



How to Start and Organize a New Enterprise Architecture Team



Enterprise Architecture (EA) has a large number of starter packs, beginner's guides, and guides for individual aspects of EA, all of which are very useful for EA functions but do rely on already having experienced EA professionals ready to implement. For organizations that haven't even begun their EA journey, the most important step they must take is to put together an effective enterprise architecture team. In this guide, we'll break down how to start your EA function, and methods to organize teams of architects.





The Enterprise Architect

Naturally, any enterprise architecture team will require enterprise architects. The architect role is fairly specialized, but at the broadest level an enterprise architect will have many of the skills of an IT professional. That being said, an architect may arise from less technical areas as well, such as analyst or consulting roles – enterprise architecture is not necessarily a role that requires extensive programming ability and is perhaps more about product management and DevOps. Where programming knowledge is needed, it will likely be related to data science and networking, languages such as Python and SQL.

In a sense, an enterprise architect is a dual business and IT position, requiring good knowledge in both areas. An experienced Sysadmin that took an MBA would be an ideal candidate, but so too would an Operations manager with a variety of IT certifications. Though Enterprise Architecture is an area with high demand for a limited pool of potential architects, it's quite possible to upskill a wide variety of employees for the position.

For the more senior architects, direct experience with relevant standards and frameworks is important. The likes of TOGAF, ArchiMate, BPMN and COBIT are required, with the majority of standards offering certifications that architects can take. **The Open Group have a detailed summary of architectural skills in the TOGAF** standard, which aims to act as a “certification program” for enterprise architects.



There are 7 areas that architects need to be skilled in, with The Open Group further breaking down the requirements for the range of possible positions in an EA team:

- ✔ **Generic Skills:** such as teamworking, leadership, communication ability, etc.
- ✔ **Business Skills & Methods:** essentially business knowledge, such as business culture, process knowledge, organization and strategic planning.
- ✔ **Enterprise Architecture Skills:** skills unique to EA, such as data modeling, design of architecture systems, and systems integration.
- ✔ **Program or Project Management Skills:** such as change management and project management, etc.
- ✔ **IT General Knowledge Skills:** knowledge of IT and networking systems, programming languages, infrastructure, etc.
- ✔ **Technical IT Skills:** the engineering, systems admin and data management abilities required.
- ✔ **Legal Environment:** data protection laws and other legal areas that might impact enterprise architecture.





Looking beyond basic skills and experience, what is a senior or lead architect expected to bring to the business? Nothing too surprising here: communication, problem solving, leadership and team working are key. As the Open Group state:

“Enterprise Architects are visionaries, coaches, team leaders, business-to-technical liaisons, computer scientists, and industry experts”

Enterprise Architecture can have impacts across the firm and thus being able to adjust easily to working with a variety of internal stakeholders and manage their expectations will help a lot. This is perhaps another incentive to avoid relying solely on IT professionals, as these skills are often much less important for other IT roles, relative to the rest of the business.

More practically, what about pay, conditions, the state of hiring? Salaries will obviously vary depending on where your organization is located, but you can largely expect similar pay scales to other IT roles, with an experienced enterprise architect likely to attract salaries upwards of £75'000/\$100'000. And as with other IT professionals, demand is high, and the best architects will attract fierce competition.



Looking to the future, **Gartner** propose that enterprise architects will increasingly become digital leaders, helping to drive transformation and bring organizations forward as technology evolves. They state the following:

By 2021, 40% of organizations will use enterprise architects to help ideate new business innovations made possible by emerging technologies

In particular, Gartner foresee Enterprise Architects take up important roles in the development of major new technology trends, such as AI, machine learning, quantum computing as well as the cloud and Internet of Things.

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The Enterprise Architecture Team

What should an EA team look like? The **TOGAF architectural skills summary** linked earlier also goes into expected roles in a small amount of detail. There are 3 basic positions listed: leadership roles, such as EA managers, architecture sponsors, and board members; architect roles, which includes both enterprise architects and “domain” architects; and non-architect roles, such as IT designers and project managers.

Typically, an EA function will be placed directly underneath a Chief Information Officer or Chief Technology Officer, answering to them. Even for organizations that already have large technology functions, the roles of architects will often require them to be separate from the core technology function, or will need them to take the lead in changing aspects of an organization’s technology approach; as such, a CIO taking direct responsibility can help to avoid conflicts between senior technology managers and enterprise architects.



We mentioned “domain” architects above, but what does that mean, and how does it differ from enterprise architects? First, let us be clear that you may encounter a number of different terms for categories of architect: solution architect, segment architect, and technical architect are some others. You can think of the types as a pyramid. At the top are enterprise architects, taking on architectural design at a landscape and technical model level, and often leading teams of domain and solution architects. Next, the domain or segment architects, who are responsible for architectural design in a specific area – such as business architects, data architects or application architects. Finally, you have solution architects, who have a narrow focus on the design or implementation of specific problems or technologies. Note that the technical architect position, despite the name, is often unconnected to enterprise architecture and is more of an IT role; they will be in charge of particular technologies and systems.





How an organization chooses to divide responsibility between the different categories of architect will largely depend on the architecture needs. A handful of enterprise architects, supported by IT and development staff, could take on the entire responsibility for small scale teams. However, as the requirements of EA grow, the benefits of specialization are likely to become greater, and placing domain and solution architects under the core EA leaders.

Historically, businesses have tended to lump enterprise architecture into IT. However, trying to initiate change from within the IT department is a fool's errand. IT architecture is just one component of enterprise architecture – which, if it is to deliver meaningful change, must span the entire business. In a 2008 study, Forrester found that only 30% of firms had EA heads reporting to senior IT management, with the majority reporting to C level executives.



Clearly, therefore, EA should be positioned within a business wide change management function with direct lines to the C-level. Enterprise architecture must be able to reach all areas of the business and bridge across silos to ensure that operations and strategy are both aligned and efficient. Oversight of all people, processes and technology must be granted to enable the team to serve in a consultative capacity.

Beyond that, much will depend on the scope of the architecture project. A well resourced EA function in a large organization could have dozens of architects working in a matrix structure, each architect placed into specific areas of the business to lead digital change. Alternatively, a smaller organization or project may only need a handful of architects centralized in a team. There is not a right answer here. No enterprise will want to underinvest in an architecture project and fail to deliver any meaningful value, but that does not mean that smaller projects and teams will not be the right approach.

In terms of sizes, the aforementioned Forrester study found that EA teams tended to be smaller on average, with a plurality reporting a team of 1 to 5 people – though they note that this only counts enterprise architects, and most teams were larger when including other architects and support staff. Forrester ultimately recommend sizing an EA team using a ratio to total IT staff, ranging from 1 architect to 75 IT staff in small organizations, up to 1:200 in larger organizations.





Organizing Architects

As alluded to above, the distribution of architects across an organization can take many forms. The majority of enterprise architecture projects will need to involve many areas of the business, which can lead to creative solutions for covering these needs. However, perhaps the key question to answer will be quite simple: centralized, or de-centralized?

A centralized EA structure involves all architects reporting to the same leader, a hierarchy that is simple to manage, but can lead to separation from the individual business units being supported by EA. With a de-centralized structure, different architects will have different leaders depending on their projects; this can lead to greater visibility and stakeholder acceptance, but will be more difficult to manage and could lead to inconsistency.



Once again, there isn't necessarily a right answer here, nor should you view the question as a dichotomy: it is entirely possible to have some architects working centrally and some working under different business units. That being said, Forrester do advise that a mismatch between the IT function and an EA team can lead to issues; if your IT function is quite centralized, then having a highly decentralized EA function led to struggles for architects surveyed.

Outside of the core of enterprise architects, you will also need to consider the organization of support staff, and other architects, as discussed earlier. Forrester suggest EA teams be made up of three components: the core team of enterprise architects, the extended team comprising the likes of solution and domain architects, and support staff, which will be made up of process management, project management, and repository support. Some EA teams even include development staff and analysts; this would be appropriate for more centralized teams, as it would enable changes to be implemented from within the team.





What are the key takeaways?

- ✓ The Enterprise Architect role has a lot of requirements, but architects can come from a variety of different places, and upskilling existing employees is possible to fill gaps.
- ✓ EA teams should fit with the organization of the IT function, but should not report to IT management (apart from the CIO).
- ✓ Small teams are fine, even for massive organizations. A handful of enterprise architects will be enough, if they are supported by other architects and support staff.
- ✓ Find the organization that works for you. If you already have a company with flexible staff and co-working between functions, then your EA team should be the same. If you have a carefully managed hierarchy with clear divisions, then so too should your EA team.



Conclusion

Starting an Enterprise Architecture team is not necessarily any different from starting any other new function. Knowing which skills you need and how you wish to fit a new team into your organization are important, but knowing what you aim to achieve and the resources you have to do that will continue to be the overriding factors for any new initiative. This guide should illuminate many of the practical considerations of starting up an EA team, but it will all go to waste if you are not clear on what you wish to accomplish through enterprise architecture. Most importantly, remember always that enterprise architecture is designed to be a help to all areas of the organization, not a hindrance or a barrier to change.





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Such requests for permission or any other comments relating to the material contained in this document may be submitted to:
marketing@orbussoftware.com

Orbus Software

Floor 4, 60 Buckingham Palace Road, SW1W 0RR

+44 (0) 20 3824 2907

enquiries@orbussoftware.com

www.orbussoftware.com