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Scientel® and the Big Data Revolution

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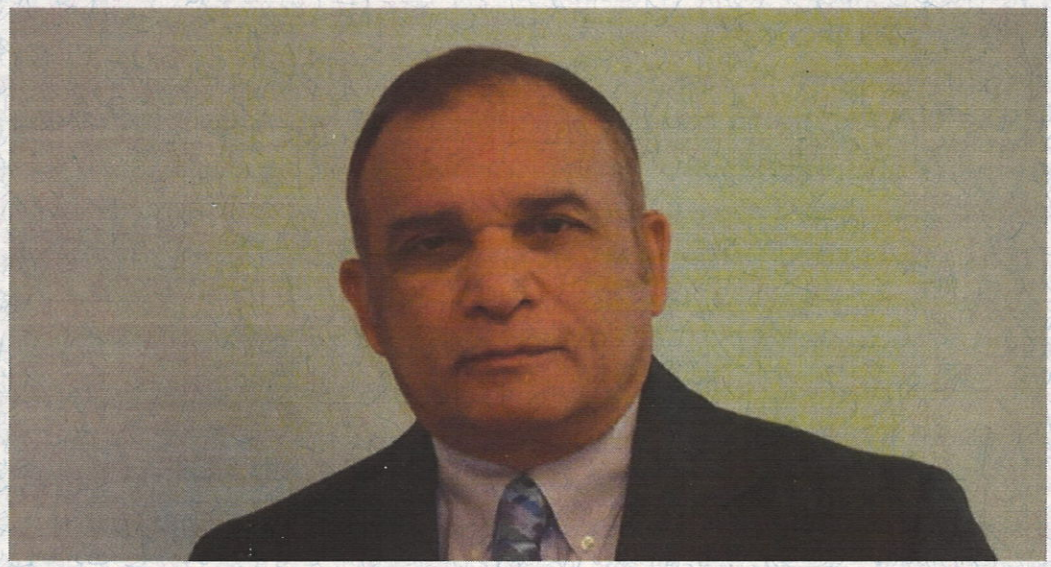

Scientel CEO, Norman Kutemperor, is not one for convention. As one of the very few who correctly envisioned what big data would become, he immediately put in motion plans to ensure that this new industry would not fail before it began. His polymorphic DB solution will forever change 21st century business.

Long before data management software began to falter in the face of the big data "tsunami" now upon us, Scientel was already working on a solution. Companies were receiving large inflows of data due to the increasing popularity of the internet. Suddenly, businesses had a wealth of information at their fingertips but it was raw and difficult to manage. And so, big data management concepts came on the scene, promising to provide a long-lasting solution. But the most widely accepted legacy data management design – SQL (Structured Query Language) – was lacking something. SQL was focused on structured data, not unstructured data — this is, in fact, the bulk of the big data that is causing worrisome problems today. However, it remained the only option for a long time. Then came a revolutionary idea and language from Scientel's founder, Norman Kutemperor that would give business leaders complete control of their data flow and the power it contained. He called the language NSQL©®. This was the game changer.

When Norman Kutemperor founded Scientel in 1977, he had a clear vision of the future of what would later be called "big data" and now it is finally here. Right from the outset, he and his team were working on a comprehensive database management system that could cost-effectively handle structured (business) and unstructured (content) data quickly and accurately, a method known today as multi-modelling. This system would help businesses make split-second decisions and drive up sales and revenue. He quickly saw that SQL was limited, as it only handled structured data efficiently (which is now only 20% of data on average) and with limited scalability. But to disregard most of the data was to forfeit significant returns.

And so, NoSQL was born, with Norman Kutemperor (known as "The Voice of Big Data") leading the way. Norman pushed his crusade for robust data systems at conferences and conventions the world over until many began to understand what he was driving at. The flagship product of Scientel – Gensonix® NoSQL DB – was the solution many had hoped for. The latest version

is able to handle up to eight million transactions per minute (TPM) on a single node server; essentially a small tower – and it doesn't stop there. The Gensonix "polymorphic" DB product is designed from the ground up to cost-effectively handle BOTH structured and unstructured data in ONE database – in virtually any digital format and with pinpoint accuracy – and at blazing speed. In other words, this is big data management at its best.

Many internet giants switched to NoSQL DB just in the past decade (but long after Scientel) for the reasons stated here. NoSQL helps companies most efficiently to make use of information that would otherwise have been ignored. Information such as the time of day people frequent your website, or which searches led them there, or how and when people make purchases on your website, as well as locating a lost picture with your old classmate who is now a dignitary, or storing any type of digital content, querying it, retrieving it and performing a search on the textual data – all such information can contribute heavily to the "bottom line". Structured data might be similar for a lot of businesses, but unstructured data is what can really determine whether a business is headed for a boom or a bust.

Norman Kutemperor was able to identify this strategic need for businesses and he stuck with his unpopular stance, which is why he is a recipient of our CEO award. But his innovation hasn't stopped there. Once again, Scientel is cooking up something special. The ever-changing landscape of the technological world presents constant opportunities in the face of challenges. The next decade will demand faster and more adaptive polymorphic DB management systems capable of capturing "floating" data. Cloud storage is fast replacing traditional storage media, which will make data more accessible, but not as quickly. Scientel's solution promises to be just as transformative for the cloud industry.

A commitment to higher standards, deep thinking and long-lasting solutions has moved Norman Kutemperor to the top of the pack. Big data is still a young industry but it is already making a huge impact. Last year, big data's financial impact on the US economy alone was reported as US$156 billion. This figure is expected to reach the trillion dollar mark within the next few years. Its impact on the global economy is yet to be determined, even as information from developing regions is still unconfirmed. The rate of growth is phenomenal, despite the major setbacks. The lack of big data analysts has stifled the potential impact of this industry, a situation that will remain with us for at least a few more years, while the workforce is being trained.

The role of Norman Kutemperor and Scientel is an enviable one. Their innovative approach is not only providing solutions for major corporations, but also for much smaller enterprises, not quite qualified to be classed under the big data banner. But as Gensonix helps companies make smarter decisions faster, it probably won't take companies as long to grow as it would have a decade ago.

As true big data impacts organisations of all sizes, Norman Kutemperor and Scientel addressed this issue from the bottom up for all sizes of business. Gensonix is available in multiple configurations to fit any budget. Gensonix effectively addresses the four 'V's of big data, namely Volume, Velocity, Variety and Variability. To this end, Gensonix specifically identifies and addresses the seven key features a modern DB must have, namely, multi-modelling, document stores, NSQL language, SQL queries, transaction processing, massively parallel processing and "never-slow" content stores. The NSQL language is designed to be economical to adopt without having to resort to expensive languages such as Java or C for major developments and it is easy to learn and simple enough for amateur programmers as well as postgraduate computer experts. Unlike other DB languages, it incorporates clear-cut techniques for handling the various data stores without having to go through inefficient add-on methods. Its simplicity makes it ideal for simple projects as well as complex procedural systems. In other words, it can take on any task such as large configurations of Gensonix that allow scaling to huge databases at reasonable costs.

These combined features assure what is called "datability" – the ability to use large volumes and wide varieties of data sustainably and responsibly. This is what Scientel calls the ultimate V – the data Viability. One can then define prescriptive, needle-moving actions and behaviours that start to create bottom-line value. In this regard, companies and organisations must be Data Viable and Gensonix can help assure this. Thus, the NoSQL database management system from Scientel really is in a class of its own. The achievements made by Norman and his team cannot be ignored. Their ability to reach into the mind of decision makers and provide a product that will help them set their operations apart is quite unique and we commend them for a job well done. This is a CEO and a company on the right track.