Enterprise Architecture Primer for 2021

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Enterprises look to their enterprise architects for help architecting an adaptable and resilient “composable” business. This includes redesigning business and operating models, enabling distributed decision making and building innovative digital foundations.

**Additional Perspectives**

- **Summary Translation: Enterprise Architecture Primer for 2021**
  (28 January 2021)

**Scope**

Enterprise architecture, as a discipline, must help organizations prepare for a composable business that requires dynamic adaptability, while remaining resilient amid ongoing uncertainty.

In addition to enterprise architecture and technology innovation leaders, including CTOs and business leaders, other IT roles involved in this initiative are:

- Chief information officers
- Applications and software engineering leaders
- Data and analytics leaders

The topics we cover include:

- **Contribute to business strategy and execution**: Enterprise architecture (EA) must *facilitate digital business design*, which means working with business leaders to redesign business and operating models that can adapt dynamically in response to new customer expectations, competitive threats and opportunities.

- **Provide enterprise architecture services to stakeholders**: EA must *enable distributed decision making*, in other words, empower product and fusion teams to make smart digital decisions by providing data, insights and consulting support, and instilling an architectural mindset in decision makers.
Select tools to support the EA discipline: EA must help *build innovative digital foundations* by orchestrating resources and partnering with IT teams around platforms that are modular, enable delivery autonomy, and embedded with continually updated architecture guardrails to ensure resilience and adaptability.

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Analysis
Enterprise digital strategies and implementations continue to accelerate despite, and even because of, today’s macroeconomic environment. Seven in 10 boards of directors are stepping up their digital business initiatives in the wake of COVID-19 disruption (see The Urgency of Digital Business Acceleration). Most of the enterprises that have thrived amid the current crisis are predominantly digitized businesses. Their digital products and channels are able to adapt at speed while remaining competitive in a tough economic environment. Further, their digitally enabled workforces and operations have adapted to predominantly remote working conditions while remaining largely productive.
Organizations must strive to achieve this combination of resilience and adaptability by becoming “composable” (see Toolkit: Composable Business Index From the 2020 Gartner IT Symposium/Xpo Keynote). Gartner predicts that through 2022, the rapid innovation forced by the COVID-19 outbreak will accelerate the transition of 60% of organizations toward a composable enterprise (see Seize the Moment to Compose a Resilient Future: Key Insights From the 2020 Gartner IT Symposium/Xpo Keynote).

Business leaders have never been more attuned to the need for a digital transformation strategy that helps them achieve this vision of composability. Specifically, they need help to:

- Design business and operating models that respond to disruption with high agility
- Enable distributed teams to deploy new solutions to market quickly, efficiently and safely
- Leverage technology innovation to make transformative “big bets” while also mitigating risks

Enterprise architects have a near-term opportunity to help lead their enterprise's digital transformation, but they must show more than technical leadership and bring the following comparative strengths to bear:

- Digital business mindset: Enterprise architects must continue to apply a business-outcome-driven lens to technology investment planning and prioritization. A robust understanding of the relationship between business outcomes, business strategy, technology and operations enables EA to identify and recommend the necessary changes to business and operating models.
- Broad and deep product perspective: As organizations increasingly become more product-oriented, a mature EA practice holds a unique and essential vantage point, enabling product lines and fusion teams to balance local priorities with enterprise objectives. Further, EA is able to look beyond the enterprise to potential opportunities and threats across a broader business ecosystem.
- Systems thinking and iterative methodologies: Systems thinking allows EA groups to track interlinkages, address gaps across complex processes and data flows, and identify shared investment opportunities to create cross-enterprise synergies. Combining this mindset with iterative, experimental methodologies such as design thinking and lean startup enables EA to accelerate innovation and channel it into the construction of modern digital capabilities.
- Internal management consulting capabilities: EA groups that have developed some form of internal management consultancy capabilities will find it easier and faster to facilitate business redesign in a time-boxed, agile way. Their enterprise architects are equipped with the behavioral competencies required to coach business leaders, product and fusion teams to make smart investment and delivery decisions.

**Topics**
In any given year, enterprise architecture and technology innovation leaders must clarify targeted business outcomes, then help the organization achieve them by helping formulate and translate business strategy and enabling its effective execution. In 2021, as enterprises strive for greater composability, EA leaders must focus on transformative shifts in strategy, business and operating models as opposed to simply optimizing around the edges.

Our research in this area addresses the following topics:

**Contribute to Business Strategy and Execution**

Digital business design refers to disaggregating and reconstituting traditional business components using technology to create, deliver and capture value in new ways at scale. EA must facilitate this effort by helping identify new investment opportunities to create, update, digitize or scale specific elements of the business model. Further, it must use a business architecture lens to identify and direct changes needed in underlying operating model elements such as processes, systems and information flows.

EA’s cross-enterprise perspective is essential to formulating a holistic redesign strategy, planning and prioritizing investment opportunities, and guiding execution to realize desired business outcomes.

**Questions Your Peers Are Asking**

- How do we deliver a set of world-class EA capabilities that support the formulation, planning and execution of digital business strategy?
- How do we facilitate business and operating model redesign to help the business adapt dynamically to, while remaining resilient in the face of, disruption?
- How do we create consumable business architecture guidance to help business leaders make well-informed investment planning and prioritization decisions?
- What is enterprise architecture’s role and value proposition in fostering customer centricity across digital business capabilities and initiatives?
- How can EA help business leaders identify and connect more seamlessly with their ecosystem partners to surface new opportunities for collaboration and value creation?

**Recommended Content**

- Some recommended content may not be available as part of your current Gartner subscription.
- Leadership Vision for 2021: Enterprise Architecture
- Use Value Streams to Drive Customer Centricity, Design Services and Operating Models, and Technology Platforms
- How Leading Organizations Create Innovative Business Models
Planned Research

- Architecting the enterprise for adaptability
- Architecting the shift from projects to products
- Redesigning the enterprise operating model to meet digital business needs
- The role of business architecture in total experience enablement
- Designing and implementing composable business architecture
- Leveraging business architecture deliverables to drive technology innovation
- Developing EA's go-to-market strategy as an internal management consultancy

Provide Enterprise Architecture Services to Stakeholders

A key operating model change that began long before the 2020 pandemic is the shift from projects to products, with the subsequent reorganizing of IT and business resources into product lines allowing decision making to happen closer to the point of value delivery. Enterprise architects must expand their internal management consulting competencies to support this new form of decision making. They must reposition EA as a service to offer data-driven analysis, insight, guidance and tools for smart decision making. Further, they must instill architectural thinking in decision makers so they can better appreciate the cascading impact of their digital choices on other parts of the enterprise.

Questions Your Peers Are Asking

- How does EA evolve and position itself as an internal management consultancy to support business and IT leaders, as well as product lines and fusion teams?
- How do we coordinate with other domain architects, such as business, information, solution and technical architects, to support product lines and fusion teams?
- What is EA's role and value proposition in enterprise information management vis-a-vis other data and analytic experts in the organization?
- What does EA governance and assurance look like for product lines and fusion teams that demand greater autonomy to make decisions with high agility?

Recommended Content

Some recommended content may not be available as part of your current Gartner subscription.
Select Tools to Support the EA Discipline

Meaningful digital transformation requires “big bets” — bold, cross-enterprise investments in innovative technology foundations to support enterprise objectives for speed and scale. EA leaders must orchestrate a diverse set of architecture resources, and coordinate with business leaders, CIOs and IT leaders to help construct these shared digital foundations.

These foundations must be designed for modularity and embedded with architectural guardrails to support resilience, while enabling autonomy and speed for the various product and fusion teams using them. A combination of iterative methodologies such as design thinking, lean startup and agile should be used to incorporate innovation into the foundations on a continual basis.

Questions Your Peers Are Asking

■ How do we steward a strategy for, and plan cross-enterprise investments in, new digital foundations that drive business outcomes?

■ How do we embed adaptive governance within the digital foundations to enable efficient and architecturally sound delivery of solutions without impeding agility?

■ How should we architect digital platforms to be modular to enable resilience and adaptability?
How do we accelerate technology innovation efforts, i.e., quickly test, learn and incorporate new capabilities into the new digital foundations?

What EA tools should be incorporated into the new digital foundations to support the EA discipline?

**Recommended Content**

Some recommended content may not be available as part of your current Gartner subscription.

- 2020 Hype Cycle Special Report: Innovation as Strategy
- Design and Build the New Digital Foundations
- Enterprise Architects Combine Design Thinking, Lean Startup and Agile to Drive Digital Innovation
- Building a Platform for Product Team Productivity (adidas)
- Magic Quadrant for Enterprise Architecture Tools

**Planned Research**

- Architecting for modular, service-oriented architecture
- Unpacking monolithic architecture and systems
- The future of EA assurance and compliance
- The enterprise architecture tools Magic Quadrant
- The Critical Capabilities for enterprise architecture tools
- The Future of IT tools and ecosystem trends
- Making smarter EA tools purchasing decisions

**Suggested First Steps**

- Avoid the 13 Worst EA Practices and Ensure Your Success in the Digital Business Era
- IT Score for Enterprise Architecture and Technology Innovation
- Stage Planning a Business-Outcome-Driven Enterprise Architecture
- 8 Steps to Start or Restart a High-Impact, Business-Outcome-Driven EA Program
- The Enterprise Architect’s First 100 Days

**Essential Reading**
The Future Direction and Evolution of Business-Outcome-Driven Enterprise Architecture

Predicts 2020: Enterprise Architecture Enables the Intelligent Organization

Hype Cycle for Enterprise Architecture, 2020

8 Best Practices for Creating High-Impact Business Capability Models

Four Scenarios for EA Practitioners to Gain Credibility by Clarifying and Deducing Business Strategy

Use Design Thinking to Architect Customer Experience Into Your Digital Platforms

Avoid the 13 Worst EA Practices to Ensure Success in the Digital Business Era

Redefining Architecture’s Role in Digital Delivery

Case Study: Interconnected Business Capability Mapping (Medtronic)

Case Study: Lightweight Business Architecture to Support Investment Planning (Liverpool)

Tools and Toolkits

Toolkit: Enterprise Architecture in a Box 2.0

Ignition Guide to Designing and Managing EA Activities as Products

Toolkit: Determining the Scope, Focus and Work Allocation Mix for Your EA Program

Toolkit: Business Outcome Statements Deliver Value to Your Business and Guidance for EA

Toolkit: Construct Business Architecture Deliverables That Deliver Value to Business Leaders

Toolkit: Workshop for Constructing an Initial Business Capability Model

Toolkit: How to Create Business Scenarios That Drive Digital Disruption Innovation

Toolkit: Enterprise Architecture Value and the I&T Operating Model Optimizing Patterns

Toolkit: How to Build an Emerging Technology Radar

Ignition Guide to Rebooting the Enterprise Architecture Practice

Document Revision History

Enterprise Architecture Primer for 2020 - 24 January 2020

Enterprise Architecture Primer for 2019 - 5 February 2019

Enterprise Architecture Primer for 2019 - 5 February 2019

Build a World-Class EA Discipline Primer for 2018 - 19 April 2018
Related Priorities

<table>
<thead>
<tr>
<th>Initiative Name</th>
<th>Description</th>
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<tbody>
<tr>
<td>EA and Technology Innovation Leaders</td>
<td>Gartner research helps an organization design and manage a business-outcome-driven EA program responding to economic, digital and geopolitical disruptions.</td>
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<tr>
<td>Technology Innovation</td>
<td>Technology innovation will increasingly provide the “strategic spear” organizations use to understand and implement their strategies as they explore and invest in digital business transformation.</td>
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<tr>
<td>CIO: Innovation, Disruption, Emerging Practices</td>
<td>Gartner guides enterprises through changing market conditions by helping them understand disruptive trends and master emerging management practices focused on ongoing value creation.</td>
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<tr>
<td>CIO: Strategy, Governance and Operating Models</td>
<td>To be fit for digital and composable business, strategy and governance must become adaptive and continual, and operating models must become more tightly integrated and agile to accelerate execution.</td>
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<tr>
<td>IT Cost Optimization, Finance, Risk and Value</td>
<td>Gartner explores how IT financial management must evolve to create an agile and innovative environment (value), with proper risk trade-offs for better decision making and desired business outcomes.</td>
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