On-time treasury: the death of batch processing?

Consumer expectations for online purchasing have changed forever with the rise of near-instant information and transactions. Nevertheless, adapting to on-time treasury involves more than instant payments. End-to-end processing that combines agility, innovation and reliability is the key to creating a treasury that can respond to the 'always-on' demands of modern commerce and the more established periodic or batch processing.

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The virtues of low-value instant payments are extensive. For beneficiaries, they bring immediate availability of cash. For initiators, they provide instant finality, confirmation and information — often supporting a business-enabling use case. For example, instant communication and data flow can improve the speed of sales and re-engineer the refund processes for retailers, to incorporate optionality and instant execution. The likes of gig platforms can also innovate by allowing beneficiaries to initiate payments, creating unique customer experiences.

Simply put, treasury operations are evolving. Consumers have become accustomed to increasing choices and alternative channels. So, too, have many companies, as uncertainty and volatility in the global economy have forced some businesses to rethink client and supplier communication rapidly. In turn, treasurers feel increased pressure from the business to adapt to this new, 'always-on,' always-changing environment.

The core enabler and asset is data. The concepts of payments and data are inseparable, and arguably the need for data is the core driver for many treasurers to take advantage of real-time payment infrastructure. Timely payment data, applied to well-understood business activity, presents a remarkable opportunity for treasurers to streamline and reimagine end-to-end processes. (The practicalities of how data supports an on-time treasury will be addressed in a future article in this series.)

As discussed in our introductory article, the goal of an on-time treasury is to 'meet a need when it is needed, with the appropriate execution.' So, while some businesses and industries are pushing the boundaries of traditional payment processes, any innovative opportunity needs to be assessed in light of customer demand and experience, along with each business's operational capability and technology stack. While the business case builds, most technologies are not 'all or nothing.' Some components help each treasury arrive at an 'on-time' and 'on-demand' capability when it is practical and sensible. It is about adding the capability for a need — not replacing existing well-tuned processing.

The real objective is operational, efficient process optionality

The ultimate goal for all treasury and business processes is not necessarily immediacy. An example is accounts payable, where the objective is to pay neither early nor late. This is about being on time, which is dictated by the payment need — from instant to future-dated. With well-established batch processes suited to future dated transactions, it follows that an on-time payment process does not require flipping the whole treasury infrastructure upside down. A paradigm shift is underway, but it allows for a wide range of progressive, technical and operational solutions.

Historically, many treasury processes are 'push' processes, initiated automatically or manually and run across various timed schedules. Business events are increasingly initiating these processes, facilitating higher levels of flexibility and automation. On-demand customer and business experiences also switch the trigger direction, creating 'pull' processes

initiated by a user or recipient and communicated in real-time through application programming interfaces (APIs). Like the programming concept, business and treasury processes are becoming more event-driven.

In this framework, the delivery mechanism is as important as the initiation, and each combination has a specific value-added use case. Therefore, instant payments may still be initiated by a batch process — in this case, it is the delivery which is instant, not the initiation. Alternatively, batch processes can be scheduled in advance, with delivery over or before a period of time has elapsed. Batch processing is well-established, cost-effective, reliable and scalable. Immediate-initiation processes, on the other hand, while potentially innovative, can introduce complexity that requires machines to apply business rules and necessitates redundancies to limit single points of failure.

In an on-time treasury, the ultimate goal is the ability to seamlessly execute a combination of processes and payment mechanisms, matching the transaction timing and speed to the need. At the same time, processes should be moving progressively to higher levels of intelligence and automation. This flexible infrastructure and delivery optionality will allow a treasury to effectively meet the needs of different segments of beneficiaries, or internal process execution, in the most cost-effective and timely manner.

The payroll use case illustrates the evolution

For some industries, instant initiation and delivery of payroll payments is a strategic advantage. Where the business model is tied to a flexible and competitive workforce, the use case can be value-adding because it creates a better experience. This application goes beyond the drivers and homeowners of the gig economy to the likes of waiters, social media content producers, and insurers.

On the other hand, batch processing of automated clearing house (ACH) payments is tied to the DNA of many companies and their employees. Employees expect their salary payments to be made at a specific date and time. Payroll failure is not an option, so these processes have higher levels of control, with batch processing offering a time window to deal with any issues. The business case of moving payroll to an instant initiation mechanism often does not stack up against the risks. If the process has well-embedded lead times, then instant payments are unnecessary.

Perhaps there is a future where all payments are automated and instant, and processing is on-demand or continuously executed. Yet, for treasurers in most industries, crystal ball gazing isn't necessary — careful evaluation and consideration are. How does treasury progressively move to an 'on-time treasury' capability based on an underlying use and business case that drives operational effectiveness across the ecosystem of customers, suppliers and internal partners?

On-time treasury needs a platform, not a product

If optionality and flexibility are the goals of an on-time treasury, then an isolated discussion on a single solution or capability has limited value. A holistic, end-to-end, cross-product approach is required. For example — being focused on a platform with market-specific options for payment delivery, initiation and communication capabilities is what should be expected from a global payment provider.

At Bank of America, we build for the future with a clear understanding of the value of historic infrastructure. Our investment in mobile capabilities exemplifies this. We aim to use the technology to support the full stack of existing payment capabilities and underlying processes. So, while payment approvals can still be initiated from your enterprise resource

planning system, the mobile application is integrated across our platform and offers enhanced security using biometrics to reduce friction in existing payment processes.

While new treasury capabilities with niche applications can quickly lead to hype and overselling, we believe most treasury technologies are not mutually exclusive. An on-time treasury focus will ensure the right tools are used when needed, for mobile applications, real-time payments or even the humble batch process.

Helpful terminology comparisons

Batch vs. Continuous

Batch process refers to a process that involves a sequence of steps followed in a specific order. In finance processes this normally refers to the aggregation of multiple transactions or units of work.

Example 1
- EOD **Sweep** of receipts from a subsidiary account to the pool header
- One transaction that is the sum of the day's individual transactions

Continuous process refers to the flow of a single unit of work between every step of the process without any break in time.

Normally refers to an 'always on' process — 24/7/365.

Example 1
- Individual receipt remitted to a virtual account with the cash instantly deposited "swept" to the physical header
- One transaction

Scheduled vs. On Demand

Scheduled process initiation or transaction execution occurs at a predetermined time or when another process is completed or periodic.

Example 1
- MT940 Bank statement reporting received in the morning with previous day's transactional data
- MT942 reporting is also scheduled but the timing is more frequent — that is, intraday

On-demand processes are initiated by the user as required, needed or convenient from a workflow perspective.

Example 1
- Bank statement reporting initiated by the user using APIs

Instant vs. Within a Time vs. At a Time

Instant is not to be confused with on-demand or continuous. Instant refers to the instantaneous execution of the process or transaction once initiated. It does not refer to the means by which it is initiated.

For example, an instant payment refers to the duration or "instantaneous" elapsed time from initiation to delivery. It can be scheduled — on-demand — or continuous (initiated by another automated process or event). It can be a single transaction or unit of work or a batch.

Within a Time refers to the time period between initiation and delivery (or execution).

For example, U.S. ACH payments can be delivered across different time periods. The U.S. ACH Network offers the choice to process ACH credits as either "same-day," "next-day" or "2-day" payments.

At a Time refers to the "delivery" of the process or transactions at a specified time after initiation.

For example, a payment can be released for payment execution but not released to the bank network (or processed by the bank) until a specified date, such as the date for delivery based on a payment term.

This series of articles and podcasts will highlight the key misconceptions and opportunities of on-time treasury. We trust you will find this frank approach refreshing. Speak to a Bank of America representative to understand our practical approach to on-time treasury, led by our treasury advisory group.

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