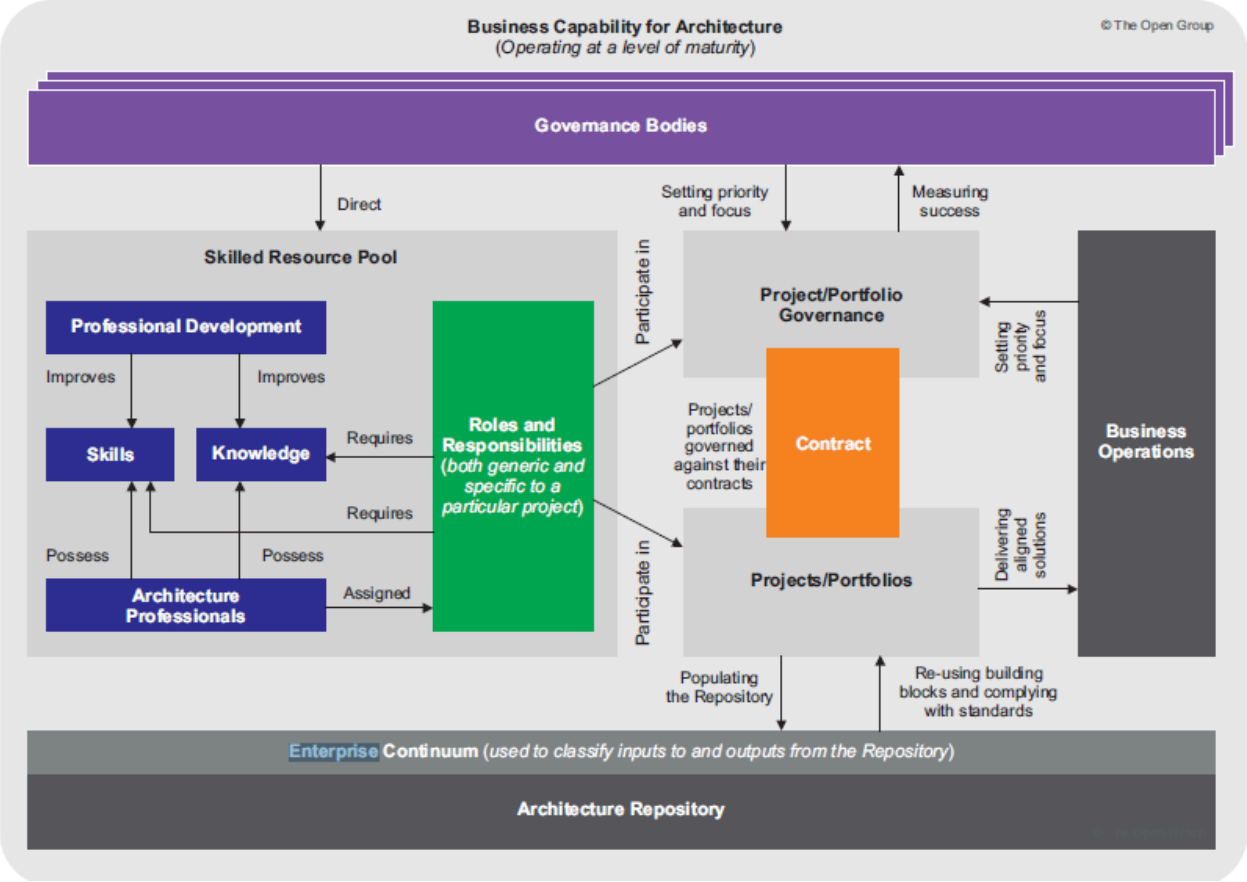
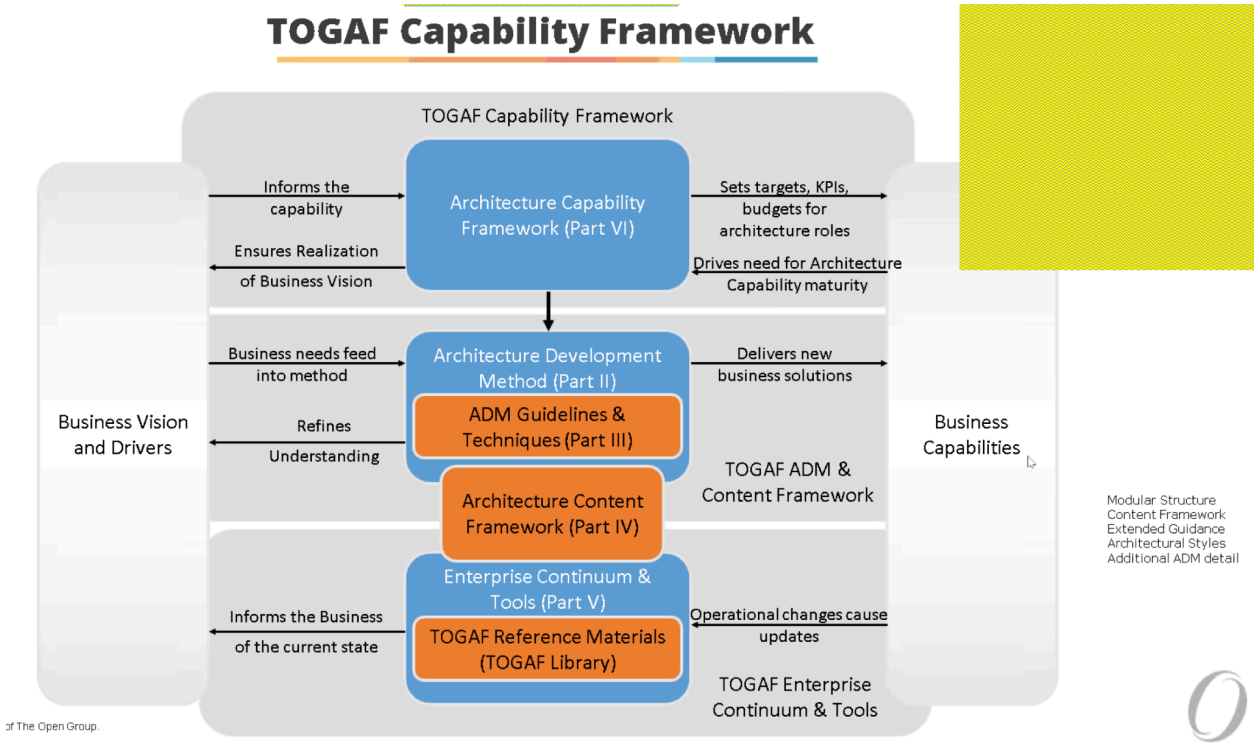
In order to successfully operate an architecture function within an enterprise it is necessary to put in place appropriate organization structures, processes, roles, responsibilities and skill to realize the Architecture Capability.





Establish Architecture Capability : 40

As with any business capability, the establishment of an Enterprise Architecture Capability can be supported by the TOGAF ADM.

Successful use of the ADM will provide a customer focused, value adding and sustainable architecture practice that enables the business, helps maximize the value of investments and pro-actively identifies opportunities to gain business benefits and manage risk.

Establishing Architecture practice within an organization can be achieved by adhering to the same approach that is used to establish any other capability such as Business Process Management (BPM) within an organization.

ADM is an ideal method to be used to architect and govern the implementation of such capability.

This should not be seen as a phase of an architecture project, or a one-off project rather as an ongoing practice that provides the context, environment

and resources to govern and enable architecture delivery to the organization.

Any change to the architecture practice could trigger another cycle of the ADM to extend the architecture practice.

Implementing any capability within an organization would require the design of the four domain architecture.

- Business Architecture : Highlights the Architecture Governance, Architecture Process, Architecture Organization structure, Architecture Information requirements, Architecture Products etc.

- Data Architecture : That would define the structure of the organization's Enterprise continuum and Architecture repository.

- Application Architecture : Specifying the functionality and /or application service required to enable architecture practice.

- Technology Architecture : Depicts Architecture practice's infrastructure requirements and deployment in support of architecture application and Enterprise Continuum.

Steps in establishing an architecture practice against context of ADM phases.

- Phase A: Architecture Vision : The purpose establish an architecture Practice is define or revie the vision, stakeholders, and principles of architecture practice.

- Establish the project : Focus on defining stakeholders in architecture practice
- Identify Stakeholders and concerns, business requirement and architecture vision : Generate first very high level definition of the baseline and target environment from business information system and technology practice for the architecture practice.
- Identify business goals and Business drivers
- Define scope : Defining scope of architecture practice would be high level project plan of what should be addressed in terms of architecture for the next project.
- Define constraints : Define enterprise wide constraints that would impact on all architecture projects.
    - Review Architecture principles including business principles :
- Develop statement of architecture work and secure approvals : This step should generate the architecture practice vision and scope.

- Phase B : Business architecture - Key area of focus during this phase of establishing or refining the Business architecture of the architecture practice are :
  - Architecture Ontology : Defining the architecture term and definitions that will be used in the organization in order to establish a common understanding of these terms.
  - Architecture Process : ADM would form the base of the process and need to be customized to meet the organization's requirement and overall architecture process.
  - Architecture viewpoints and view : list all viewpoints and views that should be addressed by architecture practice.
  - Architecture framework : describing various architecture deliverables that will be generated by architecture practice, the inter-relationship and dependencies between the architecture deliverable as well as the rules and guidelines governing the design of these deliverables.
  - Architecture Accountability matrix : defining the roles in the architecture practice and allocating accountability of the roles to architecture deliverables and process.
  - Architecture performance metrics : identifying and describing the metrics that will be used to monitor the performance of architecture practice against its stated architecture practice vision and objectives.
  - Architecture Governance framework :

- Phase C : Data architecture : Data architecture of architecture practice would specify and govern the structure of the Organization's Enterprise Continuum and Architecture repository. The data architecture should be defined based on the architecture framework. Data architecture is sometimes referred to as the metamodel of architecture practice.

- Phase C : Application architecture : Application architecture of architecture practice defines the functionality required to generate, maintain, publish, distribute and govern the architecture deliverables as defined in architecture framework. A key focus should be on modelling toolsets required for modelling.

- Phase D : technology architecture : Technology architecture of architecture practice should define technology infrastructure supporting the architecture practice.

- Phase E : Opportunities and Solutions : A critical factor to consider during this phase of planning the establishment of the architecture practice is the organizational change that is required and how this will be achieved.

- Phase F: Migration planning : focus should not only be on Information System architecture components in this phase, but include the Business Architecture. The adoption of architecture process and framework will have a major impact on overall establishment of architecture practice in the organization.

- Phase G : Implementation Governance : Implementation of business architecture of architecture practice should be the focus of this phase.

- Phase H : Architecture Change Management : Changes to the architecture of architecture practice should be managed by this phase. These changes are usually triggered during the execution of architecture project. A typical change would be the requirement for a new architecture deliverable. This would impact on all the architecture domains of architecture practice.

- Requirement management : Understanding and managing the requirements for the architecture practice is crucial. Requirement should be clearly articulated and align to architecture practice vision.

Architecture Board : 41

A key element in successful architecture governance strategy is a cross organization architecture board to oversee the implementation of the strategy. This body should be representative of all the key stakeholders in architecture and will typically comprise a group of executives responsible for the review and maintenance of the overall architecture.

Board typically comprise representative from the organization at a maximum of two levels:

- Local (domain experts, line responsibility)

- Global (Organization wide responsibility)

Architecture board is typically made responsible and accountable for achieving some or all of the following goals:

- Providing the basis for all decision making with regards to the architectures.
- Consistency between the sub-architectures.
- Establishing targets for re-use of components.
- Flexibility of Enterprise architecture
    - To meet changing business needs
    - To leverage new technology
- Enforcement of architecture compliance
- Improving the maturity level of architecture discipline within the organization
- Ensuring that the discipline of architecture based development adopted.
- Supporting a visible escalation capability for out of bound decisions.

Further responsibilities from an operational perspective should include.

- All aspects of monitoring and control of the architecture contract.
- Meeting on a regular basis
- Ensuring the effective and consistent management and implementation of the architectures.
- Resolving ambiguities, issues, or conflicts that have been escalated.
- Providing advice, guidance and information
- Ensuring compliance with architectures, and granting dispensations that are in keeping with the technology strategy and objectives
- Considering policy (Schedule, SLAs etc) changes where similar dispensation are requested and granted e.g. New form of service requ
- rement.
- Ensuring that all information relevant to the implementation of Architecture contract is published under controlled conditions and made available to authorized parties.
- Validation of reported Service levels, cost saving etc.

From a Governance perspective the Architecture board is also responsible for :

- The production of usable governance material and activities.
- Providing a mechanism for the formal acceptance and approval of architecture through consensus and authorized publication

- Providing a fundamental control mechanism for ensuring the effective implementation of the architecture.
- Establishing and maintaining the link between the implementation of architecture, the architecture strategy and objectives embodied in the Enterprise Architecture and strategic objectives of business.
- Identifying divergence from the architecture and planning activities for realigning through dispensations or policy update.

Setting up the Architecture Board :

- Triggers : One or more the following occurrences typically triggers the establishment of architecture board.
    - New CIO
    - Merger or acquisitions
    - Consideration of a move to newer form of computing
    - Recognition that IT is poorly aligned to business
    - Desire to achieve competitive advantage via technology
    - Creation of Enterprise Architecture Program
    - Significant business change or rapid growth
    - Requirement for complex, cross functional solutions.

In many companies the executive sponsor of the initial architecture effort is CIO. However to gain broad corporate support a sponsoring body has more influence. This sponsoring body is here called Architecture Board.

Architecture board itself need an executive sponsor from the highest level of the corporation.

Size of board : Size of architecture board is four or five (and not more than ten) permanent members.

Some continuity must exist on Architecture Board to prevent the corporate architecture from varying from one set of idea to another.

One technique for ensuring rotation with continuity is to have set terms for members and to have the term expire at different times.

Board Structure : This structure identifies the major organizational groups and responsibilities as well as the relationship between each group.

The architecture board should reflect the form of the organization. The organization may need to define a combination of IT governance process in place and the existing organizational structures and capabilities which typically include the following types of body:

- Global governance board
- Local Governance board
- Design authorities
- Working parties.

Operation of the Architecture Board :

- General : Architecture board meeting should be conducted within clearly identified agendas with explicit objectives, content coverage and defined actions.

These meeting will provide key directions in :

- Supporting the production of quality governance material and activities.
- Providing a mechanism for formal acceptance through consensus and authorized publication.
- Providing a fundamental control mechanism for ensuring the effective implementation of architectures.
- Establishing and maintaining the link between the implementation of the architectures and the stated strategy and objectives of the organization.
- Identifying divergence from the contract and planning activities to realign with the contract through dispensation or policy update.

- Preparation : each participant will receive an agenda and any supporting documentation e.g. Dispensation request, performance management report etc.

Where actions have been allocated to an individual, it is that person's responsibility to report on progress against these.

- Agenda : Each agenda item is described in terms of its content only.
    - Minutes of previous meeting
    - Request for change : for amendments to architectures, principles etc but may also include business control with regards to architecture contract e.g. Ensure that voice traffic to premium member such as weather report is barred and data traffic to certain website is controlled.

- Dispensation : used as a mechanism to request a change to the existing architecture, contract, principles etc. Outside normal operating parameters e.g exclude provision of service to a subsidiary, request for unusual service levels for specific business reasons, deploy non-standard technology or products to support specific business initiative.

- Compliance assessments : Compliance is accessed against SLA, Operational level Agreement (OLAs), cost target and required architecture refreshes.
- Dispute resolution : Dispute that have not been resolved through the Architecture Compliance and dispensation process are identified here for further action and are documented through the Architecture Compliance assessment and dispensation documentation.
- Architecture strategy and direction documentation.

Actions assigned :

- Reference
- Priority
- Action description
- Action owner
- Action details
- Date raised
- Due date
- Status
- Type
- Resolution date.

Architecture Compliance : 42

IT Governance function within an enterprise will normally define two complementary process:

- The architecture : function Will be required to prepared a series of Project architecture i.e. Project specific views of Enterprise Architecture that illustrates how Enterprise Architecture impacts on the major project within the organization.

- IT Governance : Function will define a normal architecture compliance review process for reviewing the compliance of project to Enterprise Architecture.

Terminology : The meaning of Architecture Compliance

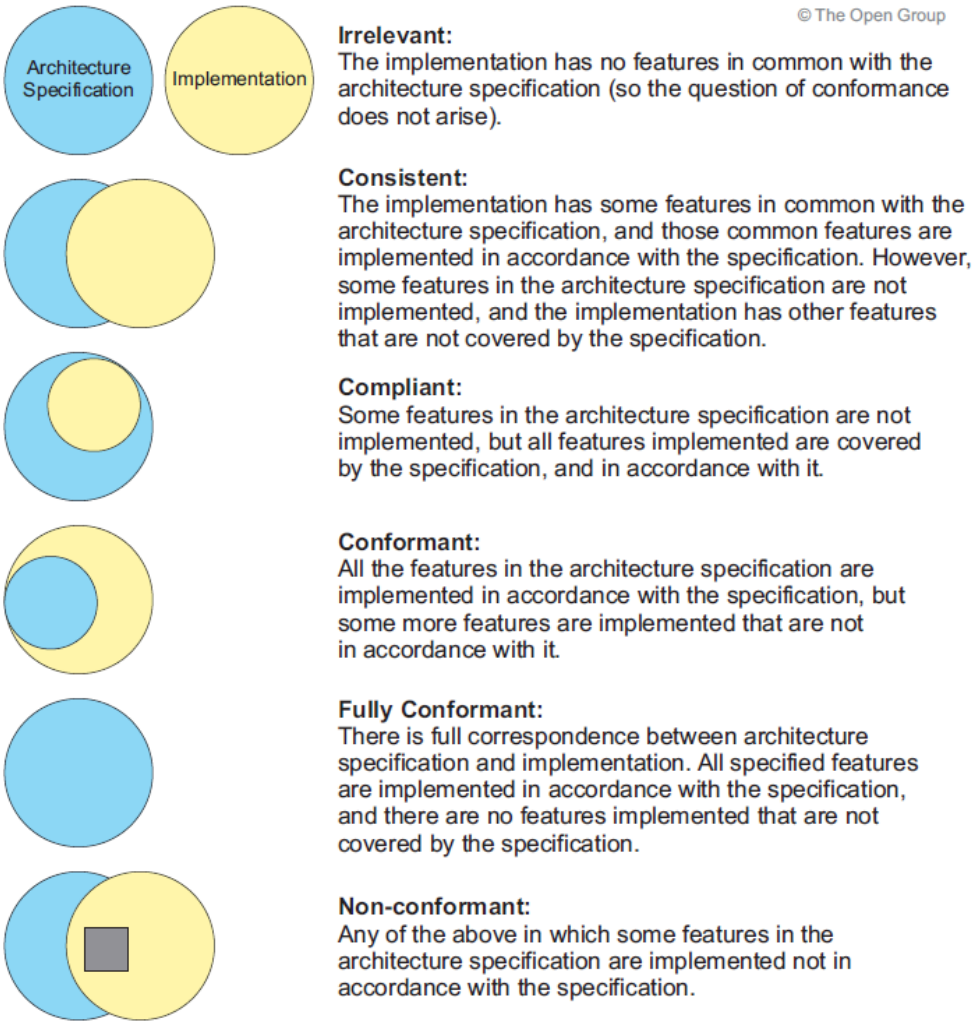


Figure 42-1 Levels of Architecture Conformance

Architecture Contract : 43

Architecture contracts are joint agreement between development partner and sponsors on the deliverables, quality and fitness for purpose of an architecture. Successful implementation of these agreements will be delivered through effective Architecture Governance.

By Implementing a governed approach to the management of contracts the following will be ensured :

- A system of continuous monitoring to check integrity, changes, decision making and audit of all architecture related activities within the organization
- Adherence to the principles, standard and requirements of the existing or developing architecture
- Identification of risks in all aspects of the development and implementation of the architecture covering the internal development against accepted standards, policies, technologies and products as well as operational aspects of the architectures such that organization can continue its business with resilient environment
- A set of process and practices that ensures accountability, responsibility and discipline with regard to the development and usage of all architectural artifacts.
- A formal understanding of the governance organization responsibilities for the contract their level of authority and scope of the architecture under the governance of the body.

Architecture contract may occur at various stages of ADM for example

- The statement of architecture work created in Phase A : ADM is effectively an Architecture contract between the architecting organization and the sponsors of the Enterprise Architecture
- Development of one or more architecture domains and in some oversight of the overall EA may be contracted out to system integrator, application providers and/or Service providers.
- At beginning of Phase G (Implementation Governance) : between architecture function and function responsible for implementing EA defined in the proceeding ADM Phases.
- When the Enterprise Architecture has been implemented an Architecture Contract will normally be drawn up between the architecting function and the business users who will subsequently be building and deploying application system in architected environment.

Content :

- Statement of Architecture Work
- Contract between Architecture Design and Development partners : This is a signed statement of intent on designing and developing the Enterprise Architecture, or

  significant parts of it, from partner organizations, including systems integrators, applications providers, and service providers.

  Typical contract of an Architecture Design and Development contract are :

- Introduction and background
- Nature of agreement
- Scope of the architecture
- Architecture and strategic principles and requirement
- Conformance requirement
- Architecture development and management process and roles
- Target architecture measures
- Defined phases of deliverables
- Prioritized phases of deliverables
- Time Window(s)
- Architecture delivery and business metrics.

- Contract between Architecting function and Business Users : When architecture contract have been implemented (at end of Phase F) and architecture contract will normally be drawn up between architecting function (or IT Governance function, subsuming the architecture function) and business users who will subsequently be building and deploying application system in architected environment.

- Relationship to Architecture Governance : Following aspect of Governance framework may need to introduced into Phase G:
  - Simple processes
  - People centred authorities
  - Strong communication
  - Timely responses and an effective escalation process
  - Supporting organizational structure
  - Status tracking of architecture implementation

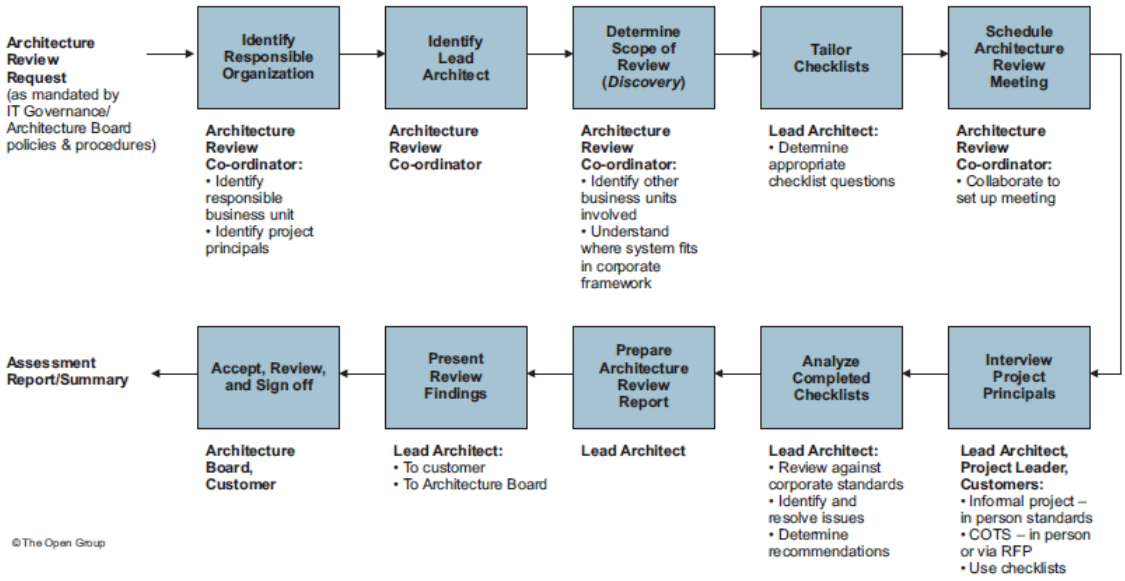


Figure 42-2 Architecture Compliance Review Process

Architecture Governance : 44

Architecture governance is the practice and orientation by which Enterprise Architectures and other architectures are managed and controlled at an enterprise wide level.

Architecture governance does not work in isolation but within a hierarchy of governance structure, which particularly in large enterprise can include all of the following as distinct domain with there own disciplines and processes:

- Corporate governance
- Technology governance
- IT Governance
- Architecture Governance

Each of these domains of governance may exist at multiple geographic level:

- Global
- Regional
- Local

Nature of governance : Governance is essentially about ensuring that business is conducted properly. It is less about overt control and strict adherence to rules and more about guidance and effective and equitable usage of resource to ensure sustainability of an organization's strategic objectives.

- Focuses on the rights, roles and equitable treatment of stakeholders
- Disclosure and transparency and responsibilities of the board
- Ensures
    - Sound strategic guidance of the organization
    - Effective monitoring of management by the board
    - Board accountability for the company and to the stakeholder
- Board's responsibility
    - Reviewing and guiding corporate strategy
    - Setting and monitoring achievement of management's performance objectives.

Characteristics of Governance :

- Discipline : All parties will have a commitment to adhere to procedures, processes, and authority structure established by the organization
- Transparency : Decision support will be available for inspection by authorized organization and provider parties
- Independence : All process decision making and mechanism used will be established so as to minimize or avoid potential conflict of interest
- Accountability : Identifiable groups within the organization e.g. Governance board who take actions or make decisions are authorized and accountable for their actions
- Responsibility : Each contracted party is required to act responsibly to the organization and its stakeholders.

Technology Governance

IT Governance

An IT Controls Framework - COBIT

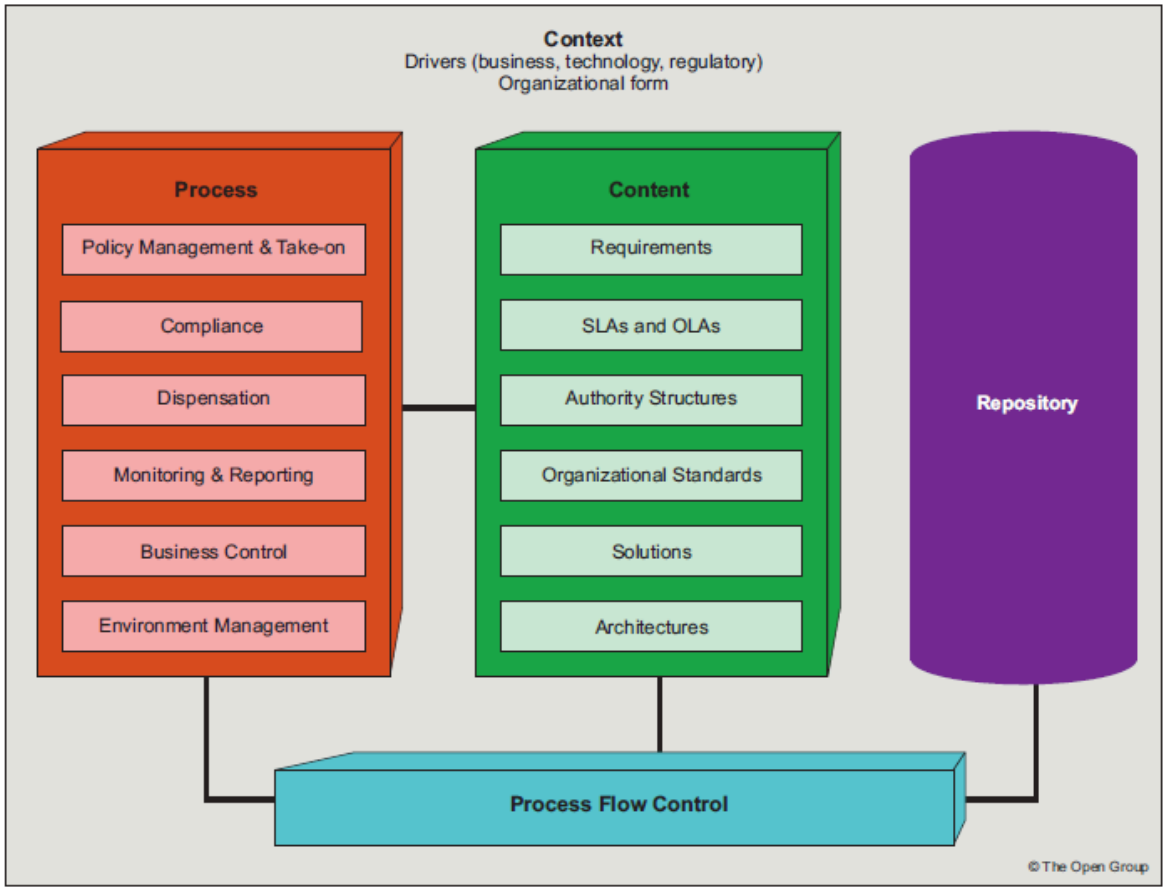


Figure 44-1 Architecture Governance Framework — Conceptual Structure

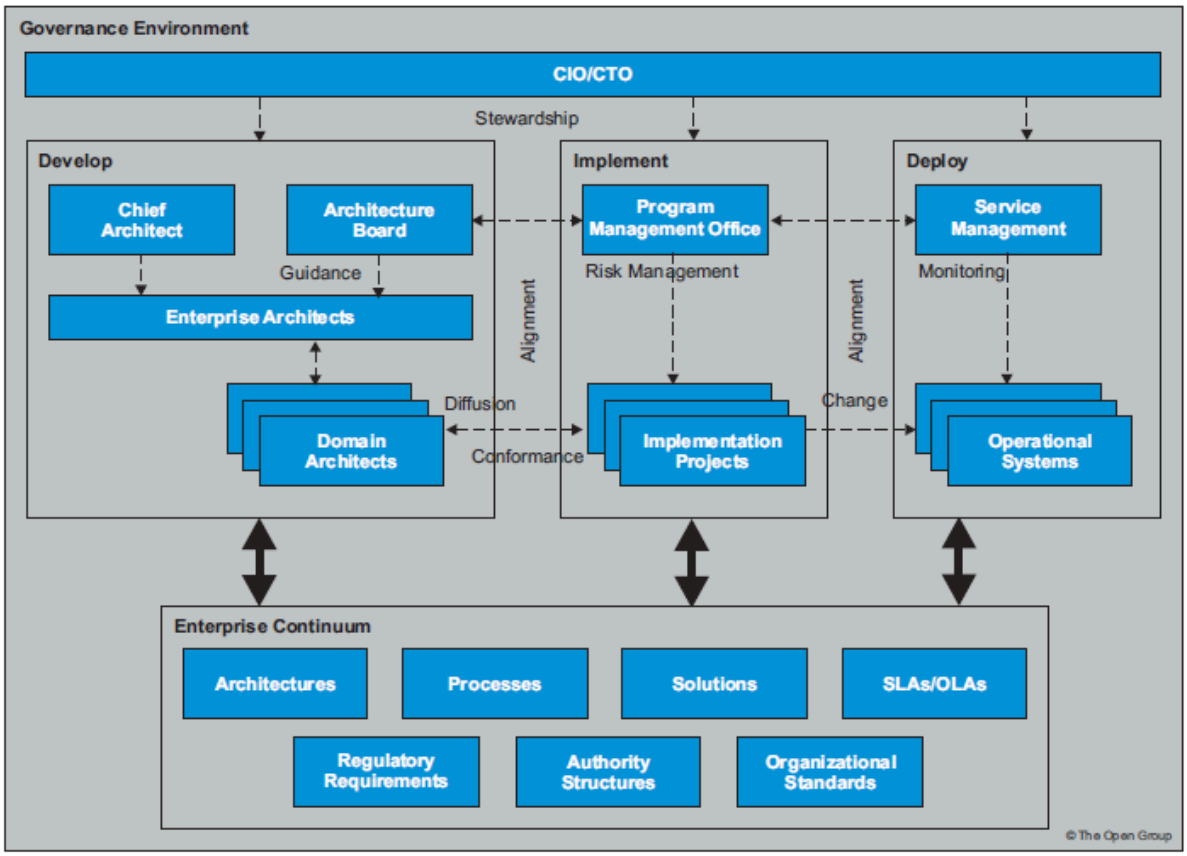


Figure 44-2 Architecture Governance Framework — Organizational Structure