



Preparing for the Eight-Digit BIN

Frequently Asked Questions

January 2020

Visa Public

Contents

1. What is Visa’s plan for adopting the new eight-digit ISO BIN standard?.....	2
2. What is ISO? What role do they play?.....	2
3. Why is Visa giving significant attention to this now, if the deadline is April 2022?.....	2
4. Given that issuers can set their own timeline for migration to eight-digit BINs, how will this impact the selling environment?	2
5. When will Visa start assigning and supporting eight-digit issuing BINs?	3
6. Will Visa continue to support six-digit issuing BINs after April 2022?	3
7. Will there be any changes in display of PAN numbers on the card?.....	3
8. Are some regions migrating before others, or is every region expected to be ready by April 2022?....	3
9. What is the eight-digit impact to Payment Card Industry Data Security Standards (PCI DSS) requirements for masking or truncating data?.....	3
10. Will the BIN length increase for acquiring as well?	4
11. Will the change in issuing BIN length apply to all channels (card-present and card-not-present) and product types?	4
12. What data should be used for routing and clearing of Visa transactions and why?	4
13. What is the impact to ATM (domestic and international), as well as any technological impact or configuration changes?	4
14. Will Issuer Public Key (IPK) certificates created at the six-digit issuing BIN level continue to work after migration?	5
15. How will the eight-digit migration affect IPK functionality at terminals?.....	5
16. What types of testing is Visa making available for eight-digit BINs?	5
17. What changes is EMVCo proposing and how will this affect what Visa is doing around the movement from six to eight-digit BIN?	5
18. Does Visa plan to communicate these changes to all stakeholders in the payments system?	6

Frequently Asked Questions

1. **What is Visa’s plan for adopting the new eight-digit ISO BIN standard?**

Visa has set April 2022 as its deadline for acquirers and processors to be ready to work with eight-digit BINs in compliance with the new International Organization for Standardization standard (ISO/IEC 7812-1, Identification cards – Identification of issuers – Part 1: Numbering system).

Effective April 2022, Visa will require all acquirers and processors (issuer and acquirer) to support the new length for issuing BIN. In addition, Visa will only assign eight-digit issuing BINs after the April 2022 release date. Although Visa highly encourages issuers to migrate all current six-digit issuing BINs to the eight-digit ISO as soon as possible, issuers will have the discretion to set their own timeline for the expansion.

2. **What is ISO? What role do they play?**

The International Organization for Standardization (ISO) oversees the standard defining Issuer Identification Numbers (IINs), known as “BINs” in Visa terminology. The American Bankers Association (ABA), on behalf of ISO, globally manages the pool of available IINs for card issuers.

3. **Why is Visa giving significant attention to this now, if the deadline is April 2022?**

The impact to update processing and downstream systems for the new industry eight-digit BIN standard will vary significantly by payment stakeholder. Visa encourages its clients, partners, agents and vendors to actively engage and assess impacts across their organization as soon as possible to maximize their efficiencies and avoid surprises. It would be a critical error to backburner this item given the importance of the issuing BIN across the payment infrastructure.

Those who support issuer transaction processing, routing and downstream activities need to consider impacts and collaborate on testing, implementation schedules and reporting changes. VisaNet is now prepared to support eight-digit BINs.

4. **Given that issuers can set their own timeline for migration to eight-digit BINs, how will this impact the selling environment?**

Although ISO is now assigning eight-digit issuing BINs for new requests, they have also advised they are protecting the other issuing BINs in that six-digit sequence until April 2022, the announced effective date for the major global brands. Likewise, Visa is holding the other issuing BINs associated with any new, or newly-migrated, eight-digit BIN until April 2022. As the ISO change does not require removal of six-digit BINs from the system, merchants, acquirers and processors must continue to support both six-digit and eight-digit BINs.

5. **When will Visa start assigning and supporting eight-digit issuing BINs?**

Visa is now assigning eight-digit issuing BINs. This timing is aligned with the comprehensive work Visa has done to ensure VisaNet and downstream systems and applications support client eight-digit activations smoothly. Visa recommends that clients coordinate with their processor and any impacted third parties and agents as part of their planning to begin eight-digit issuance.

6. **Will Visa continue to support six-digit issuing BINs after April 2022?**

Yes. Visa is allowing issuers the discretion to expand any or all of their issuing BINs to eight digits and to set their own timeline for the expansion. Both six and eight-digit BINs will exist after April 2022. However, Visa will assign only eight-digit BINs after April 2022. Visa will not assign six-digit issuing BINs after the April 2022 release date. Visa recommends that clients move to issuing at the nine-digit account range level to combine different products on the same six-digit BIN and thus, ensure their portfolios can be migrated into the fewest number of eight digits BINs as possible.

7. **Will there be any changes in display of PAN numbers on the card?**

No. Both PANs and tokens will remain the same at 16 digits. As such, there will be no impact to card embossing alignment. Note: V PAY, available only in Europe, makes use of 19-digit PANs for some implementations.

8. **Are some regions migrating before others, or is every region expected to be ready by April 2022?**

Visa is not differentiating between regions, and, as such, has developed a global implementation plan for the BIN expansion. VisaNet is now ready to accept eight-digit BINs and clients can begin migration efforts and requesting new eight-digit BINs. Clients in all regions must be ready to handle new eight-digit issuing BINs by April 2022.

9. **What is the eight-digit impact to Payment Card Industry Data Security Standards (PCI DSS) requirements for masking or truncating data?**

Visa is advising stakeholders to review of the impacts to current standards when assessing the 8-digit BIN length change:

- **Data Presented on Screens and Reports:** Provisions already within the PCI DSS allow users with a legitimate business need to see any or all of the PAN digits.
- **Data at Rest:** After evaluating the expansion to eight-digit BINs, PCI advises that a minimum of six digits must be truncated or encrypted to protect data at rest. Clients that use truncation as their only method of complying with the PCI requirement for protecting data at rest, and who would like to expose the full eight-digit BIN as well as the last four digits, will need to add one or more of the other acceptable methods for data protection, such as encryption, hashing or tokenization.

Visa recommends that merchants consult with a PCI QSA who has been trained on PCI DSS requirements. QSA are in a better position to consult merchants based on their existing controls and provide appropriate recommendations to achieve compliant implementations. This is especially important if the merchant is unfamiliar with approved technology techniques.

10. **Will the BIN length increase for acquiring as well?**

No. Visa will no longer use ISO BINs to support acquiring. As a result, all numerics used for acquiring will remain at six digits. Visa will rename these numerics *Acquiring Identifiers* to avoid confusion with ISO issuing BINs.

11. **Will the change in issuing BIN length apply to all channels (card-present and card-not-present) and product types?**

Yes. The change in BIN length is irrespective of channel and product; it will support all issuing credentials in the future.

12. **What data should be used for routing and clearing of Visa transactions and why?**

For proper **routing** of Visa transactions, Visa provides acquirers with Visa routing tables (for example, Visa Plus, Interlink, etc. routing tables). Since it is possible for issuers to use different processing endpoints for authorization versus clearing or for issuers to establish routing preferences beyond the nine digits, the ARDEF table should never be used for routing, as it may not route authorization requests as expected.

For proper **clearing** of Visa transactions, acquirers not automatically routing all transactions through Visa should use the ARDEF table to populate transaction data such as the product attributes. If acquirers do not use the Visa ARDEF table, the transaction may not clear as expected.

Use of incorrect tables or failure to keep tables updated may result in unnecessary declines, rejections or misrouting as well as increased reconciliation costs. This is particularly true as issuers utilize their assigned six-digit issuing BINs by using one or more nine-digit account ranges to differentiate specific products and/or processing parameters.

13. **What is the impact to ATM (domestic and international), as well as any technological impact or configuration changes?**

The sources and uses of issuing BIN tables for ATM transaction processing are similar to Point of Sale processing. Use cases where issuing BIN tables and hardcoded issuing BIN logic are limited to six-digit BINs will require expansion to eight digits by April 2022.

For example, one of the tables used in ATM transaction processing (Financial Institution Table "FIT") to identify "no surcharge" transactions is limited to 1000 records per ATM owner (or issuer). As issuers shift to eight-digit issuing BINs, there is a possibility that a single issuer that converts from six digits to eight digits will have more than 1,000 issuing BINs. Therefore, the table will need to be expanded to accommodate this scenario. Additionally, a less manual and

ad-hoc process may need to be established, due to the increased number of BINs being updated in this table.

However, each client is different in their configuration which may impact the changes required. Each client should do their own internal analysis of the impacts of the eight-digit BIN to determine what changes, if any, are needed.

14. Will Issuer Public Key (IPK) certificates created at the six-digit issuing BIN level continue to work after migration?

Yes. Both the IPKs and the Visa keys that signed those IPKs will continue to work. The Offline Data Authentication (ODA) validation process is not affected by whether an IPK certificate was issued using a six-digit issuing BIN or an eight-digit issuing BIN. Issuers can request certificates on eight-digit BINs from the VSDC CA. The current plan is to modify the Visa Smart Debit/Credit Chip Application (VSDC CA) to support requests containing six-digit issuing BIN or eight-digit issuing BIN information.

15. How will the eight-digit migration affect IPK functionality at terminals?

There is no change in terminal functionality or processing to support IPK for eight-digit BINs. Terminals must continue to maintain Visa Public Key Tables and be compliant with EMVCo requirements, which do not change based on six versus eight-digit BINs. There are no changes that merchants need to make to support IPK on eight-digit BINs, and there is no change to the cardholder experience.

16. What types of testing is Visa making available for eight-digit BINs?

Testing is optional for eight-digit issuing BIN as there are no message changes to Authorizations, Clearing and Settlement in VisaNet. Visa highly encourages stakeholders to test their internal processing and downstream systems to identify impacts and resolve issues before the effective date.

Those who choose to conduct testing should determine the scope and create test plans and success criteria based on their requirements. Testing may include authorizations, reversals of selected products / services supported by Visa clients. For acquirer testing, Visa provides eight-digit test responder IDs. For issuer testing of eight-digit BINs, Visa sends the PAN and the issuer treats this as eight-digit rather than six-digit.

17. What changes is EMVCo proposing and how will this affect what Visa is doing around the movement from six to eight-digit BIN?

EMVCo chip specifications already support account numbers using an eight-digit BIN, with the sole exception of the Issuer Identification Number (IIN, tag '42') data object used to distinguish between issuer allocated tags, and that data object is currently defined as having a fixed length of six-digits. EMVCo has published a draft specification bulletin to introduce a new IIN data object that can be up to eight digits in length, and is expected to publish the final specification bulletin in late 2020.

18. **Does Visa plan to communicate these changes to all stakeholders in the payments system?**

Visa is conducting a comprehensive communication outreach to ensure its stakeholders are aware. In addition, it is essential that Visa clients build awareness with all of their stakeholders; communicating these changes is a shared responsibility.

Given the number of participants in the payment system, it is unlikely that Visa has a direct line of communication to all stakeholders. Each Visa client is responsible for communicating to any affected agents, third parties and merchants with which they have a direct relationship. For further information and resources, Visa clients should go to the [Numerics Initiative page on Visa Online](#). Non-clients, should go to the [Numerics Initiative page on Visa.com](#).