
EIGHT-DIGIT ISSUER BIN WILL BE IMPLEMENTED IN APRIL 2022

Distribution: Acquirers, Issuers, Processors, Merchants, Agents

Who should read this?: Any Visa stakeholder who currently uses the Visa BIN or the first six-digits of the Primary Account Number (PAN) as a means of identifying the issuing financial institution.

BACKGROUND

In 2015, the International Organization for Standardization (ISO) first announced its intent to migrate from the current six-digit IIN to an eight-digit standard. IINs are the six-digit numeric assets assigned to card-issuing financial institutions; at Visa they are known as BINs. ISO defines the IIN structure according to specific standards (ISO / IEC 7812-1 and ISO / IEC 7812-2) that it also oversees in its capacity as the global standards body. In the 9 July 2015 edition of the *Visa Business News*, Visa announced the ISO migration as well as the strategies Visa would employ to support the shift and to conserve the existing BIN supply. More recently, the American National Standard Institute, the IIN administrator on behalf of ISO, confirmed ISO's intent to migrate to an eight-digit standard.¹ Visa endorses the migration to an eight-digit BIN to ensure an adequate global BIN supply for the industry and support future growth across the payments system.

¹ See the July 2016 ANSI announcement, "Announcing Major Changes to the Issuer Identification Number (IIN) Standard"

IMPACT

Visa Will Implement Eight-Digit Issuer BINs in April 2022

ISO plans to publish the new eight-digit standard in early 2017, and Visa is committed to providing clients with the maximum possible preparation time.

Effective with the April 2022 VisaNet Business Enhancements release, Visa will begin assigning eight-digit issuer BINs and will require all clients to process using the new eight-digit BIN structure. Technical requirements will be included in the *VisaNet Business Enhancements Global Technical Letter and Implementation Guide*.

Note: Visa will continue to assign six-digit numerics to acquirers. To avoid confusion with the eight-digit BINs assigned to issuers, these six-digit numerics will be renamed "Acquirer Identifiers."

Primary Account Number Length Will Remain 16 Digits

In the 9 July 2015 edition of the *Visa Business News*, Visa announced its expectation that Primary Account Number (PAN) length would expand from 16 to 19 digits concurrent with the BIN length expansion. However, after significant stakeholder outreach and consultation, Visa has determined it will continue to support a 16-digit PAN when the BIN length expands in April 2022.

Client Impact and Communication

Effective communication of the new standard will be key to a successful implementation. Accordingly, Visa will communicate regularly to clients prior to the migration, via:

- *Visa Business News* (global business announcements)
- VisaNet Global Technical Letter and Implementation Guides (technical details)
- Operational Support Client Forums, webinars, flyers and articles (general education)

- Visa Online (ISO documents and related content)

Given the size and scope of the initiative, and given that Visa does not have a direct relationship with all vendors, agents and third parties used by issuers, acquirers and processors, it will be a shared responsibility to ensure that all downstream stakeholders get the word on this critical initiative.

NEXT STEPS

To offer clients ample time to test and implement changes as they migrate to the eight-digit BIN, Visa plans to complete systems analysis and development by 2019.

Visa encourages clients to begin planning and analysis as soon as possible to determine what infrastructure changes they may need and how their vendors and third parties may be affected.

ADDITIONAL RESOURCES

Eight-Digit Issuer BIN Will Be Implemented in April 2022—Frequently Asked Questions

FOR MORE INFORMATION

Contact your Visa representative or email NumericsSupport@Visa.com. Merchants and third party agents should contact their issuer or acquirer.



Announcing Major Changes to the Issuer Identification Number (IIN) Standard

07/28/2016

Issuer Identification Number (IIN) is a standardized global numbering scheme used for the purposes of identifying institutions who assign unique account numbers to their customers, most typically for example, to support the issuance of a payment card. The IIN structure is defined within the international standard [ISO/IEC 7812-1](#), *Identification cards - Identification of issuers - Part 1: Numbering system*. The application and registration procedures are identified in [ISO/IEC 7812-2](#). These standards are developed by the [International Organization for Standardization / International Electrotechnical Commission](#) (ISO/IEC) Joint Technical Committee (JTC) 1, *Information Technology*, Subcommittee (SC) 17, *Cards and personal identification*, Working Group (WG) 5.



Within the current version of ISO/IEC 7812-1, an IIN is defined as a fixed-length numeric of 6 digits. ISO/IEC 7812-1 also defines the Primary Account Number (PAN), a number which is used to identify an individual account holder. The PAN is variable length, ranging from 8 to 19 digits.

ISO/IEC 7812-1 is currently undergoing revision to expand the IIN to an 8-digit numeric value from the current 6-digit numeric value. The PAN will continue to remain variable length, ranging from 10 to 19 digits. This change is being driven by an expected shortage in the available supply of IINs. The draft of this revised standard has currently been at the enquiry stage, and a Draft International Standard (DIS) has been distributed for voting by ISO member bodies since May 2016. The potential target for final publication of ISO/IEC 7812-1 by ISO is in early 2017.

In order to simplify implementation of the new standard and to minimize the impact on shared stakeholders across industry segments, ISO/IEC JTC1/SC17/WG5 is pre-announcing changes that applicants of new or additional IINs should be aware of. As of the publication date of the revised ISO/IEC 7812-1 (anticipated to be January 2017):

• The [Registration Authority](#) (RA) will commence assigning 8-digit IINs to any institution applying for a single IIN or block of IINs

• A process will be implemented for assigning IINs to new applicants once the revised version of

- The [Registration Authority](#) (RA) will commence assigning 8-digit IINs to any institution applying for a single IIN or block of IINs
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ISO/IEC 7812 defining 8 digit IINs has been published.

- Details of this process will be provided by the RA once the new 8 digit standard is in effect.
- The RA will monitor progress of adoption of the 8-digit IIN within all impacted industries, and an end date for this interim process will be communicated at a later date.

All users of ISO/IEC 7812-1 are strongly advised to immediately begin planning and analysis to identify any potential system and process impacts associated with their plans to adopt the new standard.

Any queries should be directed to Michelle M. Deane, ISO/IEC JTC 1/SC17/WG5 Secretary, at mdeane@ansi.org.

About ISO/IEC JTC 1/SC17/WG5

Working Group 5 is responsible for the development and maintenance of ISO/IEC 7812 Part 1 and 2, and is made up of experts appointed by 12 countries. The U.S. holds leadership of this WG, with Patrick Macy as convenor and the [American National Standards Institute](#) (ANSI), U.S. member body to ISO, as secretariat. The U.S. also holds leadership of JTC 1, with Karen Higginbottom of Hewlett Packard serving her third term as chair, and ANSI as secretariat. The ANSI-accredited U.S. Technical Advisory Group administrator to ISO/IEC JTC 1 and its Subcommittees, including SC17, is the [InterNational Committee for Information Technology Standards](#) (INCITS).

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Eight-Digit Issuer BIN Will Be Implemented in April 2022

Frequently Asked Questions

Implementation

- 1. Will I need to reissue my cards when the Bank Identification Number (BIN) expands to eight digits?**
No. Because Primary Account Number (PAN) length will remain 16 digits, there is no need to proactively reissue existing cards. The BIN will become the existing first eight digits of the PAN.
- 2. Will Visa align with other payment network brands on the implementation date?**
It will be up to each payment network to establish its own implementation schedule for the eight-digit BIN.
- 3. When does Visa expect to change its systems to support eight-digit BINs?**
Visa plans to complete the necessary changes to all client-facing systems and applications by 2019. This will allow clients more than two years before the April 2022 deadline for testing and implementation.
- 4. Will Visa mandate issuer, acquirer and processor readiness before April 2022?**
All stakeholders must be ready by April 2022, including affected third parties and agents that may not be directly connected to Visa. Visa will communicate technical specifications and requirements beginning in 2017.
- 5. Will changes to the authorization and clearing messages be needed as a result of the BIN length expanding to eight digits?**
No changes are needed in the authorization message to support the expanded BIN length. As for potential impacts to the clearing message, Visa is evaluating whether changes to the BASE II Issuer BIN will be needed. Beginning in 2017, Visa will publish technical requirements as part of the *VisaNet Business Enhancements Global Technical Letter and Implementation Guide*.
- 6. How can issuers smooth the transition to eight-digit BINs?**
Visa is already promoting best practices to facilitate this change. For example, all issuers have been encouraged to begin issuing into specific nine-digit account ranges (instead of randomizing across an entire six-digit BIN). As announced earlier this year, Visa will require this practice beginning in October 2017. See Version 1 of the [October 2016 VisaNet Business Enhancements Global Technical Letter and Implementation Guide](#) and the article "[New BIN Utilization Policies Announced to Preserve Numerics](#)," published in the 7 April 2016 edition of the *Visa Business News*.
- 7. What happens to unused eight-digit BINs?**
Visa is developing a transition plan. Deactivating unused account ranges is the first step. In preparation for the eventual transition to eight-digit BINs, issuers should deactivate nine-digit account ranges they do not plan to use. Each set of 10 consecutive deactivated nine-digit account ranges (e.g., 412345000–412345009) will be counted as one full eight-digit BIN (i.e., 41234500) after the BIN migration in April 2022. Administration of unused eight-digit BINs will be streamlined if issuers proactively deactivate their unused account ranges.
- 8. If a Visa client (i.e., issuer, acquirer or processor) is not ready to process eight-digit BINs by April 2022, what are the consequences?**



Clients will face the risk of misrouted transactions if they are unable to meet the April 2022 deadline. They may also experience unnecessary and avoidable costs if they delay planning in a timely manner.

9. What will happen to existing six-digit BINs?

Effective April 2022, each existing six-digit BIN will become 100 eight-digit BINs. According to current analysis of VisaNet transaction data, less than 9 percent of future eight-digit BINs are currently active. Issuers should return unused BINs to Visa. Issuers are asked to return unused BINs to facilitate this transition.

10. When will Visa start assigning eight-digit BINs?

Visa will begin assigning eight-digit BINs **effective April 2022**. However, beginning in 2019, Visa systems will support population of the eight digit BIN to enable clients to test and implement system changes.

PAN Length

11. Despite the expansion of the BIN length, does continued support for a 16-digit PAN create concerns about PAN supply?

There is capacity for over 99 trillion unique PANs to be issued within “4-series” Visa BINs (i.e., BIN values beginning with the number “4”). Currently, less than 0.01 percent of that capacity is in use. The Visa capacity is expected to be adequate, based on business projections.

12. Despite the expansion of the BIN length, does continued support for a 16-digit PAN length create concerns about Payment Card Industry Data Security Standards (PCI DSS) requirements for masking or truncation of data?

Visa’s current position is:

- **Data Presented on Screens and Reports:** PCI DSS provisions already allow users with a legitimate business need to see any or all of the PAN digits. No changes are expected to accommodate the expansion of the BIN length.
- **Data at Rest:** Clients that use truncation as their only method of complying with the PCI requirement for protecting data at rest will need to add one or more of the other acceptable methods for data protection, such as encryption, hashing or tokenization.

Communication

13. When will Visa publish the technical specifications for the eight-digit BIN and related processing numerics?

Visa will begin communicating technical specifications to implement of eight-digit BINs in 2017, via the Business Enhancements releases, the *Visa Business News*, Visa Online and other channels.

14. How will Visa communicate the new eight-digit BINs to acquirers and merchants?

Information about BINs and nine-digit account ranges will continue to be defined in Account Range Definition (ARDEF) and routing tables with the necessary processing and product attributes. All ARDEF and routing tables should be updated regularly based on Visa-distributed information.

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

Visa maintains an extensive network of registered agents, third parties and merchants, in addition to its direct relationships with its issuers, acquirers and processors. Visa will communicate with all of these parties to the



fullest extent possible. However, because Visa may be unable to reach all stakeholders, communicating these changes will be a shared responsibility. Each Visa client is responsible for communicating to any affected agents, third parties and merchants with which they have a relationship.



Additional Information

16. What is ISO? What role will they play?

The International Organization for Standardization (ISO) oversees the standard defining Issuer Identification Numbers (IINs), or BINs in Visa terminology. ISO also manages the pools of available IINs for card issuers globally.

17. Is Visa planning to introduce BINs that begin with a number other than “4” as an interim step?

No. At this point, Visa believes it has implemented appropriate policies to ensure an adequate supply to support clients’ business needs until the new standard takes effect. Several initiatives focus on the excess capacity that exists within existing BINs through the use of account ranges (i.e., first nine digits of the PAN). For more information on these initiatives, refer to the [Numerics Initiative](#) page at Visa Online.

18. What happens to the BINs now used for acquiring?

Numerics used for acquiring will remain six digits. Visa will rename these numerics “Acquirer Identifiers” to avoid confusion with eight-digit issuer BINs.

19. Will Visa processing identifiers (including routing IDs and encryption BINs used by some clients), many of which may share the same six digits as the issuing BIN, be affected?

Visa is evaluating different options, including expanding some identifiers to 11 digits, as well as potentially maintaining others at six digits. Plans for these identifiers will be finalized as soon as possible and communicated via the Global Technical Letter.

20. Will Visa maintain the current Annual BIN Licensing program and fees after the introduction of the eight digit BIN?

No decision has been made about what changes may be required. However, Visa continually evaluates its programs and associated fees to remain current with business practices.

21. How will the changes affect billing statements?

Visa is evaluating the expansion of processing identifiers to 11 digits. Depending on the evaluation results, Visa may modify billing statements to reflect billing entities’ expanded length.

22. Does Visa plan to change the length of account ranges?

No. Account ranges will remain the first nine digits of a PAN even after BINs extend to eight digits. Eight-digit BINs can support up to 10 individual account ranges. For example, a single eight-digit BIN will have the capacity to identify up to 10 different products using account ranges. Clients that use more than 10 account ranges within a single BIN may need multiple BINs, or to reconsider their account range strategy.

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