Digital decoupling: A maturing concept in digital disruption

Guest blogger Andre Israel looks at how digital decoupling can help firms focus on modernization without the pain of the wholesale migration of legacy systems.

In today's highly volatile business environment, banks need to reach more markets and more customer segments by expanding their digital offerings, without a comparable expansion in IT or marketing budgets. This calls for innovative, cost-effective and low-risk measures.

Some organizations transform their business without a corresponding investment in transforming their legacy IT applications, a solution called **digital decoupling**.

To "decouple" involves replacing the elements of legacy IT that support revenue growth and add the greatest value to customers, while retaining the elements of legacy IT that are commoditized. This way, enterprises respond to market forces and technological trends while maintaining cost levels.

When applied to the entire application landscape, digital decoupling leads to Exponential IT, a scalable, flexible and resilient architecture that gives companies the agility to innovate, and to delay—in some cases indefinitely—complete legacy replacement. This Exponential IT

architecture is the same as the one used by typical Silicon Valley unicorns and allows banks to compete with them on equal terms.

Digital decoupling is a process of using new technologies, data-access methods and development methodologies to build new systems that execute on top of legacy systems. Some examples include data lakes, open application programming interfaces (APIs), Agile DevOps, cloud migration factories, micro-services and Robotic Process Automation (RPA). Using these and other approaches, organizations can gradually decouple their core systems, migrating critical customer-facing functionality and data to new service-based platforms. Having systems decoupled also helps banks open their ecosystem to third-party service providers (TPP), which enable them to create new digital customer journeys beyond core banking services.

Digital decoupling is a combination of several enablers powered by an omni-architecture approach

1. **Decoupling data**: Big data technologies—data lakes, in particular—allow banks to unlock the potential of data stored in operational systems. Data lakes are the new center of architecture that minimizes the level of disruption, allowing banks to run many types of analytics, dashboards, visualizations, and other big data processing for better decision making. "Change Data Capture" (CDC) captures and determines every change that happens in a (legacy) database and sends that to a data lake. This CDC approach is more scalable, agile, nearly real-time, with typical latencies of 0.5 seconds. It also does not require any change to core systems, encouraging banks to invest, as it supports better and quicker business decisions.

2. **Decoupling channels and back-ends**: Decoupling various channels and back-end systems gives banks the flexibility to scale offerings, reduce dependencies and minimize time consumed in bringing new offerings to the market. The business integration layer, a central figure in decoupling architecture, is abstracted from legacy and creates a unified language and logic shared by all channels. It provides a catalog of reusable services, data aggregation, as well as business logic from repositories and back-end legacy systems. Services are exposed to the bank's channels/TPP ecosystem via API gateways.

3. **Decoupling from bank "centricity and structure"**: To attract external customers, banks must share data and services through Open Banking APIs. With the arrival of Open Banking, Infrastructure-as-a-Service (IaaS)/ Platform-as-a-Service (PaaS) capabilities will provide each application layer with an efficient technical architecture for high resilience and performance. The required decoupling application processes must be abstracted from core business units and functions without changing the entire underlying process designs and logic.

Our client successes

Accenture helps financial institutions revolutionize the way they provide their customers with digital services, making them fast and easy to use in their daily lives. I'd like to share just a few examples of how we have contributed to client success:

- **Reducing cost**: We helped a classic retail bank in Europe suffering from low interest margins reduce its cost/income ratio from 65 percent to less than 40 percent.

- **Real-time data-lake**: We worked with a Tier 1 bank to build a full front-end suite for real-time car loans in nine months. Customers can now obtain a car loan with just a few taps on their smartphone and use a digital signature. We used cloud-based digital tools to rebuild the bank's back office, enabling almost 100 percent straight-through processing. Next, the cloud-based back office was integrated into essential enterprise/legacy systems. The cloud-based offering is 50 percent cheaper to run, creating an immediate cost advantage over the competition.
- **Digital attacker**: We assisted a large bank in creating a greenfield digital attacker bank in less than a year. We connected to a new core banking system, which the bank implemented in a minimalistic system of record mode, through digital decoupling. The channels never need to read from the core system as the data is accessible live in a data lake. Only the write operations need to be sent to the core system when new clients have been onboarded or new contracts are sold.

Embracing digital decoupling

By adopting digital decoupling, firms can focus on continuous modernization without the pain of the wholesale migration of legacy systems. As more systems are decoupled, banks can evolve towards an ever-greater service-based Exponential IT architecture that maximizes agility. This approach helps manage costs, diminishes the accumulation of technical debt and significantly reduces legacy transformation risk when the time finally comes to replace the core banking system.

Digital Decoupling   **Exponential IT**   **IT Transformation**   **Legacy IT**

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