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Preparing for the Migration to 8-Digit BIN

Understanding how the 8-Digit BIN Migration will affect Visa issuers and helping credit unions prepare for the April 2022 deadline.

What's Happening.

Basically, the payment industry is growing. 6-digit BINs are reaching a point of depletion. Before depletion occurs, 6-digit BINs will be migrated to 8-digit BINs. The International Organization for Standardization (ISO) has set forth a plan for migration with a completion date of April 2022. On April 2022, the Visa pool of approximately 100,000 six-digit issuing BINs will become 10,000,000 eight-digit issuing BINs. After April 2022, 6-digit BINs will not be available for assignment. However, existing 6-digit BINs will continue to be supported as they become 8-digit BINs.

All of the following entities are impacted by the migration:

- Issuers
- Acquirers
- Processors
- Merchants

Migration testing starts in 2019 and formal migration goes until April 2022, allowing for about 2 1/2 years for migration. Visa processing logic will be updated as well to handle 8-digit BINs. While VisaNet changes are expected to be small, Visa is allowing plenty of time for clients to implement higher impact changes.

How Did We Get Here?

A few years ago, 6-digit BINs were plenty to handle the processing of credit card payments. Payment processors and issuers created systems around the 6-digit BIN. But with industry growth and especially the use of tokenization, 6-digit BINs are reaching a point of exhaustion.

ISO has decided to move to 8-digit BINs, which replenish the number of available BINs. To ensure all entities involved in the payment network are able to continue processing payments, Visa has set a deadline that it believes will allow plenty of time for migration from 6-digit BINs to 8-digits.

How Does it Affect Me?

Processors and payment vendors will be impacted by the 8-digit BIN migration. Any unused 8-digit BINs should be returned to the bank's or credit union's provider pool. No cards should be issued with BINs outside of those that are already being used.

Visa will not communicate directly with unaffiliated third-party entities. These entities will not have access to the migration testing environment. Clients who have contracted unaffiliated third parties must communicate with them any information on migration and facilitate testing.

BIN migration affects both card-present and card-not-present channels. Tokens will not be impacted as Visa assigns them at the 9-digit account number level rather than 6-digit BIN.

What Action Should I Take?

Everything you need to do is on the back end and does not involve customers. Customer credit cards are fine and do not need to be reissued. Identify all areas where 6-digit BINs are used within your system. These may include billing, reporting, and enrollment forms. Any billing statements that are displaying 6-digit BINs should display 8-digit BINs after migration.

Any unused nine-digit account ranges within their current six-digit issuing BINs must be deactivated before April 2022. This will simplify the post-migration management of the expanded BIN pool.

After the April 2022 migration, issuers should return any un-used eight-digit issuing BINS to Visa. Work with your vendors and issuer processors to deactivate these BINs.

For acquirers and merchants who route and process transactions based on six-digit issuing BINs, they must now route and process transactions based on Account Range Prefix. Otherwise, processing inconsistencies will occur today and in the future.

Request an Account Range Utilization report from Visa to see which BINs are being used. You can request the report by emailing NumericsSupport@Visa.com.

Steps To Migrate To 8-Digit BIN

Visa will have a test environment setup in 2019 for industry participates along with best practices. You can read the latest documentation here www.VisaOnline.com.

To migrate from a 6-digit BIN to 8-digits, you must first inform Visa of your plans using their automation tool located at www.VisaOnline.com.

What Happens If I Do Nothing?

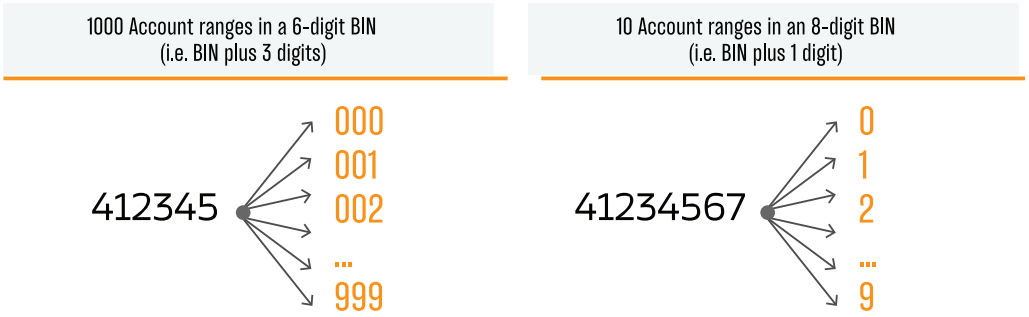
Acquirers, merchants, and processors risk misrouting and misprocessed transactions if they can't meet the April 2022 deadline. They will also incur Numerics Licensing and BIN Underutilization fees.

The Anatomy Of A Credit Card Number

Let's look at what makes up a 16-digit Visa credit card number. We're going to analyze the following credit card number:

4000 1234 5678 9010

- 4 (first digit) - MII (Majority Industry Identifier).
- 4000 12 - IIN or BIN. Identifies institution that issued card.
- 34 5678 901 - Account Identifier Number. Customer's account number.
- 0 (last digit) - Checksum. Validates credit card number using Luhn algorithm.
- All digits - PAN (primary account number).



The two-digit MII has its own set of codes to identify different industries:

- 1 and 2 Airlines (Diners Club enRoute)
- 3 Travel & Entertainment (non-banks such as American Express, Diner's Club, JCB, and Carte Blanche)
- 4 Banking & Financial (Visa, Switch, and Electron)
- 5 Banking & Financial (Mastercard and Bankcard)
- 6 Merchandising & Finance (Discover Card, Laser, Solo, Switch, and China UnionPay)
- 7 Petroleum
- 8 Telecommunications
- 9 National Assignment

Source: http://www.dirigodev.com/blog/ecommerce/anatomy-of-a-credit-card-number/

The first few digits identify the credit card type:

- Visa: 4
- Mastercard: 5
- Discover: 6011, 644, 65
- American Express: 3, 37
- Diner's Club and Carte Blanche: 300, 305, 36, 38

All Visa credit cards start with a 4. They are in the bank and financial industry, which also uses a 4. Using the credit card number above, when it comes to the BIN, that number is "4000 12" and will extend to "4000 1234" with the 8-digit BIN.

Visa's 8-digit BIN migration deadline is less than three years away. While that may seem like a lot of time, it will also take much time to root out all of the places where BIN updates will impact your systems. According to Visa's timeline, you should already be in the testing phase. If you haven't started BIN migration yet, there's no better time to start than now. The deadline is only getting closer.

Additional Resources

Visa Online (VOL) Numerics Page

Numerics VOL page is regularly updated with new documentation and resources related to Visa's Numerics Initiative. Includes Frequently Asked Questions, information related to short-term conservation strategies, as well as the long-term migration to the eight-digit issuing BIN.

Global Technical Letter and Implementation Guide (GTLIG)

Visa will publish articles in the semi-annual GTLIG as necessary. General articles may appear in the informational sections, while articles detailing specific mandatory requirements will appear in the relevant regional or global sections.

Visa Business News (VBN)

For announcements that occur between versions of the GTLIG, Visa will publish VBN articles. Review each issue of the VBN carefully for the latest numerics-related information. Visa Business News articles are listed on the Numerics Initiative page at www.VisaOnline.com.

The NumericsSupport@visa.com mailbox is monitored by Visa's Numerics subject matter experts and is available for client use. Questions may be submitted to the mailbox, as well as requests for account range utilization reports (for clients preparing to enroll in VTS) and eight-digit BIN reports.

For reporting requests, clients must provide the assigned BID. (i.e. BIN plus 1 digit)10 Account ranges in an 8-digit BIN 9...21041234567(i.e. BIN plus 3 digits)1000 Account ranges in a 6-digit BIN 999...002001000412345