Carat

Network Tokens

Delivering greater security and a better merchant and consumer experience

Introduction

As the world of commerce has taken a seismic shift toward digital and online shopping, merchants are under increasing pressure to expand their digital footprints and provide a better, more secure payment experience.

In addition to wanting greater choice when it comes to completing purchases, consumers also want the entire shopping journey to be more seamless and convenient. In order to remain competitive, merchants are responding to this growing trend by delivering the digital services their customers are demanding.

One of the most pressing concerns around payments today is security. Network tokens offer an answer. Such tokens, which are issued by card networks, such as Visa®, Mastercard®, American Express® and Discover®, are used in lieu of the cardholder's primary account number (PAN), reducing risk and creating a more secure transaction by shielding sensitive account information.

The concept of network tokenization is not new, having existed in the payments space for some time with certain card brands. However, tokens have aroused renewed interest lately, driven by the critically important benefits they bring to merchants, such as enhanced security, better approval rates and an improved customer experience.

Network tokenization relies on the card networks to provision merchant-specific tokens, which move through the payment flow in much the same way as a PAN, allowing transactions to occur without the underlying PAN being exposed at any point. Also, network tokens have multiple controls that are enforced during a transaction to prevent fraud, including the use of single-use cryptograms.

It is important to note that the type of network tokens discussed here only pertain to Card Not Present (CNP) channels.

In this white paper, we will take a closer look at what network tokens are, the benefits they deliver and best practices around deploying a network tokens solution.

Network tokens:
an overview
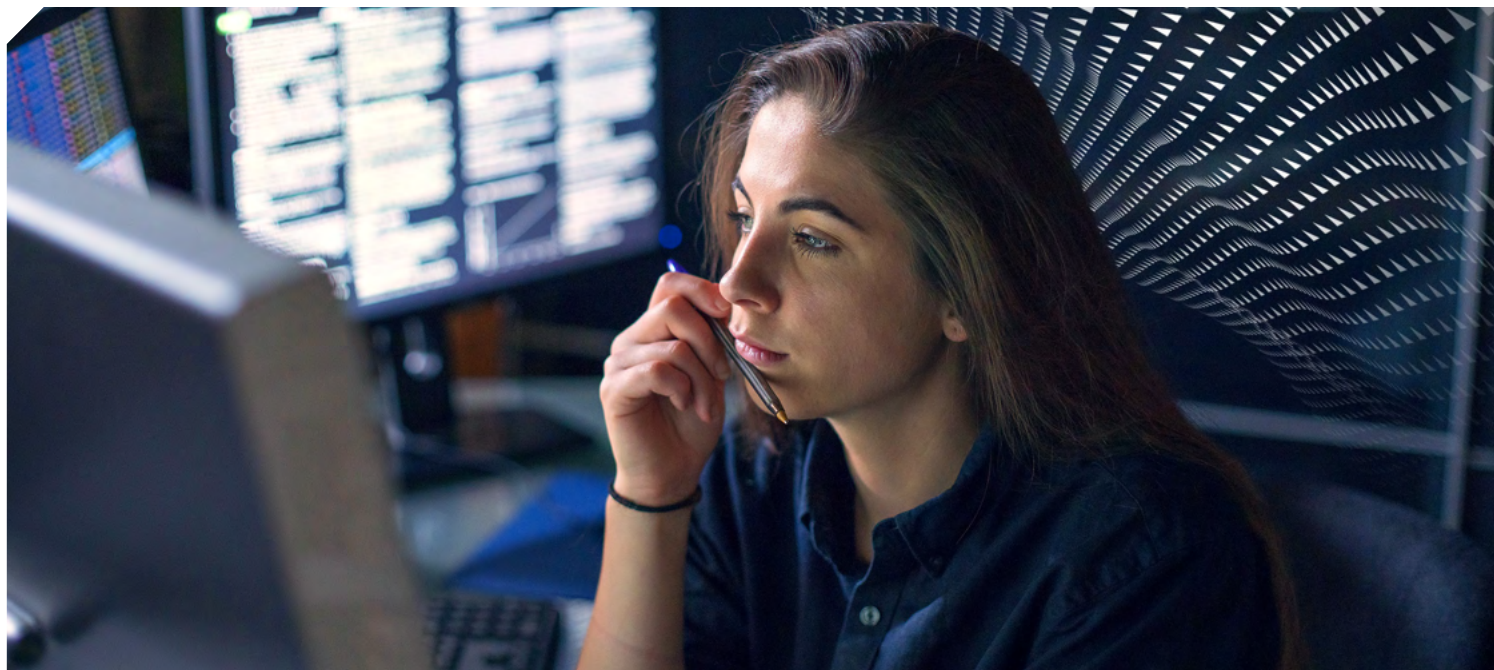
What are network tokens and how do they work?

Network tokens refer to the tokenization of the PAN, which are issued by card networks, such as Visa, Mastercard, Amex and Discover. Also known as EMVCo tokens or payment tokens, network tokens move through the payment networks in much the same way as a PAN, allowing transactions to occur without the merchant being exposed to the underlying PAN.

In contrast to PCI tokens, network tokens are interchangeable in the payment authorization flow without the necessity of the underlying PAN being exposed throughout the transaction process. This creates a frictionless payment and checkout experience for customers that increases security and reduces the risk of fraud for merchants. And because network tokens are dynamically updated in real time, credentials are always kept up to date, further ensuring transactions are secure.

Tokens are tied to merchants, reducing PCI scope by removing sensitive payment data from the merchant's environment. It also means no CVV/CVC or other verification is required. This, in turn, means consumers don't have to provide updated card data when their PAN changes.

Network token transactions are authenticated based on single-use cryptograms and merchant-specific details. These cryptograms are used for consumer-initiated transactions, as well as for the first in a series of recurring or scheduled merchant-initiated transactions. Merchant-initiated transactions are still consumer payments, but are based on a payment cycle that exists for the merchant, such as a monthly gym membership fee.

How network tokenization works

Merchant → Token → Acquirer → Token → Card Network → Token → Issuer
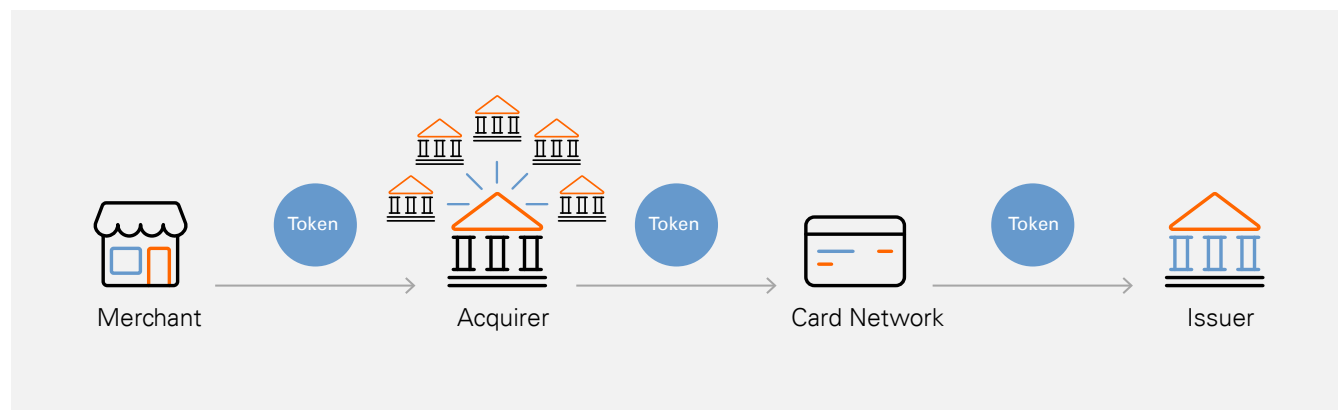
→ Network tokens are issued by card networks

→ Network tokens are used in the entire transaction lifecycle

→ Network tokens require cryptograms for all consumer-initiated transactions

→ Network tokens can have expiry dates the same as or longer than the underlying PAN

How do merchants benefit from the use of network tokens?

Network tokens deliver tangible benefits to merchants. Because these tokens rely on cryptograms instead of PAN-based authentication, merchant PCI scope is reduced and the need for annual PCI compliance is eliminated. This presents an important advantage.

And, by eliminating the need for merchants to hold onto sensitive PAN information, network tokens are able to diminish the potential risk of cardholder data being stolen. Such enhanced security around transactions is vital to merchants who understand the value of maintaining trust with customers.

Network tokens are also effective at reducing fraud. Visa reports that when merchants leverage Visa-issued network tokens, fraud rates decline by an average of 26%. Fraud screening is performed up front during provisioning, which reduces false declines by lowering the need to screen for fraud during credential-on-file transactions. Cutting down on declines also helps to improve the customer and merchant experience, which is particularly important in today's highly competitive commerce marketplace. A further security advantage is that any fraud that

might occur on the PAN will not impact the merchant's network token.

Tokens have been proven to deliver higher approval rates, which help drive immediate revenue. Transacting with network tokens provides an average 2.1% authorization uptick over using PAN for CNP transactions. Improving approval rates means more customers can transact without being declined, which is good for the bottom line.

In addition, network tokens can reduce the increase in interchange fees proposed by card networks for CNP transactions initiated with a network token. For instance, the Visa Network token interchange rate is up to 10 basis points lower than the nontokenized rates on qualifying transactions. Beyond the previously stated security advantages, this cost saving is a significant incentive for merchants to adopt network tokens.

Source: usa.visa.com/support/merchant/library/visa-merchant-business-news-digest.html

A trusted network token solution

In order to take full advantage of network tokens, merchants would be well-served by turning to a trusted provider.

As a pioneer in world-class digital solutions for commerce businesses, Network Token Service offers a single integration point for network tokens across all four card networks. This means merchants can implement Network Token Service and process

credential-on-file transactions with little to no coding required, instead of using legacy Fiserv integration points.

When requesting tokens, Fiserv relies on API connectivity with the token service providers to quickly and

efficiently provision network tokens and issue single-use cryptograms. Adding to the efficacy of this solution, Network Token Service works well with existing Fiserv products and capabilities, including TransArmor®, Authorization Optimization and Smart Routing.

Benefits of our network tokens to merchants

In addition to the many benefits offered by network tokens, as previously described, merchants networks leveraging our Network Tokens Service gain further advantages.

To maximize security and ensure faster transactions, we vault the network tokens.

Network tokens have multiple controls that are enforced during a transaction to prevent fraud. These include the use of single-use cryptograms and "on-behalf-of" token requests by the merchant during the authorization, expiration dates on tokens, encrypted PAN data and confirmation of the last four digits of the PAN.

We also provision the network token in the background, eliminating any latency that would adversely impact the authorization, thus making for a better customer experience. Because no coding is involved, merchants have lower maintenance costs when using our network token solution. By offering a single point of integration across all four major card brands, there is reduced friction for merchants, which creates more seamless transactions.

Network Token Service enables merchants to achieve payment optimization. When a network token is declined for a transaction, we can retry on PAN, to make a second attempt at completing the transaction. Since the service updates card account information in real time, false declines are reduced and approval rates are improved.

Additional advantages of our solution include the ability to bulk-convert PAN to network tokens for Visa, Mastercard and Amex® transactions; reduced time integrating front-end and back-end systems with multiple gateways; and fast and rapid access to global markets.
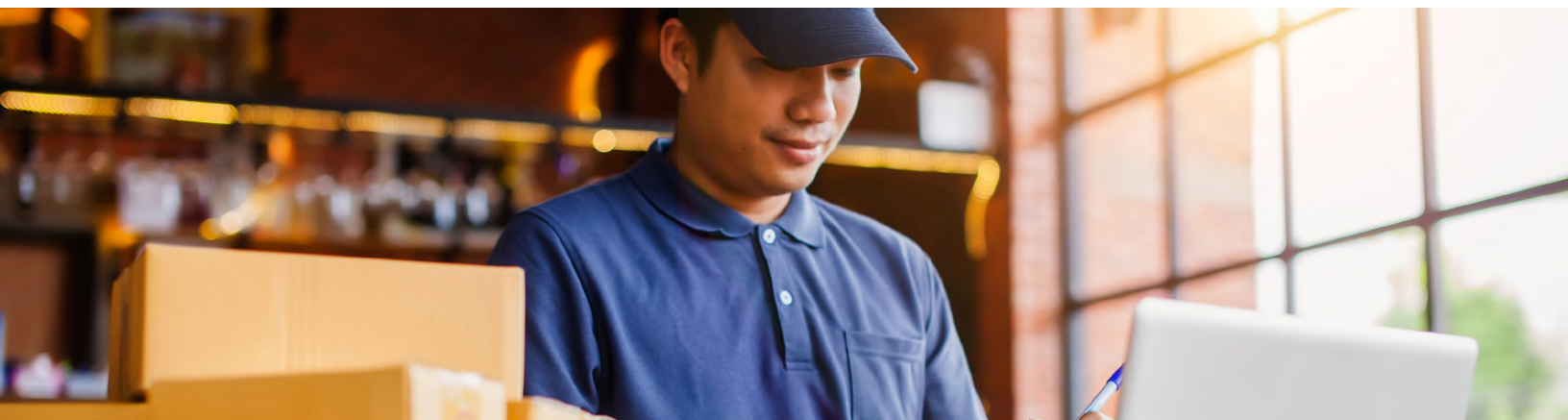
Network token best practices

As merchants look to expand their digital footprint and provide a better, more secure payment experience, a number of best practices can guide them in evaluating how network tokenization will impact their business.

Recommended procedures include:

→ Examine how a move to network tokens will improve authorization rates as compared to PANs, and calculate how this will increase opportunities for sales growth

→ Define KPIs related to network tokenization and payment optimization to establish metrics around what improvements will look like

→ Look for underperforming BIN and devise a strategy with issuers to address it

→ Calculate the return on investment (ROI) that network tokens will bring in, based on decrease in false declines, improved authorizations and lower costs associated with removal of the burden of PCI scope and need to store payment credentials in a vault

→ Examine the growth effect and how leveraging network tokens contributes to that growth

Conclusion

Network tokens are the next big thing in the payment and financial services sector as highlighted in this white paper. Network tokens offer enhanced security to merchants, while also offering a better checkout experience for customers. With higher approval rates and reduced fraud declines, merchants can expect to grow their business with better ROI.

Our network tokens present a distinctive advantage over other token providers. Ease of integration, simplified implementation, faster time to market and industry-standard security solutions for tokenization are among the many reasons merchants should consider Fiserv as their payments partner.

A myriad of factors must be considered when calculating the true benefits of network tokens. While authorization rates play a critical role for merchants' businesses, one of the easiest and most effective ways to enhance payment authorization, reduce fraud and deliver the best customer experience is by leveraging network tokens.

For more information about network tokens:
carat.fiserv.com/en-us/solutions/optimization/

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