Retail case study

Retail customer data accelerates decision-making

A new modern data, multi-cloud architecture and updated analytics give global convenience store retailer vital intelligence at the transaction level.

Imagine having to collect transaction data from thousands of company-owned and franchised stores across North America that operate largely independently. Imagine doing so with an aging IT infrastructure and outdated database systems.

Then consider how important it is for today's retailers to understand sales at the transaction level, so they can adapt to evolving trends, adjust supplies and restocking as well as implement new promotions and strategies to suit customer preferences—based on geography, time of year, events and product profitability. All this data is vital, but the existing system is costly and unreliable.

At a glance

We helped a global convenience store retailer modernize its analytical systems by moving its data to a native cloudbased architecture, lowering costs. We leveraged AI capability to accelerate the decision-making processes, improve store sales and optimize customer footprints.

Outcomes

- Migrated 16TB of historical data to a hybrid cloud with no downtime or business impact

- Reduced infrastructure and software licensing costs by 40%

- Enhanced analytics capability, enabled new revenue generating opportunities while streamlining reporting and maintenance

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Retail revamp—edge to center

This was the situation facing a global convenience store retailer that asked Cognizant to completely reengineer its data analytics platform for almost 10,000 sales outlets across North America.

We were asked to manage the company's data infrastructure after a vendor consolidation. We learned that our client faced significant instability in its legacy IT infrastructure and high operating costs for a disparate set of technologies. Its internal IT group was challenged to provide reporting quickly enough to be useful to their C-suite and to storefront operators and franchisees. Due to persistent failures in its legacy database software, which relied on outdated code, the company also experienced long system down-times, often up to 24 hours.

 Accompanying these challenges were a lack of data governance, inconsistent data standards and business rules across the organization and low user confidence in IT systems, along with a corresponding impact on relations between corporate and its operators and franchisees.

Cognizant exhaustively reviewed the company's IT systems architecture, technologies and software applications. We identified two options: to upgrade to a newer version of our client's Oracle database software and continue with its same set of IT operating models, or to re-architect the IT infrastructure, reengineer the data analytics and position the company for the future.

Our client chose the latter, with the fundamental goal of being a robust, flexible and scalable cloudbased data management architecture to support both their current and future analytics needs.

A new cloud-based platform speeds decisionmaking and reduces software licensing costs, while providing a foundation for advanced prescriptive and predictive capabilities.

An eye to the future—with AI in mind

Giving management the ability to aggregate and analyze up-to-the-minute store transaction data was critical. Based on our proposed list of use cases, our client selected ten for proof-of-concept, after which we demonstrated the feasibility of an enterprise-wide modern data foundation based architecture on Microsoft Azure for enterprise analytics with in-store data aggregation and analysis at the "retail edge."

Our team then migrated three years of historical data —more than 16 terabytes of data—to a cloud-based infrastructure on Azure. The new cloud platform improves data ingestion from the company's thousands of stores and allows management to customize sales at various locations based on specific customer needs while lowering infrastructure costs and licensing fees for on premise applications.

The new, streamlined AI-based data model gives the company intelligent analytics to address prevailing challenges and support new initiatives, including a project to allow customer carry-out self-service. Their new cloud-based data ecosystem significantly improves query and reporting capability, delivering current and historical intelligence to the business more quickly, taking new KPIs into account. Tracked data includes active-store daily sales, gross profits, merchandise inventory counts, write-offs, invoicing and order data. The company benefits from a more transparent, easily documented audit trail, with streamlined and consistent business rules across the organization.

Being able to quickly and effortlessly analyze this wealth of data helps management rationalize a path for other cloud projects. With historical data available and with access to accurate current sales, the company can perform advanced comparative analysis of trends in data while using new, rich data visualization tools for IT users and store owner/operators. The platform speeds decisionmaking while providing a foundation for advanced prescriptive and predictive capabilities.

For more information, visit www.cognizant.com/ai.
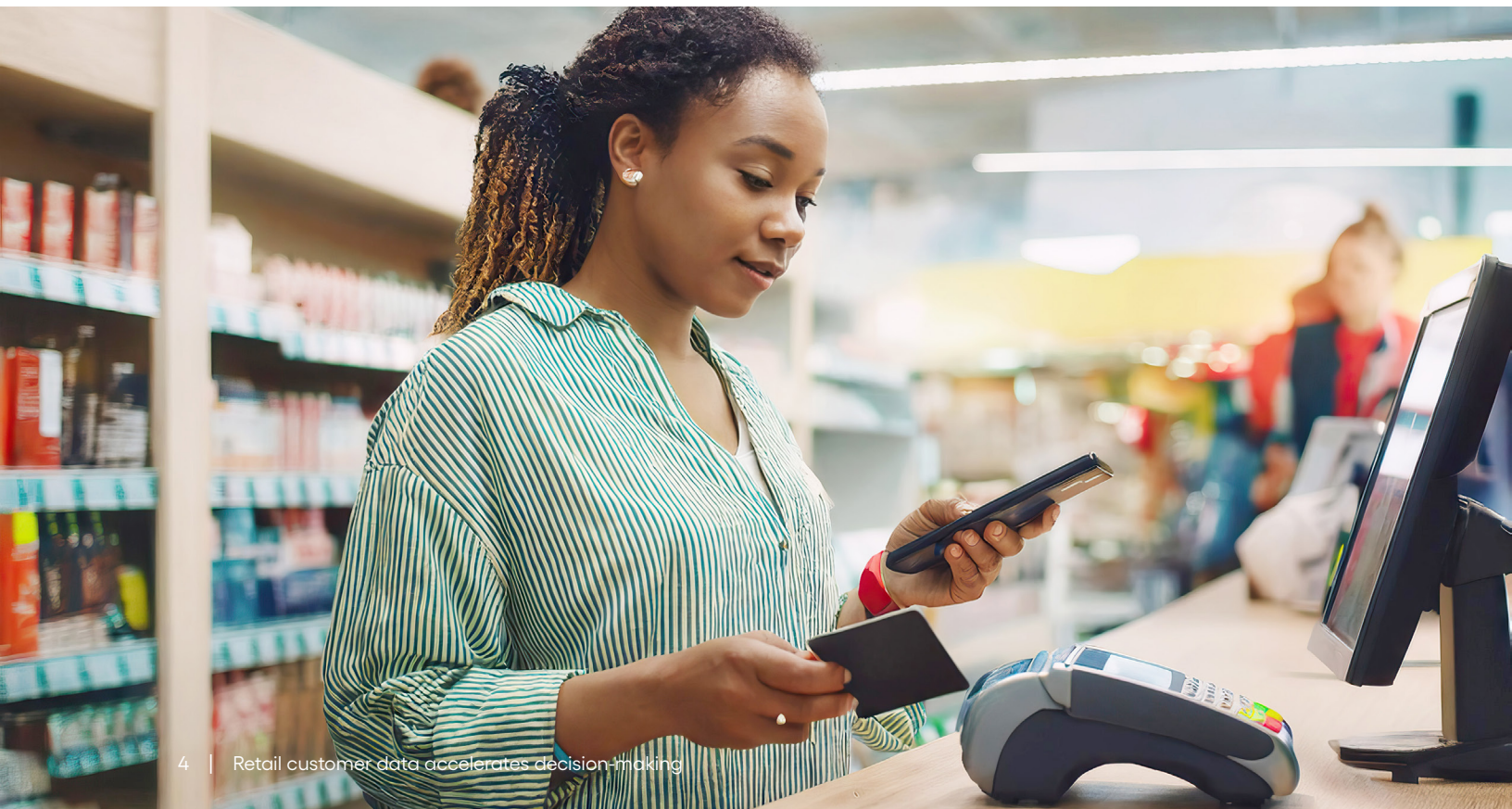
About Cognizant's Retail and Consumer Goods Practice

Cognizant's Retail and Consumer Goods practice partners with retail supermarkets, department stores, specialty premium retailers, and large massmerchandise discounters and consumer goods companies in the grocery, general merchandise, apparel, home and office, and consumer electronics segments to help both embrace the future of shopping, transform the customer experience in-store and online, and build the capabilities needed to win in the digital world. We work with leading retailers and consumer goods companies around the world including 9 of the top 30 global retailers, 6 of the top 10 consumer goods companies, and are consistently ranked as a top provider in Consumer Goods Technology's annual Readers' Choice Awards. We leverage our deep domain and consulting expertise to provide supply chain, merchandising, store, e-commerce, trade promotions, sales effectiveness, marketing services and analytics solutions across the retail and consumer goods spectrum. Our experience includes social, mobile, analytics & cloud (SMAC StackTM) and making meaning from Code HalosTM – the information that surrounds people, organizations, processes and products – to create unprecedented levels of value for retailers and consumer goods companies.

About Cognizant Artificial Intelligence Practice

As part of Cognizant Digital Business, Cognizant's Artificial Intelligence Practice provides advanced data collection and management expertise, as well as artificial intelligence and analytics capabilities that help clients create highly-personalized digital experiences, products and services at every touchpoint of the customer journey. Our AI solutions glean insights from data to inform decision-making, improve operations efficiencies and reduce costs. We apply Evolutionary AI, Conversational AI and decision support solutions built on machine learning, deep learning and advanced analytics techniques to help our clients optimize their business/IT strategy, identify new growth areas and outperform the competition. To learn more, visit us at cognizant.com/ai.

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