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**<mark>Cybersecurity</mark> (A Special Report) --- Virtual Credit Cards: What Are They And Should You Use Them?**
**Some security experts say the cards can help shoppers protect themselves from online fraud**

Trying to keep the bad guys from stealing your credit-card number? Consider using a virtual card for online or phone purchases.

Customers of credit-card firms such as Capital One, Citibank and American Express can generate a virtual-card number for an individual purchase when they are concerned about the security of using their permanent-card number. This free service uses regular credit-card accounts to generate unique numbers, card-verification codes and expiration dates.

Virtual credit cards have existed for many years, but many consumers and business owners haven't used them. Now, as online fraud and security breaches are on the rise, virtual credit cards are an underused tool that can help shoppers protect themselves, some security experts say.

Here are answers to frequently asked questions consumers may have about virtual cards:

Why should I consider a virtual card?

The primary reason: Virtual cards can reduce the damage done by fraud. They come with the same protections against fraud that plastic comes with; federal law says consumers aren't liable for more than $50 in charges that result from lost or stolen credit-card information. But the time and energy expended to replace a compromised card can be a hassle, especially if it is used for automated payments.

"Think about how much damage you would have to repair," says Rajendran Murthy, associate professor at the Rochester Institute of <mark>Technology</mark>'s Saunders College of Business.

Issuers, merchants and financial institutions lost $32.34 billion to credit-card fraud in 2021, with the U.S. accounting for slightly more than one-third of the losses, according to the Nilson Report, a research publication for the payments industry. One way credit cards can be stolen is when shoppers keep their card on file with an online retailer for convenience. If a thief gains access to the company's databases, the saved data is vulnerable. Virtual cards help reduce the chance your actual card data will be stolen.

Murthy says virtual cards also can help people manage subscriptions without being concerned about auto renewal; simply use a virtual card that expires before the renewal date, he says. Virtual cards could also be handy for parents whose children play online games that feature in-game purchases. These charges can quickly add up if no one is monitoring the card. By setting a limit, a parent can better control this type of spending, without constantly monitoring their credit card.

How do I get a virtual card?

First, your card company has to offer the option for your particular card. Several banks offer virtual cards only to corporate cardholders or for select cards. Assuming the option is available, the next step will depend on the provider. Sometimes, virtual cards can be created using a link on the card issuer's website after the user logs in to his or her account. With other providers, users can access virtual cards through internet browser extensions, meaning the types of data, like passwords, addresses and phone numbers, that a browser can remember. As an example, Amex users who are logged into their Google account can select their virtual card number from the payment options drop-down and Chrome automatically populates the payment information. Users then continue to check out, possibly receiving a one-time verification code by text to confirm their identity before completing the purchase.

How do I use a virtual card?

Using a virtual card can require some extra work for consumers. Before customers use the service to make an online purchase, some card providers require them to first log in to their credit-card account and receive

an authentication code. Once they are authenticated, they can shop using virtual cards. Some providers offer the option of using multiple virtual cards with different numbers that can vary by purchase limit. Other users have quick access to them through browser extensions.

Are they all the same?

While the basic concept is the same, virtual cards can function differently, depending on the provider. Some virtual cards are for single use, while others can be used multiple times and allow customers to set spending limits and expiration dates. With Citibank, for example, users can set a maximum duration of two years, or a specific ending month and year, up to two years. Users can also choose a daily spending limit. Capital One users can lock or unlock their virtual cards at any time.

Privacy.com offers another option for shopping with virtual cards. Use of its virtual service is free for up to 12 new cards a month. Each card can be either a single-use card that automatically closes itself or a card that can be used only at one merchant. Otherwise, there are two fee-based models, one at $10 a month for up to 36 new cards a month and the other for $25 a month for up to 60 cards in that time frame.

Do I need one if I have a mobile wallet?

Consumers like mobile wallets offered by providers such as Apple and Google because they enter their card into the wallet, but their actual number doesn't get transmitted to the merchant. Mobile wallet users also generally have liability protection against verified unauthorized transactions. However, not all online merchants support this type of payment, so virtual cards can be a safe alternative, industry professionals say.

Could my bank stop offering virtual cards?

Yes, nothing is guaranteed, and some banks stopped offering virtual cards a few years back based on lack of customer demand and the availability of other payment options that are also considered safe, such as ==digital wallets==. But industry professionals don't think virtual cards are going away -- and some banks may even decide to add the option, depending on customer demand and fraud trends.

Banks "have to offer the same services and conveniences that ==digital wallets== and digital-payment mechanisms provide," says Ari Lightman, professor of digital media and marketing at Carnegie Mellon University's Heinz College. Banks "don't want to be relegated to being a dumb pipe," where they simply move money but don't acquire any of the important customer data, he says.

How are banks making virtual cards easier to use?

Some card companies are starting to offer an option that "might bring virtual cards back to the forefront," says Odysseas Papadimitriou, CEO of WalletHub, which tracks credit-card trends.

American Express, for example, has a partnership with Google that works with the Chrome browser. Consumers shopping from a Google Chrome browser on their desktop, Android mobile device or select Android apps can choose to use an Amex virtual-card number. They first have to enroll an eligible card in one of several ways outlined on the company's website.

Capital One users have the option to get virtual-card numbers by using Eno, its 24/7 virtual assistant. Customers add the Eno browser extension and the assistant generates virtual-card numbers when it is time to pay. The only thing users need to do is fill in the shipping and billing information. Eno automatically saves virtual-card numbers for each merchant so they can be used again.

Some consumers may prefer using virtual cards in this manner since it is more seamless than logging into an account each time they want to make a purchase. They should, however, be sure their devices remain secure to mitigate the chance of unauthorized purchases.

"This type of application for the virtual card has a bright future," Papadimitriou says.

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