

Overcoming the data management challenge in business scaling

Interview with John Hack

The ability to properly scale and build AUM for long-term success should be top of mind for any hedge fund manager. Luckily, thanks to incredible advances in technology over recent years – particularly in relation to cloud-based platforms – efficient scaling, without losing control, is eminently achievable.

Moreover, by partnering with institutional-quality technology providers, managers are able to improve their entire data management process through greater automation. In turn, this ensures that the front through the back-office works off of the same, consistent data sets; a key requirement as firms seek to use a wider range of data vendors.

John Hack is Senior Vice President and Head of Technical Relationship Management and Product Consulting at Arcesium, a New York-based middle- and back-office technology solutions and operations provider, which spun out of the D.E. Shaw Group in 2015 in a joint venture with Blackstone Alternative Asset Management.

Arcesium currently supports a select portfolio of clients with combined assets north of USD125 billion.

Hack says that in relation to hedge funds using alternative data sets, one of the biggest challenges, particularly at scale, is associating the data with tradable assets. How effectively and quickly one can manage the mapping exercise is, says Hack, “the difference between a real market signal and missing out on what could be a good investment opportunity”.

“Those managers who succeed in this exercise are going to be able to evidence that with their returns; that is where you start



John Hack, Senior Vice President and Head of Technical Relationship Management and Product Consulting at Arcesium

to see investor appreciation for effective data management.

“A hedge fund manager is always looking for an edge. Today, this remains an area where there is potentially still real alpha, so firms are going to do what they can to go after it. Aside from the most quantitative hedge funds, there is a push within the hedge fund industry towards data-driven or data-oriented trading,” comments Hack.

Indeed, ‘Quantamental’ trading has emerged as a trend in recent years as fundamental managers including Tudor Investment Corp and Third Point LLC have sought to incorporate more data-driven quantitative processes into their business model. The same is true across the traditional long-only asset management space.

However, it is one thing to start incorporating higher volumes of data into the front-office, but quite another to do so such that portfolio managers trust the data they are looking at with which to derive new insights and trading ideas.

Whether it is social media data, weather data, agricultural or shipping data, hedge funds can only derive value out of it if the data has been mastered and normalised, ideally as quickly as possible. Doing so can help the front-office trade confidently, and mitigate the risk of false positives by inaccurately interpreting the data on their screens.

“The key to all of this is proactive data cleansing, particularly in the middle- and back-office,” remarks Hack. “There has already been a lot of focus on making sure data in the front-office is cleansed to some

extent. But as far as the middle- and back-office goes, I think it is still an emerging theme to apply proactive data cleansing. Firms consistently underestimate how much their front-office relies on data that falls into the middle-office bucket. Things like historical bond ratings or dividend yields aren't as exciting as satellite imagery and yet they are foundational to investment models."

The crux of proactive data management is "applying a set of rules to the data as it comes into the system before anyone looks at it". Moreover, "those rules and associated data alerts need to be both qualitative and quantitative".

"Technologists need to ask their end users what checks and controls they need, what data issues arise, and what their pain points are. But they also need to look at the data edited by humans. Something smells wrong if an operations person is going back at month-end or a couple of days after a corporate action to fix a problem. That's a signal for technologists to generate a rule to proactively address that same data set, and associated concern, the next time around."

Arcesium has built a fully integrated technology platform to meet the most complex post-trade challenges faced by hedge funds and to support them in customising their own data management solution. Expanding on the point Hack makes about 'bad smelling' data, Arcesium has constructed a dedicated tool around data alerting within its Financial Data Stack; a series of modular technology products designed to give managers a single version of the truth.

"We have thousands of rules that we've built over time that were generated by querying our user base as well as by looking for those bad smells in the data. Every piece of data passes through a series of checks as it comes in to our system. Firms are finally starting to rally around a single source of truth.

"This concept is not new, but I think today it is becoming more of a reality," explains Hack. "The front- and the back-office need different views of the same data, not different data. It has to be the same information, just aggregated differently and transformed a particular way. If you perform that transformation across multiple systems,

that's a risk. If you're using the same data set, front to back, at different points of time, without knowledge of the timescale difference, that too is a risk.

"All of the data we warehouse on the platform is bi-directional and bi-temporal; this is key to solving the timescale problem."

The wider implication of this is for hedge fund managers to create a more efficient middle- and back-office and a better-informed front-office.

Utilising a technology platform where the data elements are formally modelled by Arcesium, but which also have potentially an unlimited number of user-defined fields or attributes that can be associated with the trading instrument/strategy, empowers managers to scale and to flex in any direction.

Arcesium's Security Master allows clients to customise the way they visualise data sets across the entire data lifecycle. Data points can be accessed programmatically using a host of API libraries available in Java, Python and C#. In addition, the Arcesium Transaction Master has the ability to source trade and fill data from OMS providers and trading venues; this data can prove especially valuable for post-trade analysis work such as TCA and best execution, among other tasks.

No matter what the data source, everything can be managed through one system. Arcesium's tools talk to one another and directly to counterparties on the Street and, as Hack stresses, "We're using this to drive our clients' business operations".

"We are feeding their OMS, we're providing analytics to the portfolio managers and the risk team, we're running data feeds downstream to support investor service solutions. It's all open architecture on the platform.

"We have a suite of APIs that service all this data, we have self-service reporting capabilities, and it's all done on the cloud. The same APIs that we use to push data into the user interface are the same APIs our clients have access to, which is immensely powerful. They can use these APIs for portfolio modelling, scenario analysis. The data that goes out to the Street is the exact same data being used by our clients' middle- and back-office teams," concludes Hack. ■