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**Horizon architecture: The hidden
superpower for adapting to change and
winning in the market**

Part 1

Monitor Deloitte

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Preface

Technology is the fundamental enabler of corporate strategy. In fact, 84% of respondents to Deloitte's 2022 CSO Survey agreed that technology will drive their business strategy and enable growth and competitive differentiation.¹ Nearly 80% of respondents to Deloitte's 2020 Global Technology Leadership Study had undertaken or intended to launch a technology-enabled transformation soon. And there's more to this than executive intuition: Organizations whose technology choices and investments bolster their capacity for change and ability to win in the market see outsized returns. Despite this overwhelming consensus on the strategic relevance of technology, our research has shown that the connection between business and technology strategy—that is, architecture—remains misunderstood and undervalued.²

In this two-part series, we explain why leaders should dedicate greater mindshare to architecture, and how doing so shapes a more resilient, scalable, and competitively differentiated enterprise.

Despite overwhelming consensus on the strategic relevance of technology, our research has shown that the connection between business and technology strategy—that is, architecture—remains misunderstood and undervalued.

Elevating architecture

Technology choices and investments have never been more important than they are today. Across industries and geographies, navigating this landscape is increasingly high stakes. In fact, in Deloitte's [2021 Deloitte Digital Maturity Study](#), 66% of respondents indicated that the organizations that don't significantly digitize their operations in the next five years, will be "doomed."³

It comes as no surprise then that technology has seen a noticeable increase in executive-level mindshare. In Deloitte's [2020 Global Technology Leadership Study](#), 50% of CEOs said their CIO or tech leader would be the key driver of business strategy going forward. Technology's heightened relevance similarly extends to the board.⁴ Among companies analyzed by [Deloitte's Center for Board Effectiveness](#) in 2022, 31% were found to have a tech-savvy board, with at least one in three board members being tech executives, holding a tech or tech-related degree, and/or having held a tech position in the past.⁵

The companies with tech-savvy boards outperformed their peers, experiencing 5% greater revenue growth over a three-year period and 8% better stock performance year over year, compared with companies without tech-savvy boards.⁶

While technology is increasingly top of mind, an organization's architecture is often underappreciated and misunderstood. This is evident in Deloitte's Global Boardroom Program 2022 study, [Digital frontier: A technology deficit in the boardroom](#). Of the directors surveyed for this study, 80% were confident in their ability to understand, review, and challenge their organization's technology strategy.⁷ However, only 45% felt their technology oversight and depth were adequate. They attributed this to technology complexity, unclear technology governance, and poor line of sight between technology and business strategy.

Virtually all organizations we encounter have teams actively managing architecture and investing in architectural frameworks, assets, and standards. However, in many, architecture is viewed as a technology function rather than a strategic function. Few senior leaders outside of IT dedicate significant time to their companies' architecture, particularly as a strategic practice and enabler of competitive advantage. Third-party analysts report that fewer than 10% of organizations indicated their architecture function is business strategy focused. Most non-IT leaders struggle to describe their company's architecture. But every leader is directly impacted by it.⁸

Of the chief strategy officers who responded to Deloitte's [2022 CSO Survey](#), 84% believed that advanced technologies will fundamentally reshape their role in the years to come.⁹ At the same time, nearly half of the survey respondents acknowledged their organizations lack the maturity required to leverage technology and attributed this to the missing link between business and technology strategy—primarily architecture. Interestingly, only 20% of those executives indicated that a unifying architecture is their top concern, demonstrating that a critical and solvable issue is not receiving the strategic focus it should.

Taken together, these figures send a clear message about many companies' architecture: An issue that was once a thorn in the side of the IT department is rapidly becoming severely debilitating to the entire business. It is not getting the attention it warrants. The answer is hiding in plain sight.

Simply put, this high-stakes, multiplex technology landscape requires a guiding blueprint to act as a forcing function for enterprise strategy. This is the fundamental role of architecture, and its criticality warrants the attention of the full C-suite and board.

Now is the time for senior executives to bring architecture forward.

Deloitte Digital Fluency resources for anyone who would like to [learn more](#) >



The architectural imperative

In 2021, [Deloitte conducted an extensive study](#) indexing 500 companies using our Exponential Enterprise framework. It focused on two dimensions: the *ability to win* in the market and the *capacity for change* within each organization. Results showed that the highest performers on the Exponential Enterprise Index are, on average, 176% more valuable and 30% less volatile than the lowest performers in their industry.¹⁰

In 2022, we took the research further, focusing on eight characteristics of architectural maturity.

- **Lean** – Designed to avoid unnecessary complexity and actively shed what’s no longer needed.
- **Scalable** – Engineered for appropriate growth potential with equal performance at decreased marginal cost.
- **Nimble** – Designed to be able to adapt as quickly as possible to changing business priorities.
- **Stable and resilient** – Engineered to have the appropriate level of stability and resiliency in terms of performance and security.
- **Actively governed** – Overseen by leaders who have the full business in their purview, and supported by appropriate processes to maintain integrity, security, and performance.
- **Loosely coupled** – Designed to avoid getting locked in or being impeded by past decisions.
- **Innovative** – Having an operating model and landscape designed to enable rapid innovation.
- **Interoperable** – Enabled by “fit for purpose” ecosystems that work seamlessly with each other and prevent lock-in.

The results reinforced it all: Organizations with an architecture that exhibits the eight maturity characteristics demonstrate greater capacity for change and the ability to win in the markets they serve. Such organizations were 31% more likely to have higher earnings per share and 32% more likely to have higher market capitalization than their peers.¹¹

Conversely, organizations with limited architecture oversight and executive engagement can face serious business risks. Consider the following examples:

- Because of limitations in its architecture, including non-scalable and non-resilient middleware platforms, a large power utility failed to keep pace with an exponential surge in customer requests and inquiries following a major weather event. Millions of service interruptions occurred as a result.
- Due to a rigid architecture with scale constraints, a large global technology firm could not support the growing market demand for its services. It failed to fully reap the benefits of exponential growth in the cloud services market and fell short of increasing its annual recurring revenue.
- At the start of the pandemic, a retail chain failed to keep pace with customer expectations to offer a frictionless experience, causing a more than one-third decline in market share—largely impacted by architecture constraints within its e-commerce landscape.

These disconnects between technical architecture and strategic business needs, and the difficulty adapting architecture when market conditions change, are not uncommon. They are, however, manageable. Avoiding (or at least proactively mitigating) these challenges will require a different approach from executive leadership going forward.

Organizations that adopt leading architecture principles demonstrate greater capacity for change and ability to win in the markets they serve.

More about our research – Correlation between architecture and organizational performance

In 2022, Deloitte assessed the relationship between companies' architectural maturity and key business success parameters. The sample set included more than two dozen Deloitte client organizations, primarily Fortune 500 firms, with responses based on senior Deloitte practitioners' interviews with and engagement experiences serving those organizations' technology leaders (e.g., CIOs, CTOs). The assessment examined 13 questions to understand clients' architecture landscapes and maturity levels. We looked at how architecture landscape, function maturity, and enterprise performance do and do not correlate with enterprise performance indicators in Deloitte's Exponential Enterprise Index (EEI).

Ability to win (Overall)

- **Description:** Distinctive advantages enabling the enterprise to maintain focus and compete for market leadership in the long term.
- **What we observed:** Architecturally mature organizations are likely to outperform their peers in the market. (A moderately strong, positive correlation between architecture maturity and key EEI characteristic—ability to win.)

Resonant purpose

- **Description:** Higher shareholder confidence in the long-term ambition of the company.
- **What we observed:** Architectural nimbleness and maturity correlate with unique IP/innovation and a strong sense of purpose within the organization. (A positive correlation between architecture nimbleness and maturity and EEI characteristics—resonant purpose and unique IP.)

Strategic nimbleness

- **Description:** Ability to sense, interpret, and respond advantageously to change and disruption.
- **What we observed:** Architectural innovativeness tends to coincide with the strategic nimbleness of the enterprise. (A positive correlation between strategic nimbleness and innovative characteristics.)

Performance stability

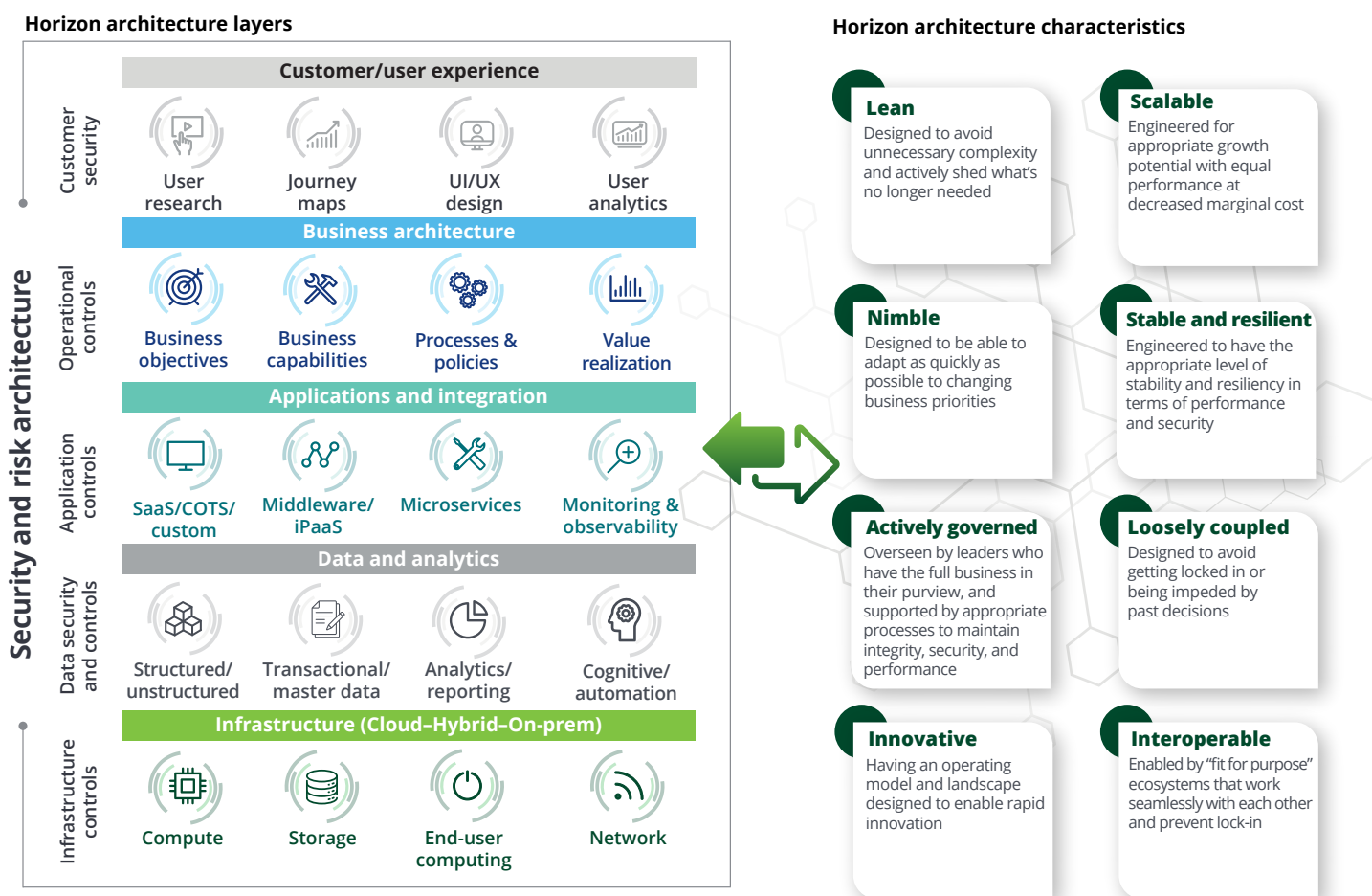
- **Description:** Stable financial performance, particularly during times of crisis, such as during the COVID-19 pandemic.
- **What we observed:** Architecturally mature organizations tend to be operationally and financially stable. (A moderate correlation between maturity and EEI characteristic—performance stability.)

Horizon architecture

Because of this dynamic, we argue that companies should seriously contemplate how they design or engineer a business strategy-aligned, tech-forward future. We call this future vision—specifically, a company’s deliberate vision for where its architecture must be within the next two to five years for the enterprise strategy to be fully activated—a company’s **horizon architecture** (figure 1).¹²

Horizon architecture is defined as technology architecture that exhibits a thoughtful, intentional, and value-oriented configuration across the different layers of architecture. This configuration is pragmatically unlocked by leveraging eight key characteristics to enable the organization to win and change effectively in the marketplace.

Figure 1. Horizon architecture framework



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The role of the C-suite and the board in horizon architecture

No matter how well solutions are designed, no matter how modular, no matter how well principles are followed, eventually, new technologies will disrupt. The enterprise challenge is to set an architecture that stands the test of time—agnostic to the technologies that come. One that guards against any foreseeable move that constrains or adds to technical debt. That practice, that mission, emerges from a horizon architecture. Done right, horizon architecture acts as a forcing function for the enterprise strategy, embedding both aspirations and optionality into the technology estate, all the while acknowledging that foresight has its limits. Leaders are uniquely positioned to shape this horizon architecture in four ways:

01. Promote a truly candid conversation about your architecture posture.

Leverage the 10-point horizon architecture diagnostic (figure 2) to understand your organization's architecture and operating model. For many companies, their architecture needs to be stable and lean before the company can begin to think about how to make it future-ready. This means having an honest dialogue about where unnecessary complexity exists today and where costs are needlessly high—two factors that tend to constrain transformational ambitions—and identifying and resolving to act on concrete steps to resolve issues. Create and cultivate an environment in which leaders are encouraged to speak candidly about existing limitations, study the imperfections in-depth without rushing to the solution phase, and understand how those imperfections directly impact the company's overall market position.

02. Invest in the change necessary for your technology to be fit for the horizon.

Organizations with a high capacity for change tend

to promote architectural designs that are *nimble, loosely coupled and highly cohesive*, and *scalable* so that their technology footprints can adapt rapidly as their organizational strategies and market conditions evolve, even in turbulent times. For many organizations, achieving these qualities will require a significant, dedicated investment that does not have a guaranteed, easily quantifiable, near-term return on investment.

03. Oversee architecture as closely as other strategic differentiators.

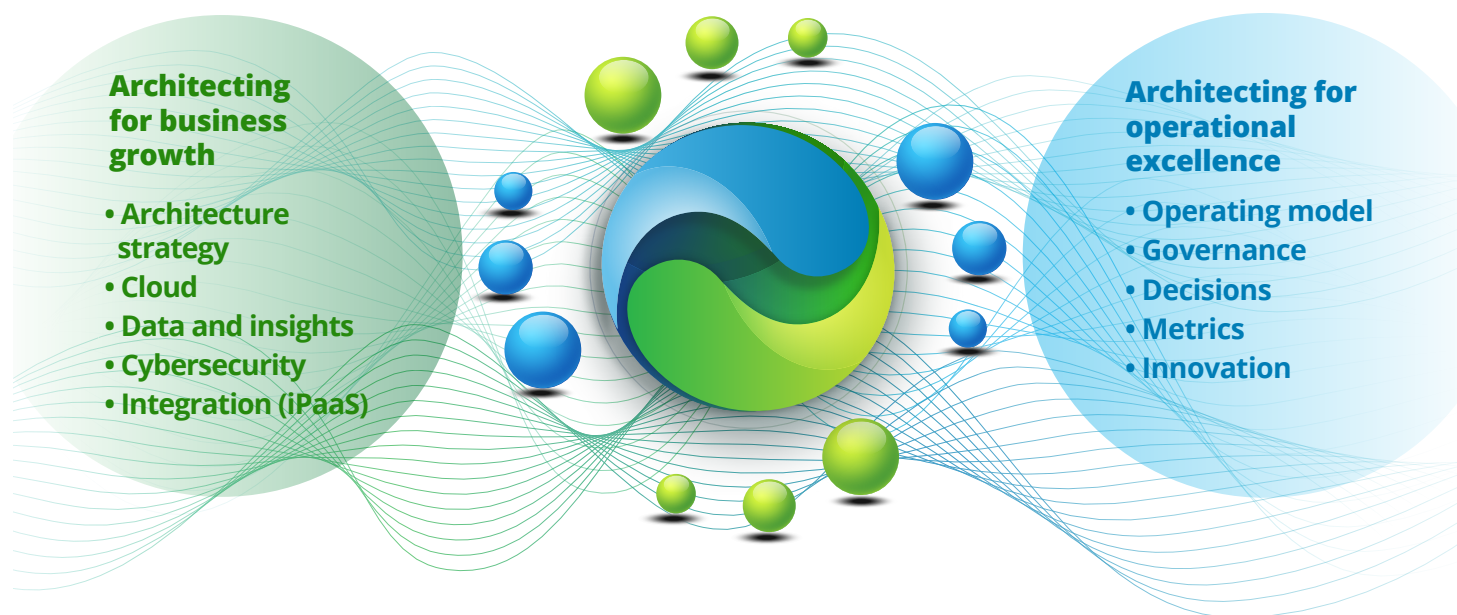
Engage a cross-section of executive leadership (e.g., CEO, CFO, CSO, CIO, business unit leaders) on a quarterly basis to discuss and align on the horizon architecture and the enterprise decisions to come. Name at least one technology-savvy board member to engage directly on the topic. Set up a specific board subcommittee that focuses on architecture—as you do with any mission-critical capability (e.g., cyber) or significant capital bet.

04. Facilitate innovation, and guide ecosystem partnerships.

Our research shows that organizations with a solid ability to win in the market are increasingly turning to innovative and interoperable architectures. Board members can play a critical role in introducing organizations to new technology solutions. This could be through their extended network of relationships with platform players or startups, or via guiding technology leadership through dialogues with ecosystem partners and other peer organizations to understand leading practices.

Figure 2. Horizon architecture diagnostic

Ten questions for a board to understand about its organization's horizon architecture



Architecting for business growth

- 1 What is our architecture strategy and road map? How does it enable our business imperatives and growth objectives?
- 2 What benefits have we achieved from cloud investments? What is the next phase in our cloud transformation journey?
- 3 How can we become an effective insights-driven organization and enhance our decision-making capabilities?
- 4 How are we ensuring that our data and assets are protected from cyberthreats?
- 5 How does our technology architecture support our business's agility and operational integrity as we pursue our growth agenda?

Architecting for operational excellence

- 6 What critical technology architecture decisions need to be made to deliver on our business strategy?
- 7 How does our architecture operating model harden our technology estate and enable organic and inorganic growth?
- 8 What is the maturity of our architecture capabilities relative to leading practices? Are there any significant gaps that hinder business growth?
- 9 How are we adopting the latest technology trends to drive competitive differentiation in the market?
- 10 Can we review our latest architecture metrics to better understand the level of customization, modularity, agility, security, and scalability of our technology stack?

Looking ahead

Architecture is essential to every organization's capacity for change and ability to win in the market. Yet many organizations continue to struggle with it. Many seem to wait to invest meaningfully in architecture until after they have faced challenges directly caused by misalignment in their architecture. We see it in large enterprises that can no longer scale at pace because of a mountain of technical debt. We see it in medium-size enterprises that have grown quickly and organically and are now saddled with conflicting solutions and integration constraints.

The data paints a very clear picture: Most boards and C-suite executives appreciate the relationship between business and technology strategy. They generally have a high degree of confidence in their ability to understand technology strategy. But many lack comfort in their ability to govern the technology strategy, and they often lack confidence in the ability of their organization to capitalize fully on technology to win in the market. Closing that gap begins with architecture—understanding it, guiding it, and defining a winning horizon architecture. And there are very specific, pragmatic steps that leaders can take today to close that gap.

Please stay tuned for the next part of our horizon architecture series, where we will further explore the eight defining characteristics of horizon architecture and how to apply them “in the field.”



Endnotes

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