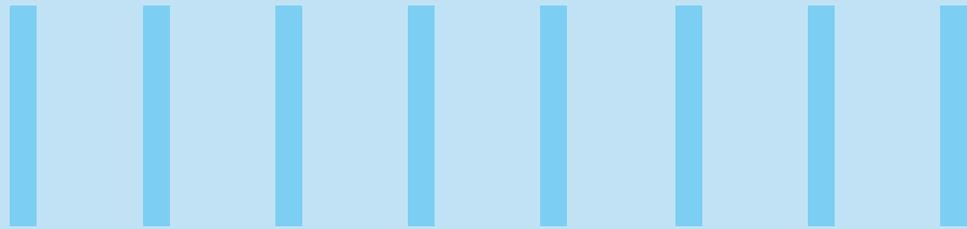# ERP'S CLOUD-CENTRIC DECOUPLED DEVELOPMENT – THE GATEWAY TO INNOVATION

As businesses globally embark on digital transformation, the name of the game is innovation. Across industries, enterprises are ratcheting up their innovation initiatives to ride the digital wave, establish an edge on the competition and increase market share. At the same time, they must ensure the stability of their core systems. Many enterprises are caught in the struggle to balance seemingly conflicting priorities.

Bimodal IT steps in to provide a workable solution. According to industry analyst Gartner, bimodal is the practice of managing two separate but coherent styles of work: one focused on predictability; the other on exploration . In the enterprise context, a bimodal IT approach provides the agility to embrace digital innovations without destabilizing the core enterprise applications.  In the ERP context, digital applications can run with high-speed agility while the enterprise (digital core) applications continue to run predictably at normal speed. Such an approach opens immense possibilities for the enterprise.

Typically, ERP behemoths dominate enterprise operations. These largely monolithic systems require tightly coupled custom development and often delay the pace of innovation or deployment. Changes in the SAP environment involve a tedious and time-consuming process. To begin with, it requires the use of the native programming language ABAP. More than half a year goes into developing, testing and deploying the enhancement as it goes through the traditional waterfall model.

With SAP S/4HANA, enterprises have access to a new generation ERP solution that is leaner and more agile. It offers powerful capabilities like extension frameworks that allow them to innovate faster through decoupled and cloud-based custom solutions.

# Decoupling development and data

Today's business environment demands real-time visibility into operations and the ability to make quick and informed decisions. A traditional ERP setup is not equipped to deliver to these exacting requirements. Decoupled development allows enterprises to go beyond the boundaries of their organizational capabilities and truly enable transformation at the business level.

In decoupled development, it is possible to develop new features outside the SAP system and connect with the core SAP S/4HANA to access the data it houses. With development segregated from the core, it now opens the door to progressive practices. Development teams are free to use Agile methodology, advanced programming languages along with ABAP on the cloud, and access the latest UI technologies. Furnished with an appropriate development environment, build cycles become easier and deliver faster. Such an approach reduces deployment time to 15-20 days for digital innovations compared to the six-nine months required for changes carried out directly on the enterprise core systems.

Enterprises experience another key benefit by combining ERP systems with new technologies - they gain the ability to unleash powerful features that add significant value to business performance.

Consider a typical case where a CFO requires a report on unbilled revenue with aging data to make critical business decisions. In the traditional ERP setup, developers would invoke the waterfall methodology and spend anywhere from three to six months to deliver the requirement. In sharp contrast, the side-by-side feature of the extension framework and cloud-based development can provide the same requirement within a week without disrupting the enterprise core.

A recent ERP System upgrade experience at an Infosys client revealed interesting insights. The client had spent fifteen months to deploy the SAP HANA platform owing to extensive customization carried out over the years. Not only was maintenance cumbersome as a result, but the cost of maintenance also increased. The client determined that the heavy customization contributed to 35% of the upgrade costs. Had the client decoupled the custom development from the core platform onto a separate system on the cloud using the extensibility option, the SAP system would be leaner and easier to maintain. Additional yet vital benefits would include cheaper, easier and faster upgrades. Experts agree that almost 75% of the custom functionality can be decoupled and moved to the cloud, which can reduce the technology debt, decrease custom development and increase the speed of deployment.

Decoupled development not only increases the pace of innovation but also allows developers to bring together valuable data from the ERP system with new technologies such as machine learning, internet of things (IoT), robotic process automation (RPA) and conversational AI.

Here's how this union can potentially play out. Regional sales data of newly launched products from the ERP system can be analyzed along with market sentiment garnered through social media platforms to provide powerful insights for better forecasting and planning. Another real-life scenario is where real-time sales data from vending machines gathered through IoT technology is meshed with inventory data from the SAP S/4HANA system to make more informed decisions. Demand at a specific vending machine can now drive the frequency of replenishment, resulting in increased sales and lowered costs.

There are more payouts with this decoupled and cloud-based approach. The most significant one is that the core ERP system is protected. Data can be extracted as required or stored on the cloud and paid through a pay-per-use model instead of hogging valuable resources on-premise, resulting in lowered costs and better utilization of resources. Also, the cloud offers the flexibility to scale hardware resources up or down depending on the requirement immediately.

Decoupled development delivers hard-to-ignore value to IT functions as well as to the overall business. It offers a way for IT departments to upgrade faster, take on lesser technology debt, lower costs, and innovate rapidly. Synchronized with new technologies, decoupled development with its reach across the enterprise, can be a solid bolster for organizations as they reinvent and transform their business to achieve tangible results that make a difference.

Cloud transformation is inevitable in enterprises, and it can play a critical role in digital transformation. Recognizing this, we launched Infosys Cobalt, a set of services, solutions and platforms that acts as a force multiplier for cloud-powered enterprise transformation. Innovation. Infosys Cobalt helps businesses redesign the enterprise, from the core, and also build new cloud-first capabilities to create seamless experiences in public, private and hybrid cloud, across PaaS, SaaS, and IaaS landscapes.

## About the author

### Ram Battula

Principal Technology Architect, SAP Practice, Infosys Limited

Ram has 18 years of professional experience in SAP technology and strategy, SAP Architecture, Custom Development and Business Intelligence. He is a key member of SAP Transformation Center of Excellence at Infosys which focuses on customer adoption of new products and technologies. He specializes in SAP S/4HANA adoption, Decoupled Development, Embedded Analytics and implementing Bimodal IT practices. He helps customers in developing strategy and roadmap for their digital transformation with primary focus on S/4HANA adoption and related digital innovations.

## References

[1] Bimodal

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