

# A disruptive force in the analytics industry – LMG service sets a new benchmark for retail analytics thanks to Kognitio

What has never been possible is now reality: Kognitio enables retail insight on full-volume data at high speed

Thanks to Kognitio WX<sub>2</sub> we are now getting results in minutes rather than hours; before seeing WX<sub>2</sub> in action we would have thought this to be impossible. This level of retail analysis will give us a leading edge over our competitors; WX<sub>2</sub> will be a disruptive force for good.

*Peter Gleason, managing director of Insight and Communication division, LMG*

## Introduction

If you have ever wondered how retailers understand their shoppers' buying habits or how their CPG (Consumer Packaged Goods) suppliers gain insight into which of their products or sales promotions are the better performers, then you need wonder no more. It's all a matter of data analysis; taking all the information collected out of Electronic Point of Sale (EPOS) terminals and putting it into an environment where you can analyze all the transactions and get insight into which products sold where, how and why. Was it a promotion that led to an increase in washing powder sales or was it a case of shoppers switching from one brand to another? Such insight is incredibly powerful to retailers and CPG companies; once armed with the answers, these businesses can begin the process of refining their strategies to ensure customers buy more of a specific product at a given time, in order to increase market share and revenues.

## Loyalty Management Group

Loyalty Management Group (LMG) helps retailers and their suppliers gain such insight. This UK-based agency, now owned by the Canadian company Groupe Aeroplan, is focused on providing data analysis services and the development of customer reward programs. While known in the UK largely for operating the Nectar loyalty card and having created the Air Miles brand, its Insight and Communication division also seeks to help companies worldwide get more from their data. LMG aspired to allow companies to analyze retail data in order to maximize sales efforts, productivity and effectiveness of promotions. In short, a leading retailer and its CPG suppliers were to gain an environment where they could analyze sales data on their products, along with other products in their sector, and understand customers' buying habits. But doing this would be no mean feat; to achieve this, LMG sought to create a near-time analytical environment where all EPOS transactions, not just sampled data, could be analyzed. LMG strongly believed that it could not offer this level of analytics on full volume data using its existing database environment; it was trying to do something that had never been done before in the UK: offer a rapid analytics

service on two year's worth of full volume EPOS and customer data via an interactive, web-based service.

## Challenge

LMG wanted to change the dynamics of the analysis game; the team realized that analyzing sample data would not give their customers sufficient statistical confidence that they were getting the correct answer to their complex questions. Instead, LMG wanted to give its clients the confidence that the results reflect reality as all the data is actually in play.

## WX<sub>2</sub> enables Self Serve

LMG's ultimate objective was to implement a solution called Self Serve, whereby LMG would offer a leading retailer and its CPG suppliers the ability to analyze full EPOS data volumes extracted from this retailer's data warehouse. To do this a new technology was required. After an extensive period of evaluation, LMG chose to work with Kognitio, a provider of business intelligence and data warehousing solutions, and its analytical database WX<sub>2</sub> to enable the deployment of Self Serve.

Through Self Serve's web-based interface, this leading supermarket and its CPG suppliers can see the performance of all products in a given category; WX<sub>2</sub> will return the relative performance of that supplier's product versus the competition's. Furthermore, by leveraging the power of WX<sub>2</sub>, Self Serve generates reports on the likelihood of a customer switching products, on customers' behavior and the types of products being sold.

Through working with Kognitio, LMG's Self-Serve application offers retailers and CPG suppliers "train-of-thought" analysis with near real-time data processing, allowing them to gain unparalleled levels of insight—a real advantage on their competitors. Moreover, the level of granularity the analyst can now achieve in terms of the complexity of the questions that can be asked has now been significantly increased. Today the analyst has a much higher degree of freedom as they can ask whatever question, whenever.

## The Challenge

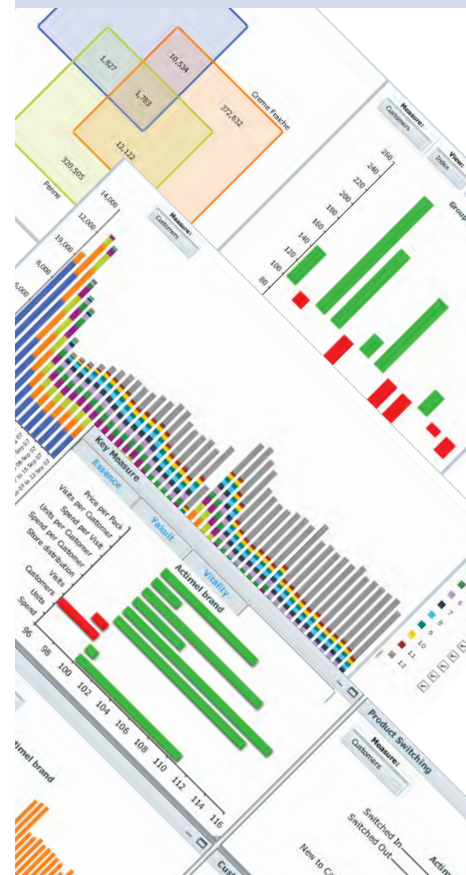
Leading data analysis agency, LMG, wants to offer retailers and suppliers the ability to analyze full EPOS data volumes in order to help them gain insight, intelligence and statistical confidence from the data.

## The Solution

LMG has implemented WX<sub>2</sub> as a data warehouse appliance in order to power their front-end application Self Serve. Two years' worth of full volume data is available for analysis at any one time, rather than just 10% samples.

## The ROI

WX<sub>2</sub> has reduced query response times by a factor of 60; what previously took over 5 hours now runs in less than 5 minutes. Users now have statistical confidence.





**“WX<sub>2</sub> demonstrates absolutely jaw-dropping performance and is backed up by real IT professionals with a passion for what they do and how they do it. They blew the socks off the competition in the POC, delivered the appliance ahead of schedule and have been an absolute joy to work from start to finish. When WX<sub>2</sub> hands back the answer before we've thought of the question, we'll be satisfied. Until then we remain ecstatic.”**

*Fiachra Woodman, IT Director, LMG*

Whereas other agencies may offer CPG companies and retailers the ability to ask questions of only 10% of two years' worth of EPOS data, LMG's Self Serve application allows them to interrogate 100% of two years' worth of data. Despite this a greater degree of complexity is permitted in the questions asked and results are still returned significantly faster than is the case with competing services operating upon sampled data.

Kognitio provided LMG with two fully-configured data warehouse appliances and a managed hosted disaster recovery service. The appliances are in production and are configured using HP blade servers, which were delivered as an integrated solution. The disaster recovery service also sees Kognitio hosting a third appliance, web application server and a Storage Area Network at Kognitio's Technology and Data Center for failover purposes should one of the appliances at LMG fail or their facility be lost altogether. In total, the appliances are licensed to run WX<sub>2</sub> on up to 9.6TB of data.

## The Future

LMG is currently planning to roll out more modules to their Self Serve application as well as take the proposition out to other retailers and CPG suppliers across the world. Moreover, although primarily used in the retail grocery market, LMG is in a position where it could offer a similar system to non-grocery based organizations in the future. The power and scalability of WX<sub>2</sub> permits LMG to flex their deployment at short notice as data volumes increase with customer take-up.

In all, Kognitio WX<sub>2</sub> has enabled LMG to offer a revolutionary approach to data analysis and business insight. This leading supermarket and its CPG suppliers can now ask complex questions of full volumes of the retailer's EPOS data and get the results in a matter of seconds or minutes. The performance and flexibility of LMG's Self Serve offering would have been impossible without Kognitio WX<sub>2</sub>.

## Why did LMG choose to deploy WX<sub>2</sub>?

LMG chose Kognitio and WX<sub>2</sub> to offer high-speed data analytics on full-volume data because of their performance, flexibility and know-how.

### Performance

WX<sub>2</sub> was considerably faster at running queries on two year's worth of full volume data than other solutions; it returns results in seconds or minutes instead of the hours typically associated with other databases, and this allows the analyst to get real “train-of-thought” analysis. With WX<sub>2</sub> the analyst can ask a question, get an answer and then use that answer to trigger another question. The levels of insight that can now be achieved have significantly increased; analysts can hypothesize and analyze in a fraction of the time. That is impossible if you must wait a long time between running reports as in the case of other solutions.

WX<sub>2</sub> was the only solution that met LMG's performance requirements when running multiple complex queries concurrently. This has meant that now more analysts can ask questions at the same time and they all benefit from the system's performance.

WX<sub>2</sub> was the most robust high-availability solution. LMG tested the resilience of the Kognitio analytical database by removing cables, disks and power to the appliance, and yet data integrity was not compromised.

### Flexibility

Ease of expansion – WX<sub>2</sub> can be easily scaled without requiring a complex migration project and this proved to be a major benefit as LMG expects to expand the amount of data it handles significantly as Self Serve is rolled out to more and more retailers and CPG suppliers. WX<sub>2</sub> affordably scales both out and up to accommodate future growth in data and users accessing the system.

Flexible licensing – LMG is actively selling its services to customers around the world and appreciates that it can accumulate a central pool of WX<sub>2</sub> licenses which can be deployed across separate instances of its Self Serve application as required.

Flexible deployment – Kognitio's WX<sub>2</sub> can be deployed as a DaaS (Data warehousing as a Service) solution and as such has given LMG a disaster recovery managed service and out-of-hours support of its data loading process. Moreover, LMG was attracted by the possibility of receiving WX<sub>2</sub> as a fully-configured data warehouse appliance into their own data center.

### Return on Investment

WX<sub>2</sub> has reduced the analytical query response time by a factor of 60; what previously took over five hours to run, can now run in under 5 minutes. This dramatic increase in response times has allowed LMG to offer CPGs the ability to run complex analytics with statistical confidence. This is a totally unique offering in an ever-increasingly crowded marketplace.

WX<sub>2</sub> has enabled LMG to benefit from reduced administration levels (for example, there is relatively little administration overhead with WX<sub>2</sub> compared to index-based transactional databases), massively reduced cost of expansion (WX<sub>2</sub> scales effortlessly by just adding extra servers) and a reduced cost of implementation (WX<sub>2</sub> was installed within just one working week.)

WX<sub>2</sub> has allowed daily data load times to be drastically reduced to just 20-30 minutes.

WX<sub>2</sub> has demonstrated unparalleled performance. For example, to run a range report, analysts would typically take days to do this, now they are doing it in just 6 minutes. This has given the analysts true “train-of-thought” analysis capabilities.

WX<sub>2</sub> has exceeded all expectations; the Self Serve application has now been sold into 90% of all CPG vendors in the UK. LMG is constantly receiving inbound inquiries from all over the world.