

Liquidity Keeping Pace with the Real-Time World: *What's next*

As the speed of business continues to accelerate, treasury professionals are increasingly being tasked with the significant challenge of enabling operations and transactions anytime, anywhere. Innovative technologies and regulations are transforming the banking system, which is evolving to deliver the speed and frictionless processes around digital commerce. As money moves in real-time, legacy batch processing, cutoff times, and weekends become more obsolete.

Digital transformation is reimagining traditional business models, with an increase in companies embracing direct-to-consumer sales, which in some cases means around-the-clock collections and potentially payments and refunds.

Funding and related decision making have been managed over the years by leveraging cash flow forecasting tools/techniques, combined with proactive mobilization of cash to where it's needed.

Accurately predicting cash positions and the need to quickly mobilize liquidity have become more cumbersome as cash positions change more frequently and payment flows become more unpredictable.

This in turn challenges treasury teams to put in place measures to manage the business' liquidity around the clock. Treasury is being confronted with managing liquidity in real time, as they must address funding of payments and managing related risks in a global, "always-on" world.

Real-time liquidity solutions automatically match cash demand with cash supply across the organization, facilitating the utilization of liquidity from centralized centers by making it available just-in-time to facilitate payment activity across subsidiaries globally.

Real-time liquidity solutions can also enhance the overall experience of the treasury professional by providing real-time insights into balances, facilitating after-hours e-commerce transactions, reducing need for detailed account level forecasting, and aiding with the concentration of funds to treasury centers for investment.

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Case Study

Company

DNV, a world leading classification society and a recognized advisor for the maritime industry is headquartered in Norway and operates in over 100 countries around the globe.

Need

High focus to consolidate global liquidity and centralize funding activity through the parent company, leveraging existing multicurrency notional pool in London

Solution

Connecting notional pool to Australia for instant AUD cash concentration

“Tactically, we are advantaged with the ability to consolidate more cash for improved interest earnings. Strategically, as a global company, we are also taking steps to futureproof our liquidity management with a real-time solution. With Australia and London in place, we look forward to exploring more countries when they come online.”

– Qadeer Shahab, DNV, Treasury Specialist

The right solution for many needs

The following are examples of how real-time liquidity solutions can work to help improve some of the daily activities of treasury professionals, as well as addressing the funding challenges faced by today’s companies:

Visibility and control via multibank solutions

If you’re a company doing business internationally, you are likely faced with the challenge of managing liquidity across numerous bank accounts around the world. Gaining visibility into the balances across multiple banking accounts and mobilizing liquidity for treasury activities and managing counterparty risk becomes a tall order.

Citi’s Real-Time Multibank Target Balancing solution leverages APIs to aggregate data across bank accounts held at multiple banks in near-real time. The solution can also mobilize those

funds in near real-time to a centralized location. This solution helps enable treasury to optimize liquidity, reduce borrowing costs, and mitigate potential counterparty risks.

The benefits of implementing this solution include the ability to optimize working capital, the flexibility to deploy funds when and where they’re needed and to potentially increase returns while helping to reduce counterparty risks.

Cash flow forecasting at in-house bank/treasury entity

Funding business payments around the world requires accurate forecasting of expected outflows by country, entities and/or accounts. However, such granular forecasting can often prove challenging for treasury professionals. This leads to complex funding processes and the creation of unnecessary buffers in accounts. All of these resulting in operational inefficiencies.

Citi's Real-Time Liquidity Sharing solutions allow for temporary "sharing" of liquidity between accounts locally on an intraday basis without the need to physically transfer funds between accounts to support underlying payments.

The benefits of implementing Citi's Real-Time Liquidity Sharing include potentially reducing the need for account level forecasting. It allows treasury to leverage funds in-country to meet payment needs, and only requires top-up when overall country balance positions are inadequate.

Alternatively, companies can leverage Citi's Virtual Accounts solution to notionally segregate balances within a single bank account by activity, business line or legal entity. Virtual accounts help to facilitate real-time cash concentration, as underlying business lines and legal entities have almost near immediate access to liquidity held in the centralized physical bank account.

Deploy liquidity on demand, 24/7 from a global or regional center

When doing business around the world, treasury ideally will centralize liquidity by mobilizing cash from local markets into a central location for visibility and control of global liquidity. However, centralization of cash to treasury centers could leave regional payment centers and domestic accounts short of funds for meeting payment obligations. For corporates with higher payment velocity across their accounts, this could also impact on the need to make funds available to payment centers both during working hours, after hours, and on holidays.

To address some of the challenges of ensuring cash is in the right place and at the right time, and to meet 24/7 payments, Citi's Real-Time Funding solution offers balance-driven funding to help with sufficient liquidity in paying accounts, thereby mitigating the risk of payment failure. Real-Time Funding can be executed domestically and cross-border. This innovative solution mobilizes cash to facilitate funding even on non-business days and after hours, providing consistent liquidity for payments.

Additional benefits of Citi's Real-Time Funding solution include reduced manual pre-funding, as funding is automated based on predefined rules. This solution complements existing cash forecasting and end-of-day cash pooling processes.

Funding time sensitive activity

Companies are steadily improving their cash forecasting to plan for known or likely events and effectively manage their daily liquidity needs, but they are still challenged in the face 'events' that increase volatility and unpredictability.

Examples that treasury teams may face in dealing with unpredictability and unforeseen events include:

- Market wide outages which can cause significant disruption to IT systems and financial market infrastructure, resulting in transaction settlement delays.
- Broader macroeconomic and geopolitical events (e.g., conflicts in Europe and the Middle East), which can create unprecedented market volatility — such as in the commodity markets.

Such disruption can impact liquidity requirements for planned operational activities for that day. During times of stress and urgency, companies not only need to have immediate visibility of balances and positions, but also the ability to leverage liquidity on demand that is held globally to meet urgent needs.

For these types of scenarios, where funding is needed immediately and potentially in significant amounts, companies can initiate urgent transfers via Citi® Token Services for Cash. This innovative solution allows an organization to move funds near real-time cross-border day or night, facilitated by blockchain technology and tokenized deposits.¹ There is no requirement for companies to hold tokens or participate on the blockchain.

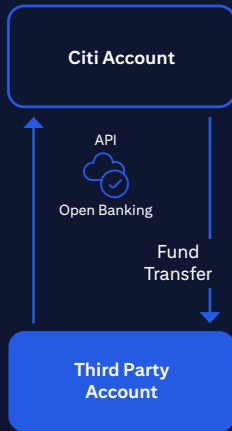
Citi Token Services for Cash can also be used to help companies perform periodic and regular large transactions that require near real-time settlement — examples include urgent intercompany transactions, margin calls, and M&A activity.

¹ The tokenized deposits of Citi Token Services for Cash are digital representations of Citibank's interbranch liabilities, and do not represent a deposit claim between a customer and Citibank. No token is issued by Citibank to any customer, nor does any customer hold or use any tokens, in relation to Citi Token Services for Cash.

A Snapshot: Citi's Real-Time Liquidity Solutions

Citi's Liquidity Solutions for Real-Time Treasury

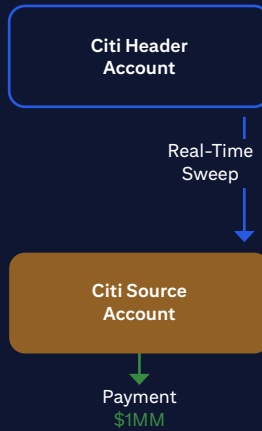
Real-Time Multibanking Accuracy and Timeliness



Benefits:

- Real-time visibility of balances
- More timely and accurate concentration of liquidity

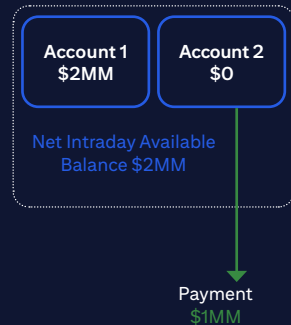
Real-Time Funding Balance-driven 24/7 Sweeps



Benefits:

- Reduce the need for pre-funding
- Simplify forecasting
- Reduce reliance on credit facilities

Real-Time Liquidity Sharing Efficient Payment processing



Benefits:

- Leverage liquidity across accounts for efficient payment processing
- Simplify forecasting
- Reduce risk of payment failures

Note: Solutions and capabilities may vary by country. Please consult with your Citi representative for the latest information.

Steps to adopting real-time liquidity solutions

Once pressing pain points are identified, the task at hand is addressing these issues in the most effective manner. The following are key steps to consider:

- Right-fit the solution: Citi offers numerous real-time liquidity tools that can automate and help empower companies to make funds more available when and where they are needed without inhibiting the ability to operate the business. The solutioning process will determine which solution works best for desired objectives.

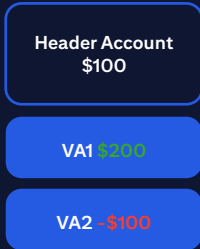
- Properly integrate: In conjunction with the determined solution, potential users will be advised of ways to integrate transaction data for consumption into their systems. This will help maintain continuity in liquidity management and related accounting and reconciliation processes.

While banking solutions may fill a gap in the management of liquidity on a 24/7 basis, treasury will need to continue its strategic planning to fully realize its real-time objectives. This journey includes:

- Developing a data strategy to access, consume and interpret real-time data. Cloud and API technologies are obvious enablers of these goals.

Virtual Accounts

Agile Liquidity

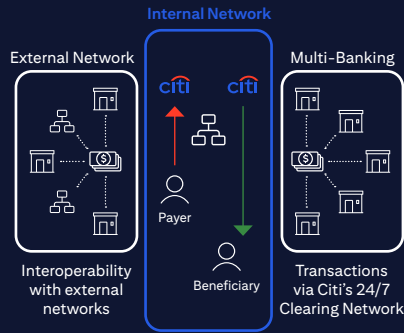


Benefits:

- Bank account simplification
- Account segregation
- Real-time cash concentration

Citi Token Services

Blockchain as a Catalyst



Benefits:

- 24/7 cross-border payments and liquidity movements across Citi's network
- Real-time visibility
- Currently deployed for in Citi network money movements



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- Maintain connectivity with business lines beyond treasury to understand where and how they will utilize real-time payments and related customer experiences. Staying ahead of their needs for proper liquidity management is crucial.

With the above being actioned, banking, liquidity, technology, and payment systems can start to converge, bringing real-time treasury one step closer to reality.

The importance of supporting real-time treasury with real-time liquidity

Liquidity is the lifeblood of any organization. As more and more companies embrace an “always-on” treasury ecosystem, treasury teams will be under increasing pressure to manage cash more efficiently. Implementing real-time liquidity management that accelerates the velocity of existing treasury processes will be imperative. ■