El Corte Inglés S.A.

Rejuvenating a 100-year-old retail giant with technology

Founded in 1935, Madrid's El Corte Inglés S.A. (ECI) is the largest shopping mall chain in Spain and the fourth largest department store group in the world. With 86 stores in Spain and Portugal, ECI offers a broad range of high-quality goods alongside additional services like home delivery, tailoring, and gift-wrapping.

By Li Bingfeng, Bai Rendong

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The customer is always right

ECI revolutionized the retail industry in the early 1970s by launching an unconditional refund service, embodying its philosophy for prioritizing customer satisfaction. This approach was soon copied by department stores worldwide and, in Spain, resulted in a golden age of retail.

The Financial Times, for example, reported that, "For many tourists, ECI is another symbol of the country, like the unfinished Sagrada Familia in Barcelona or the Prado Museum in Madrid."

However, the rise of online shopping has meant that e-commerce has begun to supplant brick-and-mortar establishments, causing unprecedented challenges for traditional retailers.

ECI has to cope with data from hundreds of online and offline sales channels, inventory in 38 logistics centers, and a large number of members. Nearly a billion data entries have filled ECI's sales data processing systems to capacity since the inception of e-commerce, a trend where omnichannel customer service systems are crucial.

Data analytics proves its worth

The recent tide of digital transformation compelled ECI to go in a new direction. Facing a deluge of complex data, a data analysis platform capable of extracting valuable business results and driving quick decision-making is vital for improving customer experience.

"We want to build an enterprise-grade high-performance data platform to develop business analysis applications, and support real-time analysis for online and historical data," said a spokesperson for Informática El Corte Inglés (IECISA). "The analysis results will help executives make timely and correct business decisions, such as better real-time inventory management and out-of-stock replenishment."

This vision inspired a prototype of ECI's High-Performance Analytical Platform (HAP).

ECI purchased four SAP HANA systems during the early stages of the platform's construction. However, the scale-out architecture system involved multiple servers that complicated device O&M. A large amount of data interaction between HANA nodes greatly reduced performance

and caused poor overall IT O&M. On top of that, the retail chain's suppliers were reluctant to develop an innovative platform, which ECI needed to deploy big data analytics in its internal data warehouse. Therefore, ECI faced mounting pressure both internally and externally, and the platform's construction came to a halt.

Choosing the right solution

Renowned for its stability and reliability, Huawei's x86-based KunLun Mission Critical Server platform features unparalleled efficiency to provide premium services for enterprise customers across industries, inside and outside China.

At the beginning of 2017, Huawei invited ECI's executive team to its headquarters in Shenzhen.

With an understanding of ECI's requirements for high performance and near-real-time analytics, Huawei worked with SAP to launch the single-node 8 TB KunLun HANA appliance scale-up solution, a bold idea based on Huawei's experience with over 3,000 deployment cases.

Compared with ECI's previous scale-out solution, Huawei's solution improves performance by 30 percent without using external storage or switch devices, which simplifies deployment and management. Data table redistribution isn't required after capacity expansion, and all these advantages — coupled with the high performance and reliability of the KunLun servers — counteract any traditional scale-up solution reliability issues.

As the industry's first single-node 8 TB scale-up case, the application had to pass SAP's rigorous certification process before moving forward.

Thanks to the joint efforts of ECI, SAP, and Huawei, SAP certification sign-off was completed within a single month, significantly down from the usual one-year process.

Finally, ECI was making material progress with its digital platform construction.

Huge efficiency gains

The new digital platform has revitalized ECI. Today, based on sales conditions, stock shortage analysis, and automatic replenishment take only minutes. Overall inventory turnover has increased by 20 percent, which saves a colossal amount in annual warehouse fees. The new platform eliminates service bottlenecks and allows for smooth upgrades and capacity expansion, which supports future service development, and achieves system-level availability 24/7.

The new system outperforms the previous system by a staggering 1,000 times. ECI can now tap into the value of data and no longer experience performance bottlenecks. ECI drives accurate insights into service data in a quasi-real-time manner by analyzing current inventory status, shortages, and production transfer purchase orders.

The nearly century-old retail chain is now on the right track to complete digital transformation. ∎