Intuitive design:
SmartStream wanted a user interface that behaved like a lifestyle app

Smart thinking

Can AI really make running reconciliations as intuitive as a phone app? Just watch, says Global Head of Business Development for **SmartStream** AIR **Victoria Harverson**

In the world of retail payment apps, it's all about the user experience: you want it to be fast, intuitive, and reliably do what it's supposed to do, under the watchful eye of regulators, time and time again.

But while, increasingly, that is what's being served up to consumers, in the back office, where those real-time payments, initiated by a myriad of different payment options, are being processed and, ultimately, reconciled, things are often decidedly less 'frictionless'.

So, last September, SmartStream Technologies, which provides Transaction Lifecycle Management solutions to thousands of customers in financial institutions, harnessed the power of artificial intelligence to inject some of the AI-powered user-friendliness that the world's become used to into reconciliations. The aim was to create a smarter, faster, more accurate process – and Cloud-enabled SmartStream AIR, which had been trained on real-world data from top banks, didn't disappoint.

With a voracious appetite for large volumes of complex payment information, it proved capable of saving thousands of human hours in routine processing, while flagging exceptions that were becoming increasingly hard to spot.

Described at the time as 'like having a highly skilled virtual operations team on hand that you can tap into on demand', the level of interest in the service surprised even the CEO who'd expressed such confidence in it.

And, just as you'd expect to receive regular updated versions of your everyday apps, SmartStream AIR 2.0 is now ready to install.

Here, Victoria Harverson, who joined the company in April as a senior team leader in APAC sales and was promoted to global head of business development for SmartStream AIR last month, tells us why she is so excited about its potential.

"One of the reasons I joined SmartStream was to get my hands on AIR, because, as a data quality application, it's entirely
unique! AIR leverages pure artificial intelligence to match any data, for any reason, in an instant. But with version 2.0 there are a number of enhancements.**

"First, the company now has PCI DSS certification, which enables SmartStream to get deeper into the payments segment, as it allows it to host different kinds of card and digital payments data. AIR is also SOC 1, SOC 2, SOC 3 compliant and meets ISO 27001 and 2 standards.

"Second, the user experience has been enhanced so the interface behaves very much like a consumer application. Imagine you're at home on the sofa and you download an app from the Appstore. If you can't figure out how to use it in just a few minutes, you're probably going to delete it. SmartStream had that in mind when it looked at the user experience for AIR 2.0. You can figure it out intuitively; no training is needed. Just provide it with any data, in any format, hit the 'Start AIR' button, and the AI does the hard work for you, giving good quality match result in the first pass. ↘

↘ "The original version of AIR used self-supervised and unsupervised learning techniques, but with version 2.0 SmartStream introduced a new feature called Affinity. It's an observational learning program that mimics human behaviour. That took it to the next level.

"AIR 2.0 builds upon the concept that you don't really need to understand the data, as a business analyst might, before you put it into the solution. Every single iteration that you make, every configuration, AIR 2.0 will learn from. When you feed it more complex data, different types of formats and structures, observational learning enhances the solution's capability to understand what the end user is trying to achieve. If you tweak a setting, based on a dataset that you have given to AIR to achieve a better match result, Affinity will learn it. Now, in my industry, that's ground breaking.

"AIR 2.0 will also help with ultra-high volumes, particularly in enterprise banking, where SmartStream is are very much the incumbent strategic solution for data management and reconciliation, and where you need to be able to process *extremely* high volumes.

"AIR is a very real, tangible AI product with a very simple delivery model. You can use AI to check any transactional datasets for accuracy and completeness, so this could be trades, positions, fees, instrument or asset class. It doesn't matter to the AI, it's completely agnostic. The AI in AIR can be used for data quality, as well, in the sense that you can look at linking system data together and checking that they reflect the same things. You can even use it to quickly define reference data standardisation designs, and, in the context of something like a small buy-side, use it to quickly validate third-party reports for the regulators that you're currently using administrative staff or a third-party to execute. This is an area of operational control and efficiency that doesn't always need the same level of human effort, interaction, and skillset.

"SmartStream has been very successful in defining optimum workflows to manage data, particularly in the reconciliation space, so it's really the next logical step to disrupt itself and the market by removing a lot of the human heavy lifting and replacing it with AI and machine learning

components. How far that rationalisation affects a workforce is really a question for each organisation that chooses to adopt AI to address for itself. Those organisations will be looking to reduce complexities and human error risks, and lower costs in their business. An outcome of that will be fewer people dedicated to mundane, manual data-matching activities. But there's also an opportunity for those individuals to be reassigned to tasks that focus more on growth and differentiation.

"Another use case where we've also seen

Cloud first: Partnering with AWS gives a high level of security

a really big win for AIR is IT system migration projects. Replacement and switching out big tools and systems, is really the biggest barrier to change in financial services. We can compare a database of old architecture versus new architecture, using AI, in minutes, whereas those sorts of system replacement projects are often measured in months and years.

"My experience with banks, over many years in fintech, is that they have hundreds of legacy systems, landscapes of applications, some of which interoperate well and some that don't. There's non-standard information and data in each application – and that's a reconciliation use case in itself! But you can't really advance your technology stack unless you're able to

switch things in and out regularly. This type of AI technology for that use case, is transformative.

"You need to be able to partner with the best in the business, when delivering AI. You need to build your AI on the latest technologies, and focus on performance, maintain the highest levels of security, and be ready to fit your AI into applicable ecosystems to stay up to date. SmartStream has built its solutions on the very latest technology – AIR in fact uses some of the same technology that Netflix uses. It's also built on Kubernetes for fast upgrade capabilities, and the ability to change and deploy new features very quickly. The company partners with AWS, because it can leverage the $1billion or so that AWS spends every year on cybersecurity.

"SmartStream AIR enables even large institutions to go live on the same day. It's a software-as-a-service, web-based application, so you can be anywhere in the world to use it. We just set up the security permissions and give access to the users. We can automate the data submissions going into the application, or you can manually drag and drop in the files yourself, but, either way, you're ready to get started immediately, there's no upfront implementation project to consider. Nine times out of 10, you're likely

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start seeing a return on investment in the first week of using AI in this way, because it represents a genuine step change. Processes that take weeks and months are measuring in minutes with SmartStream AIR and the software-as-a-service subscription pricing models for large institutions make total cost of ownership transparent and controllable.

"You have to disrupt or be disrupted in today's world. SmartStream has been in business for 40 years, and combining that experience from around 2,000 customers, 70 of which belong to the top 100 banks, means it knows the clients' business and technical problems inside out. It already designed the best practices for data reconciliation but with AIR, it wanted to achieve something unique, something really new. Believe me, it's done it." ■