Bridging the Big Data divide between IT and business

A large software company needed to become more agile, better understand its customers, improve its products, and lower costs—all at the same time.

Advisory Services
Big Data
Technology

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Client's challenge

A large software company with tens of millions of users faced a number of daunting challenges as it sought to improve its products and its customers' online experience.

- The company depended on a large third-party organization for several key data requirements and processes, all of which changed quickly and without notice. The unpredictable and fundamental nature of those changes made it challenging to keep products up-to-date and bring critical software updates to market on time.
- Much of the company's business is seasonal. For more than half the year, its technology infrastructure is underused, only to be stretched thin during periods of peak customer demand. The company sought an opportunity to balance their data storage and processing load using cloud-based service providers.
- The company's online products and services generated vast amounts of data about its customers' interactions, so much in fact, that it was only able to collect and analyze 20 percent of this potentially rich trove. The company needed to find ways to capture more of the data so it could improve the product.

The company's software engineers had launched a pilot program and built a prototype featuring Big Data technologies to tackle all these issues, but the company's business leaders and product managers were struggling to understand how such a solution could truly enhance its products and bring value to customers.

The chief software architect came to PwC seeking ways to bridge the divide between the technology organization and the product-centric lines of business and to help to establish the viability of scaling the pilot to full implementation. How, he asked, could the team's solution deliver a better customer experience? Was his proposed Big Data architecture mature enough to handle a multi-billion dollar product? And, how could he demonstrate the business benefits and value of this solution?

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PwC's Advisory solution

PwC began by comparing the technology team's work with the company's strategic product vision and acting as a third party who understood the vision, data and technologies involved.

Our assessment found that to move forward from the pilot stage to wide application, revisions to the company's data architecture model would be necessary as well as development of a related technology roadmap. These would be invaluable in helping business leaders grasp both the investment necessary and the potential of the proposed solution. PwC assisted the IT leadership in developing the necessary data architecture model and technology roadmap.

Next, we turned to helping bridge the divide between IT and business leadership. Using the proposed data architecture model and technology roadmap, we helped the client demonstrate the benefits of the proposed solution—not just to the business—but also to their customers.

Because the proposed solution would use open-source tools and techniques, business owners would benefit from significant increased flexibility, resulting in shorter software development cycles and faster speeds to market. The company would also be better able to manage the seasonal demands of their business while reducing software-licensing costs. Customers would benefit by more timely software updates and a more user-friendly experience because of the ability of the company to better understand how its customers use the product.

The initial goal of our work was to help the client evaluate the viability of expanding its innovative pilot, assist in developing strategies to move the effort forward and ultimately support IT executives in demonstrating the business value of the proposed solution. Presented with a compelling business case and path forward, business leaders quickly supported the further development of the solution and moved to invest. In a subsequent project, PwC assisted the company to fully develop and implement the solution used today.

Impact on client's business

What started as an innovative pilot driven by a forward-looking IT organization is now driving value to the company and its customers. Today, the solution is delivering:

- A 30% improvement in the speed to market.
- An improved user experience. Significantly increased amounts of user data is analyzed, up from just 20% previously, allowing deeper insight into how customers actually use the software.
- Improved technology infrastructure utilization during peak periods. The company can easily transition to easy-to-access cloud-based service providers in less than an hour as customer demands change during seasonal periods.
- Lower costs through the retirement of software licenses due to the migration to open-source technologies.

The company's Big Data projects continue to grow. Based on the success of this initial effort, a broader product transformation is underway. Ultimately, all the company's products will roll onto the new open-source Big Data platform, giving the company improved insights, lower costs and increased agility as it competes in a fast-changing market.

For more information, please visit

www.pwc.com/us/bigdata

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