

WHAT EXACTLY DOES A SYSTEM ARCHITECT DO?



The system architect role is vital to the successful definition, design, delivery, and support of any IT project. A system architect analyzes and recommends the right combination of IT components to achieve a specific business, department, team, or functional goal.

They objectively analyze desired processes and outcomes and advice on the right combination of IT systems and components to achieve those goals. System architecture is closely aligned with [service design](#).

The Various Levels of System Architects

The system architect works at several different levels in IT, from high-level business strategy to low-level project consulting.

- At the highest level, system architects help to define and decide on the right IT strategy and approach that will best support long-term business plans and goals.
- At the medium level, system architects advise on the best tools, [frameworks](#), hardware, software, and other IT elements to achieve mid-term departmental and functional objectives.
- At the lowest level, system architects consult with and advise project teams on the specific software, hardware, and other elements needed to deliver defined IT project outcomes.

System architects are business and technology experts. They look at business plans and goals, analyze technical solutions, and create recommendations on the right mix of IT elements to achieve

those objectives.

A system architect role can be split into five areas:

1. Understand the desired business or departmental strategy and outcome.
2. Break down those outcomes into defined parts including products, processes, and functions.
3. Decide on the right architecture to achieve what they have defined.
4. Understand software, hardware, and user interactions, integrations, and interfaces.
5. Advise project teams on implementing their recommended solutions.

System architects are often senior engineers and strategists and work with stakeholders throughout IT and the business. They must absorb large amounts of information, analyze it for key factors, and provide clear, easily implementable recommendations.

Let's break down the key parts of a system architect's role.

Understand the Desired Business or Departmental Strategy and Outcome

IT is a crucial component of almost every business process. When the business wants to launch new products, improve efficiencies, or gain a competitive advantage, this will be captured in the strategy.

A system architect will analyze business strategy and discuss all key areas and initiatives with business strategists and high-level managers. They will translate those requirements into a demand for new or enhanced IT capabilities over the short-, medium-, and long-term.

Break Down Outcomes into Defined Parts

Once the system architect understands business and departmental demands, they will analyze and understand what specific IT capabilities will be needed. They will define this in system architecture documents for each major initiative. This becomes an important reference document to ensure consistency and clarity across all project and IT implementations.

Documentation may include:

- The name, purpose, and outcome of the initiative
- The main features, functionality, and processes for the initiative
- Overall IT methodology and frameworks impacting the initiative
- Key existing infrastructure and applications
- New staffing or resource requirements
- Ideas for potential software and hardware solutions

Decide on the Right IT Architecture

When the business decides to implement an initiative, the system architect will build out the planned IT architecture model. They will recommend specific IT hardware, software, methodologies, and approaches to help the business achieve the desired outcome.

A system architect takes the following areas into account:

- Alignment with overall goals

- Specific business requirements
- The existing IT ecosystem
- New and established technologies
- IT resources and staffing
- Cost control and return on investment
- End user and customer needs and experience
- Availability, responsiveness, reliability, and resilience of critical elements
- Alignment with architecture standards and best practice
- IT service management and support

Understand Integrations, Interfaces, and Interactions

A system architect doesn't just focus on IT elements in isolation. They also look at integrations with existing systems, interfaces with people and other applications, and how users will interact with the deliverable. [UI and UX](#) is becoming an increasingly important part of the system architect role.

Advise Project Teams on Recommended Solutions

System architects work closely with project teams to help them turn the architecture and their vision into reality. They can advise on design and build, testing, and implementation. Feedback from engineers and end users will feed back into system design to ensure it aligns with both business goals and user needs.