The Architecture Engagement Process

Enterprise architectures start with the publication of standards and guidelines. They must be complemented by an engagement process that sets out governance rules and manages the application of architectures by projects.

Core Topic
Business Management of IT: Organization and Governance

Key Issue
What are appropriate IS organizational roles and processes?

Enterprise architecture can be defined as sets of technology standards that are used as a basis for developing new IT capability or functionality. These standards include application design guidelines and common views of information (e.g., data, function and process). Enterprise architecture is concerned with issues related to application and technology portfolios, rather than individual projects or applications. Development and publication of these standards and guidelines are important steps, but they are not enough. To be effective, projects must put architectural standards and guidelines into effect.

Few projects, however, will look beyond their own requirements and apply architectures unless they are obliged to do so. The role of the architecture engagement process is to establish rules that specify how projects should employ enterprise architectures.

An architecture engagement process complements the eight steps for architectural success described in previous research (see "Can Architectural Success Be Defined as User Compliance?" TG-09-9828). This process is an element of IT governance, specifying when and how architecture applies to projects and providing the means to resolve issues.

When to Engage With Architects: The engagement process encompasses a variety of tasks, ranging from the production and publication of architecture standards and guidelines, to carrying out project activities, to performing compliance and conflict resolution tasks. Interaction between the project team and the architecture group mostly occurs early in the project life cycle, with a focus on planning and design tasks — namely, negotiating the application of the architecture standards and guidelines. As the project proceeds, there is also a need to monitor plans and negotiate conflicts.

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A range of stakeholders across the enterprise contributes to the process in a variety of roles. In "Who Needs to Know? Stakeholder Mapping for Success" (DF-12-7840), we describe a way of analyzing stakeholders and their roles. Using this technique in Figure 1, we outline a plan for stakeholder roles. It should be noted that the specific entries will vary from one enterprise to another. For example, in a large enterprise, the CIO will likely delegate a number of the tasks that we spell out below.

Figure 1
Suggested Stakeholder Roles

Task	Stakeholder						
	Executive Steering Committee	**Project Office**	**CIO**	**Project Sponsor**	**Project Team**	**Full-Time Architects**	**Architecture Task Force**
Document Architecture Standards and Guidelines		T	O	T	C	MC	I
Document Self-Assessment Criteria		T	O		C	MCT	I
Plan Project		T or C	AI	O	MI	AC	
Approve Project	I or A	M	A	O			
Initiate Project		T or C	A	O	MI		
Design Project		T	T	O	MI	AC	
Implement Project		T	T	O	MI	C	
Complete Project	T	A	A	O	MI	A	
Negotiate Conflicts	A	M	I or A	O	I	I	
Monitor Compliance	T	M	O	T	T	I	

O=Own, M=Manage, A=Agree, I=Involve, C=Consult, T=Tell

Source: Gartner Research

1. Document architecture standards and guidelines. Architecture standards and guidelines must be published and available to projects so the project team can incorporate them into designs and plans. This means that the existence of approved architecture documents is a prerequisite for the engagement process.

Usually, architects and the architecture task force develop lists of preferred technologies. However, architecture documents might also encompass descriptions of enterprise information architecture, such as common views of data, function, business objects and business processes.

As technologies and business needs evolve, these documents must be updated on a regular basis — about every two years,

with limited modifications every six months. Updates might also be triggered by an event such as the release of a new version of an operating system or changing business conditions. They might also be initiated by the needs of projects stemming from proposed exceptions to guidelines or, more proactively, from the work of architects assigned to the project. This type of interaction with projects helps the architecture standards and guidelines to be practical, relevant and up to date.

2. Document self-assessment criteria. There are many projects that have minimal or no impact on architecture, as they work within previously approved frameworks. Architects add little value here. To recognize these projects and to avoid subversion of the process, applicable criteria for these projects must be specified. An example of such a criterion is that the project uses only technology that conforms to the architecture standards.

3. Plan the project. In this task, a project builds its business case, including the schedule and resourcing plan. To do this, there must be at least a high-level understanding of the solution. For example, the plan for a project that will implement a vendor supplier application is very different than one for a project that will build the solution from scratch. Architects should at least be involved in a consulting capacity to resolve possible architectural issues. For major projects, they should work with the project team to plan the proposed solution.

4. Approve the project. All projects, except those that conform to the self-assessment criteria, must undergo an architecture review. Architecture applies constraints to projects so long-term goals can be achieved (see "What Do IT Architects Do?" COM-13-2153). However, there are times when the best interests of the business are served by a relaxation of constraints — a balanced approach in which vision is accompanied by pragmatism.

The process of evaluating exceptions to architecture standards and guidelines should include an examination of at least two scenarios — compliance and noncompliance. The evaluation should calculate the total cost of ownership of both approaches. For example, a proposed application package might deliver early business benefits (perhaps enabling a new channel or service) but, if it only runs on a nonstandard platform, the ramifications of choosing the package must be considered. This examination might include a comparison of faster time to market compared with higher ongoing maintenance costs resulting from the use of a nonstandard platform. Architects can play a constructive role by working with the project team to formulate and analyze alternative solutions.

After the case for each of the project options has been described, a decision is made. The key point here is that the project approval, including an endorsement of the approach, is a *business* decision, with the architects' role being to help explain the business outcomes of the various technology options.

5. Initiate, design and implement the project. When a project is being resourced, architects may be scheduled to work on designated design tasks that are required for project approval. Architects should also participate in quality assurance activities such as project design inspections and walk-throughs.

As the project solution is built and tested, difficulties will be encountered from time to time. Architects should be consulted to resolve these issues, particularly when they arise from the use of architecture standards and guidelines.

6. Complete the project. A final project review should be carried out by the project office to identify what was done well and to target areas for improvement. The architects' role in this step includes leading the review of the use of the architecture and its effectiveness, which may yield proposals to update the architecture standards and guidelines.

7. Negotiate conflicts. From time to time, project teams and architects will be unable to agree on the solution design. A senior business body, such as an executive steering committee, must adjudicate deadlocks of this kind. Whether the conflict arises from competing architecture standards or from a dispute over exceptions to the standards, the decision process should weigh the business impact of the proposed courses of action. The architects' role is to put the case for standards compliance and to work with the other parties to negotiate a resolution and plan a solution.

8. Monitor compliance. To complement architecture self-assessment, an audit program to monitor architectural compliance should be instituted. This program, conducted by the architects, should check whether the standards are being interpreted and applied correctly.

How to Engage With Architects: To be effective, architecture must not simply adopt a policing role in which it signs off on the work of others, but should partner with project teams to design solutions. Early projects that implement the architecture standards and guidelines are particularly important in providing timely feedback, ensuring correct interpretation and educating the development community.

The interaction between project teams and architects is a "two-way street." Not only should architects work with project teams to apply their guidelines, they should use these experiences to keep guidelines current and ensure that they are practical and understandable, and that they address appropriate subject areas.

Many architecture undertakings have failed because architects have taken a hands-off approach and been unwilling to work with project teams.

Key Facts:

1. The architecture engagement process must encompass a range of tasks, with a particular focus on solution design. Tasks to include are 1) document architecture standards and guidelines; 2) document self-assessment criteria; 3) plan the project; 4) approve the project; 5) initiate, design and implement the project; 6) complete the project; 7) negotiate conflicts; and 8) monitor compliance.

2. The architecture engagement process must provide ways of managing exceptions to architecture guidelines.

3. The engagement process should include feedback from projects so that the standards and guidelines are relevant, understandable and practical.

Bottom Line: Without an effective architecture engagement process, enterprise architectures will not be put into practice. Instead, they will be ignored, rendering architecture objectives unachievable.