

Capture, Correlate, Analyse:

Deriving value from electronic communications data

In our latest Financial Markets Insights report, Dan Barnes and Mike O'Hara of The Realization Group explore the value that can be realised through the integration of electronic communications (eComms) data into the wider trading ecosystem.

By moving from tactical compliance to strategic investment, firms can not only satisfy the regulators, but also boost the analytical capabilities of the front office; delivering better execution, greater trading signal analysis and more efficient business intelligence.

*In this report, **Simon Hornibrook** of Nomura; **Paul Burleton** of Lysis Financial; **Paul North** at BNY Mellon; **Rachel Przybylski** at Saxo Capital Markets UK; **Tom Kennedy** at Thomson Reuters; **Harps Sidhu** of KPMG; **David Grinholz** at Matrix-IFS; and **Shiran Weitzman** of Shield Financial Compliance discuss how to address the dual challenges of turning eComms data into real business insight, while also achieving cross-regulatory compliance.*



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Introduction

Regulators are shining a spotlight on communications. Under Article 76 of the Markets in Financial Instruments Directive (MiFID II), firms need to install a complete set of recording technologies, accompanied by policies and procedures for their use, to ensure no trading activity can escape review.

The motivation is positive. Markets have been beset by abuse scandals on the sell side, while buy-side firms are now obliged to offer 'best execution' to clients across all assets in Europe. Consequently, oversight of communications is needed at all levels to help support the management of investment money in capital markets.

Yet the reality is challenging. Capturing voice data alongside a wide range of written and electronic communications is technically difficult. Multiple communication channels need to be aligned so that captured data can be used to construct a trade narrative.

Simon Hornibrook, Global Head of Client Lifecycle Management and Operations Innovation at Nomura, says, "Regulators are much keener to understand not just the nature of the chat from a deal perspective, but also how did that deal go about getting done? Was the way the deal was struck appropriate?"

Article 76 is just one aspect of a changing market. The trading process is being increasingly quantified as increasingly voice trading gives way to electronic execution models across asset classes. By driving a programme of change across a business that will incorporate trading data, eComms, and post-trade analytics, capital markets players can tackle the underlying costs and complexities that are building up as a result of compliance programmes, and begin to tap into analysis of a wider data set that can provide insights that deliver greater value, such as sentiment analysis.

Prioritising capture and surveillance

Despite the regulatory imperative of MiFID II, financial services firms have so many competing priorities for budget, that even the capture and storage of electronic communications data can be side-lined. Although compliance has long been a driver for investment in technology, that has often translated into tactical investments for discrete business units, or after problems have already been discovered.

“The problem is of course, it only becomes an issue when there is an investigation,” says **Paul Burleton**, Associate Director at Lysis Financial. “Firms just work on the burning platform, whatever’s hot at the time.”

Any investment firms exposed to MiFID II, which came into effect on 3 January, need to comply with Article 76, by capturing and storing data that describes the execution process. That dovetails with other elements such as the best-execution reporting process in MiFID II and legislation such as the Market Abuse Regulation (MAR), both of which require analysis of trade decision-making and output.

“My suspicion is that firms, for MiFID II, have done enough to tick the boxes to show that they’re compliant with the new rules,” says Burleton. “But until there’s an investigation that they have to go through, only then will they start to think about, ‘How can I do this, potentially, in a better way?’”

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The capture of this information collectively represents an opportunity. Firstly, compliance challenges could be simplified if a ‘capture once’ approach were taken, in gathering, aggregating and normalising data.

Secondly, if data from eComms were integrated with outputs from order management and execution management systems (OMSs/EMSs) a more granular understanding of trading behaviour could be established, which could optimise internal processes, from pre-trade to post-trade. To get real value from the process, firms need to develop a strategic approach to integrating eComms, surveillance and execution reporting, prioritising the development of that resource over any one point solution.

Paul North, Head of Product Management EMEA at BNY Mellon says, “Some firms have may fixed their immediate compliance problems and so don’t have a burning platform need right now in terms of optimising their management and use of data. But as they’re looking at other parts of their business, such as the need to reduce costs or to replace a middle-office system or a front-office system, then that data challenge comes into play because there’s another driver to make the investment into a more sophisticated data management platform.”

What many banks and investment managers will need is a business case that creates an economic argument for migrating.

Rachel Przybylski, Head of Market Structure at Saxo Capital Markets UK, says, “As we implement tactically, we’re also looking at how to resource strategically for a more holistic approach. How do we make sure that we’re happy with the implementation we’ve made, that we add more strategic elements, and how does that tie in to any updates that we want to make in collecting data for future needs, particularly with onboarding clients? There’s a massive technical and data project now to ensure that from the moment we get a client, we’re dealing with this in the most efficient way we can.”

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Barriers to consolidating eComms

Capturing eComms data effectively within a firm can be challenging on several fronts. Financial services businesses have traditionally built up team-by-team with siloes of technology surrounding specific business lines. That makes a harmonised implementation of the regulation very hard, says **Tom Kennedy**, Global Head of Analytics Services at Thomson Reuters, because of the need to build common approaches between technology teams and business units.

“First of all, clients were challenged in developing harmonised systems by their overall structure and by the gaps that exist between the asset class-specific operations,” he says.

This not only means that different tools are used, backed by separate budgets, but that trade lifecycles are fundamentally different. As a result, mapping a single framework across trade execution for several desks becomes very complicated.

“There’s a relatively clear understanding about many market conventions around best execution for equities,” Kennedy continues. “I think where the major confusion has been to date for many firms, is around the lack of market conventions regarding non-equity asset classes.”

The inclusion of non-equity instruments under MiFID II rules has made this problem front-and-centre, and rather than overcome it with a strategic approach, banks and asset managers have often sought to look for compliance via the path of least resistance. In many cases that has led to disparate investment by individual teams or units, rather than an overarching approach to enterprise level technology.

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“Some firms have looked at enhancing existing processes, and MiFID II has really pushed the boundaries, mandating that every single trade is checked against multiple factors,” says Kennedy. “The realisation of that in a non-equity asset class has just been felt now.”

The complexity of the trading process for non-equity instruments requires firms to find greater amounts of information to support compliance objectives. Where stocks are traded almost entirely using electronic means, via one or more central limit order books (CLOBs), other markets have a more disparate structure.

For example, trading fixed income instruments may begin with a Bloomberg message, evolve into a phone call and end with the trade being processed via an electronic platform. The point at which the trade is actually agreed and a price is set will need to be identifiable and synchronised via time stamps to correlate with wider market activity.

“We’ve embraced automated trading with bonds as much as we can, but obviously we still have a manual flow as well,” says Przybylski. “With best execution reporting, how are you tracking that, how can you represent results if you haven’t got the best set of data possible? We have been looking at how to take data from the traders’ activity, from external sources, and putting that together so they have everything they need. That is a big challenge.”

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The value of voice

There are considerable benefits to bridging these gaps, not least because the patchwork of systems that are needed do not represent a cost-efficient model going forward.

“For all of the reporting-type regulations, people are working towards a more strategic platform that’s better controlled so they can understand what data is being used and how it is being used,” says **Harps Sidhu**, Partner and Head of Capital Markets Consulting and Head of FS Regulatory Change at KPMG. “Is the data all making it to the repository? Is any of it being suppressed or modified?”

From a technology perspective, this presents several hurdles. The primary challenge is that the recording of traders’ conversations will need to be natural language processed or- less optimally- converted into text, and the voice records need to be brought together with data from other communication channels such as e-mails and chat messages.

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Harps Sidhu, KPMG

The capability of systems to identify patterns that might indicate irregular trading is not fully mature. There are issues with processing different languages, phonetics, dialects, and uses of slang that can challenge an automated system.

“You won’t believe the kinds of things I’ve seen that are different, and therefore challenging,” says **David Grinholz**, Capital Markets Practice Lead at Matrix-IFS.

He cites the incident in 2015 where Sean Stewart – then a vice president at JP Morgan – used golf terminology to disseminate information to his father Robert Stewart, which was used to trade illegally. They were flagged because the father’s trading activity was off-the-chart successful, which led to an investigation of communications. At the point where authorities looked at recordings they understood everything was said in code. However, the activity was not picked up by the surveillance activity itself.

“Imagine if I would talk to a counterpart about the weather, used as a code,” Grinholz notes. “It’s going to be almost impossible for any kind of analytics to discover that there was foul play. So the inclusion of voice in this case, unless it’s very clear cut – almost out in the open – is very difficult.”

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Then to process that data in a meaningful way for surveillance and eComms analytics, it will need to be enriched by having metadata attached to it, which can be used to structure its storage and retrieval according to any relevant query.

“This enrichment process is the key of a good eComm integration programme,” says Grinholz. “If you have an IM message between a broker and a client or an internal research team we attach everything that we can to that, deriving from any system of the bank. The broker’s account geographical location, his HR data – meaning where he is, the department, who is his manager, who are his peers, who is in the department – at some points we are also attaching security data, e.g. when he came into the office and on what date, creating a profile.”

Coupling these technical challenges with the structure of compliance teams can compound the difficulties. Some firms will have a centralised compliance function that handles practices globally. Others will have specific compliance teams for each geographical region.

“You can find different archives, and different email tools for different departments of the same banks,” says **Shiran Weitzman** Co-Founder and CEO of Shield Financial Compliance. “In a lot of businesses, you have different record-keeping solutions for a certain asset class or a certain eComms type. The absence of any strategy around this creates even more siloed solutions. There is no gain out of it.”

The imperative to aggregate

If the output of eComms was purely regulatory box ticking, a case for greater investment would be tough, in the face of other priorities. However, taking a different approach to the problem can allow firms to realise value from the process.

“What’s the value of chat itself?” asks Nomura’s Hornibrook. “We’ve got people looking at that point of view, to see how much information could be gleaned from that chat, which could give a view on sentiment, or potential cross-selling opportunities that just don’t get picked up directly as part of discussions.”

The level of signals regarding market activity that are disclosed during a 20-minute conversation between the sales team and client could be considerable, if converted into text, tagged with metadata and integrated into a single data layer that can include wider context of market activity and execution analysis.

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Simon Hornibrook, Nomura

“Some of the work we’re doing now is taking that data-rich conversation as an example, digitising that data and starting to disseminate it, analyse it and start picking up some sentiment,” he says. “That’s more the value proposition. We’re not going to have this kind of medium and then not want more value, more transparency and more clarity out of it. Certainly, the technology is there now to do that, but getting organised and then storing it in the right way is still quite tricky.”

Przybylski says, “Some of the technology stack might look like it’s just for regulatory use on paper, but there are a lot of other uses. And we have a lot of partners and firms that are reliant on our systems. So for us it is really important that when we build something, or use data, that we’re using it efficiently across the whole organisation, and for the partners that rely on our systems.”

Practical models for competitive advantage

Firms are motivated; the challenge they face is in overcoming the barriers to creating a single data model. Changing the technology stack involves different parties, depending upon the firm in involved.

“Why should one party not develop everything? Because there is a real need for expertise,” says Weitzman. “I think that the bank should mainly manage the complexity of its business rather than the complexity of the eComms. And it is complex, particularly as this data all needs to be correlated together.”

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Tier 1 banks have invested more heavily in homegrown development capabilities. They have sizable IT departments and development centres, not only running the bank but changing the bank with innovation labs that are able to take the ideas from startups and run proof of concepts in the greater organisation. They will have either developed systems and/or taken third party vendor solutions to support eComms and surveillance, reaching across global markets and an enormous range of asset classes.

Sidhu says, “Generally the problem large banks have is with data as opposed to not having the correct platform or component.”

Reengineering the IT architecture in order to develop a standardised data model will deliver the capacity to integrate eComms data into wider trading analytics and business intelligence, delivering better return on investment. Smaller banks, who lack those development capabilities, will typically rely solely on external vendors for eComms tools, which can make their lives complicated from a different perspective.

“They need to somehow get different vendors with different technologies and different approaches, to link up together, to see how they can achieve the same goal; detect the risk and violation within the firm, while boosting operational efficiency,” observes Grinholz.

To then take data into a wider management information tool, firms may need to find a middleware provider capable of working across those platforms or a business intelligence system that can bring together the structured and unstructured data, and build a picture of trading activity in a single user interface.

An alternative to building a single platform, or playing diplomat between suppliers in an effort to deliver value, according to Weitzman, is to use a system that can sit on top of the existing technology stack in order to harmonise data. One that can subsequently bring it into a single layer for analytics.

This breaking down of the barriers that sit between eComms siloes, so that information can be normalised, is key in order to facilitate access to the real value that can be found within the data. “When you put the framework together properly, then it is absolutely a strategic decision,” Weitzman observes. “Everything related to eComms should go through the platform, so that you have everything centralised and correlated – only then you can also have real business intelligence.”

For more information on the companies mentioned in this article, visit:

www.nomura.com
www.lysisfinancial.com
www.bnymellon.com
www.home.saxo

www.thomsonreuters.com
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