Modernizing Technology Architecture And Delivery

Your Role On The Path To Customer-Obsessed Transformation
Today’s business and technology leaders are setting bold new visions for how technology can drive business performance: They want to leverage modern technology to adapt to changing customer and employee expectations. And it’s up to the technology architecture and delivery function to bring those bold visions to life while driving business outcomes and improvements.

Whether it’s delivering personalized experiences that consumers expect today (that are driven by artificial intelligence) or bolstering your cloud strategy to make your tech more responsive, the architecture and delivery function has never been more vital to digital and business transformation success.

This guide will provide you with:

• Key considerations for building shared accountability across the architecture and delivery function and the company as a whole.

• A new model built around three core drivers to understand your role in accelerating business transformation.

• Two key areas where architecture and delivery can quickly have an impact and deliver on the promise of business transformation and differentiated experiences.
Shared Focus, Shared Success

Successfully executing a customer-obsessed transformation is a major undertaking that requires the focus and support of all levels of the organization, including both business and technology teams. On the technology side, it requires all of the functions within the architecture and delivery organization to be aligned — from infrastructure and operations to application development and delivery to enterprise architecture teams. To achieve success, these teams need to share a common goal of being able to quickly reconfigure structures and capabilities to meet future customer and employee needs. Without this shared accountability, efforts will struggle.

Which of the following best describes your organization’s digital transformation efforts to date?

- 1% Not interested
- 6% Interested but no immediate plans to implement in the next 12 months
- 17% Planning to implement in the next 12 months
- 25% Implementing
- 18% Implemented but no immediate plans to expand
- 29% Implemented and currently expanding
- 3% Don’t know

Source: Forrester Analytics Business Technographics® Business And Technology Services Survey, 2021
This is a big shift in both thinking and execution for technology teams, but there are three key focus areas that can guide this new mindset: creativity, adaptivity, and resilience.

1. **Drive creativity with agile development and by freeing up employee resources.** Creativity requires moving at the speed of business, not the speed of technology. Creative organizations lower the barriers to creative thinking by empowering the business to solve technical challenges. They not only leverage technologies such as cloud platforms to lower the barrier to entry on new ideas but also empower teams to act on data-driven opportunities. Insight and intelligence gained from this data can drive creativity in consumer- and employee-facing experiences. A developer can spin up resources for a new marketing campaign or test interest in a new region with minimal cognitive investment. This requires a shift from overengineering to continuous iterative improvement.

   **Measuring success:** Creativity progress can be measured by release frequency, quality of releases, and the overall shift from focusing on projects to product management.

2. **Adapt to changing conditions with flexible tech architecture and delivery.** Adaptive companies can pivot quickly to changing market conditions and business requirements. They use data insights, fast feedback loops, and easy-to-consume technology to execute on strategic opportunities quickly and iteratively. Adaptivity also requires focusing budgets more on value streams and less on simply maintenance of systems. Value streams, in a development and operational context, convert business hypotheses to digitally enabled solutions delivered to the customer. In addition to the cultural change, this requires value stream management tools to identify and optimize streams.

   **Measuring success:** Forrester estimates that adaptive organizations allocate 19% of their budgets to optimizing value streams, 64% on maintenance and operations, and the remaining 16% to new projects.

3. **Be resilient with modern technology operations.** Resilient organizations design their tech architecture to handle potential disruptions, whether that means a pandemic, impacts from climate change, a security breach, or an IT failure. Their tech architecture and delivery capabilities are dependable by design. This involves embracing cloud technologies; modernizing legacy applications; developing highly available, scalable software; and maturing recovery capabilities to uncover the next set of possible causes of failure and proactively remediate them. Resilience also requires taking advantage of error budgets to add new capabilities. Resilient organizations strive for 99.9% service uptime; they use the 0.1% of remaining time for error budgets to add new service features and capabilities.

   **Measuring success:** Technology leaders measure success in this area by correlating availability with overall business results.
The Technology Architecture And Delivery Model: The Foundation For Success

With these three new measures of success as the shared goal for the various teams in the technology architecture and delivery function, the next step is determining how to achieve that goal. Tech leaders must evolve each of the three focus areas from classic approaches to a new model. The Forrester Technology Architecture And Delivery Model lays out three core drivers that technology leaders can use to accelerate business transformation: platforms, practices, and partners.

Platforms
Accelerate time-to-value in composing and customizing differentiating software.

Practices
Align teams to customer and employee experience outcomes.

Partners
Use the ecosystem to co-innovate new sources of value.

Source: Forrester Research, Inc. Unauthorized reproduction, citation, or distribution prohibited.
Platforms accelerate time-to-value. Forrester defines platforms as solutions that provide services designed to be extended and foster collaboration and connection across a broader solution ecosystem. They provide a unified, simplified experience across all functions. Platforms preassemble complex technology portfolios, allowing organizations to build new capabilities with native development functionality. Platforms enable scalability in infrastructure and data architecture through reuse and allow developers to quickly launch or update services. For example, using platform-native features such as low code/no code and emerging capabilities like AI and machine learning can accelerate development of differentiated solutions to enter emerging markets faster. And cloud platforms can deliver technology-enabled services easily so that employees can access new applications in days or weeks.

Partners use the ecosystem to co-innovate new sources of value. Organizations that effectively leverage their partner ecosystems can quickly move from consuming the transactional services their partners offer to cooperatively and collaboratively creating mutual value with those partners. This requires aligning teams of both external and internal partners around business-outcome-based commercial models to increase innovation and velocity and better ensure experience outcomes.

Practices align teams to customer and employee experience outcomes. This is a key area that requires a true mindset shift. Modern technology organizations focus less on the traditional service-level agreements and more on service-level objectives. Organizations are revamping processes to better support variable and creative work. This doesn't mean that old processes are going away entirely, — instead, they are used as a means to an end, not an end in themselves. Automation of governance, mitigation of ill-defined processes, experience-outcome goals, and maturation of trust help provide a foundation for team empowerment within practices. Agile and DevOps methodologies can shift traditional ways of working, while increased use of intelligent automation technology can make activities more secure, compliant, and repeatable.

Percentage of decision-makers who are involved in their org’s digital transformation efforts who cited “data issues” as an area that could be/is the greatest challenge in executing digital transformation.

Source: Forrester Analytics Business Technographics® Business And Technology Services Survey, 2021
Hit The Ground Running

Two key technology areas where you can apply the various aspects of this model to deliver on the promise of transformation and differentiated experiences are AI and cloud. Here’s how to get started in those areas.

Focus #1: Bringing data and AI to new places. The transformative, AI-driven customer and employee experiences that many organizations seek are powered by data systems designed for AI to drive business outcomes. A modern data architecture for AI requires a complete reset of how data gets activated for AI and machine learning (ML) for distributed environments on the edge, in the cloud, or across devices. Getting there requires a connected intelligence approach to bring data and AI platforms, partners, and practices even closer than they are today, especially within data architecture, governance, data science, data engineering, AI/ML development, and business analytics and insights capabilities.

Focus #2: Maximizing cloud. Organizations that have embraced cloud platforms, practices, and partners and that have learned to leverage the agility of modern infrastructure and ecosystems can more easily adapt to change, enable creativity at speed, and build resiliency into their digital operations. This means mastering cloud-native development (serverless and containers), modernizing legacy apps using cloud, and exploring high-performance computing scenarios. All this should be done while also modernizing governance practices, organizational structures, partner relationships, and data centers with hyperconverged infrastructure and infrastructure as code.

Data and analytics decision-makers who cited “lack of well-curated data to train an AI system” as their biggest challenge in using AI in 2021, up 4% from 2019

Source: Forrester Analytics Business Technographics Data And Analytics Survey, 2021
Take The Next Step

You have your goals. You’ve got the roadmap. And you know where you can focus first. Now check out these additional resources to help you move forward on your transformation journey.

Is Your Data Ready For AI?
Read this new guide to learn how to master the eight key aspects of an AI-first data strategy.

Video: Inspire Trust With Robust, Well-Tested AI-Infused Applications
Vice President and Principal Analyst Diego Lo Giudice reviews the “how” and “why” of testing AI applications.

Forrester Decisions for Technology Architecture & Delivery
Learn more about our service designed to help the technology architecture and delivery function accelerate delivery, improve value streams, and positively impact critical business outcomes.

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