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## Question: 1

Please read this scenario prior to answering the question

You are working as Chief Enterprise Architect at a large Internet company. The company has many divisions, ranging from cloud to logistics. The company has grown rapidly, expanding from initially selling physical books and media to a range of services including an online marketplace, live-streaming, eBooks, and cloud services.

Overall management of the numerous divisions has become challenging. Recent high-profile projects have overrun on budget and under delivered, damaging the company's reputation, and adversely impacting its share price. There is a widely held view within the executive management that the organization structure has played a major role in these project failures.

The company has an established Enterprise Architecture program based on the TOGAF standard, sponsored jointly by the Chief Executive Officer (CEO) and Chief Information Officer (CIO). The CEO has decided that the company needs to reorganize its divisions around artificial intelligence and machine learning with a focus on automation. The CEO has worked with the Enterprise Architects to create a strategic architecture for the reorganization, including an Architecture Vision, together with definitions for the four domain architectures. This sets out an ambitious vision of the future of the company over a three-year period. This includes a set of work packages and includes three distinct transformations.

The CIO has made it clear that prior to the approval of the detailed Implementation and Migration plan, the EA team will need to assess the risks associated with the proposed architecture. He has received concerns from key stakeholders across the company that the proposed reorganization may be too ambitious and there is doubt whether it can produce sufficient value to warrant the risks.

Refer to the scenario

You have been asked to recommend an approach to satisfy these concerns. Based on the TOGAF Standard, which of the following is the best answer?

A. The Enterprise Architects should evaluate the organization's readiness to undergo change. This will allow the risks associated with the transformations to be identified, classified, and mitigated for.

This should include identifying dependencies between the set of changes, including gaps and work packages. It will also identify improvement actions to be worked into the Implementation and Migration Plan. The business value, effort, and risk associated for each transformation should be determined.

B. The Enterprise Architects should bring together information about potential approaches and produce several alternative target transition architectures. They should then investigate the different architecture alternatives and discuss these with stakeholders using the Architecture Alternatives and Trade-offs technique. Once the target architecture has been selected, it should be analyzed using a state evolution table to determine the Transition Architectures. A value realization process should then be established to ensure that the concerns raised are addressed.

C. Establishing interoperability in alignment with the corporate operating model will ensure risks are minimized. The Enterprise Architects should apply an interoperability analysis to evaluate any potential issues across the architecture. This should include the development of a matrix showing the interoperability requirements. These can then be included within the transformation strategy embedded in the target transition architectures. The Enterprise Architects should then finalize the Architecture Roadmap and the Implementation and Migration Plan.

D. Before preparing the detailed Implementation and Migration plan, the Enterprise

Architects should review and consolidate the gap analysis results from Phases B to

This will identify the transformations required to achieve the proposed Target

Architecture. The Enterprise Architects should then assess the readiness of the

organization to undergo change and determine an overall direction to address and

mitigate risks identified. The Transition Architecture should then be planned to use a state evolution table.

**Answer: A**

**Explanation:**

The Business Transformation Readiness Assessment is a technique that can be used to evaluate the readiness of the organization to undergo change and to identify the actions needed to increase the likelihood of a successful business transformation. This technique can help to address the concerns of the key stakeholders about the risks and value of the proposed reorganization. The technique involves assessing the following aspects of the organization: vision, commitment, capacity, capability, culture, and communication. Based on the assessment, the risks associated with the transformations can be identified, classified, and mitigated for. The technique also helps to identify the dependencies between the set of changes, including gaps and work packages, and the improvement actions to be worked into the Implementation and Migration Plan. The technique also supports the determination of the business value, effort, and risk associated for each transformation, which can be used to

prioritize and sequence the work packages and the Transition Architectures<sup>1</sup> Reference: 1: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 27: Business Transformation Readiness Assessment

## **Question: 2**

Please read this scenario prior to answering the question

Your role is that of a senior architect, reporting to the Chief Enterprise Architect, at a medium-sized company with 400 employees. The nature of the business is such that the data and the information stored on the company systems is their major asset and is highly confidential.

The company employees travel extensively for work and must communicate over public infrastructure using message encryption, VPNs, and other standard safeguards. The company has invested in cybersecurity awareness training for all its staff. However, it is recognized that even with good education as well as system security, there is a dependency on third-party suppliers of infrastructure and software.

The company uses the TOGAF standard as the method and guiding framework for its Enterprise Architecture (EA) practice. The CTO is the sponsor of the activity.

The Chief Security Officer (CSO) has noted an increase in ransomware (malicious software used in ransom demands) attacks on companies with a similar profile. The CSO recognizes that no matter how much is spent on education, and support, it is likely just a matter of time before the company suffers a significant attack that could completely lock them

out of their information assets.

A risk assessment has been done and the company has sought cyber insurance that includes ransomware coverage. The quotation for this insurance is hugely expensive. The CTO has recently read a survey that stated that one in four organizations paying ransoms were still unable to recover their data, while nearly as many were able to recover the data without paying a ransom. The CTO has concluded that taking out cyber insurance in case they need to pay a ransom is not an option.

Refer to the scenario

You have been asked to describe the steps you would take to improve the resilience of the current architecture?

Based on the TOGAF standard which of the following is the best answer?

- A. You would determine business continuity requirements, and undertake a gap analysis of the current Enterprise Architecture. You would make recommendations for change requirements to address the situation and create a change request. You would manage a meeting of the Architecture Board to assess and approve the change request. Once approved you would produce a new Request for Architecture Work to activate an ADM cycle to carry out a project to define the change.
- B. You would monitor for technology changes from your existing suppliers that could improve resilience. You would prepare and run a disaster recovery planning exercise for a ransomware attack and analyze the performance of the current Enterprise Architecture. Using the findings, you would prepare a gap analysis of the current Enterprise Architecture. You would prepare change requests to address identified gaps. You would add the changes implemented to the Architecture Repository.
- C. You would ensure that the company has in place up-to-date processes for managing change to the current Enterprise Architecture. Based on the scope of the concerns raised you recommend that this be managed at the infrastructure level. Changes should be made to the baseline description of the Technology Architecture. The changes should be approved by the Architecture Board and implemented by change management techniques.
- D. You would request an Architecture Compliance Review with the scope to examine the company's resilience to ransomware attacks. You would identify the departments involved and have them nominate representatives. You would then tailor checklists to address the requirement for increased resilience. You would circulate to the nominated representatives for them to complete. You would then review the completed checklists, identifying and resolving issues. You would then determine and present your recommendations.

**Answer: A**

**Explanation:**

Business continuity is the ability of an organization to maintain essential functions during and after a disaster or disruption. Business continuity requirements are the specifications and criteria that define the acceptable level of performance and availability of the business processes and services in the event of a disaster or disruption. A gap analysis is a technique that compares the current state of the architecture with the desired state, and identifies the gaps or differences that need to be addressed. A change request is a formal proposal for an amendment to some product or system, such as the architecture. A Request for Architecture Work is a document that describes the scope, approach, and expected outcomes of an architecture project

The best answer is A, because it describes the steps that would improve the resilience of the current architecture, which is the ability to withstand and recover from a ransomware attack or any other disruption. The steps are:

Determine the business continuity requirements, which specify the minimum acceptable level of performance and availability of the business processes and services in case of a ransomware attack. This would involve identifying the critical business functions, the recovery time objectives, the recovery point objectives, and the dependencies and resources needed for recovery.

Undertake a gap analysis of the current Enterprise Architecture, which compares the current state of the architecture with the desired state based on the business continuity requirements. This would involve assessing the strengths and weaknesses of the current architecture, the risks and opportunities for improvement, and the gaps or differences that need to be addressed.

Make recommendations for change requirements to address the situation and create a change request. This would involve proposing solutions and alternatives to close the gaps, enhance the resilience, and mitigate the risks of the current architecture. The change request would document the rationale, scope, impact, and benefits of the proposed changes, and seek approval from the relevant stakeholders.

Manage a meeting of the Architecture Board to assess and approve the change request. The Architecture Board is a governance body that oversees the architecture work and ensures compliance with the architecture principles, standards, and goals. The meeting would involve presenting the change request, discussing the pros and cons, resolving any issues or conflicts, and obtaining the approval or rejection of the change request.

Once approved, produce a new Request for Architecture Work to activate an ADM cycle to carry out a project to define the change. The Request for Architecture Work would describe the scope, approach, and expected outcomes of the architecture project that would implement the approved change request. The Request for Architecture Work would initiate a new cycle of the Architecture Development Method (ADM), which is the core process of the TOGAF standard that guides the development and management of the enterprise architecture.

Reference: 1: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 33: Business Scenarios 2: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 30: Gap Analysis 3: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 31: Architecture Change Management : The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 7: Request for Architecture Work : The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 34: Business Transformation Readiness Assessment : The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 30: Gap Analysis : The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 31: Architecture Change Management : The TOGAF Standard, Version 9.2, Part VI: Architecture Capability Framework, Chapter 50: Architecture Governance : The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 7: Request for Architecture Work

### **Question: 3**

Please read this scenario prior to answering the question

You are serving as the Lead Architect for an Enterprise Architecture team within a leading multinational biotechnology company. The company works in three major industries, including healthcare, crop production, and agriculture. Your team works within the healthcare division.

The healthcare division is developing a new vaccine, and has to demonstrate its effectiveness and safety in a set of clinical trials that satisfy the regulatory requirements of the relevant health

authorities. The clinical trials are undertaken by its research laboratories at multiple facilities worldwide. In addition to internal research and development activities, the healthcare division is also involved in publicly funded collaborative research projects with industrial and academic partners.

The Enterprise Architecture team has been engaged in an architecture project to develop a secure system that will allow the healthcare researchers to share information more easily about their clinical trials, and work more collaboratively across the organization and also with its partners. This system will also connect with external partners.

The Enterprise Architecture team uses the TOGAF ADM with extensions required to support healthcare manufacturing practices and laboratory practices. Due to the highly sensitive nature of the information that is managed, special care has been taken to ensure that each architecture domain considers the security and privacy issues that are relevant.

The Vice President for Worldwide Clinical Research is the sponsor of the Enterprise Architecture activity. She has stated that disruptions must be minimized for the clinical trials, and that the rollout must be undertaken incrementally.

Refer to the scenario

You have been asked to recommend the approach to identify the work packages for an incremental rollout meeting the requirements.

Based on the TOGAF standard which of the following is the best answer?

- A. You recommend that the Solution Building Blocks from a Consolidated Gaps, Solutions and Dependencies Matrix be grouped into a set of work packages. Using the matrix as a planning tool, regroup the work packages to account for dependencies. Sequence the work packages into the Capability Increments needed to achieve the Target Architecture, so that the implementation team can schedule the rollout one region at a time to minimize disruption. Document the work packages for the Enterprise Architecture using a Transition Architecture State Evolution Table.
- B. You recommend that a Consolidated Gaps, Solutions and Dependencies Matrix is used as a planning tool for creating work packages. For each gap classify whether the solution is either a new development, purchased solution, or based on an existing product. Group the similar solutions together to define the work packages. Regroup the work packages into a set of Capability Increments to transition to the Target Architecture considering the schedule for clinical trials, and document in an Architecture Definition Increments Table.
- C. You recommend that an Implementation Factor Catalog is drawn up to indicate actions and constraints. A Consolidated Gaps, Solutions and Dependencies Matrix should also be created. For each gap, identify a proposed solution and classify it as new development, purchased solution, or based on an existing product. Group similar activities together to form work packages. Identify dependencies between work packages factoring in the clinical trial schedules. Regroup the work packages into a set of Capability Increments scheduled into a series of Transition Architectures.

D. You recommend that the set of required Solution Building Blocks be determined by identifying those which need to be developed and which need to be procured. Eliminate any duplicates. Group the remaining Solution Building Blocks together to create the work packages using a CRUD (create, read, update, delete) matrix. Rank the work packages and select the most cost-effective options for inclusion in a series of Transition Architectures. Schedule the roll out of the work packages to be sequential across the geographic regions.

## **Answer: B**

### **Explanation:**

A Consolidated Gaps, Solutions and Dependencies Matrix is a technique that can be used to create work packages for an incremental rollout of the architecture. A work package is a set of actions or tasks that are required to implement a specific part of the architecture. A work package can be associated with one or more Architecture Building Blocks (ABBs) or Solution Building Blocks (SBBs), which are reusable components of business, IT, or architectural capability. A work package can also be associated with one or more Capability Increments, which are defined, discrete portions of the overall capability that deliver business value. A Capability Increment can be realized by one or more Transition Architectures, which are intermediate states of the architecture that enable the transition from the Baseline Architecture to the Target Architecture<sup>123</sup>

The steps for creating work packages using this technique are:

For each gap between the Baseline Architecture and the Target Architecture, identify a proposed solution and classify it as new development, purchased solution, or based on an existing product. A gap is a difference or deficiency in the current state of the architecture that needs to be addressed by the future state of the architecture. A solution is a way of resolving a gap by implementing one or more ABBs or SBBs.

Group similar solutions together to define the work packages. Similar solutions are those that have common characteristics, such as functionality, technology, vendor, or location.

Identify dependencies between work packages, such as logical, temporal, or resource dependencies. Dependencies indicate the order or priority of the work packages, and the constraints or risks that may affect their implementation.

Regroup the work packages into a set of Capability Increments to transition to the Target Architecture. Capability Increments should be defined based on the business value, effort, and risk associated with each work package, and the schedule and objectives of the clinical trials. Capability Increments should also be aligned with the Architecture Vision and the Architecture Principles.

Document the work packages and the Capability Increments in an Architecture Definition Increments Table, which shows the mapping between the work packages, the ABBs, the SBBs, and the Capability Increments. The table also shows the dependencies, assumptions, and issues related to each work package and Capability Increment.

Therefore, the best answer is B, because it describes the approach to identify the work packages for an incremental rollout meeting the requirements, using the Consolidated Gaps, Solutions and Dependencies Matrix as a planning tool.

Reference: 1: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 30: Gap Analysis 2: The TOGAF Standard, Version 9.2, Part IV: Architecture Content Framework, Chapter 36: Building Blocks 3: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 31: Architecture Change Management : The

TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 23: Phase E: Opportunities and Solutions : The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 21: Phase F: Migration Planning : The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 18: Phase A: Architecture Vision : The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 23: Architecture Principles

## Question: 4

Please read this scenario prior to answering the question

You have been appointed as senior architect working for an autonomous driving technology development company. The mission of the company is to build an industry leading unified technology and software platform to support connected cars and autonomous driving.

The company uses the TOGAF Standard as the basis for its Enterprise Architecture (EA) framework. Architecture development within the company follows the purpose-based EA Capability model as described in the TOGAF Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM.

An architecture to support strategy has been completed defining a long-range Target Architecture with a roadmap spanning five years. This has identified the need for a portfolio of projects over the next two years. The portfolio includes development of travel assistance systems using swarm data from vehicles on the road.

The current phase of architecture development is focused on the Business Architecture which needs to support the core travel assistance services that the company plans to provide. The core services will manage and process the swarm data generated by vehicles, paving the way for autonomous driving in the future.

The presentation and access to different variations of data that the company plans to offer through its platform poses an architecture challenge. The application portfolio needs to interact securely with various third-party cloud services, and V2X (Vehicle-to-Everything) service providers in many countries to be able to manage the data at scale. The security of V2X is a key concern for the stakeholders. Regulators have stated that the user's privacy be always protected, for example, so that

the drivers' journey cannot be tracked or reconstructed by compiling data sent or received by the car.

Refer to the scenario

You have been asked to describe the risk and security considerations you would include in the current phase of the architecture development?

Based on the TOGAF standard which of the following is the best answer?

A. You will focus on the relationship with the third parties required for the travel assistance systems and define a trust framework. This will describe the relationship with each party. Digital certificates are a key part of the framework and will be used to create trust between parties. You will monitor legal and regulatory changes across all the countries to keep the trust framework in compliance.

B. You will perform a qualitative risk assessment for the data assets exchanged with partners. This will deliver a set of priorities, high to medium to low, based on identified threats, the likelihood of occurrence, and the impact if it did occur. Using the priorities, you would then develop a Business Risk Model which will detail the risk strategy including classifications to determine what mitigation is enough.

C. You will focus on data quality as it is a key factor in risk management. You will identify the datasets that need to be safeguarded. For each dataset, you will assign ownership and responsibility for the quality of data needs. A security classification will be defined and applied to each dataset. The dataset owner will then be able to authorize processes that are trusted for a certain activity on the dataset under certain circumstances.

D. You will create a security domain model so that assets with the same level can be managed under one security policy. Since data is being shared across partners, you will establish a security federation to include them. This would include contractual arrangements, and a definition of the responsibility areas for the data exchanged, as well as security implications. You would undertake a risk assessment determining risks relevant to specific data assets.

## Answer: D

### Explanation:

A security domain model is a technique that can be used to define the security requirements and policies for the architecture. A security domain is a grouping of assets that share a common level of security and trust. A security policy is a set of rules and procedures that govern the access and protection of the assets within a security domain. A security domain model can help to identify the security domains, the assets within each domain, the security policies for each domain, and the relationships and dependencies between the domains<sup>1</sup>

Since the data is being shared across partners, a security federation is needed to establish a trust relationship and a common security framework among the different parties. A security federation is a collection of security domains that have agreed to interoperate under a set of shared security policies and standards. A security federation can enable secure data exchange and collaboration

across organizational boundaries, while preserving the autonomy and privacy of each party. A security federation requires contractual arrangements, and a definition of the responsibility areas for the data exchanged, as well as security implications<sup>2</sup>

A risk assessment is a process that identifies, analyzes, and evaluates the risks that may affect the architecture. A risk assessment can help to determine the likelihood and impact of the threats and vulnerabilities that may compromise the security and privacy of the data assets. A risk assessment can also help to prioritize and mitigate the risks, and to monitor and review the risk situation<sup>3</sup>

Therefore, the best answer is D, because it describes the risk and security considerations that would be included in the current phase of the architecture development, which is focused on the Business Architecture. The answer covers the security domain model, the security federation, and the risk assessment techniques that are relevant to the scenario.

Reference: 1: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 35: Security Architecture and the ADM 2: The TOGAF Standard, Version 9.2, Part IV: Architecture Content Framework, Chapter 38: Security Architecture 3: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 32: Risk Management

## Question: 5

Please read this scenario prior to answering the question

You are the Lead Enterprise Architect at a major agribusiness company. The company's main harvest is lentils, a highly valued food grown worldwide. The lentil parasite, broomrape, has been an increasing concern for many years and is now becoming resistant to chemical controls. In addition, changes in climate favor the propagation and growth of the parasite. As a result, the parasite cannot realistically be exterminated, and it has become pandemic, with lentil yields falling globally.

In response to the situation, the CEO has decided that the lentil fields will be used for another harvest. The company will also cease to process third-party lentils and will repurpose its processing plants. Thus, the target market will change, and the end-products will be different and more varied.

The company has recently established an Enterprise Architecture practice based on the TOGAF standard as method and guiding framework. The CIO is the sponsor of the activity. A formal request for architecture change has been approved. At this stage there is no fixed scope, shared vision, or objectives.

Refer to the scenario

You have been asked to propose the best approach for architecture development to realize the CEO's change in direction for the company.

Based on the TOGAF standard which of the following is the best answer?

- A. You propose that this engagement define the baseline Technology Architecture first in order to assess the current infrastructure capacity and capability for the company. Then the focus should be on transition planning and incremental architecture deployment. This will identify requirements to ensure that the projects are sequenced in an optimal fashion so as to realize the change.
- B. You propose that the team uses the architecture definition document and focus on architecture development starting simultaneously phases B, C and D. This is because the CEO has identified the need to change. This will ensure that the change can be defined in a structured manner and address the requirements needed to realize the change.
- C. You propose that the team focus on architecture definition including development of business models, with emphasis on defining the change parameters to support this new business strategy that the CEO has identified. Once understood, the team will be in the best position to identify the requirements, drivers, issues, and constraints for the change.
- D. You propose that the priority is to produce a new Request for Architecture Work leading to development of a new Architecture Vision. The trade-off method should be applied to identify and select an architecture satisfying the stakeholders. For an efficient change the EA team should be aligned with the organization's planning, budgeting, operational, and change processes.

**Answer: D**

**Explanation:**

A Request for Architecture Work is a document that describes the scope, approach, and expected outcomes of an architecture project. A Request for Architecture Work is usually initiated by the sponsor or client of the architecture work, and approved by the Architecture Board, which is a governance body that oversees the architecture work and ensures

compliance with the architecture principles, standards, and goals. A Request for Architecture Work triggers a new cycle of the Architecture Development Method (ADM), which is the core process of the TOGAF standard that guides the development and management of the enterprise architecture<sup>12</sup>

An Architecture Vision is a high-level description of the desired outcomes and benefits of the proposed architecture. An Architecture Vision is the output of Phase A: Architecture Vision of the ADM cycle, which is the first phase of the architecture development. An Architecture Vision defines the scope and approach of the architecture work, and establishes the business goals and drivers that motivate the architecture work. An Architecture Vision also involves obtaining the approval and commitment of the sponsors and other key stakeholders, and initiating the Architecture Governance process<sup>3</sup>

A trade-off analysis is a technique that can be used to evaluate and compare different architecture alternatives and select the most suitable one. A trade-off analysis involves identifying the criteria and factors that are relevant to the decision, such as costs, benefits, risks, and opportunities, and assessing the strengths and weaknesses of each alternative. A trade-off analysis also involves

balancing and reconciling the multiple, often conflicting, requirements and concerns of the stakeholders, and ensuring alignment with the Architecture Vision and the Architecture Principles.

Therefore, the best answer is D, because it proposes the best approach for architecture development to realize the CEO's change in direction for the company. The answer covers the Request for Architecture Work, the Architecture Vision, and the trade-off analysis techniques that are relevant to the scenario.

Reference: 1: The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 7: Request for Architecture Work 2: The TOGAF Standard, Version 9.2, Part VI: Architecture Capability Framework, Chapter 50:

Architecture Governance 3: The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 18: Phase A: Architecture Vision : The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 30:

Trade-Off Analysis

## Question: 6

Please read this scenario prior to answering the question

You have been appointed as Chief Enterprise Architect (CEA), reporting to the Chief Technical Officer (CTO), of a company established as a separate operating entity by a major automotive manufacturer. The mission of the company is to build a new industry leading unified technology and software platform for electric vehicles.

The company uses the TOGAF Standard as the basis for its Enterprise Architecture (EA) framework, and architecture development follows the purpose-based EA Capability model as described in the TOGAF Series Guide: A

Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM.

An end-to-end Target Architecture has been completed with a roadmap for change over a five-year period. The new platform will be a cross-functional effort between hardware and software teams, with significant changes over the old platform. It is expected to be developed in several stages over three years. The EA team has inherited the architecture for the previous generation hardware and software automotive platform, some of which can be carried over to the new

unified platform. The EA team has started to define the new platform, including defining which parts of the architecture to carry forward.

Enough of the Business Architecture has been defined, so that work can commence on the Information Systems and Technology Architectures. Those need to be defined to support the core business services that the company plans to provide. The core services will feature an innovative approach with swarm data generated by vehicles, paving the way for autonomous driving in the future.

The presentation and access to different variations of data that the company plans to offer through its platform pose an architecture challenge. The application portfolio and supporting infrastructure need to interact with various existing cloud services and data-

Refer to the scenario

You have been asked what approach should be taken to determine and organize the work to deliver the requested architectures?

Based on the TOGAF standard which of the following is the best answer?

- A. You would look outside the enterprise to research data models and application portfolios of leading big data businesses. You would develop just enough applications, data, and technology architecture to identify options. For each project this should include identification of candidate architecture and solution building blocks. You will identify solution providers, perform a readiness assessment, and assess the viability and fitness of the solution options. You will then document the draft Implementation and Migration plan.
- B. You would refer to the end-to-end Target Architecture for guidance and direction. The first objective should be to identify projects, dependencies and synergies, then prioritize before initiating the projects. You will develop high-level architecture descriptions. For each project you would estimate effort size, identify reference architectures, and candidate building blocks. You will identify the resource needs considering cost and value. You will document options, risks, and controls to enable viability analysis and trade-off with the stakeholders.
- C. You will revisit ADM Phase A. identifying the stakeholders and creating a new Architecture Vision. You will update the Stakeholder map produced for the strategic architecture so it reflects the stakeholders who are now the most relevant to the projects that are to be developed. You would then ask the CTO to make some decisions about the Architecture Roadmap, and update the Implementation and Migration Plan to reflect the decisions.
- D. You will research leading data businesses, developing high-level Target Data, Application and Technology Architectures. You would review the Architecture Vision in order to estimate the level of detail, time, and breadth of the ADM cycle phases that will be needed to develop the architecture. You will identify and cost major work packages, and then develop an Architecture Roadmap. You would then seek approval by the Architecture Board and initiate the project.

**Answer: B**

**Explanation:**

The Target Architecture is a description of the future state of the architecture that addresses the business goals and drivers, and satisfies the stakeholder requirements and concerns. The Target Architecture is developed through the Architecture Development Method (ADM), which is the core process of the TOGAF standard that guides the development

and management of the enterprise architecture. The Target Architecture is typically divided into four domains: Business, Data, Application, and Technology. The Target Architecture also includes a roadmap for change, which defines the Transition Architectures, the Capability Increments, and the work packages that enable the transition from the Baseline Architecture to the Target Architecture<sup>12</sup>

The best answer is B, because it describes the approach that should be taken to determine and organize the work to deliver the requested architectures, which are the Information Systems and Technology Architectures. The answer covers the following steps:

Refer to the end-to-end Target Architecture for guidance and direction. The end-to-end Target Architecture provides the overall vision, scope, and objectives of the architecture work, and the alignment with the business strategy and goals. The end-to-end Target Architecture also provides the high-level definitions and principles for the four architecture domains, and the roadmap for change that outlines the major milestones and deliverables.

Identify projects, dependencies and synergies, then prioritize before initiating the projects. Projects are the units of work that implement the architecture work packages, which are the sets of actions or tasks that are required to implement a specific part of the architecture. Dependencies are the relationships and constraints that affect the order or priority of the projects, such as logical, temporal, or resource dependencies. Synergies are the benefits or advantages that result from the combination or coordination of the projects, such as cost savings, efficiency gains, or innovation opportunities. Prioritization is the process of ranking the projects according to their importance, urgency, or value, and assigning resources and schedules accordingly.

Develop high-level architecture descriptions. High-level architecture descriptions are the outputs of the architecture development phases (B, C, and D) of the ADM cycle, which describe the Business, Data, Application, and Technology Architectures in terms of the Architecture Building Blocks (ABBs) and the Solution Building Blocks (SBBs), which are reusable components of business, IT, or architectural capability. High-level architecture descriptions also include the Architecture Views, which are representations of the system of interest from the perspective of one or more stakeholders and their concerns.

For each project, estimate effort size, identify reference architectures, and candidate building blocks. Effort size is the measure of the amount of work, time, or resources required to complete a project. Effort size can be estimated using various techniques, such as analogy, expert judgment, parametric, or bottom-up. Reference architectures are standardized architectures that provide a common framework and vocabulary for a specific domain or industry. Reference architectures can be used as a source of best practices, patterns, and models for the architecture development. Candidate building blocks are the potential ABBs or SBBs that can be used to implement the architecture. Candidate building blocks can be identified from the Architecture Repository, which is a collection of architecture assets, such as models, patterns, principles, standards, and guidelines.

Identify the resource needs considering cost and value. Resource needs are the specifications and criteria that define the acceptable level and quality of the resources required to complete the project, such as human, financial, physical, or technological resources. Resource needs can be

identified by analyzing the scope, complexity, and dependencies of the project, and the availability, capability, and suitability of the resources. Cost and value are the factors that influence the allocation and utilization of the resources, such as the budget, the return on investment, the benefits, or the risks.

Document options, risks, and controls to enable viability analysis and trade-off with the stakeholders. Options are the alternative ways of achieving the project objectives, such as different solutions, technologies, vendors, or approaches. Risks are the effects of uncertainty on the project objectives, such as threats or opportunities. Controls are the measures or actions that are taken to prevent, reduce, or mitigate the risks, such as policies, procedures, or standards. Viability analysis is the process of evaluating and comparing the options, risks, and controls, and determining the feasibility, suitability, and desirability of each option. Trade-off is the decision outcome that balances and reconciles the multiple, often conflicting, requirements and concerns of the stakeholders, and ensures alignment with the Architecture Vision and the Architecture Principles.

Reference: 1: The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 5: Introduction to the ADM 2: The TOGAF Standard, Version 9.2, Part IV: Architecture Content Framework, Chapter 36: Building Blocks : The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 18: Phase A: Architecture Vision : The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 19: Phase B: Business Architecture : The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 20: Phase C: Information Systems Architectures : The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 21: Phase F: Migration Planning : The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 23: Architecture Principles : The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 30: Trade-Off Analysis : The TOGAF Standard, Version 9.2, Part VI: Architecture Capability Framework, Chapter 46: Tools for Architecture Development : The TOGAF Standard, Version 9.2, Part VI: Architecture Capability Framework, Chapter 47: Architecture Board : The TOGAF Standard, Version 9.2, Part VI: Architecture Capability Framework, Chapter 48: Architecture Compliance : The TOGAF Standard, Version 9.2, Part VI: Architecture Capability Framework, Chapter 49: Architecture Contract : The TOGAF Standard, Version 9.2, Part VI: Architecture Capability Framework, Chapter 50: Architecture Governance : The TOGAF Standard, Version 9.2, Part VI: Architecture Capability Framework, Chapter 51: Architecture Maturity Models : The TOGAF Standard, Version 9.2, Part VI: Architecture Capability Framework, Chapter 52: Architecture Skills Framework

## Question: 7

Please read this scenario prior to answering the question

You are working as the Chief Enterprise Architect within a law firm specializing in personal injury cases. Many of the firm's competitors have improved their litigation strategies, and efficiency by

streamlining their processes using Artificial Intelligence (AI).

The CIO has approved a Request for Architecture Work to examine the use of Machine Learning in defining a new AI-driven litigation and finance process for the firm. This process would instruct the lawyers and analysts as to what tasks and portfolio they should work on. The key objectives are to increase task profitability, maximize staff utilization, and increase individual profitability.

The CIO has emphasized that the architecture should enable the fast implementation of continuous Machine Learning. The solution will need to be constantly measured for delivered value and be quickly iterated to success.

Some of the partners have expressed concerns about letting the AI make the decisions, others about the risks associated

with use of it for the type of service they deliver. The CIO wants to know if these concerns can be addressed, and how risks will be covered by a new architecture enabling AI and Machine Learning.

Refer to the scenario

You have been asked to respond to the CIO recommending an approach that would enable the development of an architecture that addresses the concerns of the CIO and the concerns of the partners.

Based on the TOGAF standard which of the following is the best answer?

A. You recommend that a Communications Plan be created to address the key stakeholders, the most powerful and influential partners. This plan should include a report that summarizes the key features of the architecture reflecting their requirements. You will check with each key stakeholder that their concerns are being addressed. Risk mitigation and agility will be explicitly addressed as a component of the architecture being developed.

B. You recommend that an analysis of the stakeholders is undertaken resulting in documenting the stakeholders and their concerns in a Stakeholder Map. The concerns and relevant views should then be defined for each group and recorded in the Architecture Vision document. The requirements will include risk mitigation through regular assessments. This will also allow a supervised agile implementation of the continuous Machine Learning.

C. You recommend that all possible models be created for each candidate architecture that will enable the AI and Machine Learning solution. This ensures that all the necessary data and detail is addressed. A formal review should be held with the stakeholders to verify that their concerns have been properly addressed by the models. Agility will be considered during Phase G Implementation Governance.

D. You recommend creation of a set of business models that can be applied uniformly across all architecture projects. The stakeholders will be trained to understand the business models to ensure they can see that their concerns are being addressed. Risk will be addressed once the Security Architecture is developed, which will happen later to avoid slowing down the agility required by the

CIO.

**Answer: B**

**Explanation:**

A Stakeholder Map is a technique that can be used to identify and classify the stakeholders of the architecture work, and to document their key interests, requirements, and concerns. A stakeholder is any person, group, or organization that has a stake in the outcome of the architecture work, such as the sponsor, the client, the users, the suppliers, the regulators, or the competitors. A Stakeholder Map can help to understand the needs and expectations of the stakeholders, and to communicate and engage with them effectively<sup>1</sup>

The steps for creating a Stakeholder Map are:

Identify the stakeholders of the architecture work, using various sources and methods, such as interviews, surveys, workshops, or existing documents.

Classify the stakeholders according to their roles, responsibilities, and relationships, using various criteria and dimensions, such as power, influence, interest, attitude, or impact.

Define the concerns and relevant views for each stakeholder group, using various techniques, such as business scenarios, use cases, or value propositions. A concern is a key interest or issue that is relevant to the stakeholder, such as a goal, a problem, a need, or a risk. A view is a representation of the system of interest from the perspective of one or more stakeholders and their concerns.

Record the stakeholders and their concerns in a Stakeholder Map, which shows the mapping between the stakeholder groups, the concerns, and the views. The Stakeholder Map also shows the dependencies, assumptions, and issues related to each stakeholder and concern.

Therefore, the best answer is B, because it recommends the approach that would enable the development of an architecture that addresses the concerns of the CIO and the partners, using the Stakeholder Map technique. The answer covers the following aspects:

An analysis of the stakeholders is undertaken, which involves identifying, classifying, and defining the stakeholders and their concerns.

The stakeholders and their concerns are documented in a Stakeholder Map, which provides a clear and comprehensive picture of the stakeholder landscape and their interests.

The concerns and relevant views are recorded in the Architecture Vision document, which is the output of Phase A:

Architecture Vision of the Architecture Development Method (ADM), which is the core process of the TOGAF standard that guides the development and management of the enterprise architecture. The Architecture Vision defines the scope and approach of the architecture work, and establishes the business goals and drivers that motivate the architecture work. The Architecture Vision also involves obtaining the approval and commitment of the sponsors and other key stakeholders, and initiating the Architecture Governance process<sup>2</sup>

The requirements include risk mitigation through regular assessments, which involves identifying, analyzing, and evaluating the risks that may affect the architecture, and determining the appropriate measures or actions to prevent, reduce, or mitigate the risks. Risk mitigation can also involve monitoring and reviewing the risk situation, and communicating and reporting the risk status and actions<sup>3</sup>

This approach also allows a supervised agile implementation of the continuous Machine Learning, which involves applying agile principles and practices to the architecture development and implementation, such as iterative and incremental delivery, frequent feedback, collaboration, and adaptation. A supervised agile implementation can help to ensure the quality, value, and alignment of the architecture, and to respond to the changing needs and expectations of the stakeholders.

Reference: 1: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 24: Stakeholder

Management 2: The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 18: Phase A:

Architecture Vision 3: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 32: Risk

Management : The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 29: Applying Iteration to the ADM

## Question: 8

Please read this scenario prior to answering the question

Your role is consultant to the Lead Architect within a multinational company that manufactures electronic components.

The company has several manufacturing divisions located worldwide and a complex supply chain. After a recent study, senior management have stated a concern about business efficiency considering the company's multiple data centers and duplication of applications.

The company has a mature Enterprise Architecture (EA) practice and uses the TOGAF architecture development method in its EA practice. In addition to the EA program, the company has several management frameworks in use, including business planning, project/portfolio management, and operations management. The EA program is sponsored by the CIO.

A strategic architecture has been defined to improve the ability to meet customer demand and improve management of the supply chain. The strategic architecture includes the consolidation of multiple Enterprise Resource Planning (ERP) applications that have been operating independently in the divisions' production facilities.

Each division has completed the Architecture Definition documentation to meet its own specific manufacturing requirements. The enterprise architects have defined a set of work packages that address the gaps identified. They have identified the value produced, effort required, and dependencies between work packages to reach a target architecture that would integrate a new ERP environment into the company.

Because of the risks posed by change from the current environment, the architects have recommended that a phased approach occurs to implement the target architecture with several transition states. The overall implementation process is estimated to take several years.

Refer to the scenario

You have been asked what the next steps are for the migration planning.

Based on the TOGAF standard which of the following is the best answer?

A. You conduct a series of Compliance Assessments to ensure that the architecture is being implemented according to the contract. The Compliance Assessment should verify that the implementation team is using the proper development methodology. It should include deployment of monitoring tools and ensure that performance targets are being met. If they are not met, then you would identify changes to performance requirements and update those in the Implementation and Migration Plan.

B. You place the Architecture Definition Document under configuration control. This will ensure that the architecture remains relevant and responsive to the needs of the enterprise. You would identify the development resources to undertake the projects. You would then produce an Implementation Governance Model to manage the lessons learned prior to finalizing the plan. You recommend that lessons learned be applied as changes to the architecture without review.

C. You estimate the business value for each project by applying the Business Value Assessment Technique to prioritize the implementation projects and project increments. The assessment should focus on return on investment and performance evaluation criteria that can be used to monitor the progress of the architecture transformation. You would confirm and plan a series of Transition Architecture phases using an Architecture Definition Increments Table that lists the projects.

D. You assess how the Implementation and Migration plan impacts the other frameworks in use in the organization. Minimally, you ensure that the plan is coordinated with the business planning, project/portfolio management and operations management frameworks. You would then assign a business value to each work package, considering available resources and strategic fit. You then use the work packages to identify projects that will be in the Implementation and Migration Plan

**Answer: C**

**Explanation:**

The Business Value Assessment Technique is a technique that can be used to estimate and compare the business value of the projects and project increments that implement the architecture work packages, which are the sets of actions or tasks that are required to implement a specific part of the architecture. The business value is the measure of the benefits or advantages that the project or project increment delivers to the business, such as increased revenue, reduced costs, improved quality, or enhanced customer satisfaction<sup>1</sup>

The steps for applying the Business Value Assessment Technique are:

Identify the criteria and factors that are relevant to the business value assessment, such as costs, benefits, risks, and opportunities. The criteria and factors should be aligned with the business goals and drivers that motivate the architecture work, and the stakeholder requirements and concerns that influence the architecture work.

Assign weights and scores to the criteria and factors, using various methods, such as expert judgment, historical data, or analytical models. The weights and scores should reflect the importance and performance of the criteria and factors, and the trade-offs and preferences of the stakeholders.

Calculate the business value for each project or project increment, using various techniques, such as net present value, return on investment, or balanced scorecard. The business value should indicate the expected or actual outcomes and impacts of the project or project increment on the business.

Prioritize the implementation projects and project increments, based on the business value and other considerations, such as dependencies, resources, or risks. The prioritization should determine the order or sequence of the projects and project increments, and the allocation and utilization of the resources.

Therefore, the best answer is C, because it describes the next steps for the migration planning, which are the activities that support the transition from the Baseline Architecture to the Target Architecture. The answer covers the Business Value Assessment Technique, which is relevant to the scenario.

Reference: 1: The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques, Chapter 28: Business Value Assessment Technique : The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 18: Phase A: Architecture Vision : The TOGAF Standard, Version 9.2, Part II: Architecture Development Method (ADM), Chapter 21: Phase F: Migration Planning : The TOGAF Standard, Version 9.2, Part IV: Architecture Content Framework, Chapter 36:

**Building Blocks**

## Question: 9

Please read this scenario prior to answering the question

You are the Lead Enterprise Architect at a major agribusiness company. The company's main

annual harvest is lentils, a highly valued food grown worldwide. The lentil parasite, broomrape,

has been an increasing concern for many years and is now becoming resistant to chemical controls. In addition, changes in climate favor the propagation and growth of the parasite. As a result, the parasite cannot realistically be exterminated, and

it has become pandemic, with lentil yields falling globally.

The CEO appreciates the seriousness of the situation and has set out a change in direction that is effectively a new business for the company. There are opportunities for new products, and new markets. The company will use the fields for another

harvest and will cease to process third-party lentils. Thus, the target market will change, and the end-products will be

different and more varied. This is a major decision and the CEO has stated a desire to repurpose rather

than replace so as to manage the risks and limit the costs.

The company has a mature Enterprise Architecture practice based in its headquarters and uses the TOGAF standard as the

method and guiding framework. The practice has an established Architecture Capability, and uses iteration for architecture

development. The CIO is the sponsor of the activity.

The CIO has assigned the Enterprise Architecture team to this activity. At this stage there is no shared vision, or

requirements.

Refer to the scenario

You have been asked to propose the best approach for architecture development to realize the CEO's change in

direction for the company.

Based on the TOGAF standard which of the following is the best answer?

A. You propose that the team focus on architecture definition, with emphasis on defining the change parameters to support this new business strategy that the CEO has identified. Once understood, the team will be in the best position to identify the requirements, drivers, issues, and constraints for the change. You would ensure that the architecture development addresses non-functional requirements to assure that the target architecture is robust and secure.

B. You propose that this engagement define the baseline Technology Architecture first in order to assess the current infrastructure capacity and capability for the company. Then the focus should be on transition planning and incremental architecture deployment. This will identify requirements to ensure that the projects are sequenced in an optimal fashion so as to realize the change.

C. You propose that the priority is to understand and bring structure to the definition of the change. The team should focus iteration cycles on a baseline first approach to architecture development, and then transition planning. This will identify what needs to change in order to transition from the baseline to the target, and can be used to work out in detail what the shared vision is for the change.

D. You propose that the team focus its iteration cycles on architecture development by going through the architecture definition phases (B-D) with a baseline first approach. This will support the change in direction as stated by the CEO. It will ensure that the change can be defined in a structured manner and address the requirements needed to realize the change.

**Answer: C**

**Explanation:**

Based on the TOGAF standard, this answer is the best approach for architecture development to realize the CEO's change in direction for the company. The reason is as follows:

The scenario describes a major business transformation that requires a clear understanding of the current and future

states of the enterprise, as well as the gaps and opportunities for change.

Therefore, the priority is to understand and bring structure to the definition of the change, rather than focusing on the implementation details or the technology aspects.

The team should use the TOGAF ADM as the method and guiding framework for architecture development, and adapt it to suit the specific needs and context of the enterprise. The team should also leverage the existing Architecture Capability and the Architecture Repository to reuse and integrate relevant architecture assets and resources.

The team should focus iteration cycles on a baseline first approach to architecture development, which means starting with the definition of the Baseline Architecture in each domain (Business, Data, Application, and Technology), and then defining the Target Architecture in each domain. This will help to identify the current and desired states of the enterprise, and to perform a gap analysis to determine what needs to change in order to achieve the business goals and objectives.

The team should then focus on transition planning, which involves identifying and prioritizing the work packages, projects, and activities that will deliver the change. The team should also create an Architecture Roadmap and an Implementation and Migration Plan that will guide the execution and **governance of the change**.

The team should use the Architecture Vision phase and the Requirements Management phase to **work out in detail what the shared vision is for the change, and to capture and validate the stakeholder requirements and expectations**. The team should also use the Architecture Governance framework to ensure the quality, consistency, and compliance of the architecture work.

Reference: : The TOGAF Standard, Version 9.2 - Architecture Development Method : The TOGAF Standard, Version 9.2 - Architecture Vision : The TOGAF Standard, Version 9.2 - Requirements Management : [The TOGAF Standard, Version 9.2 - Architecture Governance]

## Question: 10

Please read this scenario prior to answering the question

Your role is that of a consultant to the Lead Enterprise Architect to an international supplier of engineering services and automated manufacturing systems. It has three manufacturing plants where it assembles both standard and customized products for industrial production automation. Each of these plants has been operating its own planning and production scheduling systems, as well as applications and control systems that drive the automated production line.

The Enterprise Architecture department has been operating for several years and has mature, well-developed architecture

governance and development processes that are based on the TOGAF Standard. The CIO sponsors the Enterprise Architecture.

During a recent management meeting, a senior Vice-President highlighted an interview where a competitor company's CIO is reported as saying that their production efficiency had been improved by replacing multiple planning and scheduling systems with a common Enterprise Resource Planning (ERP) system located in a central data center. Some discussion followed, with the CIO responding that the situations are not comparable, and the current architecture is already optimized.

In response, the Architecture Board approved a Request for Architecture Work covering the investigations to determine if such an architecture transformation would lead to improvements in efficiency. You have been assigned to support the architecture team working on this project.

A well-known concern of the plant managers is about the security and reliability of driving their planning and production scheduling from a remote centralized system. Any chosen system would also need to support the current supply chain network consisting of local partners at each of the plants.

Refer to the scenario

You have been asked to explain how you will initiate the architecture project.

Based on the TOGAF Standard, which of the following is the best answer?

A. You would research vendor literature and conduct a series of briefings with vendors that are on the current

approved supplier list. Based on the findings from the research, you would define a preliminary Architecture Vision including summary views, high-level requirements, and high-level definitions of the baseline and target environments from a business, information systems, and technology perspective. You would then use that to build consensus among the key stakeholders.

B. You would conduct a pilot project that will enable vendors to demonstrate potential off-the-shelf solutions that address the concerns of the stakeholders. Running a pilot project will save time and money later in the process.

Based on the findings of that pilot project, a complete set of requirements can then be developed that will drive the evolution of the architecture. Once the requirements are completed, a formal stakeholder review should be held, and permission sought to proceed to develop the target architecture.

C. You would hold a series of interviews at each of the manufacturing plants using the business scenarios technique. This will allow you to understand the systems and integrations with local partners. You would use stakeholder analysis to identify key players in the engagement, and to understand their concerns. You will then identify and document the key high-level stakeholder requirements for the architecture. You will then generate high level definitions of the baseline and target architectures.

D. You would develop baseline and target Architectures for each of the manufacturing plants, ensuring that the views corresponding to selected viewpoints address key concerns of the stakeholders. A business case, together with performance metrics and measures should be defined to ensure the architecture meets the business needs. A consolidated gap analysis between the architectures will then validate the approach and determine the capability increments needed to achieve the target state.

**Answer: C**

Explanation:

The best answer is C. You would hold a series of interviews at each of the manufacturing plants using the business scenarios technique. This will allow you to understand the systems and integrations with local partners. You would use stakeholder analysis to identify key players in the engagement, and to understand their concerns. You will then identify and document the key high-level stakeholder requirements for the architecture. You will then generate high level definitions of the baseline and target architectures.

This answer is based on the TOGAF standard, which recommends the following steps to initiate the architecture project<sup>1</sup>:

Establish the architecture project

Identify stakeholders, concerns, and business requirements

Confirm and elaborate business goals, business drivers, and constraints

Evaluate business capabilities

Assess readiness for business transformation

Define scope

Confirm and elaborate Architecture Principles, including business principles

Develop Architecture Vision

Define the Target Architecture value propositions and KPIs

Identify the business transformation risks and mitigation activities

Secure stakeholder and sponsor approval

The answer C covers most of these steps, by using the business scenarios technique to elicit and validate the business requirements, goals, drivers, and constraints, as well as the current and future states of the architecture<sup>2</sup>. The answer C also uses stakeholder analysis to identify and engage the key stakeholders, and to address their concerns and expectations<sup>3</sup>. The answer C also generates high level definitions of the baseline and target architectures, which can be used to develop the Architecture Vision and the value propositions<sup>4</sup>.

The other answers are not the best approach for architecture development, because:

Answer A focuses on researching vendor literature and conducting briefings with vendors, which is not the best way to understand the business needs and the current situation of the enterprise. Answer A also defines a preliminary Architecture Vision without involving the stakeholders or validating the requirements, which may lead to misalignment and lack of consensus.

Answer B conducts a pilot project that will enable vendors to demonstrate potential solutions, which is premature and costly at this stage of the architecture project. Answer B also does not address the stakeholder concerns or the current systems and integrations, which may result in gaps and risks. Answer B also develops the requirements after the pilot project, which may not reflect the actual business needs and goals.

Answer D develops baseline and target architectures for each of the manufacturing plants, which may not consider the

enterprise-wide perspective and the potential benefits of a common ERP system. Answer D also does not involve the stakeholders or address their concerns, which may result in resistance and conflict. Answer D also does not define the business case or the performance metrics, which are essential for demonstrating the value and feasibility of the architecture.

Reference: 1: The TOGAF Standard, Version 9.2 - Architecture Vision 2: The TOGAF Standard, Version 9.2 - Business

Scenarios 3: [The TOGAF Standard, Version 9.2 - Stakeholder Management] 4: [The TOGAF Standard, Version 9.2 - Architecture Definition Document]

## Question: 11

Please read this scenario prior to answering the question

You are the Chief Enterprise Architect at a large food service company specializing in sales to trade and wholesale, for example, restaurants and other food retailers.

One of your company's competitors has launched a revolutionary product range and is running a very aggressive marketing campaign. Your company's resellers are successively announcing that they are not interested in your company's products and will sell your competitor's.

The CEO has stated there must be significant change to address the situation. He has made it clear that new markets must be found for the company's products, and that the business needs to pivot, and address the retail market as well as the existing wholesale market.

A consideration is the company's ability and willingness to change its business model, and if it is a temporary or permanent change. An additional risk factor is one of culture. The company has been used to a stable business with a reasonably well known and settled client base - all with its own local understandings and practices.

The CEO is the sponsor of the EA program within the company. You have been engaged with the sales,

logistics, production, and marketing teams, enabling the architecture activity to start. An Architecture Vision, Architecture Principles, and Requirements have all been agreed. As you move forward to develop a possible Target Architecture you have identified that some of the key stakeholders' preferences are incompatible. The incompatibilities are focused primarily on time-to-market, cost savings, and the need to bring out a fully featured product range, but there are additional factors.

Refer to the scenario

You have been asked how you will address the incompatibilities between key stakeholder preferences.

Based on the TOGAF standard which of the following is the best answer?

A. You would seek to understand value preferences and priorities of the stakeholders. You would develop alternative Target Architectures, highlighting the gaps between current state and the alternatives. You would consider combining features from one or more alternatives in collaboration with the stakeholders. A formal stakeholder review should then be held to decide which alternative is fit for purpose and should be moved forward with. You will then secure the funding required.

B. You recommend that since the CEO has stated that the company must pivot, it is better to compromise on a full product range rather than time-to-market. You would develop just enough of the Target Architecture to demonstrate fitness of the proposed approach. You would limit the description to just where there is a gap between the current baseline. You would seek approval by the stakeholders to move forward with developing the Target Architecture in detail.

C. You would use the Architecture Vision, Principles, and Requirements to define a set of criteria for alternatives and create a set of architecture views to illustrate the impact of the alternative Target Architectures. You would identify the impact on planned projects. You would understand the strengths and weaknesses of the alternatives. You would conduct a formal stakeholder review to decide which alternative to move forward with. You will determine the funding required.

D. You would review the Stakeholder Map and ensure that you have addressed and represented the concerns of all department heads. You will involve them in resolving the incompatibilities. The Communications Plan should include a report that summarizes the key features of the architecture with and how incompatibilities were resolved to reflect the stakeholders' requirements. You will check with each key stakeholder they are satisfied with how the incompatibilities have been resolved.

## **Answer: C**

### **Explanation:**

According to the TOGAF standard, the Target Architecture is the description of a future state of the architecture being developed for an organization. It should be aligned with the Architecture Vision, Principles, and Requirements that have been agreed with the stakeholders. To address the incompatibilities between key stakeholder preferences, the TOGAF standard recommends creating and evaluating multiple alternative Target Architectures that meet different sets of criteria. These criteria should reflect the value preferences and priorities of the stakeholders, as well as the business drivers and objectives. The alternative Target Architectures should be illustrated using a set of architecture views that show the impact of each alternative on the business, data, application, and technology domains. The impact on planned projects should also be identified and analyzed. The strengths and weaknesses of each alternative should be understood and documented. A formal stakeholder review should then be conducted to decide which alternative is the most fit for purpose and should be moved forward with. The funding required for implementing the chosen alternative should also be determined and secured. Reference:

The TOGAF Standard, Version 9.2 - Phase B: Business Architecture - The Open Group

The TOGAF Standard, Version 9.2 - Phase C: Information Systems Architectures - The Open Group

[The TOGAF Standard, Version 9.2 - Phase D: Technology Architecture - The Open Group]

[The TOGAF Standard, Version 9.2 - Phase E: Opportunities and Solutions - The Open Group]

[The TOGAF Standard, Version 9.2 - Phase F: Migration Planning - The Open Group]

### **Question: 12**

Please read this scenario prior to answering the question

Your role is that of a consultant to the Lead Enterprise Architect in a multinational automotive manufacturer.

The company has a corporate strategy that focuses on electrification of its portfolio, and it has invested heavily in a new shared car platform to use across all its brands. The company has four manufacturing facilities, one in North America, two in Europe, and one in Asia.

A challenge that the company is facing is to scale up the number of vehicles coming off the production line to meet customer demand, while maintaining quality. There are significant supply chain shortages for electronic components, which are impacting production. In response to this the company has taken on new suppliers and has also taken design and production of the battery pack in-house.

The company has a mature Enterprise Architecture practice. The TOGAF standard is used for developing the process and systems used to design, manufacture, and test the battery pack. The Chief Information Officer and the Chief Operating Officer co-sponsor the Enterprise Architecture program.

As part of putting the new battery pack into production, adjustments to the assembly processes need to be made. A pilot project has been completed at a single location. The Chief Engineer, sponsor of the activity, and the Architecture Board have approved the plan for implementation and migration at each plant.

Draft Architecture Contracts have been developed that detail the work needed to implement and deploy the new processes for each location. The company mixes internal teams with a few third- party contractors at the locations. The Chief Engineer has expressed concern that the deployment will not be consistent and of acceptable quality.

Refer to the scenario

The Lead Enterprise Architect has asked you to review the draft Architecture Contracts and recommend the best approach to address the Chief Engineer's concern.

Based on the TOGAF Standard, which of the following is the best answer?

A. For changes requested by an internal team, you recommend a memorandum of understanding between the Architecture Board and the implementation organization. For contracts issued to third- party contractors, you recommend that it is a fully enforceable legal contract. You recommend that the Architecture Board reviews all deviations from the Architecture Contract and considers whether to grant a dispensation to allow the implementation organization to customize the process to meet their local needs.

B. For changes undertaken by internal teams, you recommend a memorandum of understanding between the Architecture Board and the implementation organization. If a contract is issued to a contractor, you recommend that it is a fully enforceable legal contract. If a deviation from the Architecture Contract is found, you recommend that the Architecture Board grant a dispensation to allow the implementation organization to customize the process to meet their local needs.

C. You review the contracts ensuring that they address project objectives, effectiveness metrics, acceptance criteria, and risk management. Third-party contracts must be legally enforceable. You recommend a schedule of compliance reviews at key points in the implementation process. You recommend that the Architecture Board reviews all deviations from the Architecture Contract and considers whether to grant a dispensation to allow the process to be customized for local needs.

D. You recommend that the Architecture Contracts be used to manage the architecture governance processes across the locations. You recommend deployment of monitoring tools to assess the performance of each completed battery pack at each location and develop change requirements if necessary. If a deviation from the contract is detected, the Architecture Board should allow the Architecture Contract to be modified meet the local needs. In such cases they should issue a new Request for Architecture Work to implement a modification to the Architecture Definition.

**Answer: C**

**Explanation:**

According to the TOGAF Standard, Version 9.2, an Architecture Contract is a joint agreement between development partners and sponsors on the deliverables, quality, and fitness-for-purpose of an architecture<sup>1</sup>. It defines the scope, responsibilities, and governance of the architecture work, and ensures the alignment and compliance of the architecture with the business goals and objectives<sup>1</sup>.

In the scenario, the Lead Enterprise Architect has asked you to review the draft Architecture Contracts and recommend the best approach to address the Chief Engineer's concern about the consistency and quality of the deployment of the new processes for the battery pack production at each location.

The best answer is C, because it follows the guidelines and best practices for defining and using Architecture Contracts as described in the TOGAF Standard, Version 9.2.2. It ensures that the contracts cover the essential aspects of the

project objectives, effectiveness metrics, acceptance criteria, and risk management, and that they are legally enforceable for third-party contractors. It also recommends a schedule of compliance reviews at key points in the implementation process, and a mechanism for handling any deviations from the Architecture Contract, involving the Architecture Board and the possibility of granting a dispensation to allow the process to be customized for local needs.

The other options are not correct because they either<sup>23</sup>:

A . For changes requested by an internal team, you recommend a memorandum of understanding between the Architecture Board and the implementation organization. For contracts issued to third- party contractors, you recommend that it is a fully enforceable legal contract. You recommend that the Architecture Board reviews all deviations from the Architecture Contract and considers whether to grant a dispensation to allow the implementation organization to customize the process to meet their local needs.: This option does not address the need to review the contracts to ensure that they address the project objectives, effectiveness metrics, acceptance criteria, and risk management. It also does not recommend a schedule of compliance reviews at key points in the implementation process. Moreover, it suggests that a memorandum of understanding is sufficient for internal teams, **which may not be legally binding or enforceable.**

B . For changes undertaken by internal teams, you recommend a memorandum of understanding between the Architecture Board and the implementation organization. If a contract is issued to a contractor, you recommend that it is a fully enforceable legal contract. If a deviation from the Architecture Contract is found, you recommend that the Architecture Board grant a dispensation to allow the implementation organization to customize the process to meet their local needs.: This option has the same problems as option A, and also implies that the Architecture Board should always grant a dispensation for any deviation, which may not be appropriate or desirable in some cases.

D . You recommend that the Architecture Contracts be used to manage the architecture governance processes across the locations. You recommend deployment of monitoring tools to assess the performance of each completed battery pack at each location and develop change requirements if necessary. If a deviation from the contract is detected, the Architecture Board should allow the Architecture Contract to be modified meet the local needs. In such cases they should issue a new Request for Architecture Work.: This option does not address the need to review the contracts to ensure that they address the project objectives, effectiveness metrics, acceptance criteria, and risk management. It also does not recommend a schedule of compliance reviews at key points in the implementation process. Moreover, it suggests that the Architecture Board should always allow the Architecture Contract to be modified for any deviation, which may not be appropriate or desirable in some cases. It also implies that a new Request for Architecture Work should be issued for each deviation, which may not be necessary or feasible.

#### Reference:

- 1: The TOGAF Standard, Version 9.2, Chapter 3: Definitions and Terminology, Section 3.1: Terms and Definitions
- 2: The TOGAF Standard, Version 9.2, Chapter 43: Architecture Contracts
- 3: The TOGAF Standard, Version 9.2, Chapter 44: Architecture Governance

### Question: 13

You are working as an Enterprise Architect at a large company. The company runs many retail stores as well as an online marketplace that allows hundreds of brands to partner with the company. The company has a mature Enterprise

Architecture (EA) practice and uses the TOGAF standard for its architecture development method. The EA practice is involved in all aspects of the business, with oversight provided by an Architecture Board with representatives from different parts of the business. The EA program is sponsored by the Chief Information Officer (CIO).

Many of the stores remain open all day and night. Each store uses a standard method to track sales and inventory, which involves sending accurate, timely sales data to a central AI-based inventory management system that can predict demand, adjust stock levels, and automate reordering. The central inventory management system is housed at the company's central data center.

The company has acquired a major rival. The Chief Executive Officer (CEO) believes that the merger will enable growth through combined offerings and cost savings. The decision has been made to fully integrate the two organizations, including merging retail operations and systems. Duplicated systems will be replaced with one standard retail management system. The CIO expects significant savings from these changes across the newly merged company.

The rival company has successfully implemented the use of hand-held devices within stores for both customers and staff, which has increased satisfaction due to time savings. The CIO has approved the rollout of these devices to all stores but has stated that training should be brief, as there are many part-time employees.

You have been asked to confirm the most relevant architecture principles for this transformation. Based on the TOGAF Standard, which of the following is the best answer?

- A. Common Vocabulary and Data Definitions, Compliance with the Law, Requirements Based Change, Responsive Change Management, Data Security
- B. Control Technical Diversity, Interoperability, Data is an Asset, Data is Shared, Business Continuity
- C. Common Use Applications, Data is an Asset, Data is Accessible, Ease of Use, Business Continuity
- D. Maximize Benefit to the Enterprise, Common Use Applications, Data is an Asset, Responsive Change Management, Technology Independence

**Answer: D**

**Explanation:**

In this scenario, the enterprise is undergoing significant transformation due to a merger and the adoption of new technology (hand-held devices). Several key principles from TOGAF's ADM

Techniques—particularly those focused on promoting enterprise-wide standardization, adaptability, and data utilization—are pertinent here:

**Maximize Benefit to the Enterprise:**

This principle emphasizes that all architectural decisions should deliver maximum business value. Given that the company is integrating systems to cut costs and improve offerings, maximizing the benefit is crucial. Ensuring that the EA efforts align with enterprise-wide benefits supports the goal of optimizing costs and enhancing offerings, which aligns with the CEO's vision for the merger.

**Common Use Applications:**

Standardizing applications across the merged entity will be essential to achieve cost savings and to simplify operations. The goal of reducing the number of applications fits with this principle, ensuring that reusable and widely adopted applications support business functions across the organization. Adopting this principle will also aid in harmonizing the systems from both organizations and avoiding unnecessary diversity.

Data is an Asset:

Data plays a central role in the company's operations, especially with the use of AI-driven inventory management and the integration of systems. Treating data as an asset is essential for reliable and accurate decision-making. This principle ensures that data is viewed as a critical enterprise resource and is managed with care, maintaining integrity, accuracy, and value.

Responsive Change Management:

The organization's ability to adapt quickly and effectively to changes, such as integrating new handheld devices and merging systems, is essential. This principle will facilitate the smooth transition required for integrating the new handheld devices and the merger-related system updates while minimizing disruption to store operations.

Technology Independence:

Since the enterprise will likely encounter varied technologies from the merger, it is crucial to maintain flexibility. This principle advocates for using technology solutions that are adaptable and not bound to a single vendor or specific technology. This ensures that the enterprise can integrate various technological components from both organizations and evolve with minimal constraints.

These principles align well with TOGAF's broader recommendations for guiding architectural changes, as found in Section 2.6 of the TOGAF ADM Techniques. They ensure that the EA practice is aligned with business objectives while maintaining flexibility, data integrity, and a focus on enterprise-wide benefits. These guiding principles are critical for the successful execution of the integration and adoption of new technologies while achieving cost efficiencies and improving service delivery.

For reference, TOGAF's ADM Techniques highlight the importance of architectural principles in guiding transformational initiatives, ensuring that decisions are made consistently across the enterprise. Each principle supports organizational agility, system integration, and the efficient use of technology resources, all of which are vital for the enterprise's stated objectives.

## Question: 14

You are working as an Enterprise Architect within an Enterprise Architecture (EA) team at a multinational energy company. The company is committed to becoming a net-zero emissions energy business by 2050. To achieve this, the company is focusing on shifting to renewable energy production and adopting eco-friendly practices.

The EA team, which reports to the Chief Technical Officer (CTO), has been tasked with overseeing the transformation to make the company more effective through acquisitions. The company plans to fully integrate these acquisitions, including merging operations and systems.

To address the integration challenges, the EA team leader wants to know how to manage risks and ensure that the company succeeds with the proposed changes. Based on the TOGAF Standard, which of the following is the best answer?

A. The EA team should create a Business Scenario to fully describe the business problem that is being addressed by the

transformation. Once requirements are identified, they should be evaluated in terms of risks. Any residual risks should be escalated to the Architecture Board.

B. The EA team should develop Business Architecture views that demonstrate how stakeholder concerns are addressed and assess each factor for readiness, urgency, and degree of difficulty.

C. The EA team should evaluate the company's readiness for change by identifying factors that will impact the transformation. These factors will be used to determine initial risks associated with the initiative.

D. The EA team should document the risks associated with the transformation in an Implementation Factor Catalog to inform decisions during implementation and deployment.

## Answer: A

### Explanation:

In TOGAF, creating a Business Scenario is a foundational step in defining and understanding the business problem, especially for complex transformations involving multiple stakeholders and systems, such as in this scenario. This method aligns with Phase A (Architecture Vision) of the TOGAF Architecture Development Method (ADM). Here's why this approach is the most effective:

#### Understanding Business Requirements:

A Business Scenario provides a structured way to capture and analyze the business requirements, stakeholder concerns, and the contextual elements related to the problem. In this scenario, the

company faces challenges in integrating newly acquired companies with existing operations, which includes complex stakeholder concerns across different functional areas. Developing a Business Scenario allows the EA team to break down these complexities into identifiable and manageable parts.

#### Risk Evaluation and Management:

By using the Business Scenario approach, the EA team can not only define the requirements but also assess associated risks systematically. TOGAF emphasizes the importance of risk management through identifying potential risks, evaluating their impact, and defining strategies for handling these risks. The process includes assessing how risks can be avoided, transferred, or reduced—a necessary step in large-scale transformations to ensure that risks are proactively managed.

#### Residual Risks and Governance:

Any risks that cannot be fully resolved should be identified as residual risks and escalated to the Architecture Board, which is aligned with TOGAF's governance approach. The Architecture Board's role in TOGAF is to provide oversight and make critical decisions on risks that exceed the control of the EA team. This ensures that unresolved risks are managed at the appropriate level of the organization.

#### Alignment with TOGAF ADM Phases:

The Business Scenario approach directly aligns with the Preliminary and Architecture Vision phases of the TOGAF ADM, which focuses on establishing a baseline understanding of the business context and the strategic transformation required.

The detailed understanding of requirements, stakeholder concerns, and risks identified here will guide the subsequent

phases of the ADM, including Business Architecture and Information Systems Architecture.

TOGAF Reference (Section 2.6, ADM Techniques):

TOGAF provides guidelines on the creation of Business Scenarios as part of ADM Techniques, highlighting the importance of defining a business problem comprehensively to ensure successful transformation. This method includes identification of stakeholders, business requirements, and associated risks, which aligns well with the company's need for strategic and systematic integration of new business units.

By utilizing a Business Scenario, the EA team ensures that all aspects of the transformation are well understood, risks are identified early, and residual risks are managed effectively, aligning with the company's strategic objectives and the TOGAF framework's guidance on risk management and stakeholder alignment.

## Question: 15

You are working as an Enterprise Architect within an Enterprise Architecture (EA) team at a large government agency with multiple divisions. The agency has a well-established EA practice and follows the TOGAF standard as its method for architecture development. The government has mandated that the agency prepare for an "AI-first" world.

The agency wants to determine the impact and role of AI in its future services. The CIO has approved a Request for Architecture Work to explore the use of AI in services. Some leaders are concerned about reliance on AI, security, and employees' need to acquire new skills.

The EA team leader seeks suggestions on managing the risks associated with a new architecture for the AI-first project. Based on the TOGAF standard, which of the following is the best answer?

- A. Conduct an analysis of stakeholders, documenting their concerns and recording them in the Architecture Vision document. Risks should be recorded in the Architecture Requirements Specification and reviewed regularly.
- B. Identify key stakeholders and develop a Communication Plan that addresses their needs. Ensure the architecture addresses risk management and summarizes features of the architecture.
- C. Separate stakeholders into groups and categorize them. Develop models for each group and verify that their concerns are addressed in Phase G, Implementation Governance.
- D. Create an organization map to show the links between different agency parts. Hold a meeting to teach stakeholders to interpret the models. Manage risks as part of Security Architecture development.

**Answer: A**

**Explanation:**

In the context of the TOGAF standard, stakeholder management and addressing stakeholder concerns are critical

components, especially for high-impact initiatives like adopting an AI-first approach. Here's why the selected answer aligns best with TOGAF principles and the scenario:

#### Stakeholder Analysis and Engagement:

Conducting a stakeholder analysis is essential as it helps identify and document the concerns, issues, and cultural factors influencing each stakeholder group. This aligns with TOGAF's emphasis on understanding and managing stakeholder concerns, particularly in the Preliminary and Architecture Vision phases of the ADM (Architecture Development Method). Since the scenario highlights diverse concerns about AI, understanding each group's unique perspective will help the EA team tailor the architecture to address these effectively.

#### Architecture Vision Document:

By documenting these concerns in the Architecture Vision document, the EA team can provide a clear, high-level representation of how AI will be adopted, its benefits, and how it addresses specific

stakeholder concerns. This is critical for communicating the intent and value of the AI-first approach in a way that aligns with the agency's strategic goals, including addressing apprehensions about job security, skill development, and cyber resilience.

#### Risk Management and Architecture Requirements Specification:

TOGAF highlights the importance of identifying and managing risks early in the process. By documenting the requirements related to risk in the Architecture Requirements Specification, the EA team ensures that these concerns are formally integrated into the architecture and addressed throughout the ADM phases. Regular assessments and feedback loops will provide a mechanism for continual risk monitoring and adjustment as the AI-first initiative progresses.

#### Alignment with TOGAF's ADM Phases:

The approach specified aligns with TOGAF's guidance on managing risk and stakeholder concerns during the early ADM phases, specifically Architecture Vision and Requirements Management. In these phases, the framework emphasizes identifying and addressing risks associated with stakeholders' concerns to build a resilient and widely accepted architecture.

#### Reference to TOGAF Stakeholder Management Techniques:

TOGAF's stakeholder management techniques underscore the importance of understanding and addressing stakeholder needs as a foundational step. This involves assessing the influence and interest of various stakeholders and integrating their views into architectural development, ensuring that the architecture aligns with both business goals and operational realities.

In conclusion, by conducting a thorough stakeholder analysis and documenting concerns in both the Architecture Vision and Architecture Requirements Specification, the EA team can ensure that stakeholder concerns are addressed, that the architecture supports AI adoption effectively, and that potential risks are managed proactively. This approach will foster acceptance among stakeholders and ensure that the architecture aligns with the agency's strategic goals and risk management requirements as recommended by TOGAF.

## Question: 16

You are working as an Enterprise Architect within the Enterprise Architecture (EA) team at a healthcare and life sciences company. The EA team is developing a secure system for researchers to share clinical trial information easily across the organization and with external partners.

Due to the highly sensitive nature of the information, each architecture domain must consider privacy and safety concerns. The healthcare division has been directed to minimize disruptions to clinical trials while introducing the new system gradually.

How would you identify the work packages for introducing the new system? Based on the TOGAF

standard, which of the following is the best answer?

- A. Use a Consolidated Gaps, Solutions, and Dependencies Matrix to create work packages and sequence them into Capability Increments. Document in a Transition Architecture State Evolution Table.
- B. Identify Solution Building Blocks for development or procurement, then use a CRUD matrix to rank and select the most cost-effective work packages. Schedule the rollout sequentially across regions.
- C. Use a Consolidated Gaps, Solutions, and Dependencies Matrix to classify each solution, group them into work packages, then regroup into Capability Increments. Document in an Architecture Definition Increments Table.
- D. Draw up an Implementation Factor Catalog to indicate actions and constraints. Use a Consolidated Gaps, Solutions, and Dependencies Matrix, then group similar activities into work packages and identify dependencies.

## Answer: C

### Explanation:

In the TOGAF framework, understanding and addressing stakeholder concerns is crucial, particularly for complex projects with high stakes like the AI-first initiative described in the scenario. This approach aligns well with TOGAF's ADM (Architecture Development Method) and its emphasis on effective stakeholder management and risk assessment. Here's why this is the best course of action:

#### Stakeholder Analysis and Documentation:

Conducting a stakeholder analysis is foundational in the early stages of any TOGAF project, particularly during the Preliminary and Architecture Vision phases. This process involves identifying the different stakeholders, understanding their positions, documenting their concerns, and considering any cultural factors that might influence their perspective on the AI-first initiative. Given the diverse concerns raised (such as job security, skill requirements, and cybersecurity), it's essential to have a clear understanding of each stakeholder group's priorities and fears.

#### Recording Concerns in the Architecture Vision Document:

The Architecture Vision phase in TOGAF focuses on defining the high-level scope and objectives of the architecture project. By documenting stakeholder concerns and the corresponding views in the Architecture Vision document, the EA team ensures that these concerns are transparently acknowledged and addressed as part of the strategic direction. This step not only aligns with TOGAF best practices but also helps in building stakeholder buy-in and trust.

#### Architecture Requirements Specification and Risk Management:

Risk management is a key aspect of TOGAF's ADM, particularly in the Requirements Management and Implementation

Governance phases. Documenting the requirements for addressing specific risks in the Architecture Requirements Specification provides a structured way to ensure that identified risks are acknowledged and managed throughout the transformation. Regular assessments and

feedback loops ensure ongoing alignment and adaptability to emerging risks, which is particularly important given the dynamic nature of AI and its associated challenges.

Alignment with TOGAF ADM Phases:

This approach follows the prescribed flow of TOGAF's ADM, starting with stakeholder engagement in the Preliminary and Architecture Vision phases and progressing to risk assessment in the Requirements Management phase. By maintaining a focus on stakeholder needs and formalizing these into architecture requirements, the EA team can ensure that the architecture not only meets business objectives but also mitigates stakeholder concerns.

TOGAF Reference on Stakeholder Management Techniques:

TOGAF places significant emphasis on managing stakeholder concerns through its stakeholder management techniques, which highlight the need to systematically identify, analyze, and address the concerns of all involved parties. This practice helps ensure that the architecture is viable and accepted across the organization.

By conducting a thorough stakeholder analysis and integrating the findings into both the Architecture Vision and the Architecture Requirements Specification, the EA team can proactively address stakeholder concerns, manage risks, and align the AI-first initiative with the agency's strategic objectives. This approach is consistent with TOGAF's guidance and provides a structured framework for addressing both business and technical challenges in the context of an AI-first transformation.

## Question: 17

Please read this scenario prior to answering the question

You are working as an Enterprise Architect at a large supermarket. The company runs many retail stores, as well as an online grocery shop. Many of the stores used to remain open 24/7, but the number has decreased in recent years. Instead, they now focus on fulfilling online orders during the night.

The company has a mature Enterprise Architecture (EA) practice and uses the TOGAF standard for its architecture development method. The EA practice is involved in all aspects of the

business, with oversight provided by an Architecture Board with representatives from different parts of the business.

The EA program is sponsored by the Chief Information Officer (CIO).

Each store uses a standard method to track sales and inventory. This involves sending accurate timely sales data to a central AI-based inventory management system that can predict demand, adjust stock levels and automate reordering.

The central inventory management system is housed at the company's central data center.

The company has bought a major rival. The Chief Executive Officer believes that a merger will enable growth through combined offerings and cost savings. The decision has been taken to fully integrate the two organizations, including merging retail operations and systems. This means that duplicated systems will be replaced with one standard retail management system. Also, the company will reduce the number of applications that are used. The CIO expects significant savings will be achieved by implementing these changes across the newly merged company.

One improvement that the rival has successfully implemented is the use of hand-held devices within stores, for both customers and staff. This has increased both customer and staff employee satisfaction due to the time savings this has brought. The CIO has given the go-ahead to roll out the devices in all stores but has stated that training on how to use the hand-held devices should be brief because there are a lot of employees, many of whom are part-time.

The Request for Architecture Work to oversee the merger has been approved. The project has been scoped and you have been assigned to work on it. Your role includes managing the architecture for the retail stores.

Refer to the scenario

You have been asked to confirm the most relevant architecture principles for the transformation.

Based on the TOGAF Standard, which of the following is the best answer?

[Note: The sequence of the principles listed in each answer does not matter. You should assume the company follows the set of principles that are provided in the TOGAF Standard, ADM Techniques, Architecture Principles chapter. You may need to refer to section 2.6 located in ADM Techniques within the reference text to answer this question.]

A. Maximize Benefit to the Enterprise, Common Use Applications, Data is an Asset, Responsive Change Management, Technology Independence

B. Control Technical Diversity, Interoperability, Data is an Asset, Data is Shared, Business Continuity

C. Common Vocabulary and Data Definitions, Compliance with the Law, Requirements Based Change, Responsive Change Management, Data Security

D. Common Use Applications, Data is an Asset, Data is Accessible, Ease of Use, Business Continuity

**Answer: A**

**Explanation:**

Key aspects of the scenario:

**Business Objective:**

A merger is happening to combine offerings, reduce costs, and achieve operational efficiency.

The goal includes fully integrating retail operations and systems, replacing duplicated systems, and reducing the number of applications used.

**Technological Improvements:**

A central AI-based inventory system is in place.

Hand-held devices for stores have improved customer and staff satisfaction and increased efficiency.

### Scope of Architecture Work:

Integrating the merged systems.

Managing retail architecture to optimize operations.

### TOGAF Alignment:

TOGAF principles aim to ensure the architecture supports business transformation effectively while aligning with governance and best practices.

### Best answer analysis:

#### Option 1:

Maximize Benefit to the Enterprise: Aligns with the merger goals of cost reduction and efficiency.

Common Use Applications: Matches the goal to reduce duplicated systems.

Data is an Asset: Central AI system depends on accurate and reliable data.

Responsive Change Management: Necessary to support the transition and manage organizational impacts.

Technology Independence: Encourages selecting flexible, scalable solutions post-merger.

This option comprehensively aligns with the scenario.

#### Option 2:

Control Technical Diversity: Important but less emphasized than cost reduction and application unification.

Interoperability: Relevant, but less critical compared to principles addressing business value.

Data is an Asset: Relevant.

Data is Shared: Implied in centralized inventory but not directly stated.

Business Continuity: Important but not the main focus here.

This option partially fits but lacks emphasis on business outcomes.

#### Option 3:

Common Vocabulary and Data Definitions: Indirectly helpful but not central to the transformation.

Compliance with the Law: Always critical, but no explicit legal issues are mentioned.

Requirements-Based Change: General principle but not transformation-specific.

Responsive Change Management: Relevant.

Data Security: Important but not a central concern in the scenario.

This option focuses more on governance and less on merger goals.

Option 4:

Common Use Applications: Relevant to reducing duplicate systems.

Data is an Asset: Relevant.

Data is Accessible: Fits with AI system and handheld devices but is a subset of "Data is an Asset."

Ease of Use: Relevant to handheld devices but not a core transformation principle.

Business Continuity: Important but secondary to cost and efficiency.

This option focuses more on usability and accessibility rather than transformation objectives.

## Question: 18

Please read this scenario prior to answering the question

You are working as an Enterprise Architect within a healthcare and life science company. The company is a

leading player in its industry, dedicated to transforming healthcare with new ideas and advancements. The

company has multiple divisions that cover different aspects of the business.

The company's Enterprise Architecture (EA) department has been operating for several years and has mature, well-

developed architecture governance and development processes following the TOGAF Standard. In addition to the EA

program, the company has a number of management frameworks in use.

The Architecture Board includes representatives from each division of the company.

Many of the company's rivals have begun utilizing Artificial Intelligence (AI) in their operations, and the

indications are that this will be transformative for healthcare delivery. This is something the EA department has been interested in for a while, and they had recently submitted an architecture Change Request which was approved. As a result, the CIO has approved a Request for Architecture Work to investigate the implementation of AI in the company.

Areas for evaluation include:

How can staff use AI daily in their current role?

How AI can enhance access to care for patients, and how to make that experience seamless?

How AI can offer new workplace platforms and tools to increase efficiency?

Some of the top managers are worried about a change in the way of working, and if it will achieve the goals.

Many are not confident that the company's risk management processes are adequate for a companywide integration of generative AI. There are also questions from staff about whether enough specific guidelines and policies have been put in place for responsible use of AI.

The Chief Information Officer (CIO) is the sponsor of the Enterprise Architecture program. The CIO has actively encouraged architecting with agility within the EA department as her preferred approach for projects.

The CIO wants to know how to address these concerns and reduce risks.

Refer to the scenario

You have been tasked with starting the architecture development. How do you begin?

Based on the TOGAF standard which of the following is the best answer?

A. You recommend that an analysis of the stakeholders is undertaken. This will allow the architects to define groups of partners (the stakeholders) who have common concerns and include development of a Stakeholder Map. The concerns and relevant views should then be defined for each group and recorded in the Architecture Vision document. To mitigate risk, you include a requirement that there be progressive development of the target architecture to ensure there is regular feedback.

B. You recommend that a Communications Plan be created to address the key stakeholders, that is the most powerful and influential partners. This plan should include a report that summarizes the key features of the architecture with respect to each location and reflects the stakeholders' requirements.

You will check with each key stakeholder that their concerns are being addressed. Risk mitigation should be explicitly addressed as a component of the architecture being developed.

C. You recommend that models be created for the Draft Business, Data, Application, and Technology Architectures. These can be used to ensure that the system will be compliant with the local regulations for each division. Together with the problem description, and requirements, this ensures that all the necessary data and detail is addressed. A formal review should be held with the stakeholders to verify that their concerns have been properly addressed by the models.

D. You recommend creation of a set of business models that can be applied uniformly across all AI- related architecture projects. These should be developed in the portable format to ensure maximum portability across the many tools used in the firm. Each architecture should then be defined based on this fixed set of models. All concerned parties can then examine the models to ensure that their needs have been addressed.

## Answer: A

### Explanation:

Key aspects of the scenario:

### Objective:

Integrating Artificial Intelligence (AI) into healthcare delivery, with a focus on improving patient care, enhancing workplace efficiency, and enabling seamless experiences.

### Challenges:

Stakeholder concerns about risk management, adaptability to change, and ensuring alignment with regulations and policies.

Addressing the concerns of staff and top management about AI integration and achieving the desired goals.

### CIO's Perspective:

Encouraging an agile approach to architecture development.

Addressing risks and ensuring stakeholder concerns are managed.

### Areas for Evaluation:

AI usage by staff and impact on workflows.

Patient experience enhancement via AI.

New workplace platforms and tools powered by AI.

### Option Analysis:

Option 1: Analysis of stakeholders and development of a Stakeholder Map

### Pros:

Stakeholder analysis is critical for identifying concerns, viewpoints, and requirements.

TOGAF emphasizes stakeholder engagement early in the process to mitigate risks and align expectations.

Developing a Stakeholder Map ensures clear alignment with their interests and creates a foundation for regular feedback loops.

### Cons:

Does not explicitly address the creation of architecture models or policies upfront.

## Option 2: Creation of a Communications Plan

### Pros:

A communications plan fosters effective stakeholder engagement by addressing their concerns and ensuring transparent reporting.

Risk mitigation as part of communication aligns with TOGAF's stakeholder management practices.

### Cons:

This focuses more on communication mechanics rather than advancing architectural development directly.

## Option 3: Models for Draft Business, Data, Application, and Technology Architectures

### Pros:

Aligns with the Architecture Development Method (ADM), ensuring compliance with requirements and regulations.

Helps formalize stakeholder feedback by verifying their concerns against tangible models.

### Cons:

Developing detailed models early on may delay immediate resolution of stakeholder concerns and risk mitigation.

## Option 4: Set of reusable business models for AI-related projects

### Pros:

Standardized models ensure consistency and portability across the organization's AI-related efforts.

### Cons:

Too narrow in focus for the initial architecture development phase; does not address risk management or stakeholder concerns adequately.

### Recommended Answer:

Option 1: You recommend that an analysis of the stakeholders is undertaken.

### Reasoning:

The scenario highlights stakeholder concerns about risks, adaptability, and compliance. Addressing these concerns requires stakeholder analysis as the first step.

A Stakeholder Map aligns with TOGAF's emphasis on stakeholder engagement, providing a structured way to manage their concerns and expectations.

Identifying concerns early and integrating feedback into the Architecture Vision document ensures alignment with goals and smooth progress.

Option 1 sets the foundation for collaboration and risk management, making it the best fit for the current phase.

## Question: 19

### Scenario

You are working as an Enterprise Architect within a large manufacturing company. The company has multiple divisions located worldwide.

After a recent study, senior management is concerned about the impact of the company's multiple data centers and duplication of applications on business efficiency. To address this concern, a strategic architecture has been defined; it will help improve the ability to meet customer demand and improve the efficiency of operations. The strategic architecture involves the consolidation of multiple application programs that are currently used in different divisions and putting them all onto a cloud-based solution instead.

Each division has completed the Architecture Definition documentation to meet its own specific operational requirements. The enterprise architects have analyzed the corporate changes and implementation constraints. A consolidated gap analysis has been completed. Based on its results, the architects have reviewed the requirements, dependencies, and interoperability requirements needed to integrate the cloud-based solution. The architects have completed the Business Transformation Readiness Assessment. Based on all these factors, they have produced a risk assessment. They have also completed the draft Implementation and Migration Plan, the draft Architecture Roadmap, and the Capability Assessment deliverables.

Due to the risks of changing from the current environment, the decision has been taken that a gradual approach is needed to implement the target architecture. It will likely take a few years to complete the whole implementation process.

The company has a mature Enterprise Architecture (EA) practice and uses the TOGAF standard for its architecture development method. The EA practice is engaged throughout all the divisions, with implementation governance assigned to a business line. In addition to providing guidance on using architecture frameworks, including business planning, project/portfolio management, and operations management, the EA program is sponsored by the Chief Information Officer (CIO).

You have been asked to decide on the next steps for the migration planning.

Based on the TOGAF standard, which of the following is the best answer?

A. You update the Architecture Definition Document, which includes setting project objectives and documenting the

final requirements. This will ensure that the architecture remains relevant and responsive to the needs of the enterprise. You then produce an Implementation Governance Model to manage the lessons learned prior to finalizing the Implementation and Migration Plan. You recommend that lessons learned be applied as changes to the architecture without review.

B. You conduct a series of Compliance Assessments to ensure that the architecture is being implemented according to the contract. The Compliance Assessment verifies that the implementation team is using the proper development methodology. It should include deployment of monitoring tools and ensure that performance targets are being met. If they are not met, then you would identify changes to performance requirements and update those in the Implementation and Migration Plan.

C. You examine how the Implementation and Migration Plan affects the other frameworks being used in the organization. You coordinate the planning with the business planning, project/portfolio management, and operations management frameworks. You assign a business value to each project, considering the available resources and how well they align with the strategy. You then update the architecture roadmap and the Implementation and Migration Plan.

D. You assess the business value for each project by applying the Business Value Assessment Technique. The assessment should focus on return on investment and performance evaluation criteria to prioritize the most progress of the architecture transformation. You confirm and plan a series of Transition Architecture phases using an Architecture Definition Increments Table. You document the lessons learned and generate the final Implementation and Migration Plan.

**Answer: C**

**Explanation:**

Context of the Scenario

The organization is currently in the Migration Planning phase, which corresponds to Phase F of the TOGAF ADM (Architecture Development Method). The key activities for this phase involve:

Evaluating dependencies and impacts on other organizational frameworks.

Aligning the roadmap and migration plan with strategic objectives and available resources.

Addressing the risks of transitioning from the current architecture to the target architecture using a phased approach.

The deliverables (Architecture Roadmap, Capability Assessment, etc.) and assessments (Gap Analysis, Risk Assessment,

Transformation Readiness) have already been developed. The next step is to refine and finalize the migration planning.

#### Option Analysis

##### Option A:

While updating the Architecture Definition Document could ensure alignment, this step was completed in earlier phases (B, C, D). At this stage, further changes to the architecture must go through a formal governance review, and applying lessons learned without review contradicts TOGAF principles.

Producing an Implementation Governance Model is more relevant in Phase G (Implementation Governance), not in Phase F.

Conclusion: Incorrect, as it suggests revisiting earlier steps and does not align with the current phase.

##### Option B:

Conducting Compliance Assessments ensures the architecture is implemented correctly, but this is a task for Phase G (Implementation Governance) after migration planning has been finalized and implementation begins.

Deployment of monitoring tools is also part of implementation and governance activities, not migration planning.

Conclusion: Incorrect, as it focuses on tasks belonging to a later phase.

##### Option C:

Examining how the Implementation and Migration Plan affects other organizational frameworks is critical in Phase F, as TOGAF emphasizes alignment with business planning, project/portfolio management, and operations management.

Assigning business value to each project ensures prioritization and optimal allocation of resources.

Updating the Architecture Roadmap and the Implementation and Migration Plan based on this analysis ensures strategic alignment and readiness for implementation.

Conclusion: Correct, as it addresses the key objectives of the Migration Planning phase

comprehensively.

##### Option D:

Applying the Business Value Assessment Technique is valid for prioritizing initiatives but is a limited aspect of Migration Planning.

Planning Transition Architecture phases and documenting lessons learned are valid, but this does not address broader

organizational impacts or dependencies as effectively as Option C.

Conclusion: Narrow focus; less comprehensive than Option C.

Reference to TOGAF

Phase F (Migration Planning): The focus is on aligning the migration plan with business objectives, considering organizational dependencies, and prioritizing projects (TOGAF 9.2, Chapter 12).

Architecture Roadmap and Implementation Plan: Updated to reflect changes in priorities and alignment with business frameworks (TOGAF 9.2, Section 12.4).

Framework Integration: Collaboration with other frameworks (e.g., business planning, portfolio management) ensures alignment across the organization (TOGAF 9.2, Section 6.5.2).

Business Value Assessment Technique: Used to prioritize initiatives based on return on investment and performance criteria (TOGAF 9.2, Section 24.4).

## Question: 20

### Scenario

You are working as an Enterprise Architect within an Enterprise Architecture (EA) team at a global company that sells consumer products. The company produces many products that buyers use and

enjoy.

The company has announced a major change to its products that will occur over a four-year period. This change includes the introduction of digital products and services. An architecture to support this strategy has been finished, along with a roadmap for a set of projects to implement this significant change. This will be a cross-functional effort between the product design and software teams. It is planned to be developed in phases.

The company faces a challenge in presenting and providing access to different services through its products and digital platforms while ensuring compliance with data privacy laws. In some countries and regions, the data residency

requirements mean that the company has to store certain data within the region where it is collected. As a result, the company's application portfolio and infrastructure must connect with various cloud services and data repositories in different countries.

The EA team has inherited the architecture used by the current products, some of which can be carried over to the new products. The EA team has started to define which parts of the architecture to carry forward. Enough of the Business Architecture has been defined so that work can commence on the Information Systems and Technology Architectures. Those architectures need to be defined to support the key digital services that the company plans to provide.

The company uses the TOGAF Standard as the foundation for its Enterprise Architecture framework, and architecture development follows the purpose-based EA Capability model outlined in the TOGAF Series Guide: A Practitioner's Approach to Developing Enterprise Architecture Following the TOGAF ADM. The EA team reports to the Chief Information Officer (CIO), who oversees the program.

You have been asked how to decide and organize the work to deliver the requested architectures.

Based on the TOGAF standard, which of the following is the best answer?

A. You refer to the superior architecture for guidance. You review the projects identified, their dependencies, and synergies, then decide the sequence for starting the projects. You develop high-level architecture descriptions. For each project, you determine how much work is needed, identify reference architectures, and candidate building blocks. You identify the resource needs taking into account cost and value. You document the different options, risks, and ways to control them to enable feasibility analysis and trade-off with the stakeholders.

B. You look outside the company to study how other companies organize their data models and application portfolios. You create just enough architecture description for the Application, Data, and Technology Architectures to identify the different options. For each project, this includes identification of candidate architecture and solution building blocks. You then identify solution providers, perform a readiness assessment, and assess the viability and fitness of the solution options. You then write the draft Implementation and Migration plan.

C. You research leading data companies, using your findings to help in developing high-level Target

Data, Application, and Technology Architectures. You review the Architecture Vision to determine the level of detail, time, and scope of the ADM cycle phases required for each project. You identify and estimate the cost of the main resources. You then prepare an Architecture Roadmap and request the Architecture Board to review the roadmap. You then start the project.

D. You commence an iteration of ADM Phase A, identifying the stakeholders and revising the Architecture Vision. You perform a Stakeholder Analysis and update the Stakeholder Map. You conduct workshops and interviews to reflect the stakeholders who are now the key drivers for the digital products and services. You coordinate with the CIO to ensure alignment with the overall roadmap and update the Implementation and Migration Plan accordingly.

## Answer: A

### Explanation:

#### Comprehensive and Detailed Step-by-Step Explanation

#### Context of the Scenario

The company is in the process of delivering requested architectures to support the introduction of digital products and services. The Business Architecture is sufficiently defined, and the focus is on developing the Information Systems and Technology Architectures.

TOGAF emphasizes breaking down large, complex transformation programs into manageable projects, focusing on dependencies, risks, trade-offs, and sequencing of efforts. Based on the scenario, the company must deal with:

Data privacy and residency compliance across different regions.

Re-use of existing architecture for efficiency.

Alignment of digital services with a global roadmap.

The activity described aligns with ADM Phases B (Business Architecture), C (Information Systems Architecture), and D (Technology Architecture), with a focus on delivering architectures for implementation.

#### Option Analysis

#### Option A:

#### Strengths:

Refers to developing high-level architecture descriptions and identifying reference architectures and candidate building blocks, which align with ADM Phases B, C, and D.

Addresses feasibility analysis, trade-offs, and stakeholder engagement, which are part of architecture development and decision-making in TOGAF.

Ensures that the architecture descriptions are resource-conscious, including cost and value analysis, dependencies, risks, and synergies between projects.

Conclusion: Correct, as it provides a complete approach to organizing the work to deliver architectures while adhering to TOGAF principles.

#### Option B:

### Strengths:

Suggests creating architecture descriptions for the Application, Data, and Technology Architectures, which are necessary for delivering requested architectures.

Addresses readiness assessments and the fitness of solutions.

### Weaknesses:

Emphasizes looking outside the company and studying other companies' models, which is not necessarily aligned with TOGAF unless justified by specific gaps.

Skips essential TOGAF steps like feasibility analysis and detailed stakeholder engagement.

Conclusion: Incorrect, as it places undue emphasis on external research instead of leveraging TOGAF's structured ADM.

### Option C:

#### Strengths:

Suggests reviewing the Architecture Vision and determining scope, which aligns with TOGAF principles.

Proposes preparing an Architecture Roadmap and involving the Architecture Board for review.

#### Weaknesses:

Does not cover important elements such as candidate building blocks, feasibility analysis, or stakeholder engagement.

Suggests starting the project prematurely without proper sequencing or risk trade-offs.

Conclusion: Incorrect, as it skips key steps and lacks a structured approach to dependencies and resource management.

### Option D:

#### Strengths:

Suggests revising the Architecture Vision and conducting a Stakeholder Analysis, which aligns with Phase A of the ADM.

#### Weaknesses:

Returning to Phase A is not required here, as the Architecture Vision has already been defined. Revising the vision at this stage indicates a step backward.

Lacks focus on feasibility analysis, dependencies, and sequencing, which are the immediate needs in this phase.

Conclusion: Incorrect, as it unnecessarily revisits earlier ADM phases instead of progressing.

## TOGAF Reference

ADM Phases B, C, D: Emphasizes developing detailed architectures, identifying candidate building blocks, and addressing dependencies, risks, and resource needs (TOGAF 9.2, Chapters 8-10).

Architecture Roadmap and Feasibility Analysis: Guides sequencing and trade-offs for implementation (TOGAF 9.2, Section 12.4).

Stakeholder Engagement: Critical for ensuring alignment and feasibility (TOGAF 9.2, Section 24.2).

Decision-Making and Trade-offs: TOGAF emphasizes documenting risks and trade-offs as part of feasibility analysis (TOGAF 9.2, Section 6.4.1).

## Question: 21

### Scenario

Your role is that of an Enterprise Architect, reporting to the Chief Enterprise Architect, at a technology company.

The company uses the TOGAF standard as the method and guiding framework for its Enterprise Architecture (EA) practice. The Chief Technology Officer (CTO) is the sponsor of the activity. The EA practice uses an iterative approach for its architecture development. This has enabled the decisionmakers to gain valuable insights into the different aspects of the business.

The nature of the business is such that the data and the information stored on the company systems is the company's major asset and is highly confidential. The company employees travel a lot for work and need to communicate over public infrastructure. They use message encryption, secure internet connections using Virtual Private Networks (VPNs), and other standard security measures. The company has provided computer security awareness training for all its staff. However, despite good education and system security, there is still a need to rely on third-party suppliers for infrastructure and software.

The Chief Security Officer (CSO) has noted an increase in ransomware (malicious software used in ransom demands) attacks on companies with a similar profile. The CSO recognizes that no matter how much is spent on education and support, the company could be a victim of a significant attack that could completely lock them out of their important data.

A risk assessment has been completed, and the company has looked for cyber insurance that covers ransomware. The price for this insurance is very high. The CTO recently saw a survey that said 1 out of 4 businesses that paid ransoms could not get their data back, and almost the same number were able to recover the data without paying. The CTO has decided not to get cyber insurance to cover ransom payment.

You have been asked to describe the steps you would take to strengthen the current architecture to improve data protection.

Based on the TOGAF standard, which of the following is the best answer?

A. You would ensure that the company has in place up-to-date processes for managing change to the current Enterprise Architecture. Based on the scope of the concerns raised, you recommend that this

be managed at the infrastructure level. Changes should be made to the baseline description of the Technology Architecture. The changes should be approved by the Architecture Board and **implemented by change management techniques.**

B. You would request an Architecture Compliance Review with the scope to examine the company's ability to respond to ransomware attacks. You would identify the departments involved and have them nominate representatives. You would then tailor checklists to address the requirement for increased resilience. You would circulate to the nominated representatives for them to complete. You would then review the completed checklists, identifying and resolving issues. You would then **determine and present your recommendations.**

C. You would monitor for technology updates from your existing suppliers that could enhance the company's capabilities to detect, react, and recover from an IT security incident. You would prepare and run a disaster recovery planning exercise for a ransomware attack and analyze the performance of the current Enterprise Architecture. Using the findings, you would prepare a gap analysis of the current Enterprise Architecture. You would prepare change requests to address identified gaps. You would **add the changes implemented to the Architecture**

**Repository.**

D. You would assess business continuity requirements and analyze the current Enterprise Architecture for gaps. You would recommend changes to address the situation and create a change request. You would engage the Architecture Board to assess and approve the change request. Once approved, you would create a new Request for Architecture Work to begin an ADM cycle to **implement the changes.**

**Answer: B**

**Explanation:**

Comprehensive and Detailed Step-by-Step Explanation

**Context of the Scenario**

The scenario highlights significant risks due to ransomware attacks and the need to strengthen the company's Enterprise Architecture to improve data protection and resilience. TOGAF emphasizes the Architecture Compliance Review as a mechanism for ensuring the architecture meets its objectives and addresses specific concerns such as security, resilience, and compliance with organizational goals.

The organization has already conducted a risk assessment but requires actionable steps to:

### Address ransomware attack risks.

Increase the resilience of the Technology Architecture.

Ensure proper alignment with governance and compliance frameworks.

#### Option Analysis

##### Option A:

##### Strengths:

Highlights the need for up-to-date processes for managing changes in the Enterprise Architecture.

Recognizes the importance of governance through the Architecture Board and change management techniques.

##### Weaknesses:

The approach focuses solely on the Technology Architecture baseline but does not address the need for specific steps such as compliance review, gap analysis, or tailored resilience measures for ransomware risks.

It provides a broad and generic approach rather than a targeted plan for ransomware and data protection issues.

Conclusion: Incorrect. While it adheres to governance processes, it lacks specific actions to improve resilience and address the immediate security concerns.

##### Option B:

##### Strengths:

Proposes an Architecture Compliance Review, which is a core TOGAF process used to evaluate architecture implementation against defined objectives, ensuring it is fit for purpose.

Involves identifying stakeholders (departments) and tailoring checklists specific to ransomware resilience.

Emphasizes issue identification and resolution through structured review processes.

##### Weaknesses:

Does not explicitly address longer-term updates to the Enterprise Architecture, but this can be inferred as a next step following compliance recommendations.

Conclusion: Correct. This is the most suitable approach based on TOGAF principles, as it uses an established process to evaluate and improve the architecture's resilience.

#### Option C:

##### Strengths:

Includes monitoring for updates from suppliers to enhance detection and recovery capabilities, which is relevant to addressing ransomware risks.

Proposes a gap analysis to identify shortcomings in the current Enterprise Architecture and recommends addressing gaps through change requests.

Incorporates disaster recovery planning exercises, which are useful for testing resilience.

##### Weaknesses:

While thorough, the approach lacks the Architecture Compliance Review process, which is a more structured way to ensure the architecture meets resilience requirements.

Monitoring suppliers and running disaster recovery exercises are operational steps rather than strategic architectural improvements.

Conclusion: Incorrect. While it includes valid activities, it does not adhere to TOGAF's structured approach for architecture assessment and compliance.

#### Option D:

##### Strengths:

Proposes analyzing business continuity requirements and assessing the architecture for gaps, which is relevant to the scenario.

Suggests initiating an ADM cycle to address gaps, which aligns with TOGAF principles.

##### Weaknesses:

Focusing on initiating a new ADM cycle may be premature, as the immediate priority is to evaluate the existing architecture and address specific resilience concerns.

Does not mention compliance review or tailored resilience measures for ransomware attacks, which are central to

the scenario.

Conclusion: Incorrect. It proposes a broader approach that may not adequately address the immediate concerns highlighted by the CSO.

### TOGAF Reference

**Architecture Compliance Review:** A structured process used to evaluate whether an architecture meets the stated goals, objectives, and requirements (TOGAF 9.2, Chapter 19). It is particularly useful for identifying and addressing resilience requirements in scenarios involving security risks.

**Stakeholder Engagement:** Identifying and involving stakeholders (e.g., departments) is a critical part of architecture governance and compliance review (TOGAF 9.2, Section 24.2).

**Change Management:** The Architecture Compliance Review supports identifying necessary changes, which are then managed through governance and change management processes (TOGAF 9.2, Section 21.6).

By choosing Option B, you align with TOGAF's structured approach to compliance, resilience, and addressing security concerns.

## Question: 22

### Scenario

You are working as an Enterprise Architect within an Enterprise Architecture (EA) team at a large government agency. The agency has multiple divisions.

The agency has a well-established EA practice and follows the TOGAF standard as its method for architecture development. Along with the EA program, the agency also uses various management frameworks, including business planning, project/portfolio management, and operations management. The EA program is sponsored by the Chief Information Officer (CIO), who has actively promoted architecting with agility within the EA department as her preferred approach for projects.

The government has mandated that the agency prepare themselves for an Artificial Intelligence (AI)- first world, which

they have called their “AI-first” plan. As a result, the agency is looking to determine the impact and role that AI will play moving forward. The CIO has approved a Request for Architecture Work to look at how AI can be used for services across the agency. She has noted that digital platforms will be a priority for investment in order to scale the AI applications planned. Using AI to automate tasks and make things run smoother is seen as a big advantage. Process automation and improved efficiency from manual, repetitive activities have been identified as the key benefits of applying generative AI to their agency’s business. This will include back-office automation, for example, for help center agents who receive hundreds of email inquiries. This should also improve services for citizens by making them more efficient and personalized, tailored to each individual’s needs.

Many of the agency leaders are worried about relying too much on AI. Some leaders think their employees will need to learn new skills. Some employees are worried they might lose their jobs to AI. Other leaders worry about security and cyber resilience in the digital platforms needed for AI to be successful.

The leader of the Enterprise Architecture team has asked for your suggestions on how to address the concerns, and how to manage the risks of a new architecture for the AI-first project.

Based on the TOGAF standard, which of the following is the best answer?

A. You recommend creating an Organization Map to display the links between different parts of the agency. This will help the EA team to find and involve all areas of the agency impacted by this strategic change. Multiple business models should then be created that can be applied to AI-related projects. A meeting will be held with the stakeholders to teach them how to interpret the models and see how their concerns are being addressed. Risk will be managed as part of the Security Architecture development.

B. You recommend that the key stakeholders be formally identified. This should include those who will be most helpful for the change to be successful. A Communication Plan should be made to address their needs. This plan should include a report that summarizes the key features of the architecture based on stakeholder requirements and addressing concerns. You communicate with each key stakeholder to make sure their concerns are being addressed. You make sure that the architecture being developed clearly addresses risk management.

C. You recommend conducting an analysis of the stakeholders. This involves documenting the positions, concerns, issues, and cultural factors of each group. This information will shape how the architecture is to be presented and communicated. The concerns and relevant views can then be defined for each group and recorded in the Architecture Vision document. The requirements for addressing risk should be recorded in the Architecture Requirements Specification and checked

through regular assessments and feedback.

D. You recommend conducting an analysis that separates the different types of stakeholders into groups. They can be divided into categories: corporate functions, end-user organization, project team, external vendors, and external partners. A model will be developed for each stakeholder category to ensure that all the necessary information and actions are taken into account. Meetings will be arranged with stakeholders to verify that their concerns have been adequately addressed. Risk management will be included in this process.

## Answer: C

### Explanation:

#### Comprehensive and Detailed Step-by-Step Explanation

#### Context of the Scenario

The agency is initiating a strategic “AI-first” plan to transform processes using AI and improve efficiency while ensuring service improvements for citizens. Several stakeholder concerns have been raised, such as:

Job security for employees.

Skill development for adapting to new technologies.

Cybersecurity and resilience risks due to reliance on digital platforms.

TOGAF emphasizes the importance of stakeholder management, communication, and risk management to ensure successful adoption and implementation of new architecture. These concerns need to be addressed methodically by gathering requirements, analyzing stakeholder positions, and ensuring proper communication of risks and benefits.

#### Option Analysis

#### Option A:

##### Strengths:

Proposes creating an Organization Map to identify the links between different parts of the agency and the impact of the strategic change.

Suggests holding stakeholder meetings to address concerns.

Includes managing risks as part of Security Architecture development.

##### Weaknesses:

Focusing solely on creating business models and teaching stakeholders how to interpret them does not directly address cultural and positional concerns about job loss, skill development, and security.

Risk management is addressed as part of Security Architecture development but lacks broader integration into stakeholder requirements.

Conclusion: Incorrect, as it fails to systematically document stakeholder concerns and map them into requirements and architecture decisions.

Option B:

Strengths:

Highlights the importance of formal stakeholder identification and creating a Communication Plan.

Suggests addressing stakeholder concerns through communication and risk management.

Weaknesses:

Does not go into detail on analyzing stakeholder concerns, cultural positions, or specific requirements.

Lacks the inclusion of stakeholder feedback in architecture artifacts like the Architecture Vision or Requirements Specification, which are critical TOGAF outputs.

Conclusion: Incorrect, as it does not include a systematic and structured approach for stakeholder analysis and integration into architecture deliverables.

Option C:

Strengths:

Emphasizes conducting a thorough stakeholder analysis to document concerns, positions, and cultural factors, which aligns with TOGAF's approach in Phase A (Architecture Vision).

Ensures stakeholder views and requirements are recorded in the Architecture Vision document and reflected in the Architecture Requirements Specification.

Includes continuous assessment and feedback, ensuring concerns are addressed and risks managed effectively.

Aligns with TOGAF's principle of involving stakeholders in architecture development to ensure alignment and success.

Weaknesses:

Could further detail how risk management is included across all phases, but this is implied through integration into

the Architecture Requirements Specification.

Conclusion: Correct, as it provides a structured and detailed approach for addressing stakeholder concerns and managing risks within TOGAF's framework.

Option D:

Strengths:

Suggests categorizing stakeholders into groups and creating models for each category.

Proposes arranging meetings to verify that concerns have been addressed.

Includes risk management as part of the process.

Weaknesses:

Dividing stakeholders into generic categories (e.g., corporate functions, project team) may not adequately capture specific cultural factors and concerns raised in the scenario.

Lacks integration of stakeholder feedback into architecture deliverables such as the Architecture Vision and Architecture Requirements Specification.

Conclusion: Incorrect, as it provides a generalized and less targeted approach to stakeholder concerns compared to Option C.

TOGAF Reference

Stakeholder Management (Phase A): TOGAF emphasizes analyzing stakeholders' positions, concerns, and issues to shape architecture development and communication (TOGAF 9.2, Section 24.2).

Architecture Vision: Captures high-level requirements and stakeholder views to ensure alignment with business goals (TOGAF 9.2, Section 6.2).

Architecture Requirements Specification: Records detailed requirements, including those related to risk management, to guide the development of target architectures (TOGAF 9.2, Section 35.5).

Iterative Feedback: Regular assessments and feedback loops are critical to ensure stakeholder concerns are addressed effectively throughout the ADM cycle.

By selecting Option C, the approach adheres to TOGAF's principles of stakeholder analysis, communication, and integration of concerns into architecture development.

## Question: 23

### Scenario:

You are working as an Enterprise Architect at a large company. The company runs a chain of home improvement stores, as well as a website for selling products. The website lets many brands work **with the company**.

The stores open seven days a week and use a standard method to track sales and inventory. This involves sending accurate and timely sales data to a central inventory management system that can predict demand, adjust stock levels, and automate reordering. The website is supported by regional

fulfillment centers and also uses the central inventory management system. The central inventory management system is housed at the company's central data center.

The company has agreed to merge with a major competitor. The leadership teams of both organizations have said they are committed to a smooth transition for customers. All stores will keep their own brand names. They will combine the systems of the organizations, which includes merging retail operations and systems. Duplicated systems will be replaced with one standard retail management system. Additionally, they will reduce the number of applications being used. The CIO expects that these changes will lead to substantial cost savings for the newly merged company.

An enterprise plan for both organizations has been created. The aim is to set priorities for the transition, especially in terms of information management and application development. It is crucial to make decisions that will create long-term value.

The company has a mature Enterprise Architecture (EA) practice and uses the TOGAF standard for its architecture development method. The EA program is sponsored by the Chief Information Officer (CIO).

The Request for Architecture Work to oversee the transition has been approved. The project has been scoped, and you have been assigned to work on it.

You have been asked to confirm the most relevant architecture principles for the transition.

Based on the TOGAF Standard, which of the following is the best answer?

- A. Control Technical Diversity, Interoperability, Data is an Asset, Data is Shared, Business Continuity
- B. Service Orientation, Compliance with the Law, Requirements Based Change, Responsive Change Management, Data Security
- C. Common Use Applications, Data is an Asset, Common Vocabulary and Data Definitions, Maximize Benefit to the Enterprise, Business Continuity
- D. Ease of Use, Common Use Applications, Data is an Asset, Technology Independence, Business Continuity

**Answer: C**

**Explanation:**

The correct answer is C, as it aligns with the key TOGAF principles necessary for guiding enterprise architecture in a merger scenario where retail operations and systems are being consolidated.

Analysis of the Principles in Option C:

Common Use Applications

Since the two companies are merging, it is essential to standardize applications across the enterprise.

Using common applications ensures consistency, reduces costs, and improves efficiency.

TOGAF emphasizes this principle to prevent duplicate or redundant systems, which aligns with the CIO's goal of reducing the number of applications used.

Data is an Asset

In the scenario, a central inventory management system is a core business function.

Treating data as an asset ensures it is managed properly, shared efficiently, and used strategically across the merged organization.

This principle supports the company's ability to predict demand, adjust stock levels, and automate reordering.

Common Vocabulary and Data Definitions

The merger requires integrating different systems and data structures.

Having a common vocabulary ensures that all stakeholders (stores, fulfillment centers, and digital platforms) use consistent terminology and data definitions.

This minimizes confusion and ensures interoperability across business functions.

## Maximize Benefit to the Enterprise

Every architectural decision should focus on the overall benefit to the business.

By consolidating IT systems and reducing redundancies, the company achieves cost savings, which directly supports this principle.

## Business Continuity

The stores operate seven days a week, so system changes must ensure uninterrupted service.

Business continuity ensures that customers are not affected during the transition and that critical retail operations (sales, inventory tracking, and fulfillment) remain functional.

### Why Other Options Are Incorrect?

Option A: Control Technical Diversity, Interoperability, Data is an Asset, Data is Shared, Business

#### Continuity

Control Technical Diversity is not the primary concern here. The focus is on system consolidation, not necessarily on limiting technology diversity.

Interoperability is important but not as critical as defining a common system and data structure.

Option B: Service Orientation, Compliance with the Law, Requirements-Based Change, Responsive

#### Change Management, Data Security

While service orientation and compliance are valuable, they are not the most relevant to this specific business transition.

Change management and data security are important but do not address the primary enterprise-wide architectural concerns of system consolidation.

Option D: Ease of Use, Common Use Applications, Data is an Asset, Technology Independence, Business Continuity

Ease of Use is beneficial but is not a core architecture principle in this case.

Technology Independence is useful but does not align directly with the scenario's priority, which is consolidating applications and data structures.

### Reference:

TOGAF Standard, ADM Techniques, Architecture Principles (Section 2.6)

## TOGAF Standard, Part III: ADM Guidelines and Techniques

TOGAF Enterprise Architecture Principles – The Open Group

### Question: 24

Scenario:

You are working as an Enterprise Architect within an Enterprise Architecture (EA) team at an electric vehicle manufacturer. The company produces electric cars and battery systems. The goal of the company is to build the best technology and software platform for electric vehicles.

The company has decided to introduce a major change to its vehicle design over a five-year period. This will be a cross-functional effort between hardware and software teams, delivering significant new features in the vehicles they manufacture. It is planned to be developed in phases.

An architecture to support strategy has been completed with a roadmap for a set of projects.

The EA team has inherited the architecture for the hardware and software automotive platform used by current vehicles, some of which can be carried over to the new vehicle design. The EA team has started to define which parts of the architecture to carry forward.

The presentation and access to different variations of data that the company plans to offer through its vehicles creates an architecture challenge. The application portfolio and supporting infrastructure must connect with multiple cloud services and data repositories in different countries to be able to handle large-scale data.

Enough of the Business Architecture has been defined, so that work can commence on the Information Systems and Technology Architectures. These architectures need to be defined to support the primary business services that the company plans to provide. These services will manage and process the data created by vehicles, paving the way for self-driving vehicles in the future.

The company uses the TOGAF Standard as the basis for its Enterprise Architecture framework.

The EA team reports to the Chief Technical Officer (CTO), who is the sponsor of the EA program.

The CTO requires that the EA team follow the purpose-based EA Capability model as described in:

The TOGAF Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM.

Refer to the scenario:

You have been asked how to decide and organize the work to deliver the requested architectures.

Based on the TOGAF standard, which of the following is the best answer?

- A. You commence an iteration of ADM Phase A, identifying the stakeholders and revising the Architecture Vision. You perform a Stakeholder Analysis and update the Stakeholder Map created for the strategic architecture so it reflects the stakeholders who are now the most important to the projects that are to be developed. You then request the CTO to make some choices about the Architecture Roadmap and update the Implementation and Migration Plan to reflect the choices.
- B. You research leading data companies, using your findings to help in developing high-level Target Data, Application, and Technology Architectures. You review the Architecture Vision to determine the level of detail, time, and scope of the ADM cycle phases required for architecture development for the project. You identify and estimate the cost of the main work packages. You then create an Architecture Roadmap and request the Architecture Board to approve the roadmap. You then start the project.
- C. You look to the superior architecture to help plan your approach. You identify projects, dependencies, and synergies, then decide the order for starting the projects. You then develop high-level architecture descriptions. For each project, you determine how much work is needed, identify reference architectures, and candidate building blocks. You identify the resource needs taking into account cost and value. You document the different options, risks, and ways to control them to enable feasibility analysis and trade-offs with the stakeholders.
- D. You look outside the company to study how other companies organize their data models and application portfolios. You request just enough architecture description for the Application, Data, and Technology Architectures to identify different options. For each project, this includes identifying architecture and solution building blocks. You then identify solution providers and perform a readiness assessment on the new approaches.

**Answer: C**

**Explanation:**

The correct answer is C, as it aligns with the TOGAF ADM approach and best practices for organizing architecture work in a phased and structured manner.

Analysis of the Correct Answer (Option C):

Identifying Projects, Dependencies, and Synergies

The scenario describes a phased approach to vehicle development over five years.

Identifying dependencies ensures a logical and structured rollout of technology and business capabilities.

Developing High-Level Architecture Descriptions

Since Business Architecture is already defined, it is now time to develop high-level descriptions of Information Systems and Technology Architectures.

TOGAF emphasizes incremental and iterative refinement, meaning that starting with high-level descriptions is a logical first step.

Determining Workload and Resource Allocation

TOGAF ADM Phase B, C, and D involve creating architecture descriptions.

Understanding how much work is required ensures efficient resource planning and allocation.

Identifying Reference Architectures and Building Blocks

Using reference architectures and reusable architecture building blocks (ABBs) is a key best practice in TOGAF.

This enables efficiency and consistency in architecture development.

Evaluating Costs, Risks, and Feasibility

TOGAF emphasizes a risk-aware approach to enterprise architecture.

Documenting options, risks, and control measures ensures feasibility before execution.

Why Other Options Are Incorrect?

Option A: Initiating ADM Phase A Again

Incorrect because the scenario states that the Architecture Vision has already been completed.

Phase A is used for initial vision-setting, but at this point, the focus is on executing defined architectures.

Option B: Researching Data Companies for Target Architecture Development

Incorrect because the focus should be on defining internal architectures rather than external research.

While benchmarking best practices can be useful, it is not the primary activity at this stage.

Option D: Studying Other Companies and Performing Readiness Assessment

Incorrect because the focus should be on leveraging the organization's existing architecture and resources.

Solution provider readiness assessments are typically part of procurement, not enterprise architecture development.

#### Reference:

TOGAF Standard, ADM Guidelines and Techniques

TOGAF Standard, ADM Phase B, C, and D – Developing the Architecture

The TOGAF Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF®

ADM

### Question: 25

#### Scenario:

You are working as an Enterprise Architect within a company providing legal services. The company operates in many countries and has a complicated structure. Every office must follow the local

regulations in their country.

The company's Enterprise Architecture (EA) department has been operating for several years and has mature, well-developed architecture governance and development processes based on the TOGAF standard. In addition to the EA program, the company has several management frameworks, including business planning, project/portfolio management, and operations management. The Architecture Board includes representatives from all parts of the company.

The Chief Information Officer (CIO) is the sponsor of the Enterprise Architecture program. The CIO has actively encouraged architecting with agility within the EA department as the preferred approach for projects. The CIO has given approval for a Request for Architecture Work to explore the adoption of an AI-powered system for managing legal cases and financial processes.

Senior management has become more concerned about business performance, especially with the advancements in Artificial Intelligence (AI). Many of the company's competitors have started using AI to assist with legal strategies, streamline processes, and boost productivity. One of the most important benefits AI has for the business is its ability to

increase accuracy and minimize mistakes.

Some of the top managers are worried about a change in the way of working, and if it will achieve the business goals. Their staff also fear that management will use the AI system to measure their performance. The CIO wants to know how to address these concerns and reduce risks.

The new system is expected to guide legal professionals and analysts on which tasks to focus on. The main goals are to improve productivity and make better use of staff. In addition, the CIO hopes these changes will lead to higher customer satisfaction.

Refer to the scenario:

You have been asked to respond to the Chief Information Officer (CIO) recommending an approach that would enable the development of an architecture that addresses the concerns of the top managers and the multiple branches in different parts of the company.

Based on the TOGAF standard, which of the following is the best answer?

A. You recommend that models be created for each of the Business, Application, and Technology architectures. These can be used to ensure that the system will be compliant with the local regulations for each operating entity. This ensures that all necessary data and detail is addressed. A formal review should be held with the stakeholders to verify that their concerns have been properly addressed by the models.

B. You recommend that an analysis of the stakeholders is undertaken. This will allow the architects to define groups of partners (the stakeholders) who have common concerns and include development of a Stakeholder Map. The concerns and relevant views should then be defined for each group and

recorded in the Architecture Vision document. To reduce risk, you include a requirement that there be progressive development of the target architecture to get regular feedback.

C. You recommend creation of a set of business models that can be applied uniformly across all AI related architecture projects. These should be developed in a portable format to ensure maximum portability across the many tools used in the firm. Each architecture should then be defined based on this fixed set of models. All concerned stakeholders can then examine the models to ensure that their needs have been addressed.

D. You recommend that a Communications Plan be created to address the key stakeholders, particularly influential partners. This plan should include a report summarizing the key features of the architecture with respect to each location and reflect the stakeholders' requirements. You will check with each key stakeholder that their concerns have been addressed. Risk mitigation should be explicitly addressed as a component of the architecture being developed.

## Answer: B

### Explanation:

The correct answer is B, as it aligns with TOGAF's stakeholder management approach, ensuring that stakeholder concerns are captured and addressed iteratively throughout the architecture development process.

#### Analysis of the Correct Answer (Option B):

##### Stakeholder Analysis and Mapping

The scenario highlights that top managers and staff are worried about the changes AI will bring.

TOGAF recommends stakeholder analysis early in the ADM process to ensure that concerns, expectations, and risks are documented.

Creating a Stakeholder Map groups stakeholders by common concerns, allowing architects to develop tailored viewpoints.

##### Recording Concerns in the Architecture Vision Document

The Architecture Vision (ADM Phase A) serves as a high-level guiding document.

Capturing stakeholder concerns in the Vision document ensures alignment between business goals and technology implementation.

##### Iterative Development and Regular Feedback

The scenario describes an AI-powered system with major business impacts, so incremental validation is necessary.

TOGAF emphasizes progressive development to manage risk and validate requirements continuously.

Regular feedback loops help mitigate resistance from top managers and staff.

#### Why Other Options Are Incorrect?

##### Option A: Creating Models for Business, Application, and Technology Architectures

Incorrect because while compliance is important, it does not address stakeholder concerns directly.

The scenario is about ensuring buy-in from top managers and employees, not just regulatory compliance.

Option C: Using Uniform Business Models Across AI Projects

Incorrect because a one-size-fits-all model does not allow for regional and functional differences within the company.

The scenario emphasizes the need to address specific concerns of top managers and different locations, which requires stakeholder-specific customization.

Option D: Creating a Communications Plan

Incorrect because communication alone does not resolve stakeholder concerns.

While communication is useful, the architecture development process should include stakeholder engagement and progressive validation, not just reporting.

Reference:

TOGAF Standard, ADM Phase A – Architecture Vision

TOGAF Standard, Stakeholder Management (ADM Guidelines and Techniques)

TOGAF Enterprise Architecture Principles – The Open Group

## Question: 26

Please read this scenario prior to answering the question

You are employed as an Enterprise Architect within a clinical research and health technologies company. The company is dedicated to transforming healthcare with new ideas and advancements. The company has multiple divisions that

cover different aspects of the business.

The company's Enterprise Architecture (EA) department has mature, well-developed architecture governance and development processes following the TOGAF standard. In addition to the EA program, the company has a number of management frameworks in use. The Architecture Board includes representatives from each division of the company. The Chief Information Officer (CIO) is the sponsor of the Enterprise Architecture program. The CIO has actively encouraged architecting with agility within the EA department as the preferred approach for projects.

Many of the company's rivals have begun using Artificial Intelligence (AI) in their operations, and the indications are that this will be transformative for healthcare

delivery. This is something the EA department has been interested in for a while, and they had recently submitted an architecture Change Request which was approved. As a result, the CIO has approved a Request for Architecture Work to investigate the implementation of AI in the company.

Areas for evaluation include:

How can staff use AI daily in their current roles?

How can AI enhance access to care for patients, and how to make that experience seamless?

How can AI offer new workplace platforms and tools to increase efficiency?

Some of the top managers are worried about a change in the way of working, and if it will achieve the goals. Many are not confident that the company's risk management processes are adequate for a company-wide integration of generative AI. There are also questions from staff about whether enough specific guidelines and policies have been put in place for responsible use of AI.

Refer to the scenario

You have been assigned to the architecture development and asked how to address the concerns and manage risk for the project. How do you begin?

Based on the TOGAF standard which of the following is the best answer?

A. You recommend that an analysis of the stakeholders is carried out. This will allow the architects to define groups of stakeholders who have common concerns and include development of a Stakeholder Map. The concerns and relevant views should then be defined for each group and recorded in the Architecture Vision document. To mitigate risk, you include a requirement that there be progressive development of the target architecture to ensure there is regular feedback.

B. You recommend that all the stakeholders be identified, and a Communications Plan created to address the most powerful and influential stakeholders. This plan should include a report that summarizes the key features of the architecture with respect to each division and reflects the stakeholders' requirements. You will check with each key stakeholder that their concerns are being addressed. Risk mitigation should be explicitly addressed as a component of the architecture being developed.

C. You recommend creation of a simple solution concept diagram to show how the stakeholders will be impacted, and the benefits to the firm. You would also create a benefits diagram showing the various opportunities from adoption of AI-based solutions. A meeting should be held with the main stakeholders to review the diagrams.

They can then decide the priorities and sequencing decisions for the architecture development. Risk will be evaluated when defining the Architecture Roadmap.

D. You recommend that models be created for the Draft Business, Data, Application, and Technology

Architectures. These can be used to minimize risk, and make sure that the system meets the local regulations for each division. Together with the problem description, and requirements, these should be included in the Architecture Vision document. A formal review should be held with the stakeholders to verify that their concerns are included in the Architecture Vision.

## **Answer: A**

Explanation:

In this scenario you are right at the start of an ADM cycle: a Request for Architecture Work has been approved to investigate AI, and there are strong stakeholder concerns and risk questions. According to the TOGAF standard, the correct place to start is Phase A: Architecture Vision, with a strong focus on stakeholder management and capturing their concerns and required views.

Option A is the only answer that correctly reflects this:

Stakeholder analysis & Stakeholder Map (Phase A core task)  
TOGAF explicitly states that in Phase A you must:

Identify stakeholders

Analyze and group them by common concerns

Use a Stakeholder Map to understand their influence, interest, and required engagement

Determine which views/viewpoints are needed to address their concerns in the architecture description  
coe.qualiware.com+1

Option A says:

“analysis of the stakeholders ... define groups of stakeholders who have common concerns and include development of a Stakeholder Map. The concerns and relevant views should then be defined for each group and recorded in the Architecture Vision document.”

This is exactly how TOGAF describes stakeholder management and views in Phase A:

Stakeholder Map to classify and prioritize stakeholders

Concerns and required views captured and traced

These elements feeding into the Architecture Vision deliverable Visual Paradigm TOGAF+1

Concerns, views, and Architecture Vision

TOGAF emphasizes that architecture views are constructed to address specific stakeholder concerns; you do not just build generic models. [opengroup.org](http://opengroup.org)+1

Option A explicitly links concerns → views → Architecture Vision, which aligns with TOGAF guidance for early phases.

Capturing this in the Architecture Vision provides a high-level, shared understanding of what the AI initiative is trying to achieve and how stakeholder issues (e.g., responsible AI, risk processes, change in way of working) will be addressed.

Risk management and “architecting with agility”

In the scenario, the CIO has encouraged architecting with agility. TOGAF is compatible with incremental and iterative development of the target architecture, especially when there is high uncertainty and risk. [conexiam.com](http://conexiam.com)

Option A includes:

“a requirement that there be progressive development of the target architecture to ensure there is regular feedback.”

This “progressive development” and frequent feedback loop is exactly how you mitigate risk in an AI- heavy, change-sensitive initiative:

Frequent stakeholder feedback

Early validation of assumptions

Ability to adjust scope, constraints, and principles as risk and understanding evolve

This directly addresses management’s worry about the change in the way of working and whether risk management and responsible AI policies are adequate: these become explicit stakeholder concerns and requirements that are iteratively refined.

Why the other options are weaker / not TOGAF-aligned as a starting point

**Option B**

Focuses mainly on a Communications Plan and powerful stakeholders.

While TOGAF does expect a stakeholder communications plan, it is derived from a proper stakeholder analysis and Stakeholder Map, not a substitute for it.

It also treats risk as a “component of the architecture” rather than something to be addressed early through stakeholder concerns, principles, and iteration.

**Option C**

Jumps straight to a solution concept diagram and benefits diagram and defers risk evaluation to when the

Architecture Roadmap is defined (Phase E).

In TOGAF, risk and stakeholder concerns must be addressed already in Phase A and refined throughout, not postponed to roadmap development.

Option D

Proposes creating draft Business, Data, Application, and Technology models and putting them into the Architecture Vision.

This is too detailed for the starting point: Phase A is about high-level vision, not full draft core architecture models (those belong in Phases B, C, D).

It also doesn't emphasize Stakeholder Mapping and grouping by concerns, which is central to resolving the worries about way of working, risk, and responsible AI.

In summary, Option A is the best and TOGAF-consistent way to begin:

**Start in Phase A: Architecture Vision**

Perform stakeholder analysis and create a Stakeholder Map

Define stakeholder concerns and relevant views

Record them in the Architecture Vision

Add an explicit requirement for progressive (iterative) development of the target architecture for **continuous** feedback and risk mitigation

## **Question: 27**

Please read this scenario prior to answering the question

You are employed as an Enterprise Architect at a leading global technology enterprise specializing in digital

infrastructure, cloud computing, and data-centric innovation. The company provides a vast ecosystem of platforms that

serve billions of users across the globe. These platforms span online marketplaces, advanced advertising networks, AI-

driven services, productivity tools, and digital entertainment experiences.

The senior leadership within the company is worried about the company's ability to address all the opportunities around artificial intelligence (AI). They feel that the business is at risk of falling behind its competitors, and that significant changes are necessary for the business to remain competitive. Most senior leaders feel that the operations need to be more efficient, and the organization needs to change to achieve its future goals.

The company has an established Enterprise Architecture (EA) program based on the TOGAF standard, sponsored jointly by the Chief Information Officer (CIO) and senior executives. In your role as an Enterprise Architect within the EA team, you work closely with the business stakeholders in the company as well as the sponsors.

The CEO has decided that reorganizing its subsidiaries around artificial intelligence and machine learning will improve the way the company creates and delivers value. The sponsors have approved a project for the reorganization which is being led by the EA team.

The EA team have developed a strategic architecture which has been approved by the sponsors. It includes an Architecture Vision, and high-level definitions of the domain architectures. This sets out a plan over a multi-year period and covers three distinct transformations to implement the reorganization.

The sponsors have read reports that the majority of transformation projects dealing with digital and artificial intelligence are failing. They have made it clear that prior to the approval of the detailed Implementation and Migration plan, the EA team needs to address the risks associated with the reorganization. They want assurance that the reorganization will succeed and deliver the promised increases in value for the business.

Refer to the scenario

The EA team leader has asked how you would address the request from the sponsors.

Based on the TOGAF standard, which of the following is the best answer?

A. Before preparing the detailed Implementation and Migration plan, you would review and consolidate the gap analysis results from Phases B to D. This enables you to evaluate the implications related to potential solutions and interdependencies. It is used to identify the transformations required to achieve the proposed Target Architecture. You then assess the readiness of the organization to undergo change and determine an overall direction to reach that Target Architecture while addressing the risks identified. The Transition Architectures should be planned using a state evolution table.

B. You would apply an analysis and assessment to evaluate the potential risks with the proposed new architecture. This includes the development of a matrix showing the organizational requirements. The degree of change should then be aligned with the corporate operating model to ensure risks are mitigated and minimized. The risk mitigations can then be included within each of the target Transition Architectures. You would then finalize the Architecture Roadmap and the Implementation and Migration Plan.

C. You would assess how ready the organization is to change. This includes identification and classification of the risks associated with the transformations, together with an approach to mitigate the risks. This includes identifying dependencies between the set of changes, including gaps and work packages. It also identifies improvement actions to be worked into the Implementation and Migration Plan. The business value, effort, and risk associated for each transformation should then be identified and documented.

D. You would bring together information about potential approaches and produce several alternative target transition architectures. You would then investigate the different architecture alternatives and discuss these with stakeholders using the Architecture Alternatives and Trade-offs technique. Once the target architecture has been selected, it should

be analyzed using a state evolution table to determine the Transition Architectures. A value realization process should then be established to ensure that the concerns raised are addressed.

## Answer: C

### Explanation:

In this scenario, the strategic architecture is already complete and approved, and the sponsors now want assurance about risks before approving the detailed Implementation & Migration Plan.

According to TOGAF, this work occurs in Phase E: Opportunities & Solutions and Phase F: Implementation & Migration, where a key activity is performing Business Transformation Readiness Assessment and Risk Assessment before finalizing the roadmap and migration plan.

Option C aligns exactly with TOGAF guidance for this stage:

Why Option C is correct

1. It starts with assessing organizational readiness for change  
TOGAF Phase E requires evaluation of Business Transformation Readiness, addressing:

#### Organizational capability

Cultural readiness

Skills and capacity

Sponsorship and governance

This is exactly what Option C describes:

“assess how ready the organization is to change.”

This directly responds to the concern in the scenario that “most senior leaders feel the operations need to be more efficient” and that “significant changes are necessary.”

2. It includes identification and classification of risks

TOGAF requires performing a Risk Assessment before migration planning, ensuring risks are categorized, documented, and mitigation strategies defined.

Option C includes:

“identification and classification of the risks ... together with an approach to mitigate the risks.”

This is precisely what the sponsors requested: clear management of risks before approving migration planning.

3. It ties risk, dependencies, and gaps directly into the Implementation & Migration Plan

TOGAF requires identifying:

Dependencies between work packages

Gaps between baseline and target

Required actions to improve readiness

Work package sequencing

Option C states:

“identifying dependencies between the set of changes, including gaps and work packages... identifying improvement actions to be worked into the Implementation and Migration Plan.”

This matches TOGAF Phase E and F activities exactly.

4. It evaluates business value, effort, and risk for each transformation

The scenario involves three distinct transformations, and sponsors want assurance of value delivery.

TOGAF Phase F includes Consolidated Gaps, Solutions, and Dependencies and migration prioritization based on value, cost, and risk.

Option C states:

“The business value, effort, and risk associated for each transformation should then be identified and documented.”

This is directly aligned to the TOGAF-required migration prioritization criteria.

Why the other options are incorrect

**A – Focuses on gap analysis only**

Gap analysis was performed during Phases B–D, and while relevant, Option A does not emphasize risk, readiness, or assurance—key concerns of the scenario.

**B – Misrepresents TOGAF (organizational requirements matrix is not a formal TOGAF artifact) Also, it incorrectly focuses on aligning change with the operating model, which TOGAF does not prescribe as the primary risk-mitigation activity.**

**D – Focuses on architectural alternatives; the target architecture is already approved**

The scenario states the strategic architecture is complete and approved—there is no need to revisit alternatives.

This is misaligned with the starting point of the question.

**Conclusion**

Option C is the only answer that conducts:

Business transformation readiness assessment

Risk identification and mitigation

Dependencies, gaps, and work package analysis

Integration of risks and improvement actions into migration planning

This matches precisely what TOGAF expects at this stage and what the sponsors requested.

## Question: 28

Please read this scenario prior to answering the question

You are employed as an Enterprise Architect working within the Enterprise Architecture (EA) team at an electric vehicle manufacturer. The company focuses on designing, manufacturing, and advancing battery technology for sustainable transportation, while also investing in charging infrastructure, autonomous driving systems, and renewable energy integration.

The company is introducing a major change to its vehicle design over a five-year period. This will be a cross-functional effort between hardware and software teams, delivering significant new features in the vehicles they manufacture. It is planned to be developed in phases. An architecture to support strategy has been completed with a roadmap for a set of projects.

The EA team has taken over the architecture for the hardware and software automotive platform used by current vehicles, some of which will be used again in the new vehicle design. The EA team has started to pick which parts of the architecture to use again.

The presentation and access to different variations of data that the company plans to offer through its vehicles creates a design challenge. The application portfolio and supporting infrastructure must connect with multiple cloud services and data repositories in different countries to be able to handle the data at a large scale.

Enough of the Business Architecture has been defined, so that work can commence on the Information Systems and Technology Architectures. Those architectures need to be defined to support the primary business services that the company plans to provide. These services will handle and use the data created by vehicles, preparing the way for self-driving vehicles in the future.

The company uses the TOGAF standard as the basis for its Enterprise Architecture framework. The EA team reports to the Chief Technical Officer (CTO), who is the sponsor of the EA program. The CTO requires that the EA team follow the purposebased EA Capability model as described in the TOGAF Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM.

Refer to the scenario

How would you plan, organize, and manage the architecture development at this stage?

Based on the TOGAF standard which of the following is the best answer?

A. The superior architecture should be used to guide the approach. Review the identified projects, dependencies, and potential overlaps, then decide the order for starting the projects. Develop high-level architecture descriptions. For each project determine how much work is needed, identify reference architectures, and candidate building blocks. Identify the resource needs, considering cost and value. Document the different options, risks, and ways to control them to enable feasibility analysis and trade-off with the stakeholders.

B. Start an iteration of ADM Phase A, perform a Stakeholder Analysis, identifying the key stakeholders and revising the Architecture Vision. Update the Stakeholder map created for the strategic architecture, so it reflects the stakeholders who are now the most important for the projects that are to be developed. Hold a formal review with the CTO, who should decide which projects to include in the Architecture Roadmap and update the Implementation and Migration Plan to reflect the decisions.

C. Follow a standard pattern for cloud solutions that manage complex data, and which fits with the architecture to support strategy. Develop high-level Target Data, Application and Technology Architectures. Review the Architecture Vision to determine the level of detail, time, and scope of the ADM cycle phases required for architecture development for the project. Identify and estimate the cost of the main work packages. Create an Architecture Roadmap and request the Architecture Board to approve the roadmap. Start the project.

D. Architecture descriptions for the Application, Data, and Technology Architectures should be developed at a suitable level to address the problems, and to identify the different options. For each project this includes identification of candidate architecture and solution building blocks. Solution providers should be identified, a readiness assessment performed, and an assessment of the viability and fitness of the solution options. The results should be added to the draft Implementation and Migration plan.

## **Answer: A**

Explanation:

The scenario states that:

A strategic architecture and roadmap already exist.

Business Architecture is complete, so the work now shifts to Information Systems and Technology Architectures (ADM Phases B–D).

The CTO requires use of the purpose-based EA Capability model (from the TOGAF Series Guide: A Practitioner’s Approach to Developing Enterprise Architecture Following the TOGAF ADM).

The EA team has to plan, organize, and manage the next stage of architecture development, including re-use of existing hardware/software platform components, candidate solutions, feasibility, risks, and prioritization.

Under the purpose-based EA approach, when moving from strategy into defining the next layers of architecture, TOGAF emphasizes:

Using the superior (already-approved) architecture to guide the next ADM cycles – This corresponds to the strategic architecture that is already completed.

Analyzing project dependencies, overlaps, and sequencing

Defining high-level architecture descriptions for the next iteration

Identifying reference architectures and candidate building blocks (especially when reusing existing platform components)

Assessing feasibility, value, cost, and risk for each project

Preparing for stakeholder trade-offs before formalizing the roadmap

These tasks map directly to Option A.

Why Option A is correct

Option A includes exactly what the purpose-based EA approach prescribes at this stage:

“The superior architecture should be used to guide the approach.”

✓ Correct — strategic architecture guides the work.

“Review the identified projects, dependencies, and potential overlaps, then decide the order...” ✓ Correct — sequencing and dependency assessment are core early tasks in Phases B–D planning.

“Develop high-level architecture descriptions.”

✓ Correct — Business Architecture is done; now high-level IS/Tech Architecture descriptions are needed.

“Identify reference architectures and candidate building blocks.”

✓ Correct — aligns with TOGAF building-block approach, and specifically fits the scenario where existing platform components will be reused.

“Identify resource needs, considering cost and value.”

✓ Correct — mandatory for feasibility and planning.

“Document options, risks, and ways to control them to enable feasibility analysis and trade-off with stakeholders.”

✓ Correct — this matches ADM guidelines for preparing options and addressing complexity before deeper development.

This is precisely how TOGAF expects the architecture team to plan, organize, and manage an ADM cycle after strategy is set.

## **Question: 29**

Please read this scenario prior to answering the question

You are employed as an Enterprise Architect at a technology company, reporting directly to the Chief Enterprise Architect. The company supplies personnel and delivers cloudbased solutions to numerous government agencies.

The nature of the business is such that the data and the information stored on the company systems is the company's major asset and is highly confidential. The company employees work remotely and need constant access to the company systems, which is done by the public infrastructure. They use message encryption, secure internet connections using Virtual Private Networks (VPNs), and other standard security measures. The company provides computer security awareness training for all its staff.

The Chief Security Officer (CSO) has noted an increase in distributed denial of service (DDoS) attacks on companies with a similar profile. The CSO understands that even with thorough preparation, a major attack could stop employees from being able to do their jobs. This could lead to a large financial loss, damage to the company's reputation with customers, and employees being unable to work.

A risk assessment has been completed and the company has looked for cyber insurance that covers such attacks. The price for this insurance is very high. The CTO has decided not to get cyber insurance to cover such attacks.

The company follows the TOGAF standard as the method and guiding framework for its Enterprise Architecture (EA) practice. The Chief Technology Officer (CTO) is the sponsor of the activity. The practice uses an iterative approach for its architecture development. This has enabled the decision makers to gain valuable insights into the different aspects of the business

Please read this scenario prior to answering the question

You have been asked to describe the steps you would take to strengthen the current architecture to improve data protection.

Based on the TOGAF standard which of the following is the best answer?

A. You would request technology updates from existing suppliers that improve the company's capabilities to detect, react, and recover from an incident. You would run a simulated ransomware attack to evaluate the current Enterprise Architecture's resilience and recovery capabilities. Using the findings, you would perform a gap analysis of the current Enterprise Architecture, and prepare change requests to address identified gaps. You would document the changes implemented and add to the Architecture Repository.

B. You would run a planning exercise to assess the business continuity requirements and analyze the current Enterprise Architecture for gaps. You create a formal change request related to business resilience and maintaining critical business functions. You would arrange a meeting of the Architecture Board to assess and approve the change request. Once approved you would create a new Request for Architecture Work to begin an ADM cycle to implement the

changes.

C. You would ensure that business value and cost of continuity measures are understood by key stakeholders, and that the company has in place up-to-date processes for managing change to the current Enterprise

Architecture. You recommend that DDoS mitigation be addressed at the infrastructure level to ensure effective, scalable protection. Changes should be made to the baseline description of the Technology Architecture. The changes should be approved by the Architecture Board and implemented by change management techniques.

D. You would hold an Architecture Compliance Review with the scope to examine the company's ability to respond to such attacks. You would identify the departments involved and have them nominate representatives. You would then tailor checklists to address the requirement for increased business continuity and resilience. You would circulate the checklists to the nominated representatives for them to complete. You would review the completed checklists, identifying and resolving issues. You would then determine and present your recommendations to the Architecture Board.

## **Answer: B**

**Explanation:**

In this scenario, the CTO has not purchased cyber-insurance, the CSO is concerned about increased DDoS risk, and YOU (the EA) are asked "to describe the steps you would take to strengthen the current architecture to improve data protection."

Because the company follows the TOGAF standard and uses an iterative ADM cycle, the correct response must:

Start with the risk/continuity concern

Use the formal TOGAF change management process

Lead to a Request for Architecture Work

Initiate a new ADM cycle to update the architecture properly

## Ensure Architecture Board governance

Option B is the only answer that matches TOGAF's required process.

- Why Option B is correct (TOGAF-aligned)

Option B follows TOGAF's Architecture Change Management (Phase H) process:

### Assess the business continuity requirements

- Correct: Phase H requires evaluating change triggers such as new risks, threats, or incidents.
- DDoS risk → business continuity concern → legitimate architecture change trigger.

### Analyze the current architecture for gaps

- Correct: TOGAF Phase H requires assessing whether the current baseline architecture can support **required resilience**.

### Create a formal Change Request

- Exactly correct: Phase H outputs Architecture Change Requests (ACRs) for significant changes.
- ACR includes description, rationale, and impact (in this case: resilience, continuity, and data **protection**).

### Architecture Board reviews/approves the change request

- Correct: All major architecture changes must go through Architecture Governance.

### Create a new Request for Architecture Work (RAFW)

- Required when the change is significant and needs a new ADM cycle.
- Strengthening data protection and business continuity **DEFINITELY** qualifies as a major change.

### Begin a new ADM cycle to implement the changes

- Perfectly aligned with TOGAF's iterative approach:

Business continuity → update Technology Architecture → updated security patterns → updated **Target Architecture**.

This is exactly the TOGAF-prescribed method to strengthen an architecture when significant new risks **appear**.

Therefore, Option B is the correct and TOGAF-compliant answer.

## X Why the other options are incorrect

### A – Not TOGAF-aligned

Starts with vendors and simulations (not TOGAF-first steps).

No mention of Architecture Board or Change Management.

### No Request for Architecture Work.

Gap analysis alone is not the first step for significant architectural risk.

### C – Too narrow and skips TOGAF governance

Jumps straight to modifying the Technology Architecture baseline.

No Change Request, no RFAW, no ADM cycle initiation.

Recommends a solution (“DDoS mitigation at infrastructure level”) before architectural assessment.

### D – Misuses Architecture Compliance Review

Architecture Compliance Reviews check conformity to an existing architecture—not evaluate new risks or design resilience enhancements.

A compliance review is not the correct first step for addressing new threats.

## Question: 30

Please read this scenario prior to answering the question

You are employed as an Enterprise Architect within a multinational company. The company has been very successful and has been buying companies around the world. This has led to a growing number of manufacturing divisions in various locations with a complex supply chain.

The top management recently expressed concerns about the company's effectiveness because of its multiple data centers and duplicate applications. The EA team has been working on a project to solve this issue.

An analysis shows that supply chain issues have led to not enough products being produced to meet all the customer demand.

A strategic architecture has been defined to help meet customer demand and manage the supply chain more effectively. The strategic architecture involves combining different Enterprise Resource Planning (ERP) applications that are currently used separately in the company's production sites.

Each division has finished the Architecture Definition documentation to address their own specific manufacturing

needs. The Enterprise Architects have agreed an overall strategy for the migration. They have defined a set of work packages that address the gaps found. They have defined the intermediate architectural states between the Baseline and Target architecture to add a new ERP environment into the company.

Because of the risks posed by this change from the current environment, the architects have recommended that a phased approach should be taken to implement the target architecture with several stages of change. They have created a draft roadmap with the implementation process estimated to take over two years.

The company has an established Enterprise Architecture (EA) practice and follows the TOGAF Architecture Development Method. The company also uses various management frameworks such as business planning, project/portfolio management, and operations management. The EA program is sponsored by the Chief Information Officer (CIO). In your role as an Enterprise Architect within the EA team, you work closely with the important stakeholders from the various divisions within the company.

Refer to the scenario

You have been assigned to plan the next steps for the migration. Which approach will you choose?

Based on the TOGAF standard which of the following is the best answer?

A. You finalize the Architecture Definition documentation with updates to reflect the implementation approach. You ensure that Implementation and Migration Plan is consistent with the chosen approach. You identify the resources

needed to undertake the development projects. You would then produce an Implementation Governance Model to manage the lessons learned before finishing the plan. You ensure that the lessons learned are applied to the Implementation and Migration Plan.

B. You estimate the business value for each project by applying the Business Value Assessment

Technique to prioritize the migration projects and project steps. The assessment should focus on return on

investment and criteria for evaluating performance to track the progress of the architecture

transformation. You would confirm and plan a series of Transition Architecture phases using a table of

Architecture Definition Increments that lists the projects. You then update the Implementation and Migration Plan.

C. You will focus on project selection. You make sure that the Implementation and Migration plan aligns with the other management frameworks in use in the company. Next, you assign a value to each work package, taking into account the resources available and how they fit into the overall strategy.

Using these work packages, you estimate resource requirements and timings. You then select which projects will be included in the Implementation and Migration Plan.

D. You conduct a series of Compliance Assessments to check that the architecture is being implemented

as required by the contract. This is done now to confirm that the implementation team is following the

correct development process, and if not, so course correction is viable. This involves using monitoring tools and

making sure that performance targets are being

achieved. If the targets are not met, you would then need to make adjustments to the performance requirements and

update them in the Implementation and Migration Plan.

## Answer: B

### Explanation:

At this stage in the scenario:

A strategic architecture has been completed.

All divisions have completed their Architecture Definition Documents.

Work packages have been defined.

Transition Architectures between Baseline and Target are already identified.

A draft roadmap exists for a multi-year phased migration.

You are now asked to plan the next steps for the migration, which aligns exactly with TOGAF ADM Phase F: Implementation and Migration Planning.

In Phase F, TOGAF prescribes the following key activities:

Evaluate and prioritize projects and work packages

Determine business value, cost, risk, dependencies

Confirm Transition Architectures and sequencing

Update and finalize the Implementation & Migration Plan

Option B is the ONLY answer that correctly follows these required TOGAF steps.

✓ Why Option B is correct

Option B states:

“Estimate the business value for each project by applying the Business Value Assessment Technique ... to prioritize the migration projects.”

✓ This is a TOGAF-recommended technique specifically for Phase F to evaluate and prioritize transformations using value, risk, and ROI.

“Confirm and plan a series of Transition Architecture phases ... using a table of Architecture Definition Increments.”

✓ Exactly aligned with TOGAF:

Transition Architectures were identified earlier.

In Phase F, they must be confirmed, sequenced, and documented.

“Update the Implementation and Migration Plan.”

- ✓ This is the required output of ADM Phase F.
- ✓ At this point, the plan must be validated and finalized based on value and prioritization.

Thus, Option B directly matches TOGAF’s prescribed migration planning process.

X Why the other options are incorrect

A – Incorrect

Suggests finalizing Architecture Definition documentation—this was already completed by each division.

Introduces an “Implementation Governance Model,” which is not a TOGAF artifact at this stage.

Focuses on lessons learned BEFORE execution, which is not appropriate for migration planning.

C – Incorrect

Focuses only on project selection and resource assignment.

Does not use TOGAF techniques for value/risk evaluation.

Does not reference Transition Architectures, which are central in the scenario.

Oversimplifies Implementation & Migration Planning to resource scheduling.

D – Incorrect

Compliance Assessments occur DURING execution, not before migration planning.

At this stage, no implementation has started, so compliance reviews are premature.

Adjusting performance requirements now has no alignment with TOGAF’s ADM sequence.

## Question: 31

Please read this scenario prior to answering the question

You are employed as an Enterprise Architect in a team at a large company. The company sells luxury

food and drinks in more than 10,000 stores worldwide. The company is a leader in using technology to

connect with its customers. This includes online ordering, mobile apps, and rewards programs. The company is also

famous for bringing new ideas to the market, like ordering through apps, using AI to suggest

personalized options, self-service pickup stations, and changing prices based on demand.

The stores are open every day. They send timely sales data to a central system that manages inventory. This system can predict what products are needed, adjust how much stock there is, and order more stock automatically. The stores and the main inventory system work directly with the mobile apps, allowing orders to be made online. The central inventory system is located at the company's main data center.

The company will merge with a major competitor. This competitor has a synergistic business. Leaders from both companies have told shareholders that the merger will happen fast. There will be minimal impact for customers. All stores will keep the current brand names. They will combine their systems, choosing the best ones to use. This means their store management and back-office systems will become one. They will stop using duplicate systems and use one main system to manage the stores. They will also cut down on the number of back-office applications they use.

The Request for Architecture Work to oversee the merger has been approved. Stakeholders, concerns, and business requirements have been identified. The stakeholders have made it clear that they expect to continue to be able to innovate quickly, and that changes should not restrict that capability. The scope of what is inside and what is outside the architecture efforts has been confirmed. The next step is to revisit and review the Architecture Principles, as they form part of the constraints on architecture work.

Business Continuity is essential given that the business depends on real-time ordering and automated inventory management. During the systems integration, maintaining service for customers and inventory operations must be prioritized

Refer to the scenario

You have been asked to identify the most relevant Architecture Principles for the merger besides Business

## Continuity.

Based on the TOGAF standard, which of the following is the best answer?

[Note: You should assume that the company follows the example set of Architecture Principles provided in the TOGAF standard, ADM Techniques, Architecture Principles chapter.]

A. Control Technical Diversity will help by standardizing technology platforms as part of the integration process.

This will be vital for standardizing the app integration for digital orders with the back-office systems, and will reduce complexity and costs during integration. Data Trustee will establish owners to manage the shared data across the company, thereby assuring data quality. Ease-of-Use is needed to make sure that new user interfaces for the apps continue to be easy to use.

B. Primacy of Principles will make sure that the same principles apply to both organizations of the newly merged operation, creating consistency across locations. Data as an Asset is critical. Since you're maintaining separate mobile

apps but consolidating back-end systems, treating data as an asset becomes essential. This principle helps ensure that customer data, and inventory information from both brands are properly integrated and managed. Technology Independence is important when consolidating the back-office applications and order processing systems.

C. Compliance with the Law makes sure that all company activities comply with relevant laws and regulations.

This principle provides the foundation for ensuring the merger meets all legal requirements. Requirements-

Based Change will make sure that when combining systems, changes to applications and technology are only made if required by business needs. Responsive Change Management focuses on the speed needed to achieve the goals set

by the leaders for a quick merger. We are committed to quickly blending the companies as planned.

D. Service orientation will speed up the merger and make it easier to integrate systems while maintaining business operations. Maximize Benefit to the Enterprise will make sure that merger decisions prioritize the overall benefit to the combined company. Common Use Applications across the merged company is preferred over the use of similar or duplicative applications for certain parts of the company. This help supports the goal of merging backoffice systems to reduce duplication.

## Answer: D

### Explanation:

You are asked to identify the most relevant Architecture Principles, besides Business Continuity, that apply to a rapid merger, where:

Back-office and store management systems will be consolidated

Duplicate applications will be eliminated

Innovation must remain fast

Customer experience must remain uninterrupted

Combined enterprise value is the priority

TOGAF's example Architecture Principles include four main categories:

Business Principles

Data Principles

Application Principles

Technology Principles

Option D contains the principles that best support the specific needs of the merger as described.

✓ Why Option D is correct

1. Service Orientation (Business Principle)

This principle states that architecture should be organized around services, enabling flexibility, loose coupling, and ease of integration.

For the merger:

Integrating two companies' store systems, mobile apps, and inventory platforms requires modular, interoperable services.

Service orientation directly supports the requirement that innovation must not slow down.

It allows systems to be merged with minimal disruption.

This principle supports fast integration + ongoing innovation — exactly what stakeholders demand.

## 2. Maximize Benefit to the Enterprise (Business Principle)

This principle ensures decisions are made from an enterprise-wide (not departmental or local) perspective.

In the scenario:

Two companies are merging.

Decisions must prioritize combined enterprise value, not local optimizations by either company.

System consolidation and elimination of duplicates requires an enterprise-first mindset.

This principle aligns perfectly with a merger that aims to unify operations and reduce redundancy.

## 3. Common Use Applications (Application Principle)

This is one of the MOST relevant principles in any merger.

TOGAF defines this principle as:

“Applications should be shared across the enterprise and not duplicated.”

In the scenario:

Back-office systems and store management tools must be consolidated.

Duplicate applications are explicitly to be reduced.

One main system will be used across stores.

This principle directly matches the merger's objectives.

✓ Summary

Option D contains the three principles that best support:

A major merger

System consolidation

Reduction of duplication

Enterprise-wide benefit

Flexible, service-oriented integration

Continued innovation

Therefore, Option D is the most appropriate selection according to TOGAF's example Architecture Principles.

## Question: 32

Please read this scenario prior to answering the question

You are employed as an Enterprise Architect working at a vehicle manufacturing

company. The company specializes in buses and coaches. You are part of an

Enterprise Architecture (EA) team that has responsibilities across multiple divisions of

the company. EA provides the company with a comprehensive framework to develop and manage their manufacturing

infrastructure, processes for component production, and design and testing systems.

The company has a corporate strategy that focuses on switching to electric power for its vehicles. It has invested heavily

in a new standardized design, production efforts, and major components to use across all its product range. The

company has multiple manufacturing plants in North America, Europe, and in Asia.

Customer demand has caused a backlog of orders because many customers want to have more environmentally

friendly public transportation. There are not enough electronic components available, which is making it hard to produce products and meet customer demand. To address this issue, the company has started making the battery packs themselves and has hired new suppliers.

The EA team is working on a project to improve the process and systems to design, produce, and test the battery pack. As part of putting the new battery pack into production, changes to the assembly processes need to be made. A trial has been completed at a single location. The Chief Engineer, sponsor of the project, and the Architecture Board have approved the plan to roll out these changes to all plants.

Preliminary Architecture Contracts are being developed to detail the work needed to put in place the new processes for each location. The EA team leader has called a meeting to discuss the contracts. It is

emphasized that the Architecture Contract will serve as the key connection between architecture and implementation organizations. The company mixes internal teams with a few third-party contractors at the locations.

The Chief Engineer is worried that the implementation and deployment will not be consistent and of satisfactory quality.

The company has an established EA practice. It uses the TOGAF standard as the foundation for its work including the internal EA framework. Additionally, the company uses various management frameworks such as business planning, project management, and operations management.

Refer to the scenario

The EA team leader asks you how you would address the Chief Engineer's concern.

Based on the TOGAF standard, which of the following is the best answer?

A. The contracts must be checked to ensure they have flexibility. For changes undertaken by internal teams, a memorandum of understanding between the Architecture Board and the implementation organization is needed. If a contract is issued to a contractor, it must be a fully enforceable legal contract. If a deviation from the Architecture Contract is found, the Architecture Board must grant a dispensation to allow the implementation organization to customize the process to meet their local needs.

B. The contracts must be checked to ensure they can be used to direct and control the implementation teams.

For contracts issued to third-party

contractors, they must be enforceable legal contracts. For internal development teams, a memorandum of understanding with the Architecture Board is needed. The Architecture Board must review all deviations from the Architecture Contract and decide whether to grant a dispensation to allow the implementation organization to customize the process to meet their local needs.

C. The contracts must specify goals, measures, acceptance terms, and risks. Third-party contracts must be legally enforceable. It is advisable to establish a schedule of compliance reviews at key points in the implementation process. The Architecture Board must review all deviations from the Architecture Contract and consider whether to grant a dispensation to allow the process to be customized for local needs. Ensure that all dispensations are time-bound rather than indefinite.

D. The contracts must be used to manage the architecture governance processes across the locations.

Monitoring tools must be put in place to assess the performance of each completed battery pack at

each location. If a deviation from the contract is needed, the Architecture Board should allow the Architecture Contract to be modified for the location. In such cases they should issue a new Request for Architecture Work to implement a modification to the Architecture Definition.

## **Answer: C**

### **Explanation:**

The Chief Engineer is concerned that implementation across multiple plants and mixed teams (internal + contractors) may be inconsistent and of poor quality.

The question asks: How should Architecture Contracts be used to address this concern according to the TOGAF standard?

TOGAF states that an Architecture Contract must:

Define obligations of both architecture and implementation organizations

Specify metrics, measures, acceptance criteria, and success factors

Identify risks and mitigation

Support Architecture Governance through compliance reviews

Apply to BOTH internal teams and external suppliers (external contracts must be legally enforceable)

Option C is the only one that correctly reflects these TOGAF requirements.

✓ Why Option C is correct

1. Architecture Contracts must specify goals, measures, acceptance terms, and risks

TOGAF explicitly states that Architecture Contracts should include:

Statement of Architecture Work

Performance metrics and measures

Acceptance criteria

Risks and issues

Compliance and conformance requirements

Option C includes all of these.

2. Third-party contracts must be legally enforceable

True — TOGAF states that when external suppliers are involved, Architecture Contracts often take the form of legally binding contracts.

Option C:

“Third-party contracts must be legally enforceable.”

Correct.

3. Compliance reviews must be scheduled

TOGAF’s Architecture Governance Framework prescribes scheduled Architecture Compliance Reviews to ensure that implementation conforms to the Architecture Contract.

Option C:

“establish a schedule of compliance reviews at key points”

Correct — this directly addresses the Chief Engineer’s concern about consistency and quality.

4. Deviations must be reviewed by the Architecture Board and any dispensations should be timebound

TOGAF allows dispensations but requires:

Formal review

Approval by the Architecture Board

Time-bound accommodations rather than permanent exceptions

Option C includes exactly this guidance.

## Question: 33

Please read this scenario prior to answering the question

You are employed as an Enterprise Architect at a company. The company manages large-scale farming operations with food production, processing, and distribution. The goal of the company is to maximize profit while satisfying the needs of consumers for its products. Its customers demand food that is produced

sustainably, safely, and transparently, while reducing environmental impact.

The business is highly mechanized, and this mechanization has brought about a decrease in the number of workers needed, together with a focus on agricultural engineering to improve the efficiency of its farms, its processing facilities, and the overall enterprise. As part of this, the company has established an Enterprise Architecture (EA) practice based on the TOGAF standard, using it as the method and guiding framework.

The Chief Information Officer (CIO) is the sponsor of EA practice. The practice has adopted an iterative approach for its architecture development. This has enabled the decision makers to have valuable insights into the different aspects of the business.

In recent years there have been a series of bad harvests, and a major reduction in yields of the main crop produced by the company. This combined with an increase in costs for energy, feed, fuel, and fertilizer, had led to a significant decrease in profits. The rising costs and lower profits mean that the company is unable to take as much planned action on climate measures as it would like, such as reducing its carbon footprint. The Chief Executive Officer (CEO) has stated that big changes are needed to improve yields and profitability.

The outline strategy for change, includes new products, and new markets. The company will switch to a mix of crops rather than depend on a main crop and will allow use of its processing facilities by third parties. This is a major decision, and the

CEO has stated a desire to repurpose and reuse rather than replace so as to manage the risks and limit the costs.

The CIO has assigned the EA team to manage this project. The CIO has stated that although the overall objective is known, the EA team are expected to define the scope, a shared vision, and the requirements.

Refer to the scenario

You have been asked to recommend the best approach for architecture development to realize the CEO's change in direction for the company.

Based on the TOGAF standard which of the following is the best answer?

A. The team should start on architecture definition and operate multiple ADM phases concurrently to support this change in direction. Once understood, the team will identify the requirements, drivers, issues, and constraints for the change. You would include non-functional requirements in the architecture development to make sure that the target architecture meets it compliance and regulatory requirements.

B. The team first needs to understand the problem and define the structure of the change. It should start iteration cycles on a baseline first approach to architecture development, and then transition planning. This will identify the change needed to transition from the baseline to the target and can be used to work out in detail what the agreed vision is for the change.

C. The team should start its iteration cycles of architecture development by going through the architecture definition phases (B-D) with a baseline first approach. This will support the change in direction as stated by the CEO. It will ensure that the change can be defined in a structured manner and address the requirements needed to realize the change.

D. The team should start by defining the baseline Technology Architecture in order to assess the current

infrastructure capacity and capability for the company.

Then the focus should be on transition planning and incremental architecture deployment. This will identify requirements to ensure that the projects are sequenced in an optimal way to realize the change.

## **Answer: B**

Explanation:

The scenario clearly states that:

The overall objective is known,

BUT the EA team is expected to define the scope, shared vision, and requirements,

The company uses an iterative approach,

The CEO wants repurpose and reuse rather than replace,

This is a major strategic shift (new markets, new products, new crop mix).

According to the TOGAF standard, when the problem must be understood, and scope, vision, and requirements are not yet defined, the correct starting point is Phase A: Architecture Vision, using an iteration cycle.

This is also consistent with the “baseline-first” approach recommended in the TOGAF Series Guides for situations where:

the business direction is known but high-level,

detailed impacts must be discovered,

and the organization wants to reuse existing capabilities rather than replace them.

Option B is the only answer that:

Begins by understanding the problem,

Defines the structure of the change,

Uses iteration cycles starting with a baseline-first approach,

Leads into transition planning,

Supports clarification of the shared vision and requirements,

Fits the CIO’s instruction to “define the scope, shared vision, and requirements.”

This matches exactly what TOGAF prescribes in early-cycle Architecture Vision and initial iterations.