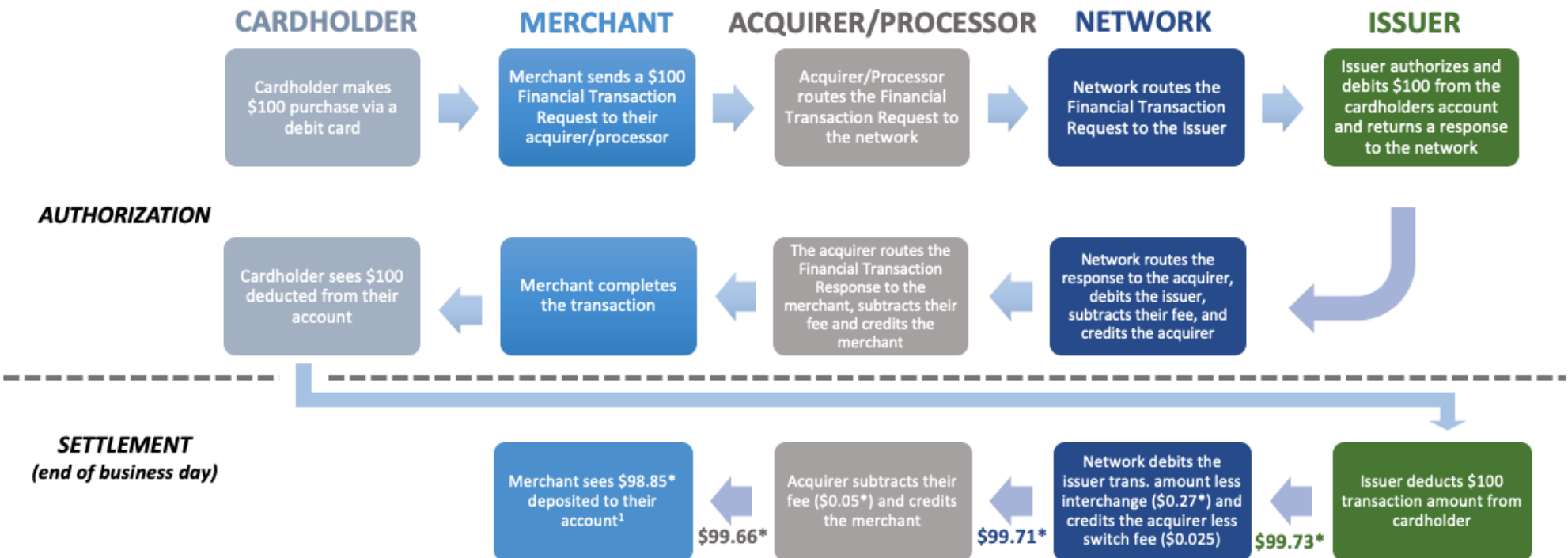


\*Settlement amounts above are for illustration purposes only, and fees deducted will vary. Note that for most banks (unregulated, or those with less than \$10Bn in assets) the fees are typically much greater.

<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

4. SINGLE MESSAGE DEBIT

<p><b>What is Single Message?</b></p> <ul style="list-style-type: none"> <li>• Authorization and settlement occur simultaneously</li> <li>• PIN authentication</li> <li>• Local networks</li> </ul>	<p><b>Can include transactions such as:</b></p> <ul style="list-style-type: none"> <li>• Debit card + PIN</li> <li>• Debit card – No CVM (PINless)</li> <li>• Cash advances</li> <li>• Gift/Stored Value Card</li> </ul>
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\*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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## 5. THE ROAD TO DEBIT ROUTING OPTIMIZATION

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### 5.1. 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.



**Tip!**

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



**Tip!**

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

### 5.2. 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.



**Tip!**

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

5.2.1. 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="#">Jeff Riesenberger</a>	<a href="#">Click Here</a>	513-309-9685	<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



**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 READILY AVAILABLE:**

1. Merchant ID's for the channels you are optimizing
2. Analysis from acquirer
3. Existing pricing details
4. POS capabilities



### 5.3. 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)

### 5.4. VERIFY & 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.

**How often should I review  
my routing strategy?**

- 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

## 6. PINless FRAUD LIABILITY BY NETWORK

As of August 2020\*

TERMINAL TYPE	CARD TYPE	NETWORK	TRANSACTION AMOUNT	CHARGEBACK LIABILITY
EMV Enabled	MSR	AFFN <sup>2</sup>	Any Amount	Issuer
		Culiance <sup>2</sup>		
		NYCE <sup>2</sup>		
		Pulse		
		SHAZAM		
		SHAZAM		
	Chip	AFFN	Any Amount	Issuer~
		Culiance		
		NYCE		
		Pulse		
		SHAZAM		
		SHAZAM		
Not EMV Enabled	MSR	AFFN <sup>2</sup>	Any Amount	Issuer
		Culiance <sup>2</sup>		
		NYCE <sup>2</sup>		
		Pulse		
		SHAZAM		
		SHAZAM		
	Chip	AFFN	Any Amount	Merchant
		Culiance		
		NYCE		
		Pulse		
		SHAZAM		
		SHAZAM		

\* Note, the table above represents current program rules **AS OF AUGUST 2020** 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

<sup>2</sup> Signature required if transaction greater than \$50

## 7. 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 ability to execute, OR initiate discussions with 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.

### Acquirer Best Practices

- 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)
  - **QUESTION TO ASK YOUR ACQUIRER:**
    - **Is there anything that would limit my ability to negotiate with the debit networks?**
- Manage your own routing tables – if you have the resources to do 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)
  - **QUESTION TO ASK YOUR ACQUIRER:**
    - **Do you offer routing management as a service?**
    - **Can you provide sample reports of raw data I can receive with my routing volume?**
- 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 capability to leverage the enhancement as incremental value to their broader client base (and therefore shouldn't be a cost that you alone absorb)

## 8. APPENDIX

### 8.1. ACQUIRER SUPPORT

ACQUIRER	SINGLE MESSAGE SUPPORT	DUAL MESSAGE SUPPORT	PINLESS SUPPORT
Fiserv	Yes	Yes	Supported for all merchant verticals
FIS-Worldpay	Yes	On the roadmap	Currently supported for most merchant verticals including card present, bill payment and CNP single message. Development in progress to support AFD and CNP dual message.
JP Morgan Chase	Yes	Yes	PINless eComm and Bill Pay supported today. PINless POS will be in full release in Q1-2021, and will address all remaining verticals including Petroleum
Adyen	Yes	Yes	Supported for all merchant verticals
Elavon	Yes	Yes	Supported for all merchant verticals

## 8.2. FREQUENTLY ASKED QUESTIONS (FAQ's)

- **What internal resources will I need?**

Little to no resources are required to "turn on" debit routing, as host-level debit routing services are already easily available via most acquirers and other third-party service providers. Minimal development effort or headcount should be required for implementation or ongoing program management. The only exception would be for merchants with complex rate deals with networks, or a preference to have more control or greater flexibility over the ongoing management of your program. Essentially, merchants should apply resources according to the size of the opportunity routing optimization can provide and level of control desired within the organization.

- **Is there a cost to implement?**

Fee structures for routing services vary widely across the marketplace. Some providers charge no fees and consider debit routing as a value-add service that is part of traditional transaction processing services. Some structures involve revenue sharing where routing optimization savings are split between the merchant retailer and the service provider. This incentivizes the service provider to continuously optimize interchange and bring incremental benefit to both parties. Other providers charge the merchant an annual licensing fee to enable advanced least cost routing.

- **Do I need to strike a deal with ALL of the debit networks?**

As the combination of networks which may be available on a card can vary greatly, the more debit networks which you are able to have specific pricing agreements in place, the more likely you will produce the best ROI. As time may be a constraint in reaching and maintaining multiple deals, a good first step is to determine which networks are available for the majority of your transactions through your acquirer routing report and start conversation with those networks first.