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# Preliminary Phase

### **Preliminary Phase**

Objectives	Steps	Inputs	Outputs
<ul> <li>Determine the Architecture Capability desired by the organization:</li> <li>Review the organizational context for conducting enterprise architecture</li> <li>Identify and scope the elements of the enterprise organizations affected by the Architecture Capability</li> <li>Identify the established frameworks, methods and processes that intersect with the Architecture Capability</li> <li>Establish Capability Maturity target</li> <li>Establish the Architecture Capability:</li> <li>Define and establish the Organizational Model for Enterprise Architecture</li> <li>Define and establish the detailed process and resources for architecture governance</li> <li>Select and implement tools that support the architecture activity</li> <li>Define the Architecture Principles</li> </ul>	Scope the enterprise organizations impacted Confirm governance and support frameworks Define and establish enterprise architecture team and organization Identify and establish architecture principles Tailor TOGAF and, if any, other selected Architecture Frameworks Implement architecture tools	TOGAF Other architecture framework(s) Board strategies, business plans, business strategy, IT Strategy, business principles, business goals, and business drivers Governance and legal frameworks Architecture capability Partnership and contract agreements Existing organizational model for enterprise architecture Existing architecture framework, if any, including: • Architecture method • Architecture content • Configured and deployed tools • Architecture Repository	Organizational Model for Enterprise Architecture Tailored Architecture Framework, including architecture principles Initial Architecture Repository Restatement of, or reference to, business principles, business goals, and business drivers Request for Architecture Work Architecture Governance Framework

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K Requirements Management

#### **Requirements Management**

Objectives	Steps	Inputs	Outputs
Ensure that the Requirements Management process is sustained and operates for all relevant ADM phases Manage architecture requirements identified during any execution of the ADM cycle or a phase Ensure that relevant architecture requirements are available for use by each phase as the phase is executed	Identify/document requirements Baseline requirements Monitor baseline requirements Identify changed requirement; remove, add, modify, and re-assess priorities Identify changed requirement and record priorities; identify and resolve conflicts; generate Requirements Impact Statements Assess impact of changed requirements on current and previous ADM phases Implement requirements arising from Phase H Update the requirements repository Implement change in the current phase Assess and revise gap analysis for past phases	The inputs to the Requirements Management process are the requirements-related outputs from each ADM phase. The first high-level requirements are produced as part of the Architecture Vision. Each architecture domain then generates detailed requirements. Deliverables in later ADM phases contain mappings to new types of requirements (for example, conformance requirements).	Changed requirements Requirements Impact Assessment, which identifies the phases of the ADM that need to be revisited to address any changes. The final version must include the full implications of the requirements (e.g., costs, timescales, and business metrics).

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# Architecture Vision

#### Phase A: Architecture Vision

Objectives	Steps	Inputs	Outputs
Develop a high-level aspirational vision of the capabilities and business value to be delivered as a result of the proposed enterprise architecture Obtain approval for a Statement of Architecture Work that defines a program of works to develop and deploy the architecture outlined in the Architecture Vision	project Identify stakeholders, concerns, and business requirements Confirm and elaborate business goals, business drivers, and	Organizational Model for Enterprise Architecture Tailored Architecture Framework, including tailored architecture method, architecture content, architecture principles, configured and deployed tools Populated Architecture Repository; that is, existing architecture documentation (framework description, architecture descriptions, existing baseline descriptions, etc.)	<ul> <li>Approved Statement of Architecture Work</li> <li>Refined statements of business principles,</li> <li>business goals, and business drivers</li> <li>Architecture principles</li> <li>Capability Assessment</li> <li>Tailored Architecture Framework</li> <li>Architecture Vision, including: <ul> <li>Refined key high-level stakeholder</li> <li>requirements</li> </ul> </li> <li>Draft Architecture Definition Document,</li> <li>including (when in scope): <ul> <li>Baseline Business Architecture (high-level)</li> <li>Baseline Data Architecture (high-level)</li> <li>Baseline Application Architecture (high-level)</li> <li>Baseline Technology Architecture (high-level)</li> <li>Target Business Architecture (high-level)</li> <li>Target Application Architecture (high-level)</li> <li>Target Technology Architecture (high-level)</li> <li>Target Technology Architecture (high-level)</li> </ul> </li> </ul>

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## Business Architecture

#### Phase B: Business Architecture

Objectives	Steps	Inputs	Outputs
Develop the Target Business Architecture describing how the enterprise needs to operate to achieve the business goals, responds to the strategic drivers set out in the Architecture Vision, and addresses the Request for Architecture Work and stakeholder concerns Identify candidate Architecture Roadmap components based upon gaps between the Baseline and Target Business Architectures	Select reference models, viewpoints, and tools Develop Baseline Business Architecture Description Develop Target Business Architecture Description Perform gap analysis Define candidate roadmap components Resolve impacts across the Architecture Landscape Conduct formal stakeholder review Finalize the Business Architecture Create Architecture Definition Document	Request for Architecture Work Business principles, business goals, and business drivers Capability Assessment Communications Plan Organizational Model for Enterprise Architecture Tailored Architecture Framework Approved Statement of Architecture Work Architecture principles, including business principles, when pre-existing Enterprise Continuum Architecture Repository Architecture Repository Architecture Vision, including: • Refined key high-level stakeholder requirements Draft Architecture Definition Document, including: • Baseline Business Architecture (high-level) • Baseline Application Architecture (high-level) • Baseline Application Architecture (high-level) • Target Business Architecture (high-level) • Target Data Architecture (high-level) • Target Data Architecture (high-level)	Statement of Architecture Work, updated if necessary Validated business principles, business goals, and business drivers Elaborated Business Architecture principles Draft Architecture Definition Document containing content updates: • Baseline Business Architecture (detailed), if appropriate • Target Business Architecture (detailed) • Views corresponding to selected viewpoints addressing key stakeholder concerns Draft Architecture Requirements Specification including content updates: • Gap analysis results • Technical requirements • Updated business requirements of an Architecture Roadmap

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# Data Architecture

#### Phase C: Information Systems Architectures – Data Architecture

Objectives	Steps	Inputs	Outputs
Develop the Target Data Architecture that enables the Business Architecture and the Architecture Vision, while addressing the Request for Architecture Work and stakeholder concerns Identify candidate Architecture Roadmap components based upon gaps between the Baseline and Target Data Architectures	Select reference models, viewpoints, and tools Develop Baseline Data Architecture Description Develop Target Data Architecture Description Perform gap analysis Define candidate roadmap components Resolve impacts across the Architecture Landscape Conduct formal stakeholder review Finalize the Data Architecture Create Architecture Definition Document	Request for Architecture Work Capability Assessment Communications Plan Organizational Model for Enterprise Architecture Tailored Architecture Framework Data principles Statement of Architecture Work Architecture Vision Architecture Repository Draft Architecture Definition Document containing: Baseline Business Architecture (detailed) Target Business Architecture (detailed) Baseline Data Architecture (high-level) Target Data Architecture (high-level) Baseline Application Architecture (detailed or high-level) Target Technology Architecture (high-level) Gap analysis results Relevant technical requirements Business Architecture components of an Architecture Roadmap	<ul> <li>Statement of Architecture Work, updated if necessary</li> <li>Validated data principles, or new data principles</li> <li>Draft Architecture Definition</li> <li>Document containing content updates: <ul> <li>Baseline Data Architecture</li> <li>Target Data Architecture</li> <li>Data Architecture views corresponding to the selected viewpoints, addressing key stakeholder concerns</li> </ul> </li> <li>Draft Architecture Requirements Specification including content updates: <ul> <li>Gap analysis results</li> <li>Data interoperability requirements that will apply to this evolution of the architecture development cycle</li> <li>Constraints on the Technology Architecture</li> <li>Updated application requirements of an Architecture Roadmap</li> </ul> </li> </ul>

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# Application Architecture

#### Phase C: Information Systems Architectures – Application Architecture

Objectives	Steps	Inputs	Outputs
Develop the Target Application Architecture that enables the Business Architecture and the Architecture Vision, while addressing the Request for Architecture Work and stakeholder concerns dentify candidate Architecture Roadmap components based upon gaps between the Baseline and Target Application Architectures	Select reference models, viewpoints, and tools Develop Baseline Application Architecture Description Develop Target Application Architecture Description Perform gap analysis Define candidate roadmap components Resolve impacts across the Architecture Landscape Conduct formal stakeholder review Finalize the Application Architecture Create Architecture Definition Document	<ul> <li>Communications Plan</li> <li>Organizational Model for Enterprise Architecture</li> <li>Tailored Architecture Framework</li> <li>Application principles</li> <li>Statement of Architecture Work</li> <li>Architecture Vision</li> <li>Architecture Repository</li> <li>Draft Architecture Definition Document containing: <ul> <li>Baseline Business Architecture (detailed)</li> <li>Target Business Architecture (detailed)</li> <li>Baseline Data Architecture (detailed or highlevel)</li> <li>Target Data Architecture (detailed or highlevel)</li> <li>Baseline Application Architecture (high-level)</li> <li>Target Application Architecture (high-level)</li> <li>Target Technology Architecture (high-level)</li> </ul> </li> <li>Draft Architecture Requirements Specification including: <ul> <li>Gap analysis results</li> </ul> </li> </ul>	<ul> <li>Statement of Architecture Work, updated if necessary</li> <li>Validated application principles, or new application principles</li> <li>Draft Architecture Definition Document containing content updates: <ul> <li>Baseline Application Architecture</li> <li>Target Application Architecture</li> <li>Application Architecture views corresponding to the selected viewpoints, addressing key stakeholder concerns</li> </ul> </li> <li>Draft Architecture Requirements</li> <li>Specification including content updates: <ul> <li>Gap analysis results</li> <li>Application interoperability requirements</li> <li>Relevant technical requirements that will apply to this evolution of the architecture</li> <li>Updated business requirements</li> <li>Updated business requirements</li> </ul> </li> </ul>

N113 Reference Card: ADM

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# J Technology Architecture

#### Phase D: Technology Architecture

Objectives	Steps	Inputs	Outputs
Develop the Target Technology Architecture that enables the logical and physical application and data components and the Architecture Vision, addressing the Request for Architecture Work and stakeholder concerns Identify candidate Architecture Roadmap components based upon gaps between the Baseline and Target Technology Architectures	Select reference models, viewpoints, and tools Develop Baseline Technology Architecture Description Develop Target Technology Architecture Description Perform gap analysis Define candidate roadmap components Resolve impacts across the Architecture Landscape Conduct formal stakeholder review Finalize the Technology Architecture Create Architecture Definition Document	Request for Architecture Work Capability Assessment Communications Plan Organizational Model for Enterprise Architecture Tailored Architecture Framework Technology principles Statement of Architecture Work Architecture Vision Architecture Repository Draft Architecture Definition Document containing: • Baseline Business Architecture (detailed) • Target Business Architecture (detailed) • Target Business Architecture (detailed) • Target Data Architecture (detailed) • Target Data Architecture (detailed) • Target Application Architecture (detailed) • Target Application Architecture (detailed) • Target Technology Architecture (high-level) • Target Technology Architecture (high-level) • Target Technology Architecture (high-level) • Target Technology Architecture (high-level) • Baseline Technology Architecture (high-level) • Baseline Technology Architecture (high-level) • Baseline Technology Architecture (high-level) • Baseline Technology Architecture (high-level)	<ul> <li>Statement of Architecture Work, updated if necessary</li> <li>Validated technology principles or new technology principles (if generated here)</li> <li>Draft Architecture Definition Document containing content updates: <ul> <li>Baseline Technology Architecture</li> <li>Target Technology Architecture</li> <li>Technology Architecture views corresponding to the selected viewpoints, addressing key stakeholder concerns</li> </ul> </li> <li>Draft Architecture Requirements Specification including content updates: <ul> <li>Gap analysis results</li> <li>Requirements output from Phases B and C</li> <li>Updated technology requirements of an Architecture Roadmap</li> </ul> </li> </ul>

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Opportunities & Solutions

#### Phase E: Opportunities & Solutions

Objectives	Steps	Inputs	Outputs
Generate the initial complete version of the Architecture Roadmap, based upon the gap analysis and candidate Architecture Roadmap components from Phases B, C, and D Determine whether an incremental approach is required, and if so identify Transition Architectures that will deliver continuous business value	Determine/confirm key corporate change attributes Determine business constraints for implementation Review and consolidate gap analysis results from Phases B to D Review consolidated requirements across related business functions Consolidate and reconcile interoperability requirements Refine and validate dependencies Confirm readiness and risk for business transformation Formulate Implementation and Migration Strategy Identify and group major work packages Identify Transition Architectures Create Architecture Roadmap & Implementation and Migration Plan	Product information Request for Architecture Work Capability Assessment Communications Plan Planning methodologies Governance models and frameworks Tailored Architecture Framework Statement of Architecture Work Architecture Vision Architecture Repository Draft Architecture Definition Document Draft Architecture Requirements Specification Change Requests for existing programs and projects Candidate Architecture Roadmap components from Phases B, C, and D	<ul> <li>Statement of Architecture Work, updated if necessary</li> <li>Architecture Vision, updated if necessary</li> <li>Draft Architecture Definition Document, including: <ul> <li>Transition Architecture, number and scope, if any</li> </ul> </li> <li>Draft Architecture Requirements Specification, updated if necessary</li> <li>Consolidated and validated Architecture Roadmap</li> <li>Capability Assessment, including: <ul> <li>Business Capability</li> <li>IT Capability</li> </ul> </li> <li>Architecture Roadmap, including: <ul> <li>Work Package portfolio</li> <li>Identification of Transition Architectures, if any</li> <li>Implementation Recommendations</li> </ul> </li> <li>Implementation and Migration Plan (outline), including: <ul> <li>Implementation and Migration Strategy</li> </ul> </li> </ul>

Version 9.1 Enterprise Edition





# Migration Planning

#### Phase F: Migration Planning

Objectives	Steps	Inputs	Outputs
Finalize the Architecture Roadmap and the supporting Implementation and Migration Plan Ensure that the Implementation and Migration Plan is coordinated with the enterprise's approach to managing and implementing change in the enterprise's overall change portfolio Ensure that the business value and cost of work packages and Transition Architectures is understood by key stakeholders	interactions for Implementation and Migration Plan Assign a business value to each work package Estimate resource requirements, project timings, and availability/delivery vehicle	Request for Architecture Work Communications Plan Organizational Model for Enterprise Architecture Governance models and frameworks Tailored Architecture Framework Statement of Architecture Work Architecture Vision Architecture Repository Draft Architecture Definition Document, including: • Transition Architectures, if any Draft Architecture Requirements Specification Change Requests for existing programs and projects Architecture Roadmap Capability Assessment, including: • Business Capability • IT Capability Implementation and Migration Plan (outline), including: • High-level Implementation and Migration Strategy	<ul> <li>Implementation and Migration Plan (detailed), including:</li> <li>Implementation and Migration Strategy</li> <li>Project and portfolio breakdown of the implementation</li> <li>Project charters (optional)</li> <li>Finalized Architecture Definition Document, including:</li> <li>Finalized Transition Architectures, if any</li> <li>Finalized Architecture Requirements Specification</li> <li>Finalized Architecture Roadmap</li> <li>Re-Usable Architecture Building Blocks</li> <li>Requests for Architecture Work for a new iteration of the ADM cycle (if any)</li> <li>Implementation Governance Model</li> <li>Change Requests for the Architecture</li> <li>Capability arising from lessons learned</li> </ul>

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# J Implementation Governance

#### Phase G: Implementation Governance

Objectives	Steps	Inputs	Outputs
Ensure conformance with the Target Architecture by implementation projects Perform appropriate Architecture Governance functions for the solution and any implementation-driven architecture Change Requests	Confirm scope and priorities for deployment with development management Identify deployment resources and skills Guide development of solutions deployment Perform enterprise architecture compliance reviews Implement business and IT operations Perform post-implementation review and close the implementation	Request for Architecture Work Capability Assessment Organizational Model for Enterprise Architecture Tailored Architecture Framework Statement of Architecture Work Architecture Vision Architecture Repository Architecture Definition Document Architecture Requirements Specification Architecture Roadmap Implementation Governance Model Architecture Contract Request for Architecture Work identified in Phases E and F Implementation and Migration Plan	<ul> <li>Architecture Contract (signed)</li> <li>Compliance Assessments</li> <li>Change Requests</li> <li>Architecture-compliant solutions</li> <li>deployed, including: <ul> <li>The architecture-compliant solutions</li> <li>deployed, including:</li> <li>The architecture-compliant implemented system</li> <li>Populated Architecture Repository</li> <li>Architecture compliance recommendations and dispensations</li> <li>Recommendations on service delivery requirements</li> <li>Recommendations on performanc metrics</li> <li>Service Level Agreements (SLAs)</li> <li>Architecture Vision, updated post-implementation</li> <li>Architecture Definition Document, updated post-implementation</li> </ul> </li> </ul>

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# Architecture Change Management

#### Phase H: Architecture Change Management

Objectives	Steps	Inputs	Outputs	
Ensure that the architecture lifecycle is maintained Ensure that the Architecture Governance Framework is executed Ensure that the enterprise Architecture Capability meets current requirements	Establish value realization process Deploy monitoring tools Manage risks Provide analysis for architecture change management Develop change requirements to meet performance targets Manage governance process Activate the process to implement change	Request for Architecture Work Organizational Model for Enterprise Architecture Tailored Architecture Framework Statement of Architecture Work Architecture Vision Architecture Repository Architecture Definition Document Architecture Requirements Specification Architecture Roadmap Change Requests due to technology changes Change Requests due to business changes Change Requests from lessons learned Implementation Governance Model Architecture Contract (signed) Compliance Assessments Implementation and Migration Plan	Architecture updates Changes to architecture framework and principles New Request for Architecture Work, to initiate another cycle of the ADM Statement of Architecture Work, updated if necessary Architecture Contract, updated if necessary Compliance Assessments, updated if necessary	