F I N T E C H　　F O C U S

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What can you tell us about your business?
Chronicle is a boutique provider of low-latency technology solutions for the financial services industry. Since our inception seven years ago in 2013, we have rapidly gained a reputation for delivering market-leading, high-performance trading technology solutions to some of the world's most demanding firms. Our aim is to lift the performance restrictions on how our clients design, manage, and monitor their systems, freeing them to focus on their business.

Our solutions are unique in that they provide our clients with the ability to leverage Chronicle's own set of fully configurable, customisable trading system components in conjunction with their own proprietary algorithms and in-house systems. We bridge the gap between "off the shelf" vendor software, which so often fails to provide the flexibility, throughput and latency goals that are essential for financial firms to remain competitive, and bespoke, custom-built trading systems with their associated costs and risks.

What has been your journey to current position?
Chronicle represents a means of addressing many of the challenges and issues that I've encountered during the course of my own professional journey. I have long been an active and vocal Java champion and Open Source advocate, both within the financial services industry and beyond, even prior to founding Chronicle.

We recognise that clients want, and need to, internalise knowledge and understanding of their trading systems – rather than relying on external vendors for every change, support and upgrade. Cost-cutting is a predominant issue on our clients' minds, and smaller team sizes, so there simply isn't the budget to spend on expensive external implementation teams for a new trading system or enhancements. With that in mind, our focus is also now on empowering and educating clients to use our products, and providing support for them.

What interested you in this space?
From a technical perspective, low-latency, high-performance software is a huge challenge, and one that I've always found to be irresistibly intriguing. I've always been really fascinated by problems such as how to make software go faster at latencies that are almost incomprehensibly tiny to the human mind.

More recently, I've become very interested in how to improve developer productivity and help developers to become more efficient, specifically how we can adapt our software and services to enable this. This is again both a reflection of and reflected in our shift as a business model towards empowering and enabling our clients' development teams to make the most of our software. This includes things like developing and communicating better testing methodologies, and providing more of the functionality that developers need.

Where do you see the opportunity for you in the global market?
We've been fortunate in having an international client base from early on. Our development team is primarily based in Europe, but our client base is global. Asia is a significant growth area for us at the moment and we have recently opened an office in Singapore.

Covid-19 has been a challenge for many firms operating in our space; with client budgets coming under strain and frequently being redirected to focus on work-from-home and remote working provisions. However, it has also led to exceptional market volatility, which has led to increased opportunities for a robust high-throughput, low-latency trading system, such as the one we offer.

What are some of the major changes and challenges facing the industry that your company overcomes?
Cloud is an area in which financial institutions are seeing major change. The prospect of much-reduced time to deployment is a major driver towards adoption by firms, currently. At some investment banks I've worked with in the past, it could take up to 9 months to procure the hardware required for deployment of a new system. With public cloud infrastructure, this lead time is eliminated.

The main challenge that our clients come to us with is that a lot of data distribution libraries use UDP to broadcast market data messages. From a manageability perspective, this is a nightmare, potentially flooding the network with data; as a result, none of the cloud providers support UDP, they only support TCP.

Therefore, a major challenge with cloud adoption is that firms have to reengineer any systems that publish or consume market data, to support TCP. As it happens, Chronicle has always supported TCP for our market data components, so by happy coincidence, we were cloud-ready even before the demand was there!

How does your company differentiate itself from its competitors?
At Chronicle, we've solved all the problems of failover, high availability, performance and scalability, so that our clients' developers can focus on those pieces of the puzzle that solve the business problem and take their trading performance to the next level. We give our clients' development teams the support and guidance on structuring and testing our components, and our ongoing technical support ensures that they always experience the highest levels of service. Our emphasis is on enabling and empowering the talented people within the client's organisation, and building their capabilities around our products.

This method of working has yielded significant success on our client engagements. For example, we co-developed an FX trading system for a tier-1 investment bank, replacing an off-the-shelf vendor product in less than 6 months, and immediately enhancing the client's business and performance.

What do you feel are the biggest obstacles facing the industry?
There is a shortage of top developers who are both capable of understanding the complex business of financial firms, and building the high performance, easy to maintain trading systems that these businesses require – this is a small pool of people who are in extremely high demand.

How do you plan to overcome those obstacles?
We do tend to hire more experienced developers, with 20-30 years experience in the industry. They've seen many trends come and go and have an enormous depth of understanding. They've also worked for many different organisations and bring a breadth of experience across the sell-side, buy-side, trading venues and other consultancies and software vendors.

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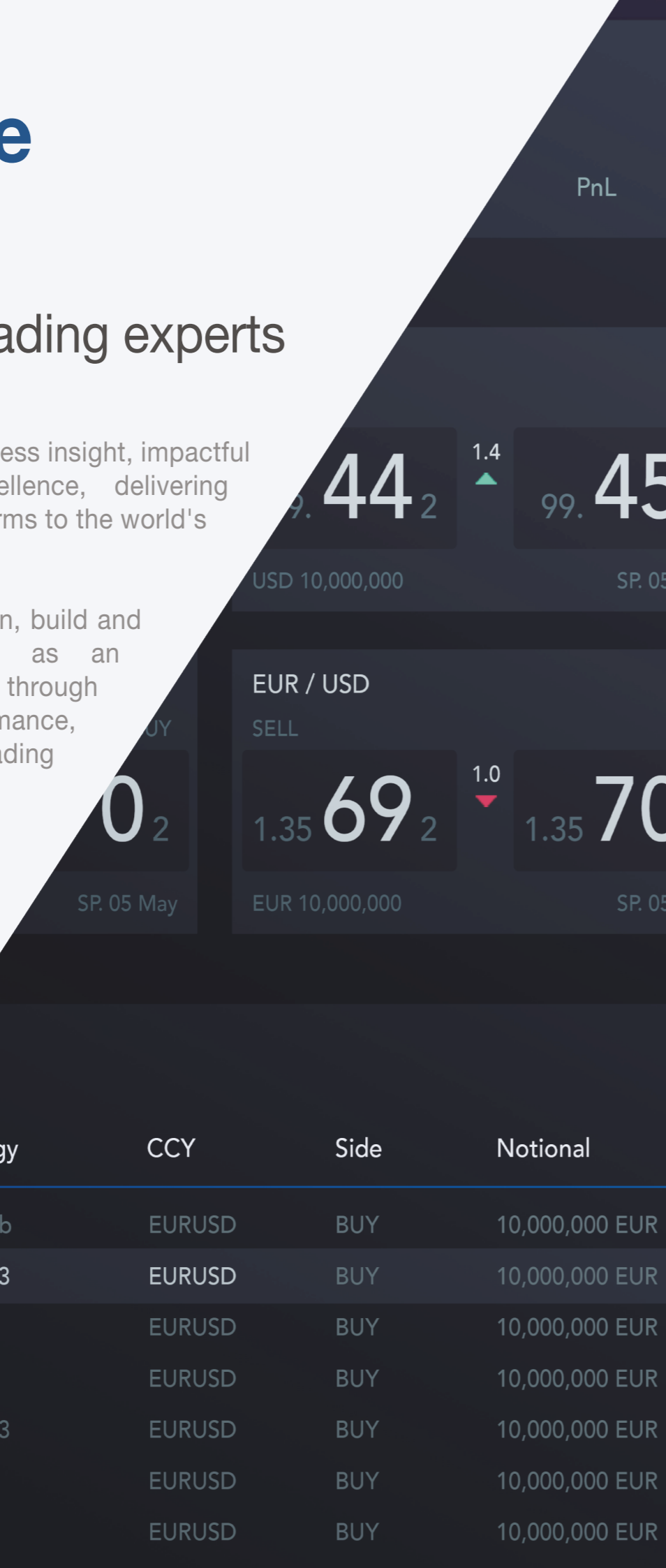
We aim to help improve a development teams' productivity by up to 30% through training and support, and by reducing the risk associated with delivery. This then translates to a corresponding reduction in time to market across the delivery of a project, freeing up more capacity for other projects and deliveries.

What makes your company an employer of choice?
We appeal to developers with our flexible work-from-home practices, and by being very flexible in terms of work-life balance. We have a great, highly experienced team, and offer the opportunity to work on really interesting technical problems at the cutting edge of technology innovation.

Because we've been a company that has offered remote working and work-from-home arrangements for many years, we have not been as impacted as others by the pandemic and by lockdowns. Given our geographically diverse team and client base, we have never needed to have people in a single office all the time, and this also led us to an early recognition of the

need to prioritise work-life balance for our employees. We have been able to continue working and delivering as a team, rather than redeploying efforts to transitioning our workforce to the new working paradigm.

What are your plans for 2021 and beyond?
We will continue our strategy of global growth, and our expansion into Asia, as well as developing our offering for crypto markets. We are also continuing to develop our product offerings and licensing model, and support for cloud-based deployments.

What areas of financial services do you see as most ripe for disruption by technology?
If you look at what happened with PC innovation, businesses used to drive PC requirements, but over time, gamers' demands eclipsed business requirements and the push for high performance came from the gaming market. We see crypto exchanges as driving higher transaction rates and more novel order and transaction types. We are looking to actively embrace these sources of innovation from outside

the traditional financial services industry.

Hardware has also been shifting towards super scalability, and tapping into this, working with NVDIA graphics cards – it is something we are investing a great deal of R&D into at the moment. Take, for example, the work we are doing on pre-trade risk for Equities, with the capability to run risk metrics on a portfolio in excess of 5000 securities in microseconds.

What do you think the financial services sector will look like in five years' time?
Financial markets will become much more electronic and automated across all participants, and Covid-19 has been, and will continue to be, a huge driver of this. Pre-Covid, we had seen a move towards greater automation, but most roles and functions in banks had not changed. Now, as a result of the Pandemic, there has been an acceleration in uptake and greater adoption of more virtual interaction between bank employees and clients, which opens up potential for greater technology augmentation.

I think the financial services industry is going to start taking more cues from things that crypto exchanges and challenger banks are doing right now – shifting to a cloud-native proposition, and greater product innovation. AI will become more mainstream. From our perspective, AI is all about the ability to process vast quantities of data at extremely low latencies, and our whole model and proposition is built around this, so we will be at the forefront of innovation in this area.

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