

Upgrading FX Payments systems to reduce risk without causing disruption

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It goes without saying, payments are fundamental to the financial ecosystem. Whenever banks or financial institutions interact with one and another, such as through transactions or trades, it results in one or more subsequent payments. The larger the financial institution, the more complex the products traded; the risks they take; the value of settlements; the regulatory constraints; their balance sheets; and the liquidity knock on effects. This makes payments systems and workflows in capital markets very difficult to manage, as they need to function with multiple asset classes, across multiple jurisdictions and connect effectively with an array of other systems. As FX industry participants continue to adopt digital and electronic systems, financial institutions are grappling with the idea of enhancing their legacy payments systems to make workflows more efficient, reduce risks and increase intraday liquidity. However, upgrades cannot be done by massive “rip and replace” strategies. Not only would this be extremely costly for an institution, but also incredibly time consuming, both of which can explain why legacy systems are still in place today.

Instead, enhancements have to be made metaciously by a set of deliberate module by module

upgrades that provide interoperability with the objective of future-proofing the system. This is so that future upgrades can continue to deliver increasing value with lower risks, faster settlements, lower costs while in compliance with global regulatory standards.

Nonetheless, financial institutions push back on making these enhancements, as they can still be expensive despite being only a small part of the overall cost picture. We don’t need to look far to see other areas where costs manifest in a bank itself, including:

1. Capital costs
2. Suboptimal management of liquidity
3. Operational costs
4. System development and maintenance costs

In each of these, legacy systems exacerbate the bank’s operations and processes expenses, which is why it is essential for financial institutions to upgrade their payments infrastructure.

THE NEED FOR FASTER SETTLEMENTS

Many market participants are familiar with the 2019 BIS paper, which highlighted how FX settlement risk still remains significant in the industry. It found that more than 50% of the 18 trillion plus gross notional of daily FX trades are not settled in a payment-vs-payment (PvP) manner. Furthermore, in December 2020, BIS issued supervisory guidance to banks that do not settle FX transactions via PvP to help minimize the size and duration of their principal risk, while enabling them to conduct timely reconciliation of payments received.

When there are delays to settlements or increased risks, it may lead to additional capital and funding charges of processing the payment, making

it more expensive to do business. In many cases, banks will be unable to conduct more transactions unless this risk is covered or actively reduced. Delayed settlements can also lead to pressures on intraday liquidity, exacerbating these costs if the bank is unable to cover a payment.

Often, these capital and liquidity charges dwarf the operational and system costs necessary to facilitate and improve the whole settlement process. The good news is that banks are realizing that these issues need to be addressed now. By having safer and faster settlements, banks can mobilize their assets quickly to reduce risk and capital and liquidity costs, while possibly increasing revenues. So what do post-trade systems need to be able to achieve this?

NORMALIZED REAL-TIME VIEWS, MEASURES OF EXPOSURES AND FUNDING SOURCES

Currently, it can be fairly straightforward for most banks to calculate what their settlement exposure is going to be when taking on an FX trade, but this forces certain assumptions to be made:

1. If the currency pair is CLS eligible, it will be settled through CLS without any issues
2. The trade may or may not be netted – this will provide some room for manoeuvre unless the bank prevents the counterparty from having any flexibility
3. Offsetting trades will/will not be placed subsequently – this lack of clarity means a bank may reject a trade that is going to subsequently be “flattened” (e.g. through a rolled position/swap) or will accommodate a trade on the assumption that it will be flattened, therefore taking on that risk if isn’t
4. When under FXPB, banks will have

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to control the risk operationally rather than by managing the situation at the point of transaction, as it is much harder to manage settlement exposures at the client level due to the nature of the give-up agreements

Banks already assign risk and limits to clients based on whether they are settling payments on a net or gross basis. Similarly, a CLS client will be viewed as less risky when compared to a non-CLS client, as the payment is settled by PVP. The problem for calculating risk, though, is in the actual process downstream. For example, if a client now decides to settle under a gross basis for some trades, those will never be sent back to the central risk management system (CRM) to adjust earlier risks and limits; this also applies to CLS. Additionally, many of the larger banks have highly manual processes for settling trades outside of CLS. Operators often need to get VP-level approval to process the trade, and then will have to inform the relevant CRM for this.

Also, given the fragmented and complex nature of the FX trading landscape, it can still be challenging for some banks to view FX risks by counterparty, currency pairs, and funding sources across legal entities in real-time – especially when settling outside these assumptions. To make matters worse, current legacy banking systems are also complex and changing them could add additional risks to their overall settlement process.

Thus, it's imperative that implementation of new modules only requires configuration changes, and is not intrusive to the current payment infrastructure. If these modules deliver access to and measure the real-time risk metrics of exposures and obligations – with real-time visibility

across all funding sources for all entities, while being transmitted over high speed APIs and consolidated on a dashboard presenting cash flow projections – banks will gain a distinct advantage. Without this, it will become increasingly difficult for banks to compete as the industry evolves.

RISK THRESHOLDS AND NETTING STRATEGIES

By upgrading a payments system with access to real-time dated exposures, banks can more proactively manage funding sources and liquidity across any given trading day. This helps unravel the topology of maximum exposures by counterparty or currency position, opening up a new dimension of resource management. To do this, banks may apply actionable risk and netting strategies, such as automated notifications of approaching limits, imposed limits and exposure cut offs, collateralized positions, and counter positions.

Additionally, introducing new netting strategies on a collaborative basis, including the ability to pre-test, enables banks to more readily see the risks they will be taking. Most netting is done on VD-1 or early morning of VD, whereby netting of all trades is agreed across currency pairs at that particular point of time, but this is usually limited to one product. In the case of FX, these transactions are not normally netted with PM FX, NDF closeouts, or option payouts, and even exercised trades can be out of scope. Thus, deploying STP or an automated netting process that provides programmability and interoperability with existing systems is incredibly important.

It is also mandatory for banks to have intraday liquidity buffers in case they don't receive all payments, but must still make all outstanding payments. Settling on a PVP basis rather than

going through a bilateral settlement can help reduce the size of the buffer and provide more certainty to counterparties from both a risk and funding perspective.

This is why new modules must be compliant with ISO 20022 to avoid being excluded from international payments systems. Alongside, they must also have normalized data models that can integrate with existing bank infrastructures through secure access protocols, even if the new modules are built on more recent technologies, such as DLT and cloud.

CUSTOMIZABLE LIQUIDITY MANAGEMENT AND ACTIONABLE PAYMENT ANALYTICS

Banks need to ensure that any module upgrades can interoperate with existing treasury systems through API or embedded user interfaces, allowing them to manage their settlement processes more effectively. For example, at Baton (along with other workflows), we've gained two simple but powerful actionable insights that delivered greater ROI in six months for customers:

1. The ability to use shared settlement accounts across legal entities to settle FX obligations, instead of having separate nostros for each currency in each legal entity.
2. Automated conditional payments, where two FX payment legs occurred simultaneously in different markets.

These not only enable banks to view nostro balances in real time with interbank collaboration, but also optimize cash movements for a safer and faster settlement process.

ESTABLISHING DISTRIBUTED, COLLABORATIVE WORKFLOWS

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Quite often, even the most sophisticated and well architected bank post-trade systems have exceptions and new standards for the FX payments ecosystem will not be emerging anytime soon. Consequently, banks need to think differently about how they collaborate, so they can break down the barriers to progress which exist today.

I'm a strong advocate for banks being able to see a shared view of real time normalized data with three-way merges, as it enables financial institutions to identify and address anomalies in their settlement process. With three-way merges, the golden copy of trades based on confirmed copies, books and records can be sourced between two banks. This shows in near real time, the differences at a gross/net level, giving the two banks a platform to collaborate with a shared audit trail – easing the management of the whole FX trade lifecycle, from matching all the way to faster safe settlement and instant reconciliation

Finally, any upgrades made to the post-trade settlement system must be done securely as cloud-based installs. Over the past few years, we have seen banks accelerate their adoption of cloud technology and move to cloud-based infrastructure to reduce costs and increase scalability. Cloud technology is also providing the standards of security and encryption that banks require. This is why when implementing newer technologies, banks must ensure that they are able to demonstrate the discipline and rigor of information security, business continuity, and disaster recovery.

While it may seem daunting to upgrade post-trade systems, the truth is that legacy technology is outdated. As the market continues to evolve and

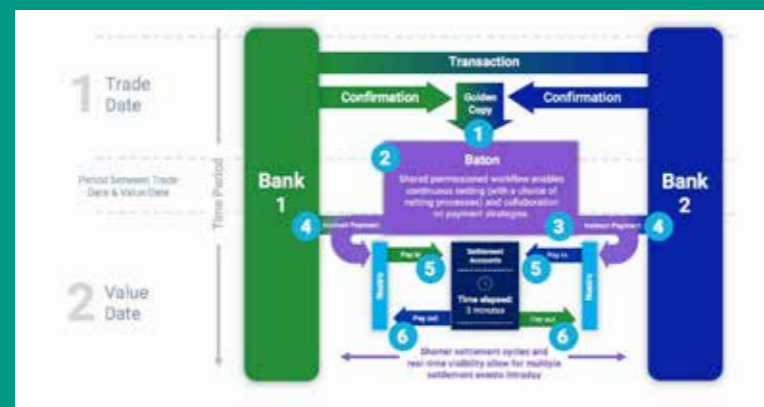
open up to new jurisdictions and more currency pairs outside of CLS, where possible banks need to minimize their exposure to risk. By making these necessary upgrades, banks can move

closer to settling in a PvP manner, not only reducing costs, but also accelerating the entire settlement process, while generating significant capital efficiencies.

At Baton Systems, we accelerate the movement of assets in any currency or security between counterparties through distributed ledger technology and a rules-driven engine, enabling on-demand clearing, settlement and payments.

In the financial ecosystem, post-trade workflows, payments and reconciliations are complex and involve manual intervention to solve disparities between fragmented banking systems. This high-risk process is further burdened by capital and operational inefficiencies that slow payments and increase transaction settlement costs. The result is delayed payments between counterparties, requiring billions of dollars of capital to be locked up to pre-fund transactions.

Our platform speeds up a typical two-day settlement process to under two minutes – eliminating the need for pre-funding, freeing up billions of dollars in capital and improving operational efficiency – without the need to tokenize the assets being settled. For example, by integrating seamlessly with a firm's existing payment rails and operations, the platform synchronizes the change of ownership of two legs of a currency transaction, regardless of time or the number of settlement and custodian banks involved. Not only does this result in faster, more efficient payments, but also reduced risk, and instant reconciliation and reporting for all parties.



Our technology can be extended across multiple banks to synchronize payment-vs-payment (PvP) flows, providing full visibility of the movements between counterparties, settlement finality, complete audit trails, and real-time notifications. To find out more about how Baton solves the issues of peer-to-peer transactions by eliminating settlement risk, improving the availability of liquidity and reducing the operational burden for counterparties, visit our website.