AIR apparent

Two enhanced solutions have been added to the **SmartStream** stable since it launched version 2.0 of its AI-powered reconciliations program AIR in 2020. CEO **Haytham Kaddoura** explains why it's proving a gamechanger

The beginning of 2021 saw the release of two enhanced solutions from SmartStream, the financial Reference Data Utility (RDU) provider.

As many of the world's banks move to consuming services via API, the company began rolling out an API suite, allowing them cost-effective access to specific security and regulatory reference data without the need to implement complex, time-consuming and expensive IT projects. It also re-engineered its Transaction Lifecycle Management (TLM) Aurora Universal Data Control to reflect the changes banks are introducing to their core systems under the combined impact of ISO 20022 and the pandemic's effect on internal operations with more staff accessing systems from home. The latter solution was very much a product of the innovation labs that had launched AIR 2.0 just a few months earlier…

THE PAYTECH MAGAZINE: What did running the first version of AIR teach you about the way major institutions want to consume AI?

HAYTHAM KADDOURA: It gave us a good understanding of where AI adds significant value to their operations. As a result, we realised that there is even bigger scope for the service. So, our innovation lab began incorporating features that have never been seen before in the industry. Chief among those is Affinity. This is AI that learns not only from what people do – but also from what they don't do. It's called observational behaviour learning and it's pretty much what we all, as human beings, do from a very young age.

We look at how we can apply that to the reconciliations space. Once the records have been matched, there are 10-to-11 per cent of exceptions, on average, that need manual intervention. That represents billions of dollars of cost for institutions, as well, of course, as additional risks.

Our AI engine observes the operators, how they do the manual matching, and makes its first assessment of that data directly, based on the history of what that institution has been doing, on how the records were being handled in the past. Affinity then goes into live learning mode, observing in real time as operators change the rules and regulations, and the matching criteria. Applying that learning pushes up efficiency significantly. We are talking way beyond 98 per cent – more than a typical reconciliation platform.

Reducing an 11 per cent exception rate down to two per cent has massive impact on a bank's operations. Whether you're looking at capital-as-a-service or cash and liquidity management, it trickles down through most financial institutions and has an impact across different functions – because, in today's world, with many more people working from home, there is increased potential for errors, combined with massive growth in volumes of payments data, not to mention additional regulatory pressures.

TPM: So, let's address the elephant in the room here… AI takes over tasks that were performed by people. So, why not just throw a huge number of staff at this problem instead?

HK: Doing it the old way, throwing people at it, is exceptionally difficult these days. It's hard to onboard them and they don't have the physical environment where they can interact with each other and validate. Now that workforce is heavily work-from-home oriented, that actually creates exponential problems. By contrast, AIR, which learns from observing behaviours, has a massive impact on speed and efficiency, and allows people to really focus on what's important – and that's the exceptions.

What our AI takes over are the relatively mundane tasks, so that the people can be skilled up to make more meaningful and strategic contributions within institutions. In very few instances have I found that the introduction of AI has led to the ultimate dismissal of people; it's more about re-skilling and re-utilising them because there is a significant skills shortage across the board, especially for these operational roles. Sometimes, AI is incentivising people to upskill. There's a generational change, too. Accepting mundane roles is becoming less and less attractive to younger generations.

TPM: We've seen, during recent months, a huge increase in the volume of payments. I'm talking specifically about low-value card and wallet payments. If you're doing a million reconciliations every hour but then, in a year's time, you need to do 20 million, how does adopting AIR help with that?

HK: That's the beauty of a Cloud-native platform like AIR. It was built from scratch on Cloud technologies, so it's able to expand by hundreds of times the existing volumes of some institutions. During lockdown, it was quite difficult – and still is, in certain geographies – to physically expand the hardware. We've seen instances of institutions reporting tenfold growth in volumes during the pandemic, which, of course, were totally unplanned for. But we coped with it.

A Cloud infrastructure, as opposed to a physical one, allows for much, much faster expansion and adaptation.

TPM: You have a huge number of other products – not least you RDU – and managed services. How does AIR 2.0 work with the rest of the portfolio?

HK: Well, for a start, we are usually the first client for any new product. So,

when my innovation lab comes up with a technology, we insist that it is first run within SmartStream's managed services. We build our models based on maximising operating efficiency for us, and that translates into greater savings for our clients.

So, AI is fully embedded within our managed services, and the benefits our clients get from adopting AI within their environments directly are exactly the same as the ones we are driving for.

TPM: So, the RDU, for example, is using AIR 2.0, which lowers its costs, and those savings are passed on to clients. So, even if they're not a direct customer of AIR 2.0, they are benefitting from it?

HK: Exactly, we tend to share the upside and clients expect that. I've had a lot of discussions where a bank's senior management expects us to be building efficiency into their process and, subsequently, lowering what we charge them, over time. And that's the proper model. Yes, there are higher onboarding costs, but that trickles down, with time, as a result of efficiencies.

> "I don't think there is an option for anyone running any significant reconciliation not to have AI-enabled technologies

As we've recently announced, AI is also being deployed and embedded within our flagship reconciliations solutions. We're looking at areas such as intraday liquidity stress testing for our cash and liquidity management solutions. So, yes, the impact of AI is exponentially growing, both internally, in what we utilise as services, and in what our clients need.

TPM: Banks do have a bit of a reputation for investing in technology and then not using it properly – and with an incredibly powerful AI tool like AIR I'm guessing that could be a danger?

HK: The beauty of AI, and the way we are rolling it out, is that it requires minimal intervention from the technology gurus at financial institutions. It's like downloading an app on your mobile phone, clicking it, running it, uploading the files… it's self-explanatory. I'd say practically idiot-proof.

For any client that wants to come onto our AI platform, it's literally a matter of taking out a subscription. They just drop us a line, we enable access to our Cloud platform and, either through Amazon Web Services (AWS) or Microsoft Azure (and, by the way, we're looking at other platforms), it's done. They can hit the ground running within less than a day.

TPM: Decades ago, banks would try to keep everything in-house. They'd have their own internal datacentres, their own developer team, etc. New entrants are born into an ecosystem , so they don't, for example, have to worry about being a specialist in know your customer. How do SmartStream and AIR work within the marketplace of third-party providers?

HK: You still have the odd financial institution that insists on doing it itself, and, nine times out of 10, the project is halted within a year or two due to cost overruns. There is value in giving projects to an experienced company that knows the best practices and has learned from multiple institutions. We've proved we can do it faster and more efficiently.

We've been handling managed services for financial institutions for almost five years now, and we've seen a massive jump in demand. It's expanding because it hits clients' bottom lines very fast, in terms of the efficiencies we bring, both from a cost and an operations perspective. Right now, it's super-hard to build a business case where a financial institution needs to bring in the hardware and the people necessary to run something non-strategic.

Shareholders have an eye on that. They expect performance. If it's not a strategic or core function, and therefore one that could be outsourced, it doesn't make sense to bring it in-house.

TPM: Returning to SmartStream AIR, what are the future potential use cases? Is there an opportunity to apply this technology to elements like security and data analytics, or are there other, unexpected areas where AIR can be deployed?

HK: We're looking at heavily transaction-driven industries, from telcos to transport and insurance.

More broadly, the impact of AI will continue to grow, even in our day-to-day lives, where we see it impacting on everything from our washing machines to our fridges and the way we run our cars. It's making our personal lives easier, and makes the work of financial institutions and other of our clients easier, too.

When it comes to reconciliation, I don't think there is an option for anyone running any significant reconciliation not to have AI-enabled technologies. It's nonsensical. You've got something that makes it more efficient, smarter, less error-prone. Why wouldn't you adopt it?

Intelligent choice: SmartStream's AI is accelerating reconciliations