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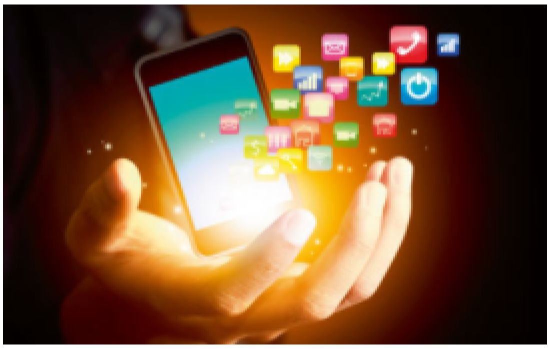
DATA MANAGEMENT: All in one place



Data management is adopting a 'whole' office approach, rather than front, middle and back-office silos. *Nicholas Pratt* considers the challenges.

Data management has not always been the topic of interest it is now but, given the extent that data is driving fund management activities, from strategy and stock-picking to compliance and client reporting, there is a growing realisation among firms that they should address what is fast becoming a critical issue.

In particular, the problem is affecting front offices, which as the name suggests are generally prioritised above back and middle offices when it comes to system overhauls and IT budgets.

A recent survey, produced by Adox Research, interviewed more than 100 technology buyers between December 2016 and January 2017. It found that the vast majority (79%) report 9% of the inbound data in their front office is 'broken' and requires manual repair.

The survey also examined some of the reasons for the front-office fragmentation, principally the sheer number of different databases employed by firms, normally in double figures, and the fact that they all sit atop a legacy infrastructure ill-equipped for today's data-intensive market.

NOTHING'S PERFECT

Firstly, though, there are problems with the data itself. Numerous data types are used by front offices, none of which are perfect. Least problematic is the price data for certain securities and holdings, the bedrock for securities trading made available by exchanges and other centralised trading venues.

However, there can be variances between different data providers, including vendors and direct from exchanges, even when prices have the same time stamp, says Ian Hillier-Brook, chief executive of UK-based IT firm, MCO Europe.

"The amount of data is part of the problem," he adds. "There are multiple sources for virtually every price and the frequency of changes and updates has increased dramatically over the past few years."

Even though some firms clean up their price data by comparing multiple sources and employ rules for what is acceptable, the sheer volume and high frequency of data makes this difficult for funds trading in real time, he says.

Others note that a bigger problem is not the price data but the reference data that defines the instrument, reconciles the trades and is the basis for so many back-office processes.

"There has been an insufficient focus and a lack of standards in this area," says Peter Moss, CEO of SmartStream Reference Data Utility, a software product that aims to aggregate firms' reference data. "It is only when firms look to automate their processes that some of these issues arise. It is not that the reference data has got worse but that firms' expectations have got higher – they are looking to do more with the data that is just not possible when it is so unstandardised and inconsistent."

A number of firms now use a security master – a database of all the securities that they hold – or else an investment book of record designed to act as the single source of truth for everyone in the firm: portfolio managers, risk analysts, client reporters and compliance clerks.

The problem is that most of the regularly used sources of data do not come together in a clean way, making the task of bringing them all together costly and time-consuming.

"Firms need to put in place a firm-wide data strategy that addresses client data, research data, holdings data. They don't necessarily need a firm-wide system, but they need that single version of the truth and to make sure that everyone is getting their data from the same place," says Moss.

Others will argue that a single, front-to-back fund management system is exactly what is needed to solve these data management issues. "Inaccurate data is one problem but the potential for that to multiply downstream is even more of a concern, such as incorrect performance figures. This cascading inaccuracy brings problems across the investment lifecycle," says Marc Mallett, vice president, product management, SimCorp. "Data that is open and transparent across a single system is the solution to this, and the way to drive growth."

THE 'WHOLE' OFFICE

SimCorp's Dimension product claims to be the only front-to-back fund management system, but there are other systems, such as BlackRock's Aladdin and Bloomberg's AIM, that go beyond the traditional front, middle or back-office capabilities.

"These enterprise systems were not available ten to 15 years ago," says Mallett. "You had portfolio management systems in the front office, risk and compliance systems in the middle office and accounting systems and record-keeping in the back office. But we need to remove these silos and to solve problems across the 'whole' office. There needs to be an open system in place for the entire investment life-cycle.

"There are people that will stick to the front, middle and back-office categories with the systems to match but there's no reason why you cannot retain the autonomy but free up staff by getting rid of those barriers. A good example of that is consumer electronics – you wouldn't buy a calculator, phone and a music player. You'd buy a smartphone. The same logic applies here."

One of the issues that has held back the adoption of front-to-back systems is the idea that the front, middle and back offices all use data in different ways that cannot be easily accommodated with a single system, says Haider Mannan, head of buy-side Emea at GoldenSource. "The front office is a real-time environment, whereas the back and middle offices are end-of-day, batch process-oriented. There is a natural disconnect and disparity in the systems and that creates a complexity. The middle and back offices are not geared towards processing that data in real time."

This traditional model is being challenged though, says Mannan. "The introduction of semantic databases and non-SQL technology means that a system is not dependent on fragmented technology."

And while one layer across the firm for all the data they use is possible, he says, it does place some restrictions on how data is used and processed, particularly for large firms with big compliance issues. He is also wary about the operational risk implications of being too dependent on a single vendor. "What you need is fewer systems but not necessarily a single one, in the front office especially. Consolidate as much as you can, but you need consistent data and then you can move to a consolidated system approach."

LINEAGE

Whatever approach fund managers decide to adopt – a centralised data management hub to sit on top of their multiple applications and systems, a single front-to-back fund management system or simply outsourcing everything to a third party – it is essential that they first understand their data and its governance, says Greg Faragher-Thomas, director at Alpha FMC.

"You have to understand the lineage of the data because someone in the middle office and a portfolio manager in the front office may have different uses for the same data," he explains. "If you understand that, you can go to the next level – selecting a system like a BlackRock Aladdin or a SimCorp Dimension or a Bloomberg AIM, based on a sound data architecture and how these solutions will service the data requirements and, more importantly, where you need to complement them."

There is a definite trend away from office-specific technology towards enterprise systems among the buy-side, says Faragher-Thomas, driven by the recognition of the need for stronger data management. This need has in turn been driven by regulation and the demands of new technology like artificial intelligence and automation. "Data becomes a strong input into those processes. The days of disparate SQL databases which are not linked are gone, because it's a more complex world."

But migrating from disconnected databases and legacy systems to a single system may not be the silver bullet it is made out to be. Not yet, at least.

"Consolidation towards an enterprise model always helps but it won't give you everything you need. You have to address both back-office and front-office needs, so you may need to adopt a hybrid model to begin with," says Faragher-Thomas.

While the future may look bleak for the traditional portfolio management systems and far more rosy for enterprise systems, the need for some kind of hybrid offering may open the door for some of the new fintech entrants, according to Faragher-Thomas.

"They are less intrusive and can tap into existing legacy systems, allowing firms to get the benefit of their data analysis capabilities and GUI [graphical user interface] without a long and expensive data project. These legacy systems cannot just be turned off overnight," he says.

While the rise of cloud-based, on-demand data services have the potential to solve some of the data issues plaguing firms, the danger is that the adoption of these workarounds may lead to a repeat of the reconciliation systems and middleware that sprang up in the past decade in order to help firms stick a tactical plaster over the gaping wounds caused by their legacy infrastructure.

The end result was that firms simply put off doing what they know they all have to do at some stage, which is replace that infernal legacy system.