There's something in the Air

With the latest iteration of SmartStream's Air platform, Robin Hasson, head of the company's data reconciliations solutions, talks with Karl Loomes about the latest release, AI integration, and the positive reaction from its customers

It is easy to say you are using AI. Indeed, hardly a day has gone by for more than a year or so now, where a quick glance at the news would not highlight a 'revolutionary' new development in artificial intelligence. Likewise, a browse through most fintechs' websites will inevitably result in AI being mentioned front-and-centre.

The levels of true AI integration vary of course. In some cases, it may merely be paying lip service to the buzzword of the day. In others, systems and processes that are not technically artificial intelligence may be getting lumped under the same umbrella. There are also legitimate attempts, of course, to integrate existing AI software like ChatGPT into native systems.

Though many firms could be accused of 'AI washing' for marketing tactics, the truth is that genuine AI, specifically developed to work within a product, can improve and streamline all aspects of a service — from data processing to front end user experience. This is the offering, according to Robin Hasson, reconciliations product manager at SmartStream, the company's latest Air offering brings to the table.

New and improved

Though the Air product was launched five years ago, this latest iteration, Version 9, following years of extensive research, has built on previous foundations to be an all-new offering. Integrated AI and observational learning are two key areas where the latest release "significantly" improves on previous systems, and those of systems elsewhere, according to Hasson.

The system comes by way of two modules — Air Cash and Air Data — a combination which seeks to improve data ingestion, flexibility, security and automation across the front-to-back office. Air Cash handles the variety of cash reconciliations facing firms, while Air Data, as the name suggests, deals with the vast array of unstructured information coming through the system, automating and simplifying what were previously manually-intensive processes.

Both systems integrate AI and machine learning, but unlike in many cases, this AI was built in-house, by trained data scientists and mathematicians that have been working with the new technologies for years. This makes all the difference, suggests Hasson, compared to those simply integrating third-party software like ChatGPT.

He analogises: "If you're trying to build AI for a self-driving Tesla, you wouldn't use ChatGPT, you would design something that can monitor the location of people, spot activity on the road, judge if it is wet or dry. You design specific systems to spot and monitor those things. That's what we do here."

SmartStream sees its client facing four main challenges in this field: data, time, trust, and software-as-a-service (SaaS). Each of these, Air seeks to address.

Data Intelligence

"I think data quality, and assurance of data across the system, is critical everywhere. It's no longer just a back office domain — it's across the board. People want to process data of all sizes and dimensions and learn from that data to improve their business."

Hasson emphasises this key area — data — the importance of which has only grown as AI and an increasingly digitised infrastructure and workflow take hold in the financial industry. The large volumes of data required to offer meaningful insights, as well as the variety of that data, both in terms of quality and source,

are key challenges when attempting to put the wealth of available information to good use.

“Getting the data into the system is often one of the more challenging parts of any data process,” notes Hasson. “You’ve got different dimensions of data. We’re seeing data in much larger dimensions, much wider datasets, with many, many data points. You also have to look at dealing with formats like PDFs and emails, as well as integration with APIs, and the ability to load those into the system automatically is a key advantage of our platform.”

Combined with the ingestion of more structured data, such as XML and JSON — which Hasson suggests is taken as given — Air Data’s AI is able to extract and normalise the vast breadth of data coming into the system from both third-parties, and in-house sources.

“There have been quite a few systems out in the market for many years, really, that can load data, then report and offer trending analysis on it, and other systems designed for control with business-focused features,” Hasson notes. “What we have done here is to build a system that combines both, so you’ve got the flexibility of any kind of data characteristic going through a system being checked for accuracy and quality, with the insights that flow off the back of that, combined with a rich business layer to manage your operational processes.”

The implications of having this clean data, and having it quicker and earlier in the cycle than if the process was undertaken manually or without AI, has knock-on impacts across the board; notably on risk and costs.

Time

Time is money, so the saying goes; an adage that holds true from the onboarding of clients to the early detection of errors.

“As soon as a break is in your system, you have a risk on your books. The longer you leave that, the greater your risk and greater your exposure. What’s critical is to use Air to identify those risks and those breaks as early in the life cycle as possible. The earlier you identify them, the quicker you can fix them,” highlights Hasson, noting the direct relationship between speed and costs.

Speed of error detection and processing is one clear benefit of integrating AI into traditional solutions. Automation takes a process that once would have been a day-long affair, and can cut that from hours to just minutes.

Hasson notes: “When you’ve identified a break, you want to make sure that that exception is routed to the correct teams, it’s tagged appropriately with the right reasons and causation, so you can make sure the right person sees it immediately. Then they fix the problem as quickly as possible.”

Both Air Data and Air Cash add speed into the equation. Cash, for example, can set up a full cash reconciliation in just minutes, despite being able to handle even very complex reconciliations. Data, meanwhile, automates and streamlines processes that would have been both manually-intensive and time consuming, such as cross-checking between different systems, or pre-settlement checks to identify errors.

The benefits of having a SaaS platform also have a positive impact on time. The ease of onboarding, for example, means firms wishing to adopt Air can do so quickly and easily.

“We could have a client live on the system the same day, and the UI has been simplified to promote self-service,” suggests Hasson, meaning SmartStream’s clients will be able to reap the benefits of their new system straight away.

He emphasises: “The ability for us to set up a new firm with access to a system, the ability to upload data and to start getting value, has been enormously accelerated by the approach to cloud-native design.”

Trust

Hasson explains the trust element, both through compliance with industry standards, and through a proactive and robust approach to system security. “Because of our architecture and the way we’ve designed the system, gaining PCI compliance is relatively straightforward,” he notes, though the Digital Operational Resilience Act (DORA) is a standard that is in most focus in the industry today.

Hasson highlights that even institutions in the US, with perhaps only a minor footing in Europe, are still highly conscious of the regulations and potential penalties. “The way we solve DORA, really, is to build the system in a way that means that we’re always on top of the vulnerabilities with minimal impact on operations. Our clients know it is under control.”

Air achieves this through daily vulnerability scans, scanning the code base and flagging up any issues. Urgent issues, of course, are "addressed aggressively", while a six-weekly build cycle — a new updated version released every six weeks — means that they can be ahead of the curve when it comes to potential vulnerabilities, even if they are not critical, or doing so pre-emptively.

Likewise, the microservice architecture Air uses makes any changes "quick and easy" to achieve, with the ability to "surgically correct" any issues without impacting other services. "Because air is architected on the very latest technology, it's extremely responsive to our clients' needs. The exposure to vulnerabilities we see compared to other products on the market is much lower because it's using the latest technologies which are inherently more secure."

SaaS

The SaaS and cloud-based aspects of Air also bring a variety of benefits, Hasson argues, from the security and maintenance already mentioned, through to lower costs and greater scalability. As well as lowering the total cost of ownership, and reducing operating costs for clients, he also notes the adaptability when volumes see high fluctuations — a model he describes as "elastic".

"I think what's important with any business, is that they know they can accommodate spikes in volume without impacting their service level agreements (SLAs) or their regulatory and compliance mandates. The way our system is designed to work, is that it's scalable at the point of need.

"As the demand on the system increases, the elasticity of the system is extended. We add more capacity, and we add more processing power as volumes go up, increasing the available hardware, and as the requirement comes down, we reduce it. This means we are managing the costs in the most economically positive way we can."

A key aspect for clients here, he suggests, is that this elasticity means clients only really see increased costs when overall volumes increase — when their business is genuinely improving, and volumes are growing steadily — and not having to build in extra capacity for spikes.

As Hasson puts it: "You're not paying a significant surplus just because you have spikes of activity from one period to the next, what you're paying for really is a service that aligns with the success of your business. If you're growing your volumes, you're doing more business, and Air underpins this."

The system, and its integration with AI, goes further than this however, with self-service and ease-of-use key to what clients are looking for, he notes. From an interactive assistant, which can guide users through the process of, for example, managing exceptions, Hasson emphasises the aim to enable average businesses users to undertake processes that in the past, would have required IT specialists.

"I've worked in reconciliations for a long time," he notes, explaining: "It was always a technical problem to be solved by the technical folks for the business. Now it's really shifted into being a business-driven function, because they want to make sure the data is accurately processed. They need it to be done quicker. They want to be more in control, and they want it to cost less."

Always learning

Across the two systems, the AI adopts machine learning — often in real-time — to improve and adapt to the user's requirements. Hasson explains the process with matching for example:

"In the case of matching, Air is looking at manual match activity. It does that in real-time, as I'm matching data myself, the machine learning model is being updated. It can then translate this into an immediate return. I start matching my data. It learns instantly, and then as soon as I select the next record, it can recommend to me, using that model, what it thinks I should be matching that record against."

This kind of optimisation is a feature that often gets highlighted as something that allows technology to "reach the next level". Hasson highlights the positive reaction of clients, and the enthusiasm for the Air platform.

"When we demo it, people are kind of surprised how simple it is to train, just select a record, click on the button that says 'I want to match them', and you can see the model being trained. And as soon as it's been trained, you select one record, and straight away it happens. It does have the same feel which we now expect from AI applications in our day to day lives.

"The reaction from people is great. It's not smoke and mirrors. It's genuinely there." ■