Focus on what matters!

The Diffusion Intelligent Event-Data Platform from Push Technology was named the winner of the "Most Impactful Project" in the Cloud Deployment category of the recent IBSI Global FinTech Innovation Awards

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In November 2019 GRATISBROKER, the first free online German trading platform, chose Push Technology's Diffusion® Intelligent Event-Data Platform to deliver trade data and process trades in real-time. Diffusion Cloud offered GRATISBROKER an enterprise-grade, high performance, and scalable solution without the need for an in-house IT team. GRATISBROKER operates on mobile phones, tablets, laptops, and desktops, delivering real-time trading with zero latency, while efficiently minimising the amount of data required to be sent to customers.

Philipp Roeben, Co-Founder & CIO, GRATISBROKER, said: "In addition to the simplicity of use for traders, we have architected our platform with Diffusion in the cloud to seamlessly scale up and down based upon trading demand; and, using the cloud infrastructure in the most cost-efficient way results in minimal administrative effort. With Diffusion Cloud, we have a competitive cloud offering that allows us to easily grow our business from start-up to high volume trading."

Sean Bowen, CEO of Push Technology, said: "This award is a testament to our focus on innovation and quality. Diffusion Cloud is proven to remove the real-time, event-data consumption, enrichment and delivery challenges faced by many organisations across industries and this is also the reason why we have a strong presence in the financial services sector. Diffusion Cloud enables companies to focus on what matters – the future growth of their businesses."

Bowen added: "The world is changing, especially in banking, in terms of what's acceptable and what's not acceptable to customers with regard to charges. High brokerage fees are one of the things that isn't acceptable which is the reason why GRATISBROKER was founded.

Sean Bowen, CEO, Push Technology

"Why is GRATISBROKER successful on the Diffusion platform? I like to think because we enable all our customers with the fastest, easily scalable, and most efficient event-data platform to fit their business requirements, whether they want to operate in the cloud, on-premise, or in a hybrid environment. This flexibility allows them to deliver the best possible experience to their customers. Data efficiency is key, especially in today's COVID world. Sending a lot of data that doesn't need to be sent impacts application performance and increases costs. We have purpose built the Diffusion platform to maximize efficiency with our delta streaming technology. For our customers this assures optimal performance and drives down their ongoing operational costs.

"In developing the Diffusion platform, we also took into account the full event data ecosystem. The challenges to be met are not

only about moving data; but also include how easy we make it for customers to integrate their back-end systems. The world we are in now has increased pressure on companies to build and innovate, as quickly and inexpensively as possible, in order to remain competitive. Hence, the movement around low-code/no-code development.

"We have been on the low-code/no-code journey for a while. Our successon that journey enables companies like GRATISBROKER to build their system very quickly, iterate and innovate at speed, and get to market fastwith something that will perform under high stress and at scale in the most cost-effective way. We have the ability to deploy our software anywhere you choose to suit your business requirements. You can easily manage Diffusionas a self-hosted solution or, alternatively, we have the SaaS version, which is what GRATISBROKER chose, where we host and manage it for them."

How has Covid-19 impacted business?

Between 31 March 2020 and 30 September 2020 Push Technology made its Diffusion Cloud free for all existing customers and new customers developing systems in the cloud during these challenging times. The offer included: no restrictions on message or connection volume; free on-boarding and operational support services; and architecture design and build guidance. Bowen said: "We turned off billing for 6 months because we felt it was important during difficult times that we did our bit to help and support other companies. We were fortunatebecause we have a big on-premise business to generate enough money to keep the lights on and be profitable. However, we knew our cloud customers, who are generally smaller customers, could be struggling. That is one way we gave back to the community."

Looking at how the pandemic has impacted Push Technology's larger customers, Bowen noted: "For some companies the effect was to halt development, in others it has accelerated the development projects. From a cloud perspective it has been a massive boost – because people are working remotely and Diffusion Cloud plays in that space brilliantly. It sits on the Internet and it can act as a conduit between your back end systems and your applications."

What is Push Technology doing to develop its offering?

Product development has continued throughout the pandemic but not necessarily in response to the pandemic. Bowen explained: "It is not a COVID story, there is just a massive change going on in the market that has been happening for a while, and we have been positioning our product as a leader in the space.

"There have been three major trends in the last 18 months to 2 years: IoT (Internet of Things); microservices (where monolithic systems are being broken down into smaller, reusable components); and products like Kafka (a unified, high-throughput, low-latency platform for handling real-time data feeds) coming along. The world has been looking closely at event-driven data and that has caused a lot of people to look at our kind of platform."

What about security in a world of dispersed workforces?

"It's a massive plus for us. It is why a major US exchange picked our platform. Most big organizations have loads of disparate systems that they want to consolidate on one platform. They are concerned about volume of data and also about data security. This is something we have addressed in the past mainly because we have been selling to banks and gaming companies for years. Last time we did a calculation we were processing $8.2 billion-worth of bets a year through our platform and heaven knows how many trades go through our platform from the banks through our platform. Security has been on our radar since day one.

"There are couple of things we do that no one else does. Most products give you access/no access to a system. There is no fine-grain access control. Diffusion security access control is at the finest granularity. We have a pub/sub model that is quite common in messaging. It means that we have a topic, and I can publish to it and you can subscribe to it. You only get data if you subscribe to the topic and we lock security down at that level, so if there are millions of topics and I can give you access to, let's say, 10 of them. We can also break the data down that is secured in those topics into sub-topics on the fly and secure at a lower level. The fine-grained dynamic access control means people only have access to data that the company allows them to access. Access is completely dynamic, I can turn it on and off at the click of a button, I can give or take away access immediately in real time. The other thing we do with security is to make sure that it works with all the systems that people have in place today,so Diffusion can easily integrate their security stack."

What was the company's smartest move?

"The smartest move that any company can make is to hire the right people. I think we are fortunate and blessed to have some phenomenal talent. They make smart decisions, and we deliver some smart products. However, if I were to pick one thing, it would be our data efficiency technology. Messaging is like a traditional postman who delivers all of a letter every time you receive one. We work more like video, so the first frame every pixel is sent, but the data we send for the second frame is simply what's changed – the delta - only the pixels that need to change to change one picture into another.

"I am also loving what we're doing in data wrangling now which no one else appears to be doing. If I think about the world we live in, the whole low-code/no code movement is addressing resource shortages. Some 60% of CIOs will have a low-code strategy in place by 2025. The capabilities of the Diffusion platform to aggregate, transform, and filter data in-flight saves months of effort for development teams. This is exciting and valuable innovation.

"We originally focused on gaming and finance because those were the sectors that demanded real time data but it's a small pond and mainly full of enterprise customers. Today, there is a massive ocean of businesses looking at real time data across every market sector. Our pipeline now compared to two years ago couldn't be more different."