

POINT OF VIEW

Lessons from CIOs: The evolution of enterprise architecture

*A new approach for agility, innovation,
and scalability*

As the world changes and digital transformation must accelerate, the role of the CIO changes too. CIOs have broadened their focus from IT operations toward driving business transformation. Our global CIO study shows they're becoming increasingly strategic now that they're responsible for collaborating with business leaders to increase enterprise resilience and agility, fuel innovation, and develop new future-ready business models.

However, legacy enterprise architecture cannot support this shift; a redesign is long overdue. To learn more, Genpact met with leading CIOs and technology leaders across industries. We discussed evolving enterprise architecture and how they are modernizing. Here, we share our findings.

The origins of core systems

Most traditional architectures were designed around a strong core to address the business needs of the time. Today, business needs have evolved, and the pace of change - which may feel fast to some - is the slowest it will ever be. As a result, enterprises need to bring new business capabilities to market with increasing agility - and this calls for new technical solutions.

To achieve this, enterprise architecture must evolve. CIOs have a prime opportunity for business transformation - one that simply wasn't possible with the technology of the past. By reimagining enterprise architecture for the modern business, they can:

- Proactively adapt to market changes and demands
- Uncover and act on data insights across their enterprise
- Deliver winning experiences to employees and customers
- Reduce IT operating costs and technology debt

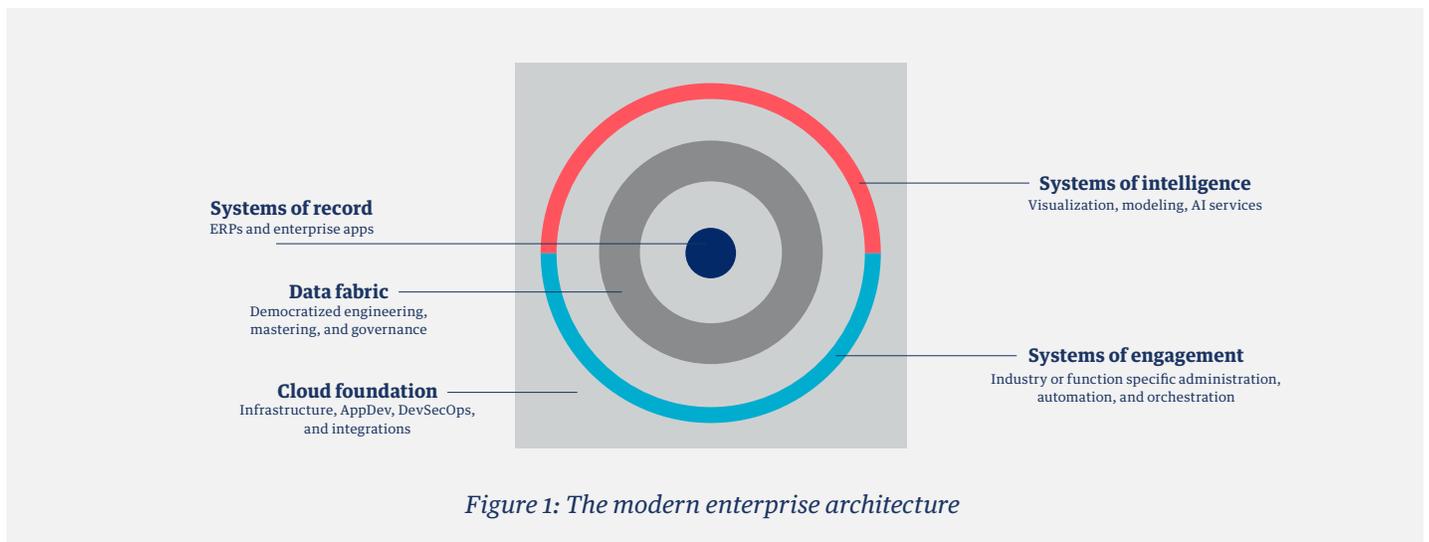
Proactivity in the present

To help their enterprise survive and thrive, forward-thinking CIOs are modernizing their architecture (figure 1). They're slimming core systems of record and connecting it to systems of engagement and intelligence using data fabrics, all built on a cloud foundation.

It's a shift away from siloed systems and legacy IT infrastructure that enables better data management, faster application development, and reduced maintenance. CIOs are then free to invest their budgets and energy in solutions that drive new capabilities, functionality, experiences, and business value.

A modern enterprise architecture brings with it many benefits. Here are some examples:

- **Increased agility and scale:** Across the enterprise, a modern architecture supports experimentation and innovation without compromising governance. "As the needs of the business, our employees, and our customers evolve, we have to develop new solutions," says a technology leader at a multinational consumer goods company. "But any technology that we implement must go through some core processes. This starts with our global architect team getting involved to assess if similar capabilities already exist elsewhere. This ensures a level of control over what's deployed."
- **Data-driven decisions:** A modern enterprise architecture makes data the lifeblood of digital transformation. "As our business model has shifted to value creation, we've put very clear goals in place - one of which is to become data driven," says a chief digital officer at a manufacturing corporation. "To do this, we're transforming our entire architecture to be modern, layered, modular, and secure." The CIO of an



international engineering company added, “Traditionally, enterprises have been internally focused. But now we’re shifting to focus externally on the customer - and analytics is key.”

- **Better employee and customer experiences:** It’s crucial for enterprises to attract and retain employees and customers. With a modern enterprise architecture, the employee and customer experience can improve simultaneously. As one CIO of a multinational beverage manufacturer puts it: “We have traditionally been a very physical company used to dealing with bars, hotels, and retail stores. But with the shift to e-commerce channels, we needed a very different set of capabilities for employees and customers. That’s why our architecture is evolving - to deliver the same quality of experience both online and offline.”

Four steps for redesigning enterprise architecture

Based on our conversations with CIOs and technology leaders, we’ve uncovered four steps every enterprise can follow to redesign and modernize architecture:

1. Slim the core

Start by developing a global strategy - tied closely to business objectives - for a strong but slim core. This frees up funding for outer, value-generating layers and micro-applications. Though the core is centrally managed, this approach delivers the agility needed to support specific teams, regions, or functions.

“Markets often want to do things faster than corporate can implement, but it’s crucial to have a global framework. Major decisions are made globally, then rolled out to local markets - but all technology decisions are connected to a business case. Working with strategic partners, we also decided to move to an integrated operations strategy. Now, our organization is operating 90% the same globally.” **Technology leader at a multinational consumer goods company**

2. Weave a data fabric

Data is now a first-class citizen. Its value has risen exponentially as it forms the foundation for applying

advanced analytics and AI, driving predictive insights and intelligent recommendations that guide better business decisions. In the modern enterprise architecture, the data fabric connects the slim core and outer layers - bringing these valuable insights to all areas of the business.

The data fabric should encompass data discovery, quality, cleansing, governance, and security. However, data engineering is a new skill for many that must develop. To build this expertise, leading CIOs are focusing on upskilling employees and improving data literacy. In fact, our research shows that 82% of CIOs are building a company culture of data-driven decision-making.

“We’re leveraging advanced and predictive analytics for growth. That all comes down to data. It’s essential for organizations to have a shared architecture between systems and data - bringing water to the pipes, so to speak - so data runs through your IT infrastructure. An intelligent component is also crucial, with AI bringing fragmented ecosystems all together.” **CIO of a multinational consumer goods company**

3. Build systems of engagement and systems of intelligence

CIOs are investing heavily in systems of engagement and systems of intelligence - in other words, outer layers that enable innovation and experimentation and deliver the most business value. These are typically cloud-based, decentralized software-as-a-service (SaaS) offerings that integrate with the core systems of record. With this approach, anything created locally can also be shared globally.

Employees use systems of engagement to get their jobs done. They create better experiences by automating time-consuming tasks, orchestrating processes, and improving productivity - enabling employees to focus on higher, value-added work. Systems of intelligence help enterprises better understand customer behavior and capitalize on business opportunities. This could include

predicting demand and ensuring the right product is available for the right customer at the right time.

“We have a company app store with ratings. This means teams in Vietnam, for instance, can see what was built in Austria and don’t have to reinvent the wheel. Put simply, the more you get inside, the more it is standardized.”

Chief digital and technology officer at a leading beverage company

4. Act today and plan for tomorrow with cloud and microservices

Enterprise architecture redesign is no small task, so future-proofing is key. Many CIOs are adopting cloud-first mindsets by migrating data centers and re-platforming applications for the cloud. A partner who can support this evolution - and who understands the cloud foundation on which this must stand - is crucial.

Cloud-based microservices enable agility too. These smaller, more localized applications connect to an established architecture to perform a single task for specific teams or business entities. They can be developed, deployed, scaled, removed, or updated easily and rapidly. Moreover, microservices support experimentation within a defined framework. Developers can test new features, solutions, and services - without affecting the rest of the ecosystem.

“Companies are embracing the cloud but they’re not trying to reinvent the wheel; rather, they are leveraging new cloud functionality to innovate elements that add business value. We decided that everything we develop would be in the cloud. In fact, we do not envision using any type of data center in the future that is not in the cloud.” **CIO of an international engineering company**

Looking to the future

The CIOs and technology leaders we spoke with agreed that while every business will have a unique enterprise architecture, the key elements remain the same: a slim core, a robust data fabric, and systems of engagement and insights - all powered by cloud. With this approach, new products, services, and experiences can arrive at market at speed without compromising control and compliance at the core.

These insights align with the findings from our [global CIO study](#). As Sanjay Srivastava, chief digital officer at Genpact observed, “The role of CIO has been elevated from running IT operations to co-creator of new business models. A modern enterprise architecture - powered by cloud - enables this evolution. CIOs and technology leaders can make the most of the AI, automation, and analytics tools at their disposal. It’s an opportunity like no other.”

In short, the time to redesign is now - those who proactively develop an agile, innovative, and scalable enterprise architecture will continue to delight customers, transform the employee experience, control costs, and outpace the competition.

About Genpact

Genpact (NYSE: G) is a global professional services firm that makes business transformation real. Led by our purpose - the relentless pursuit of a world that works better for people - we drive digital-led innovation and digitally enabled intelligent operations for our clients, guided by our experience reinventing and running thousands of processes for hundreds of clients, many of them Global Fortune 500 companies. From New York to New Delhi, and more than 30 countries in between, we connect every dot, reimagine every process, and reinvent the ways companies work - because [Transformation happens here](#).

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