



**Virtual Account Management:  
A foundational imperative for  
cash concentration**

# Operational impact

## Introduction

Goldman Sachs recently entered into transaction banking, the business of helping corporates manage their cash and payment transactions effectively.

Goldman Sachs will do things differently, anticipating treasurers' needs in the 21st century. They believe that next-generation transaction banking is underpinned by four pillars—data, global payments, liquidity management, and virtual accounts, which Goldman Sachs has just launched.

This white paper provides an in-depth view on virtual accounts, their role in transaction banking going forward, and their implications for treasuries.

## Traditional approach

Traditionally, cash in corporates is managed using multiple demand deposit accounts (DDAs), each maintaining, segregating, and reporting the cash for a specific operating area of the group or legal entity. Current cash management techniques rely on pooling and sweeping to consolidate cash in a layer of concentration accounts through numerous bank account transactions.

As business needs grow, corporates' cash deposits get dispersed across a myriad of group and subsidiary bank accounts. Corporates usually have complex account architectures for each entity to support its unique operating, regulatory, and liquidity requirements.

Cash concentration in this environment can be expensive and time-consuming due to complex information-gathering workflows, manual reconciliation processes, different reporting standards, and batch processing methods. All of this inhibits just-in-time funding and optimal working capital utilization.

On average, banks maintain **350+** accounts for a typical corporate client across its subsidiaries.

## What is Virtual Account Management?

Virtual Account Management (VAM) is the method of organizing balances and transactional information within a traditional "physical" bank account.

## How does VAM work?

VAM works by recognizing unique identifiers and using them to allocate transactions to discrete subledgers, called virtual accounts,

within a physical account. So an incoming or outgoing payment simultaneously posts to the "master" physical account and to the relevant virtual account. An opening and closing balance is also calculated for each virtual account, giving them the same reporting granularity as a physical account, but all within one account.

Goldman Sachs' virtual account solution, Virtual Integrated Accounts (VIA), provides a unique identifier that can be configured as a clearing-recognized account number. This means that customers of a corporate don't need to worry about reference numbers. They simply use the virtual account number they've been given, and the remittance will automatically post to the relevant physical account and, simultaneously, to the correct virtual account.

This overcomes two potential drawbacks of using reference numbers instead:

- The customer needs to correctly send two numbers on the payment remittance—the physical account number and the reference number, and
- If the reference number is omitted, or incorrect, the payment will still post to the physical account, but will need manual intervention to allocate funds accordingly.

However, in some situations, reference numbers are desirable. Consider, for example, an insurance company that wants to use policy numbers as the virtual account identifier. The Goldman Sachs solution has the flexibility to configure virtual account identifiers as reference numbers. In the insurance company example, the Virtual Account Engine uses the policy number to post transactions to the correct virtual account.

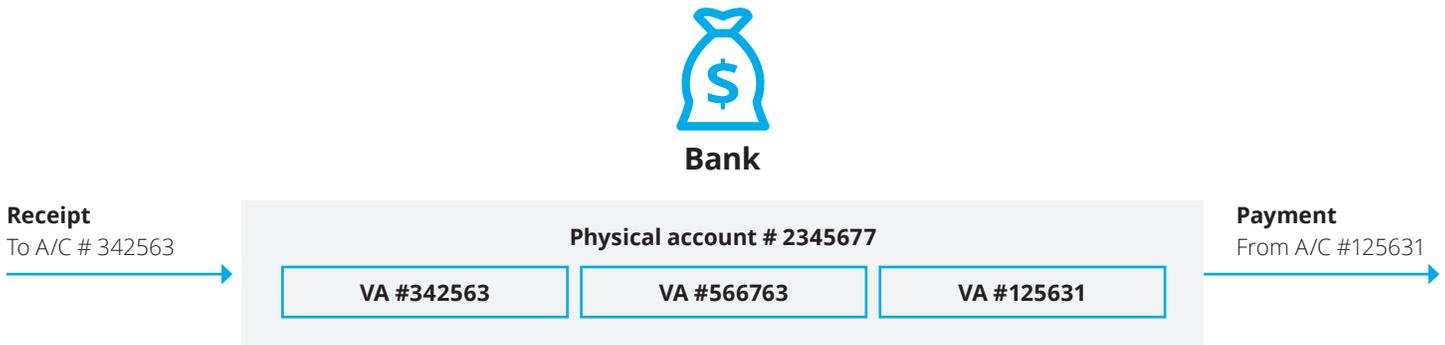
## Virtual account versus physical account

While virtual accounts are merely a reporting tool, each individual virtual account provides the same segregation of data, balance analysis, and transaction identification that a physical account would.

However, the administrative overhead of opening and managing virtual accounts will be far less than for physical accounts. Furthermore, bank charges associated with maintaining virtual accounts and transacting between virtual accounts should be significantly lower than for physical accounts. Finally, it becomes practical to open thousands, or even millions of virtual accounts, when doing so with physical accounts would be unthinkable.

Using the feature of "self-service," also part of the Goldman Sachs offering, treasuries can independently maintain virtual account structures precisely to their own specifications. At the same time, the benefits of visibility, control, and reporting that come with a corresponding physical account structure are maintained.

Figure 1. Virtual Account Management



## Advantages of virtual accounts

The team at Goldman Sachs envision that virtual accounts will enable a smarter, leaner treasury function, allowing treasurers to concentrate their time on more strategic activities such as managing interest rate and FX risk, forecasting future cash requirements, and provisioning cash for current requirements. Their VIA solution will help streamline and automate time consuming tasks, while making others redundant altogether. Virtual accounts can benefit treasurers in five major ways.

### 1. Account rationalization

Virtual accounts have eliminated the need for an organization to maintain multiple accounts across banks to manage cash across business lines and legal entities. This in turn can allow easier administration of the bank accounts.

Using VAM, the number of physical accounts required can conceivably be reduced to a single DDA account for the entire organization. Although technically possible, clients may still need to maintain separate physical accounts for tax and regulatory reason. Virtual accounts also allow the definition of standard procedures and exception scenarios across various sub-ledger accounts, thereby allowing transparent and automated account administration and providing high level of control of cash management to the corporate treasurers.

### 2. Reporting

The flexibility of virtual accounts mean they can be configured in the way which makes the most sense for the organization—uninhibited by administrative restrictions of physical accounts. Virtual accounts can track and report cash at very granular levels within an organization—for example, at the product level, ZIP code level, or even client level.

### 3. Receipts reconciliation

Virtual accounts can improve the accuracy of allocating remittances to customers by providing customer-specific virtual account numbers. This helps reduce the time and cost spent in receivables matching in case of missing remitter's information on incoming receipts. Automatic remitter identification allows direct cash application in the AR system, reducing processing float and releasing credit lines. Both unapplied cash and the number of open invoices are reduced, helping improve working capital and customer relationships.

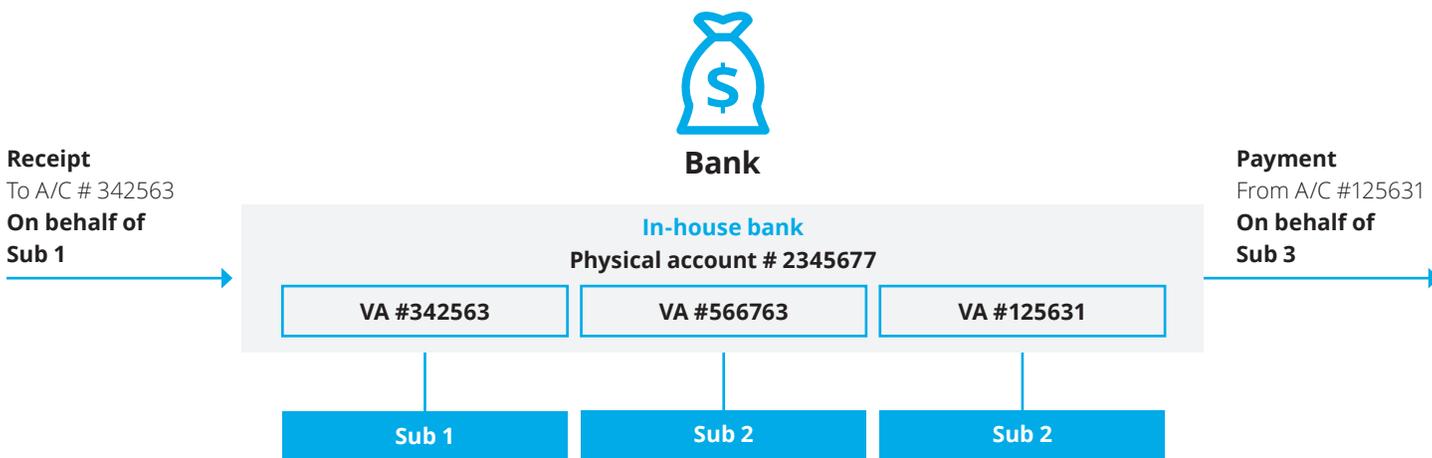
### 4. Liquidity management

Virtual accounts can enable corporate treasuries to centralize cash without the need for complex sweeping structures, thus helping provide better funds availability, optimized account balances, and effective cash forecasting. Flexible virtual account structures help organizations to efficiently manage balance contribution and funds availability for each entity, lend working capital cash to subsidiaries efficiently, and implement rule-based interest allocation, all without cash leaving the actual bank account.

### 5. On behalf of structures and in-house banking

VAM provides clients the ability to run centralized treasury functions without requiring large bank account networks. Additionally, virtual accounts can be utilized for default tracking of intercompany positions, concentration of cash, balance optimization, and also provide ability to leverage gross accounting between entities rather than net accounting.

Figure 2. In-house bank enabled through VAM



### Practical considerations for adopting VAM

Virtual accounts are a powerful tool that can lead to transformation of the treasury function. Thus, a carefully forged implementation strategy is essential to maximize their benefits. Here are four factors that need to be considered while adopting VAM.

#### Assessing the objective

Treasurers need to assess their objectives for account rationalization, reporting, receipts reconciliations, and liquidity management while evaluating VAM solution providers.

For instance, certain objectives require a flexible VAM architecture to incorporate changing regulatory and business needs, while others require real-time connectivity with the treasurers’ internal systems, which are fundamental principles of the Goldman Sachs transaction bank, inclusive of their virtual account offering.

#### Optimal virtual account structure

Treasurers must determine the optimal virtual account structures based on their operating and legal entity requirements. For example, an entity can have a virtual account structure mapped to operating units, customers, or product lines. These structures should be selected based on regulatory requirements, transaction complexities, and business needs of the entity.

Setting up a virtual account structure needs to be done in consultation with the bank to attain the best results.

The virtual account structure will need to change when the corporate undergoes any structural change. Treasurers need to anticipate such changes and partner with a bank that offers self-service tools to restructure virtual accounts. The bank, in turn, should proactively offer assistance to the treasurer on how they can maintain the optimal virtual account structure.

#### Virtual account identifier structure

Treasurers should consider what sort of virtual account identifier works best for their organization—a reference number or a clearing-recognized account number, or both. They may also want to establish patterns within the account number itself, to help identify type of account (payments vs. receipts, for example) or position within the hierarchy.

#### Integration into TMS/ERP

Integration of the virtual accounts solution is driven by the maturity of the corporate treasury systems (TMS/ERP). Treasuries must discuss integration considerations and requirements of their accounting systems with the partner bank to ensure no disruption to business. Treasuries should plan their integration objectives to be strategically coherent with their business requirements.

For instance, in order to minimize working capital requirements, VAM needs to have real-time receipt reconciliation capabilities. This can only be achieved through real-time connectivity with internal systems. Goldman Sachs, for example, offers a suite of APIs to enable real-time interactions between Goldman Sachs and its clients.

# Contact us:

## Deloitte Consulting LLP

### **Christopher Doroszczyk**

Principal  
Global Transaction Banking Lead  
cdoroszczyk@deloitte.com

### **Kasif Wadiwala**

Senior Manager  
Global Transaction Banking  
mwadiwala@deloitte.com

## Goldman Sachs

### **Mark Smith**

Head of Global Liquidity, Transaction Banking  
mark.x.smith@gs.com

### **Nikil Nanjundayya**

Head of Emerging Products, Transaction Banking  
Nikil.Nanjundayya@gs.com

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Goldman Sachs Transaction Banking, through Goldman Sachs Bank USA, is building a modern, digital-first, and cloud-based business to help clients build the future of their Treasury. The business combines the strength, heritage, and expertise of a 150-year-old firm with the agility and entrepreneurial spirit of a tech start-up.

### **About the authors**

Christopher Doroszczky is a partner in Deloitte Consulting LLP's Financial Services practice and leads the Transaction Banking practice. He serves wholesale and transaction banks (global and commercial banking, cash management and treasury, trade finance, F/X, prime brokers, and custody) primarily in defining client and market strategies, product offerings, risk and controls frameworks and methodologies, capital and operations restructuring and integration capacities. Christopher works in the C-suite and focuses on growth, economic and risk modeling, pricing, relationships management, transformation (digital and blockchain) and efficiency optimization. He brings extensive knowledge of trends, innovation, regulations, and methodologies.

Nikil Nanjundayya is head of Emerging Products for Transaction Banking in the Investment Banking Division of Goldman Sachs. He joined the firm in 2019. Prior to joining the firm, Nikil was the EMEA head of Product Management at Bank of America for their Bank, Non-Bank and Government clients, where he was responsible for the full suite of Transaction Banking Products for these clients. Before that, Nikil held various roles within Product Management managing both regional and global products. Nikil has an MBA in investment banking and statistics and a bachelor's degree in commerce, economics, and accounting.

Mark Smith is global head of Liquidity Products for Transaction Banking in the Investment Banking Division of Goldman Sachs. He joined the firm in 2019 as a managing director. Prior to joining the firm, Mark was head of Global Liquidity at Bank of America, where he managed the firm's corporate deposit portfolio and led major growth and change initiatives. Before that, Mark was chief operating officer and chief financial officer for Transaction Banking at Bank of America. Earlier in his career, Mark held various roles in finance in London and Hong Kong. Mark earned a BSc in geography at the University of Bristol in the United Kingdom. He is a chartered accountant in the United Kingdom and a member of the Treasury Advisory Group for the Association of Finance Professionals.

Kasif Wadiwala is a senior manager in Deloitte Consulting LLP's financial services practice. He has more than 15 years of cash management and payments experience and leads multiple teams globally to service the top 20 transaction banks. He has presented multiple topics at SIBOS and SWIFT conferences and has recently designed and executed a payments strategy and transformation for a global bank. His focus is on helping clients define and execute the full spectrum of strategies within the transaction banking segment, such as revenue and pricing, digital operations, core platform modernization, and AI. Prior to Deloitte, Kasif held various product management roles for a large universal bank in New York and London.

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