Challenges with EMV® Implementation – Routing to the U.S. Common Debit AIDs

The payments industry in the U.S. is in the midst of unprecedented change; as financial institutions issue debit and credit cards with embedded electronic security chips and merchants deploy point of sale terminals capable of reading these chip cards.

This migration to enhanced security chip cards and terminals, more widely known as EMV implementation, began in earnest in late 2013, as issuers, processors, networks and merchants prepared for the October 1, 2015 liability shift.

EMV chip debit cards issued in the United States have two different account identifiers (AIDs) on Discover, MasterCard and Visa cards – the global AIDs and the U.S. Common Debit AIDs. Visa and MasterCard global AIDs allow access to only one of the global card payment networks. By contrast, the U.S. Common Debit AIDs allow access to all debit U.S. payment networks that are enabled on a debit card by an issuer. Thus the U.S. Common Debit AIDs allow merchants to select any of the global debit payment networks and U.S. debit payment networks that are enabled on the card including DNA debit payment networks: AFFN, ATH, CO-OP, Jeanie, NETS, NYCE, Presto!, PULSE, SHAZAM, and STAR. The adoption of the U.S. Common Debit AID construct by the industry was premised on the understanding that all U.S. domestic debit transactions would utilize the U.S. Common Debit AIDs preserving competition in the United States and compliance with existing regulations, while cross-border debit transactions would utilize the global payment network AIDs.

Point of Sale (POS) Routing

The DNA is concerned about recent developments in the U.S. marketplace in conjunction with the EMV migration. In particular, Visa and MasterCard EMV rules around consumer choice have led some merchants and point of sale (POS) terminal providers to implement POS processes that force consumers to select a debit AID for routing when presenting a chip-enabled debit card for payment at the POS, effectively overriding merchant routing choice.

While Visa and MasterCard have had rules in place for many years that require merchants to honor “consumer choice” at the POS, this “choice” historically allowed the consumer to decide to enter a PIN for the debit transactions (by selecting debit) or to sign for it (by selecting credit).

As merchants upgrade their terminals to be EMV compliant, Visa and MasterCard have emphasized these new “consumer choice” rules, which require merchants to comply with a consumer’s choice of AID, effectively forcing individual debit transactions to be routed over the Visa or MasterCard networks as opposed to other networks available to the merchant.

The DNA does not agree with this repositioning of consumer choice.
The potential impact on other debit networks cannot be understated.

Unlike prompting a consumer to select debit or credit to enter their PIN or sign for a debit transaction, a POS terminal prompting the consumer to choose the AID he would like to use has no clear definition to the consumer. Most implementations of this type prompt the consumer to press a button labeled with Visa or MasterCard’s name as one option and “U.S. Debit” as another option. The consumer has no background or context to understand of what “U.S. Debit” means and no clear definition of an AID is provided.

To ensure the consumer has the fastest and most consistent experience, DNA suggests that implementations be done in a manner which provides choice and flexibility to both the consumer and the merchant while leveraging the technology made available to merchants, issuers, networks, and acquirer processors. When a debit chip card is inserted if the U.S. Common Debit AID is present on the card then the U.S. Common Debit AID should be used for all transaction types.

An example of this implementation would be to select the U.S. Common Debit AID upon card insertion, prompt the consumer for cashback (if supported by the merchant) and prompt the consumer for the PIN. If the consumer does not wish to enter their PIN the consumer may just bypass through the PIN prompt without entering a PIN which provides for a signature transaction routed using the No CVM method for either MasterCard or Visa or any other network which the issuer participates in and supports the transaction.

Selecting the Global AID takes away merchant routing choice. A transaction processed using the Global AID may only be routed to a global debit payment network by their rules.

**ATM Routing**

Similar issues have arisen with respect to AID selection at ATMs. Choosing the U.S. Common Debit AID at the ATM allows the ATM deployer to route transactions to any debit payment network in which the issuer participates. The payments networks provide a priority routing flag on BIN files, which defines the payment network choice the issuer has defined for priority routing, secondary payment networks can be routed to if the interface to the priority payment network is not available.

Providing the AID choice to the consumer would change the issuers’ routing choices that were made prior to issuing the payment instrument to the consumer. As with POS transactions, the consumer has no real understanding to make a decision among AIDs, with their limited knowledge of the routing behind the scene.

Consistent with POS transactions, if the global AID is chosen, the transaction must be routed to the global payment network designated by that AID for that debit card by rule. If the U.S. Common Debit AID is chosen, the transaction can be routed to any debit payment network including the any global payment network.
Choosing the U.S. Common Debit AID for ATM routing provides ATM owners with access to all of the payment networks and preserves the issuer choice that was selected for the debit card.

**DNA Recommendations**

The DNA was founded in December, 2013 in order to promote interoperable adoption of chip technology for debit payments, while supporting security, innovation and optimal technology choice. Further, the DNA seeks a robust competitive environment that benefits financial institutions, merchants and consumers.

Thus, it is in the spirit of preserving this robust competitive environment that DNA makes the following recommendation to merchants that are deploying EMV-capable POS terminals:

To maximize the economic benefits flowing from the routing options and network competition guaranteed by federal law, U.S. merchants should ensure their EMV and NFC POS equipment selects the U.S. Common Debit AID, which is present on all U.S.-issued debit cards. This U.S. Common Debit AID will allow merchants the most flexibility for routing and preserve their routing rights.

Unlike the Global AID, which eliminates routing choice by allowing access to only one payment card network, the U.S. Common Debit AID provides businesses with access to all of the payment networks that the issuer has selected to be on the debit card, and it allows merchants to choose to honor consumer requests for PIN or signature.

Likewise for ATMs, DNA recommends that ATM deployers select the U.S. Common Debit AID, which is present on all U.S.-issued debit cards. This U.S. Common Debit AID will allow ATM deployers the most flexibility for routing.

Finally, DNA recommends that both merchants and ATM deployers scrutinize their vendor-provided screen prompts and eliminate screen prompts that slow down chip processing timeframes.

For additional information about DNA, visit [www.DebitNetworkAlliance.com](http://www.DebitNetworkAlliance.com)

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1 A payment card network “is prohibited from inhibiting a merchant's ability to route or direct an electronic debit transaction over any of the payment card networks that the issuer has enabled to process an electronic debit transaction for that particular debit card.” Official Board Commentary on Regulation II, Federal Register, Vol. 76, No. 139, p. 43475 ([https://www.gpo.gov/fdsys/pkg/FR-2011-07-20/pdf/2011-16861.pdf](https://www.gpo.gov/fdsys/pkg/FR-2011-07-20/pdf/2011-16861.pdf)).