

# Google Pay Virtual Card Solution Playbook

## Merchants

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## General FAQ

### Product Overview

#### **What are virtual card numbers?**

Virtual card numbers offer a secure and easy way to pay online with Google Pay Autofill on Chrome. Virtual card numbers are available on Autofill across most major Google Chrome surfaces (Windows, Android, Chrome, OS, etc).

Instead of sharing a cardholder's sensitive physical card credentials with merchants, a unique virtual card number is created via tokenization. Tokenization masks a customer's 16-digit PAN during the checkout process on a merchant site helping to protect against fraud from unwanted exposure of underlying card credentials.

The virtual card number is retrieved via the applicable network or issuer (e.g. Visa Token Service "VTS", Capital One). Google does not store a cardholders' credit card number. Google doesn't store the full payment credential and retrieves the virtual card number when a cardholder selects to use their virtual card number at checkout.

#### **What are the main benefits of virtual card numbers?**

Virtual card numbers allow cardholders with supported cards to make online purchases with the increased speed of Chrome's Autofill capability and in a secure way that provides cardholders added peace of mind. Virtual card numbers are designed to amplify the Chrome Autofill experience. Chrome Autofill already reduces checkout friction by eliminating the need for cardholders to manually enter most payment details during guest checkout at an online merchant. In addition, virtual card numbers provide cardholders an increased sense of security by populating the PAN, expiry and CVV fields with virtual card numbers, rather than the user's actual physical card credentials.

We expect virtual card numbers to benefit cardholders, card issuers and merchants in tangible ways. We expect to see lower shopping cart abandonment rates, and thus better conversion rates and higher revenue for merchants and purchase activity for issuers. We also expect to see higher authorization rates as a result of real-time risk-based issuer authentication during the virtual card number process (when supported by network/issuers), which also has the potential to translate into higher revenue for merchants. Further, in the event a merchant or issuer's data is breached by fraudsters, a user's virtual card number can be easily deactivated and replaced without the need to replace the underlying physical card number, eliminating disruption to a cardholder's online shopping capabilities.

#### **How do they work?**

There is little to no change in the payment experience for cardholders. At checkout, cardholders will be presented with the option to use a virtual card number for eligible cards. When a cardholder selects a physical card to enroll as a virtual card on Chrome Autofill, a unique virtual card number is created that is tied to this physical card number. For subsequent purchases the cardholder will select their virtual card

number during guest checkout via Chrome Autofill. When the user selects their payment method of choice at the time of a purchase, they will continue to see the last four digits of their physical card's PAN but will also see a virtual card insignia next to that credit card that reminds them that their credit card has been enrolled as a virtual card number.

There are two primary enrollment points for cardholders to interact with virtual card numbers – (1) saving payment information in Chrome for the first time and (2) making a purchase online.

**1. Saving payment information**

- Cardholder navigates to a payment form on merchant website and enters payment credentials
- Chrome prompts the cardholder to save the payment credentials to Google Pay for future use
- Cardholder selects to save payment credentials to their Google Pay account
- Chrome prompts the cardholder to 'turn on' virtual card numbers for eligible cards
- Cardholder can now select their card or their virtual card numbers as a payment option at checkout

**2. Making a purchase**

- Cardholder goes to a payment form on merchant website
- Chrome Autofill shows a payment suggestion list populated by payment options saved with cardholder's Google Account including the virtual card number
- Cardholder selects a virtual card number as a payment option
- Chrome contacts the issuer or the network<sup>1</sup> to retrieve a virtual card number in real-time to complete the purchase.

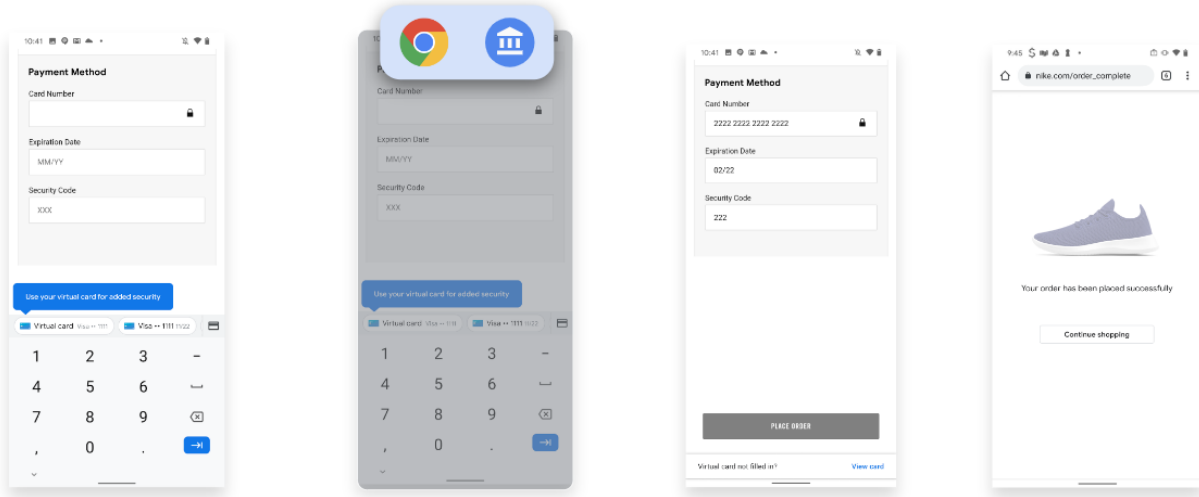
After saving their payment information or making a purchase, cardholders will have a variety of methods to manage their saved payment credentials including the virtual card numbers. They will be able to access this information in Chrome settings, through [pay.google.com](https://pay.google.com), in the GPay app and, in some instances, the cardholders' bank app or website.

**What is the end-to-end process flow of a payment transaction using virtual card numbers?**

1. Cardholder fills an online basket with desired items and proceeds to the checkout page
2. Cardholder selects the virtual card number option on the payment form in Chrome Autofill.
3. Google will share risk signals with the issuer, retrieve the virtual card number post authorization from the issuer/network, and, if applicable, enforce step-up.
4. Chrome Autofill populates the form with the virtual card number.
5. Cardholder submits the checkout form.
6. Transaction is first routed via PSP to the card network, and then to the issuer (the same way as it is routed for a physical card)

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<sup>1</sup> For enrolled Capital One and American Express cards, Chrome contacts the issuing bank to retrieve the virtual card number in real-time. In the case of Visa cards, Chrome contacts the Visa network to populate the virtual card number in real-time, at purchase.



Chrome Autofill shows payment suggestions list & user selects a virtual card number as their payment method

Chrome contacts the network to retrieve the virtual card number in real-time to complete the purchase

The virtual card number and CVV or DTVV are auto-filled into the payments form

Transaction is completed

**What is the interaction model between Issuers, PSPs, Merchants, and cardholders within this flow?**

The interaction model between PSPs, merchants and cardholders is the same model as a traditional card processes system. The only difference in the model is the virtual card number will be used in the authorization flow instead of the physical card number.

**How is the virtual card number generated? Where is it stored? With Google Pay? Network? PSP? Issuer?**

The virtual card number is generated via the applicable network or issuer (e.g., Visa Token Services "VTS" or Capital One). Google does not store the virtual card number. Google only stores the last four digits of the physical card in order to retrieve the virtual card number whenever a cardholder selects a virtual card number at checkout.

**Is there a technical lift for PSPs, merchants or issuers to enable virtual card numbers? Do we need to create a new card enrollment step?**

No, there is no work needed for PSPs, merchants or issuers. Specifically, there is no new enrollment step needed from the issuer side.

**Cardholder Transactions**

**Where can I see my virtual card number transactions?**

Virtual card number transaction history for purchases made via Chrome Autofill on enabled cards will be available soon on a new Management Hub found at [pay.google.com](https://pay.google.com). Cardholders can also view their virtual card transaction history on the GPay app. Further, the related transaction history will also be displayed on bank apps and websites.

**Who do I call if there is an issue?**

If you have a question regarding virtual card numbers saved to your account (e.g., how to disable a virtual card, online transactions not included on your virtual card transaction history), you will be able to view this information on a Management Hub ([pay.google.com](https://pay.google.com)) coming soon. For all other payment-related questions regarding your credit or debit card account with a bank (e.g., disputing a credit card transaction, reporting suspicious activity, loyalty rewards), please contact your credit or debit card issuer.

**What happens if someone else obtains my virtual card number?**

If you do not recognize a transaction listed on your credit card account with your bank or in your virtual card transaction history, please contact your issuing bank to dispute the transaction. If you are not seeing suspicious transactions on your card but are still concerned that your virtual card number may be compromised, you can view and delete active virtual card numbers and request a new virtual card number within a new Management Hub ([pay.google.com](https://pay.google.com)), coming soon.

**How do I return something I purchased using my virtual card number?**

A merchant can initiate a return to your virtual card number just as they would to your physical card number. Keep in mind that the virtual card number and its associated transactions are tied to your actual physical card number thus should not impact returns. Still, in the event that the cardholder faces a problem with an in-store return, they will have access to a Management Hub ([pay.google.com](https://pay.google.com)), which will show the mapping between the physical card number and the virtual card number, and the associated transaction details..

**If I do not need to enter a security code, what prevents others from making purchases on my device? (e.g., children playing on the device, device is stolen, etc.)**

It's recommended that cardholders secure their devices' lock screens with a strong password, PIN code or biometric information (e.g. fingerprint or facial recognition) to prevent unwanted access on personal devices. Virtual card numbers are only accessible when the cardholder is logged into their Google account.

**Where can virtual card numbers be used?**

The Google virtual card number offering is available only to cardholders completing e-commerce transactions using Chrome Autofill on a desktop, tablet, or mobile device. This offering is currently supported through Chrome browser/OS & Android devices.

**Do virtual card numbers work across international borders?**

This feature is currently only offered to cardholders in the U.S. but can be used to make domestic and international transactions in the same way as the underlying physical card number.

### **How can I enable my virtual card number within my browser?**

Cardholders using Google Chrome will have several options to enable virtual card numbers on compatible cards affiliated with their Google account, including:

1. At the time of purchase on a merchant website when asked to enter card information
2. Within Chrome browser settings after saving a card account there for the first time
3. Or on a new Management Hub, found at [pay.google.com](https://pay.google.com)

At this time, virtual card numbers are only available through Google Chrome and on Android devices.

## **Merchant FAQ**

### **Product**

#### **Is there integration work required to accept virtual card numbers?**

The solution is designed to be seamless for all merchants, and there is no merchant integration effort required to accept virtual card numbers.

#### **What payment credentials will I receive during a transaction?**

Google will deliver the complete virtual card number to the merchant. The merchant will also receive the last four digits of the cardholder's PAN in the transaction authorization response.

#### **How does this impact use cases such as in-store returns and pick-ups, when a merchant is trying to match the card number on a receipt (virtual card number) to the physical card number?**

Virtual card numbers map automatically to the underlying card account so should not impact returns. Merchants also have the option of including both the virtual card number and the last four of the PAN on a customer's receipt. In the event that the cardholder faces a problem with a return, they will have access to a virtual card number Management Hub ([pay.google.com](https://pay.google.com)) which will show the mapping between the physical card number and the virtual card number and its corresponding transaction information for that number. If necessary, cardholders will be able to show this mapping to an in-store clerk in order to complete the return.

#### **How will virtual card numbers impact a merchant's ability to manage processes that rely on PANs?**

Merchant processes that anticipate receipt of underlying PANs (e.g. loyalty, fraud monitoring) may need to be updated to reflect the virtual card number that is associated with an underlying credit card number or last four digits of a PAN.

Returns, reversals, disputes are all supported on tokens. Payment Account Reference (PAR), a solution launched in 2016 by EMVCo, is also available as a means to link tokens and the account number associated with the same cardholder account.

In addition, Visa will continue to provide PSPs Token BIN ranges for the purpose of identifying token-backed virtual card numbers. For additional details on PAR or Token BIN ranges, please contact your network provider.

### **How will this impact chargebacks and representments?**

Google virtual card numbers should have no impact on the way chargebacks and representments currently take place.

### **What are the benefits of virtual card numbers for merchants?**

We expect to see lower shopping cart abandonment rates, and thus better conversion rates and higher revenue for merchants. We also expect to see higher authorization rates as a result of real-time risk-based issuer authentication during the virtual card number process (when supported by network/issuers), which also has the potential to translate into higher revenue for merchants. Further, in the event a merchant or issuer's data is breached by fraudsters, a user's virtual card number can be easily deactivated and replaced without the need to replace the underlying physical card number, eliminating disruption to a cardholder's online shopping capabilities.

### **Are merchants auto enrolled? What is the merchant opt-out process?**

We believe that extending virtual card numbers will benefit all ecosystem participants and provide a better cardholder shopping experience. Therefore, Google would like to extend these benefits to merchants with as little effort as possible.

Given virtual card numbers work with Chrome Autofill, this feature will be available to cardholders on merchant sites with no additional integration. We encourage merchants to remain opted in due to the increased benefits.

For virtual cards numbers enabled through Visa, please refer to Visa's published guidance regarding opt-out procedures. For Capital One and American Express cards, there is no merchant opt-out (opt-out is only available for cardholders).

## **Integration**

### **Is there a fee or charge to use virtual card numbers?**

Google does not charge a fee to use virtual card numbers.

### **How does cardholder service on virtual card numbers work? Who should cardholders contact?**

For questions specific to virtual card numbers (e.g., how to disable a virtual card, online transactions not included on your virtual card transaction history), cardholders will have access to a Google Pay Help Center that addresses general inquiries around virtual card numbers. For all other payment-related

questions regarding a user's credit or debit card account with a bank (e.g., disputing a credit card transaction, reporting suspicious activity, loyalty rewards), we expect users to contact their credit card issuer.

**Are private label or co-branded cards eligible to become virtual card numbers?**

Card eligibility depends on the issuer, thus, please contact your issuer for more information.