Who is NostraData?
NostraData was founded to improve access to information across the pharmacy supply chain and is connected to more than 4,600 pharmacies and over 7,500 database sources across Australia. NostraData services help pharmacies identify opportunities in their dispensary and retail through reporting and analytics, as well as support rebate payments from suppliers and patient adherence programs.

The value of data is determined by fast delivery
Working for large pharmaceutical companies in a previous life, Mike da Gama, Co-founder and Director of NostraData, was frustrated with the delays in getting the data he needed to provide meaningful insight to drug manufacturers and help his pharmacy partners better serve their patients. “It sometimes took weeks or even months to get the data we needed,” he says. “By then, any insight we could offer would be useless and out-of-date. I decided to start NostraData to collect and analyze pharmacy data to help drug manufacturers research the use of their drugs in real-world scenarios and make more informed decisions. Our envisioned network would connect wholesalers with supply partners, reward pharmacies for supplier loyalty and give them the insights to operate more effectively.”

NostraData soon attracted brands such as Pfizer, AstraZeneca, Boehringer Ingelheim, and Novartis to its proposition. The team used SQL Server to safely and securely load, clean, process, and map the daily data it collected from its member pharmacies. However, as the company grew, data processing time was approaching a full day. Though a lot better than the weeks and months da Gama had experienced before, the user experience was deteriorating. The processes took up precious development time and he noticed that the team was sitting idle waiting for data processing to finish. With a view to the future, da Gama realized NostraData needed a scalable, innovative, and well-supported solution to help with data processing.

70% faster data processing and huge storage savings
Da Gama comments: “Our business strength is fast onboarding. If we onboard a new customer today, we want to present them with meaningful insights tomorrow. The solution needed to easily scale as we are constantly re-indexing and correcting our databases. We also required simple maintenance and a predictable cost model as we grew. Finally we needed the ability to upgrade the solution in situ without having to disrupt our business. SQL was not scalable enough for our analytics requirements, but it was a cost-effective transaction processing solution, so we looked for a dedicated analytics solution that would allow concurrent analytics and data access for full efficiency.”

“At a Glance
■ Industry
Technology
■ Location
Australia
■ Challenge
Shorten data processing time for a fast-growing business and provide a next-day onboarding experience for pharmaceutical analytics.
■ Products and Services
Vertica Analytics Platform
■ Critical Success Factors
+ 70% faster data processing
+ 93% cloud storage savings
+ Scalability to support 6-fold data growth without compromising performance
+ Simple maintenance and predictable pricing
+ Customer onboarding in less than a day

“Vertica provides the performance, storage and scalability we need.”
— Mike da Gama
Co-founder and Director, NostraData

Case Study
Analytics and Big Data
NostraData looked at data appliances but found them expensive to implement and difficult to scale. They also looked at Snowflake, but needed advanced analytical capabilities like time series analysis with conditional event and windowing functions, and the freedom to control partitions and add their own user-defined functions. When the team came across the Vertica Analytics Platform, they liked what they saw. It had all the advanced analytics they required plus machine learning. In a benchmark test between Vertica and SQL Server, a Vertica solution looked very promising. “We loaded the same amount of data in SQL Server and Vertica, running the same queries against them. Vertica processed the data 70% faster, and while it was processing we could query the data at the same time, all leading to a much faster response time for our customers,” comments Da Gama. “Vertica’s data compression impressed us too. We have historic data that we need to keep for compliance reasons and the cloud storage for this was expensive. With Vertica’s 77 percent data compression we were able to save 93 percent on data storage.”

**Vertica scale and speed for seamless next-day onboarding**

Although NostraData had support from local Vertica experts, they were pleased to see how engaged the online community is. Vertica users are always keen to share their experience, with hints and tips for other users. When NostraData was hiring a database analyst, their preferred candidate was an active member of the Vertica community, bringing exactly the expertise and innovation NostraData looked for.

NostraData is now several years past their initial decision for Vertica and still convinced it was and is the right one for them. As Da Gama says: “We have grown from supporting 1,000 pharmacies to over 4,500. Throughout this exponential growth, Vertica has stayed the course with us and given us the consistent next-day onboarding we pride ourselves on. We now manage 4TB of compressed data. We started this process with 4TB of uncompressed data, so I dread to imagine what this growth would look like in SQL Server without the benefit of effective data compression. Instead, we are thrilled to have one database which is easy to maintain and support while managing multiple processes, nodes, and development instances. Vertica enables us to deliver an efficient and effective service to our customers.”