Avoiding back-office overload -
optimising information flows in FX brokerage operations

George
Popescu

Heather McLean discovers that trouble is brewing in the FX back office. More investors are hopping onto the online FX trading bandwagon, more money is being traded and trading volumes are increasing. (Note the latest BIS survey figures.) On top of this, systems are being tweaked and honed in an effort to make them go that little bit further, rather than ripping and replacing legacy systems with tools designed for the job. The result? Back-office bottlenecks are building up and FX brokers are facing an increasingly urgent need to start addressing the problem.

Back office data is growing exponentially and now includes transaction, accounting, and customer profiling information, notes James N. Friedman, chief operating officer at FX Bridge Technologies. He adds: "Data retention and access is vitally important for both its marketing value and regulatory compliance requirements. As more traders use FX as a trading tool, hedging tool and investing tool, not only is there more data, but there are more ways to use that data than ever before."

George A. Popescu, CEO at Boston Technologies, states the FX market has become more mature, which means that brokers have to offer more products, while their margins have decreased and their companies have become much more complex.

"The back office of a broker is like a stomach," explains Popescu. "It has to receive all the information

that is coming in and prepare, organise, simplify and assimilate the incoming data. A few years back a successful FX broker was usually offering only one trading platform, only a handful of products and most of the time only had a dealing desk. Nowadays most brokers have at least three platforms; in each platform they will have some customers on dealing desk and some customers on straight through processing (STP)," continues Popescu. "In addition each broker will typically have at least two counterparties for backup and redundancy. And of course in order to be competitive, he will have to develop interesting products for different market segments, which means that his number of products will typically enlarge to also offering CFDs and different spreads. He will also typically allow complex introducing-broker remuneration schemes in order to attract more business.

"As a result, the amount of data the broker needs to handle has increased, the number of data types has increased, and the complexity of the data has changed. New functions have appeared, like reconciliation. Having an STP system without real time reconciliation, without knowing how much money you are making (or not)

per information-segment (account, pair, trade, time of day, and more,) and without knowing your used margin, risk and profit, is suicidal. And last but not least, because of decreased margins, each dollar counts, which means that the broker has to be able to track all the information that is useful faster, and with better accuracy," concludes Popescu.

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Integration key to STP

Seamless integration is the key to secure and efficient straight through processing, says David Nelson, product manager at Financial Software Systems. He adds that this, in turn, allows a broker-dealer to successfully scale their trading volumes.

"Legacy systems that cannot leverage the latest messaging technologies and that prove difficult to integrate into both internal and external infrastructures are ripe for replacement, as the operational and market risk they pose is significant."

Additional volumes cause additional static data needs, more touches per trade, potentially additional resources or a newer application that can support the additional volume in a timely manner, notes Chris Davis, co-founder and managing director of global sales and marketing at TwoFour. "The need for additional or more seamless interfacing to up and down stream systems is also critical," he adds.

"More trades per day means more work to do. The objective of brokers needs to be that they find a system where workflows that are configurable on, and that can also support a high throughput of activity. The same work needs to be accomplished, if not through automation, then by hiring more people to support the growth, which in the long run is a very expensive alternative," Davis comments.
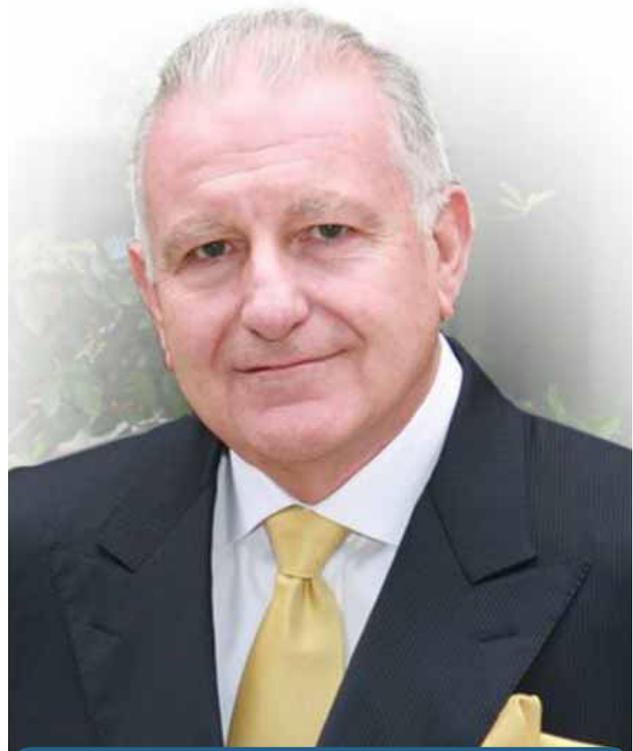
Kevin Ashby
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Increased volumes

"Increased retail volume can represent exponential increases in volume to the back office." states Nelson. "This is particularly acute for broker-dealers who offer managed accounts. For example, a single trade (for a fund) could be split and allocated into multiple accounts creating any number of additional trades, which the back office processes, monitors and reports back to the various fund clients. This practice can inundate the back office with significant trade volume, particularly on high volatility days. To efficiently manage this exponential increase, automated processes and workflows (such as real time client portals, payments, trade confirmations, allocations, real time limits and risk monitoring) are required," he adds.

From an FX point of view, one of the biggest loads on the back office is caused by the growth in trading, agrees Kevin Ashby, chairman and chief executive at Velsys. "The whole process of on-boarding clients contributes hugely to the back office data issue. Also, it depends where you are based; in the UK, on-boarding is done generally online. However, in Asia you have to see the prospective client's passport, check signatures, and a lot more.

"After that, as the client starts to trade you get a lot more back office pressure," continues Ashby. "Clients start to add funds, take funds out, move funds around, so then you have a lot of payments to process. Therefore a lot of the load on the back office is created through having active trading clients, particularly in the retail market where people open an account and start to trade, often incur losses, then leave the account dormant and come back later or not at all."

Feeling the pressure

Popescu remarks: "The main problem is the amount of data. A typical large brokerage will have 20,000 accounts, each of them with thousands of trades, in different categories and sub-categories. This is a very large amount of data and it is hard to search it efficiently and fast. The second problem is organisation. No system of organisation is perfect, so the problem is that either way you look at it you wish there was another better way for the back office to present the data. The third problem is customisation and addition. No back office is perfect, so the quality of a back office is measured in terms of how easy and how fast it is to modify or to add new functions. All of these functions are actually working against each

other. The more data amount and types you have, the harder points two and three become."

On the pressures being placed on back office operations by the need to keep track of larger volumes of data so that it can be easily accessed, presented, and actioned, Friedman states: "Back office operations are constantly coming up with new and creative ways to mine their data. They are also facing integration from multiple disparate systems. FX Bridge recognised these issues early on and implemented an open communication structure that supports multiple protocols such as FIX, web services, message queues, and simple file exports and transfers. In this way, customers can access data the way they want and combine it into a myriad of creative ways."

Not made for the job

The problem is, most of the current back office platforms available were not designed to support additional volumes of static and transaction data, and require code changes, observes Davis. Organisations face the challenge of trying to have their current providers adapt their offerings to meet these demands, or alternatively implement another solution to this effort, he notes.

On what problems are arising due to the use by brokers of multiple different legacy software packages, Davis says: "The downstream effects on risk, reporting and accounting packages is very telling. Many institutions leverage multiple applications to support their business but do not realise that the bottleneck will still lie with the slowest processing component. By leveraging a solution that supports all of these functions, brokers will have less points of failure, higher STP rates and require less resources to meet the increased business demand."

While Popescu comments: "Very much like when one tries to fit a cube into a round hole, or a sphere into a square hole, trying to combine systems that are not made to be combined is like solving a problem by adding more problems, some inefficiencies and by making the resulting system more rigid. I mean rigid because for incompatible systems A and B to work together, you need to limit the function of each of them. Now if you add a requirement to integrate B with C, you need to limit B and C again. As a result, after a certain number of integrations, only a very small number of functions are still available across the entire system and no new system can be added
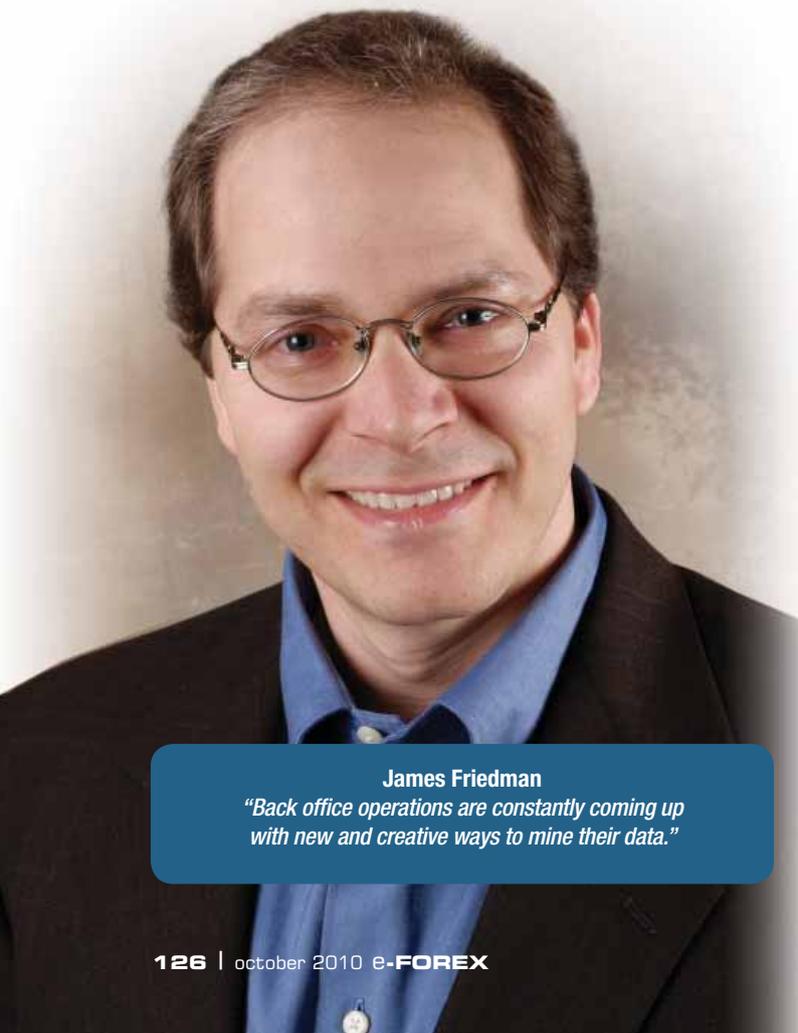
James Friedman
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because it will create a conflict with one of the existing integrations," he warns.

On customised toolkits and technologies, Popescu notes that most of the existing systems are those designed for one function, such as accounting, that have been extended to do something else. "As a result the systems are like a horse with five feet. It doesn't quite fit and once the horse has 19 feet, it will be very hard for the horse to run. In addition, most of existing packages that have been tweaked in this way might cost around $200,000 for setup and $10,000 or more per month in maintenance, because the amount of work it takes to install a horse with 19 feet and then keep it happy is an enormous amount of cowboys.

"In the same way MetaTrader 4 has conquered the FX market by being reliable, simple to use, offering a lot of versatility, and being reasonably priced, Boston Technologies has developed a back office with the same characteristics while keeping it very customisable, easy to deploy and reasonably priced," adds Popescu.

Staying flexible for regulators

Differing regulatory requirements and vendors differences from region to region also impact the management of the back office. Ashby comments: "While there are a number of global vendors, some with whitelabel programmes, you often see significantly different approaches being implemented around the world. For example, you may see vendors in Japan and Korea that you will not see anywhere else.

"It is also worth noting that the back office reporting requirements are different in each regulatory environment, and the speed the regulations change is also varies; in some jurisdictions, you are breaking the law the moment they pass the regulation, with no time to conform, including local margin and leverage rules," adds Ashby. "All of these factors result in a tendency for some companies to move to countries where they see lower levels of regulation. We have already seen trading moving from the USA due to regulatory changes and a significant number of companies being established in smaller countries in the EU. This will inevitably start to cause issues."

While Nelson remarks: "Subsequent to recent market volatility, regulatory reform has been implemented in the UK and is pending in the US, which requires robust solutions to identify, measure, and manage various risks and exposures. Therefore, broker-dealers are encouraged or, in certain cases, mandated through their prime brokerage relationships to meet evolving requirements. Depending on the jurisdictional requirement, these can range from transparent enterprise-wide position reporting, to intra-day risk management, to liquidity management." He goes on, "As new regulatory requirements emerge over time, it is imperative workflow solutions have the flexibility to adapt to the new regulations. In addition, it is important that historical data be maintained without performance implications. Thus, when new regulations become enforced, meeting these requirements from an existing transaction data warehouse can easily be achieved."

Made for the job

"There is no single solution for CRM, risk management, accounting, and the rest, that is right for all people," notes Friedman. "It's the diversity of needs (and budget) that companies use to drive their business effectively and efficiently."

FX Bridge has developed several tools, including pricing, value-at-risk, and its Risk Manager utility to implement its Total Position Awareness architecture philosophy. By engineering its products for same-account spot and options transactions, FX Bridge already knows that time changes, volatility changes, and portfolio changes are all vital to running a risk book, comments Friedman.

Solutions like TwoFour are built for purpose and can process trades at a sustained rate of 1,000 per second, says Davis. Having a flexible workflow-based engine as its core application server allows the company's users to leverage a GUI to modify the steps and rules for processing trades. This provides a lower cost of ownership and allows them to meet business demands in a very timely manner, Davis adds.

Ashby notes: "I think a lot of these variations in regional requirements are starting to be embedded in vendors' offerings, so an organisation wishing to offer a retail FX platform will have a number of vendors to chose

from, who will have enough flexibility in their offering to meet local needs. But before choosing a partner, organisations need to understand the business model of their supplier. We, Velsys, are a software house, so we are driven by what the client wants to see in a system; other providers can have a completely different motivation e.g. market makers or routers of liquidity.

"For retail FX, one of the most important things to monitor is the cost of customer acquisition," continues Ashby. "The external cost (advertising etc) and internal cost of acquiring and converting a client is fundamental. In terms of the amount a client will trade, in my experience there is a direct relationship between the amount of money the client deposits when opening an account; the more money deposited, the more they will trade. Retail is a pretty mechanical business"

"Although the cost of on-boarding isn't always considered a part of the back office function, it does determine how successful you are and as it's the most expensive part of running a business, and impacts on the back office depending on how successful you are," says Ashby.

Fulfilling customer needs

Each user has unique needs for information, says Friedman. He remarks that brokers want to see trading performance of customer accounts, while marketing people want to see usage and popularity of products and view trading demand by region and by account types. Dealers, he adds, want to understand exposure, margining, and information along that line.

"Also, different market participants have different needs for information," continues Friedman. "For example, an FX market maker has entirely different needs than does an STP dealer, just as introducing brokers have different needs than does a managed account trader. FX Bridge has designed custom back office functionalities and reporting capabilities for each market participant, as well as the end user trader."

"What is paramount to the needs of each of these users is that nobody wants to be concerned about information technology. To them, the trading platform should be a utility that's always available. FX Bridge hosts its solution for its clients. They merely turn on their computer and, like an appliance, the data is there and available," he concludes.

According to Popescu, a broker will need the following in order to be able to

work on a daily basis: a list of customers' trading conditions, deposits, withdrawals, open positions, margins used and risk each customer takes; its counterparties and the trading data from each of them; which employee is working on what, why and how; how each system in the company is behaving, such as are they up, working optimally, or overloaded?; whether partners doing their work; is the risk management system working properly?; what the brokerage risk is; is the brokerage making money, where and how?; whether the back office is working properly; where the company is going, why and how fast, and what can be done to get there faster?

Typically, brokers need to deal with a variety of information on a day to day basis. Nelson states this includes: client account information; trade level adjustments; trade confirmations; trade inquiries; allocation change requests; overnight carrying fees; events (option payouts, triggering, etc).

Conclusion

Nelson concludes: "To effectively manage this information, brokers need an automated workflow process with built in approval steps and exception monitoring. By utilising a back office system that enables straight through processing based on pre-configured rules, back office processing can be streamlined while maintaining important controls."

As FX trading volumes continue to increase, the back office overload issue will become increasingly important. The threat it poses is one that all those concerned with online FX trading operations need to start tackling sooner rather than later.