High Performance Data Platform Targeting Big Data Use Case

brytlyt is a High Performance Data Platform targeting the Big Data use case. Unique patented algorithms in the database engine are married with high performance hardware to provide blinding performance and exceptional ROI.

Interview conducted by: Lynn Fosse, Senior Editor, CEOCFO Magazine

CEOCFO: *Mr. Heyns, what is the concept at Brytlyt?*
Mr. Heyns: The concept of brytlyt brings together two things. One is some really innovative patent pending algorithms and data processing, combined with some really interesting hardware in the form of graphics processing units. What we are selling is train of thought analytics on big data. We believe that we have an edge on any other technology available today to deliver true train of thought analytics, something the big database vendors of today are wrestling with it. The big database vendors today are using yesterday's technology – brytlyt is a fundamentally new approach to how we think about and process large data that is truly disruptive in this space.

CEOCFO: *What have you figured out to how to accomplish all of this?*
Mr. Heyns: every day people like you and I leave behind digital footprints. When we go to restaurants, when we use our credit card, when we do our weekly shop and when we are online, all of this leaves a trace of information – a footprint. Together, this forms a signature of who we are and how we want to engage with the world. Companies today

Richard Heyns
Founder & CEO

are very interested in engaging with their customers as individuals. If they can understand our digital signature and understand how we want to engage with the world, they are better positioned to engage with us as individuals. I have worked on Kroger's big data. Four times a year they send off 11 million mailings. Each mailing is unique and tailored toward each specific customer and this mailing has generated 10 billion dollars of revenue for Kroger. It is an amazing value add proposition. But, while working on this data and while we are doing these amazing things, it felt like walking through treacle. Although we had the best technology money could buy it still took weeks to generate the mailing. It was during this time I had a "what if" moment. I was thinking what if Kroger's customers could be engaged in a real-time way when they go to the check out or when they are online. What if Kroger could understand individual customers' behavior and respond to each customer as an individual. The technology we were using did not support this. What if we used graphics processing units and combined with algorithms that are incredibly efficient –a fundamentally new way to how we think about data processing and data analytics. We have put these together to offer a platform that provides true train of thought analytics. Companies can understand who their customers are and respond in real-time. This is something that is radically different to anything that has come before.

CEOCFO: *Would you give us an example of how it would work?*
Mr. Heyns: brytlyt is a data platform relevant to a range of verticals. Retail is one; financial services and insurance are others. The retail use case is probably the one that makes most sense to look at; we are all customers. By collecting information on transactions and shopping baskets from a customer over time you can gauge how that individual shops, what their behaviors are, why they are going shopping, what they want from their shopping trip. When they are next at the checkout, one has a wealth of information and knows how that individual would like to shop as well as the things they are interested and not interested in. The cashier could give them a coupon after they have done their shopping. This happens already but not in a targeted, relevant way. What if the cashier could make on the spot offers and promotions directly related to the items the customer was currently buying. This is even more relevant when customers are shopping online more. Amazon has done a great job at presenting suggestions by looking at data and understanding when people buy certain things, what they buy alongside those. One could go a step further by generate promotions in real time that customized for a specific individual at a specific point in time. On a screen, you cannot offer 500 promotions; you can only offer two or three. The offer needs to be really relevant; otherwise, it will be ignored. Facebook and Google do the something similar, but the ads need to be refined - their promotions are not necessarily as relevant to a particular person at a particular time.

CEOCFO: *Your system has the ability to track what has happened very specifically, which allows you to have very targeted offers?*
Mr. Heyns: We provide the technology – an enabler. We are not a data science company or a retailer. Retailers have a very good idea of what they can get from their data. The problem here is that the data is so big it takes a lot of time to explore. Insight discovery is an iterative process and relies on submitting many queries before correlations are discovered. One starts with a premise - is there a connection? Then you start to search for it. When you run queries on big data, they can take hours and days to get results back. It is a slow process and not at all train of thought.

CEOCFO: *Where are you in the development and commercialization introduction of the process?*
Mr. Heyns: We are at the very early stage. Our plan is to release our first version one of the product in six months' time. We plan to have our first sales within 12 months and to be fully profitable within two years. Our ambition is in six years to secure a significant portion of the big data market projected to be worth $70 billion.

> **"What we are selling is train of thought analytics on big data. The big database vendors today are using yesterday's technology – brytlyt has a fundamentally new approach to how we think about and process Big Data and is truly disruptive in this space." - Richard Heyns**

CEOCFO: *What have you learned so far? What has changed from the original concept or from the way it worked until today?*
Mr. Heyns: I would say that I am learning new things every day. Some are trivial and some are eureka moments. Two things have struck me the most in the journey so far. One is the importance your belief and your vision, you need to rely on yourself. There is a constant stream of information and people giving you all sorts of advice –some it constructive and some not so constructive. You have to rely on your vision to sift through is all. If you have a vision and a belief, then rely on it - starting a business can be tough at times. The other thing is communication the vision is important. You need a team of people who believe in the vision and who can share it. Messaging is fundamental to the success of the company. The message needs to be expertly refined, focused and simplified. I work with the technology – what is familiar to me is not familiar for someone else. You need to understand how to communicate the vision and the benefits - everybody can relate to a product if they understand the benefits. No everyone is that interested in technical details. What people want to know is how it is going to help them and make their lives easier and better.

CEOCFO: *Are you funded for the steps you would like to take?*
Mr. Heyns: We have angel investment covering our development. We are looking for further funding to take the product to market. We realize we need to get to market quickly and we need to get to market with a product that is solid and offers tangible value.

CEOCFO: *Why are you so sure you have it right?*
Mr. Heyns: This is how I see it. One thing is the technology, and I really believe in our technology, and we have definite market application. We also have compelling results from recent benchmarking – particularly JOIN database operations. A join is the most useful of all database operations and also happens to be most resource-intensive. We ran a join of 15 billion elements on a single GPU card in under six minutes. To put that into perspective, the same load on Google's big query platform would have taken 30 years. The brytlyt technology is simply amazing!

BIO: Richard is the CEO and Founder of brytlyt. Richard was responsible for the initial research in bringing database processing to General Processing on Graphics Processor Units which forms the foundation of brytlyt's intellectual property. Richard brings with him 15 years' experience of working on large business intelligence and Big Data projects.

Brytlyt
+44 (0) 7966 060 201
www.brytlyt.com