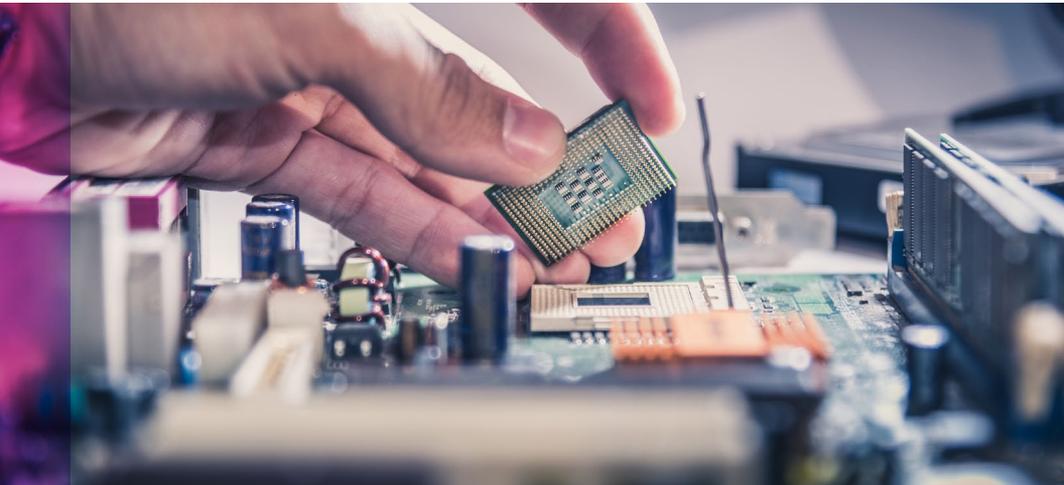




Architecture, Technology, Skills and Tools

Enabling your workplace for successful
digital transformation





First thing's first

There's a lot to accomplish before diving into the technical side of digital transformation.

But once you've [identified your challenge](#) and [prepared your workforce](#) for the coming change, you can begin developing a robust IT strategy that aligns with and enables your business goals.

This ebook provides a quick framework for connecting your high-level strategic priorities and objectives to the systems, processes and people that will ultimately execute that vision. The following sections highlight some key benefits, best practices and tips to help you build a robust strategy encompassing architecture, technology, skills and tools.

Defining your architecture strategy

Regardless of whether you're adopting a new Enterprise Resource Planning (ERP) platform or implementing machine learning solutions, you'll need a strategy to ensure that the technology, data and people that make up your organization work together to meet your business requirements — now and in the future.

Enterprise Architecture (EA) is the practice of aligning your organization's business goals with the enabling technology in the form of governance, standards, tools, patterns, practices, auditing and reporting.

Benefit: An effective EA strategy will fundamentally guide how your organization approaches business challenges, ensuring decisions are made and policies are structured to achieve the desired business outcomes — while maximizing visibility, agility and scalability. It will help with system development, IT and risk management, and standardizing language and processes for greater consistency and efficiency.

Best practice: Selecting a specific technology or platform (like a cloud provider or coding language) is not enterprise architecture. An EA strategy should take a holistic, long-term view focused on business outcomes. While there isn't one framework that guarantees success, The Open Group Architectural Framework (TOGAF), The Zachman Framework and even Gartner have established practical methodologies for designing, planning and implementing enterprise architecture. These approaches help standardize common vocabulary, tools and IT practices.

Tip: When building an EA strategy, start by establishing who will own the decision-making process — ideally an architecture council made up of both IT and non-IT stakeholders. This team will be responsible for analyzing and documenting current challenges, establishing the goals for an ideal future state and building a roadmap for the transition.

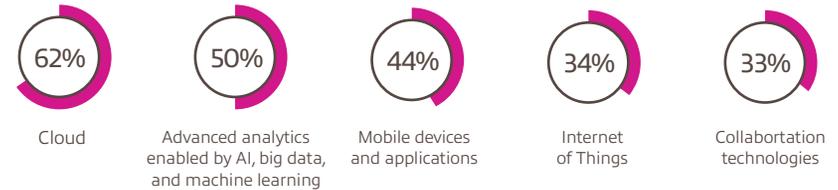
Once you've established your architecture strategy, you can then begin to build out the key technology enablers that will be required to support your implementation.



Future-ready technology foundations

The exact technologies you use will vary depending on your business goals and architecture strategy, but according to the [Insight Intelligent Technology™ Index](#), business leaders rank the following as critical to their digital innovation initiatives:

Technologies critical to Digital Innovation initiatives



Cloud, multicloud, hybrid cloud

Benefit: Properly leveraged, the right blend of on-site, public and private cloud can improve security, performance and cost savings while providing a future-ready foundation for innovation. A wide range of vendors and services are available depending on your organization's specific workloads, security and regulatory needs.

Best practice: Interoperability is an essential consideration for any hybrid or multicloud strategy. To ensure effective outcomes, organizations need to begin by assessing which platforms will be compatible with their existing Cloud Service Provider (CSP), and where platform-agnostic adapters or containers might be needed.

Tip: More cloud providers are moving from a server-based to a service-based business model. Take advantage of managed service offerings to reduce the burden of developing, managing and operating cloud solutions internally.

Edge computing

Benefit: Processing data at the edge can reduce latency and security issues associated with sending and retrieving data from a central location. An effective edge infrastructure allows your organization to ingest, analyze and act on large quantities of data in real time.

Best practice: Edge computing requires many different components, so interoperability is key. Organizations often have the desire to ramp up quickly, or simply go with the “latest and greatest” products. But in an evolving market, it’s important to map out a long-term vision to ensure manageability and scalability before making strategic purchases.

Tip: With any data, it’s critical to lead with security in mind, from edge devices to servers to the core data center. Implement processes to ensure strong passwords are maintained and updated regularly. Use a Virtual Private Network (VPN) or encrypt data in transit and consider protocols to identify traffic from unknown devices.

Software as a Service (SaaS)

Benefit: Depending on how much you want to build vs. buy, SaaS can help you achieve your digital transformation goals more quickly and cost-effectively while reducing strain on internal IT teams. Access to routine updates also ensures ongoing functionality, relevancy and security of software over time.

Best practice: Work with security and risk managers to create clear and consistent guidelines around security and governance from day one to avoid compliance issues. You’ll need to develop strong management protocols around usage and permissions to ensure you know who is accessing which parts of your data, when and why.

Tip: Effective vendor management saves time and money. If your organization is already using managed services from several different vendors, consider [consolidating for greater simplicity](#) and reduced costs.



Microservices and APIs

Benefit: While some organizations may be able to build directly off the cloud, those dealing with monolithic legacy platforms may find they're simply too disruptive to change. In these cases, microservices can be leveraged to more easily build and scale applications. Application Programming Interfaces (APIs) bridge the gap between microservices and traditional systems, making it easier to build and manage microservices.

Best practice: As microservices create more endpoints, connectivity becomes more difficult to control. Rather than relying on point-to-point integrations in highly distributed environments, an API-led strategy makes it possible to create a repeatable model for developing easily changeable capabilities.

Tip: Especially when you have many developers and teams working simultaneously and continuously, it's crucial to keep APIs consistent in terms of conventions and change management. Establish a governance group with representatives from each team to document and enforce API conventions. This will help reduce inconsistencies and make it easier to define new endpoints.

Technical skills, tools and processes

Once you've established your architecture and technology foundations, you'll need to consider how to execute.

Even for the largest enterprise organizations, implementing a full-scale digital transformation is no small task. Business leaders often have an instinct to keep things in house, but most successful initiatives are typically a balance between leveraging internal expertise and knowing when to partner with an outside vendor.

"On average, it takes up to 10 IT partners to successfully complete a digital transformation initiative."¹

Use the following questions to determine how you will support your transformation:

Skills

- What talent do you have on staff already?
- Do you need more developers?
- Does your existing staff require more tech enablement or training?
- Do you have the budget or desire to bring on internal data scientists?

Tools

- Does your IT team have the resources they need to develop, implement and manage new solutions effectively?
- Is data unified and easily managed and queried across locations or are tools needed to deal with silos?
- Are there redundant or outdated tools that need to be replaced?
- How will you ensure employees are properly trained on new tools?

Processes

- Will you adapt existing processes to fit new tools or adapt new tools to fit your processes?
- What costs will be involved either way?
- Which processes will change temporarily as a result of the transformation?
- Which processes will change fundamentally?



No need to reinvent the wheel

In cases of close industry competition or in the interest of protecting certain intellectual property, some enterprise organizations may choose to build from the ground up.

But a wide range of solutions and services are available on the market for those who don't have the resources or desire to build and support their own solutions in house. Strategic partnerships with experts in individual fields, or with super solution integrators like Insight, can provide the support for the people, processes and technologies needed to help you meet your business goals.

From fully managed services to semi-customizable offerings, the key is finding the right balance for your organization.



About Insight

Insight Enterprises Inc. empowers organizations of all sizes with Insight Intelligent Technology Solutions™ and services to maximize the business value of IT. As a Fortune 500-ranked global provider of Digital Innovation, Cloud + Data Center Transformation, Connected Workforce, and Supply Chain Optimization solutions and services, we help clients successfully manage their IT today while transforming for tomorrow.

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¹ Insight. (2019, Sept. 2). A Super Solution Integrator Drives Business Outcomes by Orchestrating Technology. [Insight.com](https://www.insight.com).