Looking to Grow Debit Volume? Consider Virtual Cards

Virtual cards create new opportunities for financial institutions to better serve their clients. The use cases for this payment option can enable issuers to enhance product offerings and improve customer experience.

By gaining a fuller understanding of what virtual cards are and how issuers are deploying them, institutions will be better positioned to assess whether this fast-growing payment option is a good fit for their customers.

What are virtual cards?

Virtual cards offer another issuance option for financial institutions. They are nearly identical to digitally issued cards and have a unique, 16-digit identifier linked to the underlying account. The key difference is that there is no associated physical card. As a result, it would be more accurate to describe them as virtual accounts.

As with physical debit cards, the 16-digit card/account number is the basis for transaction routing and issuer-authorization decisions. But, eliminating the need to provide a physical card allows issuers to provision an unlimited number of account numbers to any customer, thus enabling several underdeveloped payment use cases.

Tokenization offers a similar yet distinct functionality. In contrast to the digital-only virtual card, tokenization uses a stand-in number (a token) to protect the actual primary account number (PAN) during transactions and is generated by a digital wallet.

Payment Card Issuance Options

	Standard issuance	Digital issuance	Virtual issuance
Issuance sequence	Card, then digital	Digital, then card	Digital only
Account number	16-digit PAN, CVV, expiration date	16-digit PAN, CVV, expiration date	16-digit PAN, CVV, expiration date
Payment form factor	• Physical card provided at new account opening • Printed in-branch or mailed to account holder • Cardholder can add card details to digital wallet manually or in-app	• Issuer pushes new card number to account holder's digital wallet at new account opening or as needed • After provisioning into digital wallet, issuer provides physical card (printed in-branch or mailed)	• Issuer provisions one or more virtual account numbers to account holder as needed • No physical card is ever provided
Payment account numbers per DDA	Typically one	Typically one	Unlimited

Major use cases for virtual cards

Leading issuers are using virtual cards to address a wide range of customer needs. Four of the most-developed applications of virtual cards are detailed below.

1. **Online Shopping**

   Consumers are attracted to the ease and convenience of online shopping for goods, subscriptions, streaming services, meal delivery, and other card-not-present (CNP) purchases. In fact, 45% of all debit spending is now at CNP merchants, according to the 2024 PULSE Debit Issuer Study.

   E-commerce merchants strive to deliver friction-free payment experiences, whether the customer is making a one-time purchase or storing their card data for recurring payments. Yet, this simplicity comes with a downside for consumers and issuers.

   Consumers may be hesitant to share their actual card details with merchants due to security concerns or unease about when or how their card may be charged. And issuers bear the burden of disputed transactions. The 2024 Debit Issuer Study revealed debit cardholders questioned CNP transactions 10 times more often than card-present purchases.

   Virtual cards can help address these issues. They enable consumers to shop online and provide the virtual card number as a proxy for their PAN. Additionally, some issuers enable account holders to view locations where a virtual account number has been shared and decide whether to continue to allow transactions from these merchants..

2. **Employee Cards**

   The 2024 Debit Issuer Study found that the penetration rate on business debit accounts is approximately 40% lower than on consumer accounts, due in part to differences in employees' spending authority. One of the obstacles may be that many debit issuer processors do not have sufficient flexibility to support variations in spending controls at the card level, all linked back to the same business account.

   By contrast, virtual cards can be tailored to the specific needs of each employee. However, because there is no physical card, these accounts can be used only at CNP merchants or in-store merchants that accept digital wallets.

   Using virtual accounts for employee "cards" has numerous advantages:

   - **Lower cost** – There is no physical card to print and mail.
   - **More control** – Employers can control how each virtual account is used.
   - **Greater flexibility** – Virtual accounts can be created easily to facilitate payment for one-time events (for example, trade shows or offsite events).
   - **Improved program management** – Reporting is typically more robust, and companies can easily close a virtual account when an employee leaves.

3. **B2B Payments**

   Financial institutions are using virtual account numbers to help business customers re-engineer their accounts receivable and accounts payable processes.

   In a typical B2B relationship, the buyer contracts with a supplier and issues a purchase order (PO). The supplier delivers the goods or services and sends an invoice with the PO number and static account number, and the buyer pays the invoice. The buyer then needs to match the invoice to the PO number, and the supplier needs to reconcile the incoming payment with its invoice. For businesses that receive numerous payments daily, this payment reconciliation process can be manual and cumbersome.

Virtual accounts provide a mechanism to significantly streamline this process. Unconstrained by physical cards, financial institutions and their processors can provision an unlimited number of virtual account numbers. Institutions are using this capability with business customers to offer many virtual payment account numbers attached to a single business account.

With this arrangement, every invoice sent by the business includes a unique virtual account number. When the buyer pays the supplier, the payment is automatically credited to the correct invoice since there is a unique relationship between the invoice, PO number, and payment. This effectively removes the need for reconciliation.

4. **New Intermediary Business Models**

Virtual cards have enabled the rise of new business models and businesses. The two most prominent examples are Buy Now, Pay Later (BNPL) services and gig-economy apps.

BNPL allows consumers to purchase an item today and pay in installments over time. While seemingly similar to credit cards, BNPL has important differences: it does not require a credit check, and the repayment amount is clearly displayed at the time of purchase.

Virtual cards enable the payment flow for BNPL providers. For every BNPL purchase, there is the payment to the merchant and four equal installment payments to the BNPL provider – typically two, four, and six weeks later. In most cases, the consumer provides their debit card information to the lender at the time of application (or, for repeat users, the consumer's debit card details are already on file). The BNPL provider charges this debit card for the installment payments.

At the time of checkout, the consumer applies for a one-time-use line of credit sufficient to cover the purchase. Simultaneously, the consumer receives either a barcode for the cashier to scan (for merchants that support the BNPL provider) or a virtual card number to be entered online. With a virtual card that runs over a major card-brand network, the consumer can pay at any card-accepting merchant. From a merchant perspective, the authorization, clearing, and settlement for this BNPL virtual card are identical to a regular debit card.

Another new business model enabled by virtual cards is gig-economy services such as Instacart. When a consumer orders groceries via Instacart, the job is assigned to a shopper. This shopper's Instacart app is loaded with a virtual card that can be used only at a particular store and only for the predetermined order value (with a buffer to allow for product substitutions).

By using virtual cards, the shopper does not need to use their own funds and request reimbursement, nor does the company need to provide a corporate card. Instead, a virtual card unique to the order is funded and used to pay the merchant, and the customer's credit or debit card is charged for the order.

Opportunities for Issuers

Virtual cards can enable numerous use cases that offer benefits to consumers and businesses. Leading debit issuers are adding virtual cards to their toolkits and actively encouraging their commercial bankers to promote the capability to clients.

Virtual cards offer consumers and issuers improved security by using a proxy account number. In addition, they increase control over card-on-file transactions when the issuer offers visibility into where each virtual card is stored.

Issuers that are interested in exploring virtual-card products should contact their current issuer processor or a next-generation processor that offers virtual-card services.