Scenario: Armstrong Defense Industries

Please read this scenario prior to answering the question

Armstrong Defense Industries is the prime contractor for the Dreadnought Unmanned Aircraft System program.

Over the course of this contract, the company has grown rapidly by acquisition and has inherited numerous different procurement processes and related IT systems. Armstrong Defense is moving aggressively to consolidate and reduce redundant procurement processes and systems. The CEO has announced that the company will seek to leverage higher volume discounts and lower related IT support costs by instituting a preferred supplier program.

To achieve this goal, Armstrong Defense needs to define Baseline and Target Architectures. These architectures must address key stakeholders concerns such as:

1. What groups of people should be involved in procurement-related business processes?
2. What current applications do those groups use?
3. Which procurement-related business processes are supported by zero, one, or many existing applications?
4. What are the overall lifetimes of the Request for Proposal and Purchase Order business objects?
5. What non-procurement applications will need to be integrated with any new procurement applications?
6. What data will need to be shared?

At present, there are no particularly useful architectural assets related to this initiative. All assets need to be acquired and customized or created from scratch. The company prefers to implement existing package applications from systems vendors with little customization.

The architecture development project has just completed its Architecture Context iteration cycle and is about to begin the Architecture Definition iteration cycle.

Armstrong Defense is using TOGAF for its internal Enterprise Architecture activities. It uses
an iterative approach for executing Architecture Development Method (ADM) projects.

Refer to the Armstrong Defense Industries Scenario

You are serving as the Lead Architect.

You have been asked to identify the most appropriate architecture viewpoints for this situation.

Based on TOGAF 9, which of the following is the best answer?

A. In the early iterations of the Architecture Definition:
   • Describe the Baseline Business Architecture with a Baseline Business Process catalog
   • Describe the Baseline Application Architecture with a Technology Portfolio catalog
   • Describe the Baseline Data Architecture with a Data diagram
   In the later iterations of the Architecture Definition:
   • Describe the Target Business Architecture with an Actor/Process/Data catalog
   • Describe the Target Application Architecture with a System/Technology matrix
   • Describe the Target Data Architecture with a Data Dissemination diagram

B. In the early iterations of the Architecture Definition:
   • Describe the Target Business Architecture with a Business Service/Function catalog and a Business Interaction matrix
   • Describe the key business objects with Product Lifecycle diagrams
   • Describe the Target Application Architecture with Application Communication diagrams and an Application Interaction matrix
   • Describe the Target Data Architecture with a Data Entity/Business Function matrix and a System/Data matrix
   In the later iterations of the Architecture Definition:
   • Describe the Baseline Business Architecture with a Business Service/Function catalog and a Business Interaction matrix
   • Describe the Baseline Application Architecture with a System/Organization matrix and a System/Function matrix
   • Describe the Baseline Data Architecture with a Data Entity/Data Component catalog

C. In the early iterations of the Architecture Definition:
   • Describe the Target Business Architecture with a Business Service/Function catalog and an Organization/Actor catalog
   • Describe the key business objects with Data Lifecycle diagrams
   • Describe the Target Application Architecture with Application Communication diagrams and an Application Interaction matrix
   • Describe the Target Data Architecture with a System/Data matrix
   In the later iterations of the Architecture Definition:
   • Describe the Baseline Business Architecture with a Business Service/Function catalog and a Business Interaction matrix
   • Describe the Baseline Application Architecture with an Application and User Location
diagram and a System/Function matrix

• Describe the Baseline Data Architecture with a Data Entity/Data Component catalog

D. In the early iterations of the Architecture Definition:

• Describe the Baseline Business Architecture with an Organization/Actor catalog
• Describe the Baseline Application Architecture with a System/Function matrix
• Describe the Baseline Data Architecture using a Data Entity/Data Component catalog

In the later iterations of the Architecture Definition:

• Describe the Target Business Architecture with an Organization/Actor catalog
• Describe the Target Application Architecture using Application Communication diagrams and an Application Interaction matrix
• Describe the Target Data Architecture with a System/Data matrix

Answer: B

Question No : 2

Scenario:

Please read this scenario prior to answering the question

You are serving as the Lead Enterprise Architect at a major supplier in the automotive industry. The company is headquartered in Cleveland, Ohio with manufacturing plants across the United States, Brazil, Germany, Japan and South Korea. Each of these plants has been operating its own planning and production scheduling systems, as well as custom developed applications that drive the automated production equipment at each plant.

The company is implementing lean manufacturing principles to minimize waste and improve the efficiency of all of its production operations. During a recent exercise held for internal quality improvement, it was determined that a significant reduction in process waste could be achieved by replacing the current planning and scheduling systems with a common Enterprise Resource Planning (ERP) system located in the Cleveland data center. This central system would provide support to each of the plants replacing the functionality in the existing systems. It would also eliminate the need for full data centers at each of the plant facilities. A reduced number of IT staff could support the remaining applications. In some cases, a third-party contractor could provide those staff.

The Enterprise Architecture department has been operating for several years and has mature, well-developed architecture governance and development processes that are strongly based on TOGAF 9.

At a recent meeting, the Architecture Board approved a Request for Architecture Work sponsored by the Chief Engineer of Global Manufacturing Operations. The request covered
the initial architectural investigations and the development of a comprehensive architecture to plan the transformation.

The Common ERP Deployment architecture project team has now been formed, and the project team has been asked to develop an Architecture Vision that will achieve the desired outcomes and benefits. Some of the plant managers have expressed concern about the security and reliability of diving their planning and production scheduling from a remote centralized system. The Chief Engineer wants to know how these concerns can be addressed.

Refer to the Scenario

[Note: You should assume that the company has adopted the example set of principles that are listed and defined in TOGAF 9, Section 23.6.]

One of the earliest initiatives in the Enterprise Architecture program was the definition of a set of architecture principles. These now need to be updated to address the concerns raised.

You have been asked to select a set of principles most appropriate for guiding the team to define a robust solution.

Based on TOGAF 9, which of the following is the best answer?

A. Common-use Applications, Control Technical Diversity, Ease of Use, Interoperability, Data is Shared, Data is Accessible, Data Security
B. Business Continuity, Common-use Applications, Maximize Benefit to the Enterprise, Data is Shared, Data is Accessible, Data Security
C. Technology Independence, Data Trustee, Information Management is Everybody’s Business, IT Responsibility, Responsive Change Management
D. Service-orientation, Responsive Change Management, Business Continuity, Data is Accessible, Data Security

Answer: B

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**Question No : 3**

Scenario: Sollace Manufacturing

Please read this scenario prior to answering the question Sollace Manufacturing is a major supplier in the automotive industry, headquartered in Cleveland, Ohio with manufacturing plants in Chicago, Sao Paulo, Stuttgart, Yokohama, and Seoul. Each of these plants has
been operating its own planning and production scheduling systems, as well as custom
developed applications that drive the automated production equipment at each plant.

Sollace Manufacturing is implementing lean manufacturing principles to minimize waste
and improve the efficiency of all of its production operations. During a recent exercise held
for internal quality improvement, it was determined that a significant reduction in process
waste could be achieved by replacing the current planning and scheduling systems with a
common Enterprise Resource Planning (ERP) system located in the Cleveland data center.
This central system would provide support to each of the plants replacing the functionality
in the existing systems. It would also eliminate the need for full data centers at each of the
plant facilities. A reduced number of IT staff could support the remaining applications. In
some cases, a third-party contractor could provide those staff. The Sollace Manufacturing
Enterprise Architecture department has been operating for several years and has mature,
well-developed architecture governance and development processes that are strongly
based on TOGAF 9. At a recent meeting, the Architecture Review Board approved a
Request for Architecture Work from the Chief Engineer of Global Manufacturing Operations
who is the project sponsor. The request covered the initial architectural investigations and
the development of a comprehensive architecture to plan the transformation. The Common
ERP Deployment architecture project team has now been formed, and the project team has
been asked to develop an Architecture Vision that will achieve the desired outcomes and
benefits. Some of the plant managers have expressed concern about the security and
reliability of driving their planning and production scheduling from a central system located
in Cleveland. The Chief Engineer wants to know how these concerns can be addressed.

Refer to the Sollace Manufacturing Scenario You are serving as the Lead Enterprise
Architect for the Common ERP Deployment architecture project. One of the earliest
initiatives in the Enterprise Architecture program at Sollace Manufacturing was the
definition of a set of IT principles and architecture principles that are well aligned with the
overall enterprise principles. These now need to be updated to address the concerns
raised.

You have been asked to select a set of principles most appropriate for guiding the team to
define a robust solution. [Note: You should assume that Sollace Manufacturing has
adopted the example set of principles that are listed and defined in TOGAF 9, Section
23.6.] Based on TOGAF 9, which of the following is the best answer?

A. Common-use Applications, Data is Shared, Data is Accessible, Data Security,
   Interoperability, Control, Technical Diversity
B. Business Continuity, Service-orientation, Data is Accessible, Data Security, Responsive
   Change Management
C. Maximize Benefit to the Enterprise, Business Continuity, Common-use Applications,
   Data is Shared, Data is Accessible, Data Security
D. Information Management is Everybody's Business, IT Responsibility, Data Trustee,
   Technology Independence, Responsive Change Management
TP Banking is a strong financial institute with a well-known acquisition history with an internal IT department managing over 100 projects related to infrastructure and services.

The CIO has decided to create an Enterprise Architecture based on TOGAF 9 as reaction to the difficult market conditions. An Architecture Vision and a set of domain architectures were approved. The CIO is asking you (the Lead Architect) to define an Implementation and Migration Plan that realizes the vision already agreed with the stakeholders involved.

Refer to the scenario above

You are leading a group of domain architects and you are working with the corporate PMO, the business strategy team and service operations. You are meeting the stakeholders to clarify how you want to proceed with the Implementation and Migration Plan.

Choose one of the following answers

A. You propose to start collecting the existing deliverables describing the different domains in order to enable the Enterprise Architecture tram to integrate them with the support of the operation management. Every domain architect will then evaluate the impact on the projects already planned for the domain. The single revised plans will be integrated together and consolidated into a strategic implementation and migration strategy defining an IT roadmap.

B. You communicate the need for urgency. The projects already planned will be cancelled and the implementation of the new architecture vision will be set as first priority. A set of new projects will be defined to implement the new strategy. You will use the requirements from Phases B through D and define new projects for each one of the requirements. The use of defined interoperability architecture guidelines will then enable the project teams to work together and define a set of new point-to-point interfaces.

C. You describe the concept of Transition Architectures and clarify that the business value can be achieved by all the projects delivering their increments in a coordinated approach. Capability gaps and project dependencies are analyzed for each domain this will then enable the projects to be organized in work packages. You will then agree on the roadmap for the implementation and migration strategy meeting with all the key stakeholders.

D. You communicate the CIO's will to transform the corporation and then that he's seeking help from the domain architects to do that. The requirements are managed in order to enable every Architect to participate to the planning that will result in a detailed list of work activities with impact on the IT portfolio of projects. A five year Target Architecture will then be defined and a report will keep track of dependencies and factors assessment.
An international Insurance company has grown with little consideration for rationalization and consolidation. There is no coordination between business unit and every one have managed its own applications. The CIO decided to establish an Enterprise Architecture program within the enterprise to enable the company to expand to other markets in the next two years. The company has not any Enterprise Architecture Capability in place and the he CIO has set up an Architecture Board and called its first meeting. Refer to the scenario above

As Lead Architect you will establish a TOGAF 9 Enterprise Architecture program. Identify the best way to do this among the answers below.

Choose one of the following answers

A. You tailor TOGAF 9 with the help of the Architecture Board to integrate it with the legacy procedures established by the PMO. You also examine the relationship of TOGAF with other processes and frameworks for governance, systems development and operations management. You then define the footprint of the enterprise architecture.

B. As Lead Architect you create a Request for Architecture Work to allocate resources to work on the Architecture Vision. Based on the outcome of the Business Scenario technique you apply, you create the Common Systems Architecture to guide the choice of Solutions Building Blocks. These will be then used for integrating the systems across business units.

C. You clarify the agreement on key business drivers and the scope of the enterprise architecture. You then clarify the requirements for architecture work. You define the architecture principles together with the help of the Architecture Board in order to lead the architecture work. You consider how to tailor TOGAF 9 for this enterprise.

D. You conduct an Architecture Maturity Assessment. You then use the TOGAF ADM to state the requirements for the integration of a new company information management system into the organization. You then list a set of business goals together with the Architecture Board that will be a reference to the enterprise architecture program.

Answer: C

SureFlight Air Carrier has received approval for the acquisition of a regional carrier.
To integrate the new acquisition, a TOGAF based enterprise architecture program has been initiated. The CIO sponsors the activity supported by the Chief Architect.

In Phase A within the initial iteration the CIO wants to ensure that the architecture activities are recognized among the various stakeholders of the enterprise.

Refer to the scenario above

You are a consultant supporting the Chief Architect that should explain how to identify and engage the stakeholders at this stage of the program.

Identify the best answer accordingly to the TOGAF 9 guidelines.

Choose one of the following answers

A. Using the business scenarios technique you would identify supporting and not supporting stakeholders. Then you would list the set of viewpoints that are addressing the stakeholder concerns and share these with them.

B. You first priority is to communicate with the regional carrier stakeholders developing a Communications Plan to share main features and discuss opportunities with them.

C. You conduct a pilot proof of concept during Phase A to demonstrate the technical feasibility to the stakeholders explaining the approach available from your preferred suppliers.

D. You identify all the main stakeholders on both the acquired carrier and the rest of the enterprise. Using a stakeholder map, you classify and record their power in relation to this activity. You then focus on implementing the relevant viewpoints that can address the concerns of every main stakeholder identified in the stakeholders map.

Answer: D

Question No : 7

Scenario: Zephyr Enterprises

Please read this scenario prior to answering the question

Zephyr Enterprises specializes in the development of wind turbine blades for use in large-scale commercial wind energy production systems. Zephyr has manufacturing facilities located in Palm Springs, California, Omaha, Nebraska, and Winnipeg, Ontario. Each of these plants supplies a different manufacturer that builds and sells complete systems. The turbine blades are custom engineered to meet each manufacturers design specifications.
Until recently, most turbine blades were fabricated manually using molded fiber-reinforced plastics. However, recent improvements in composite materials, coupled with enhanced automated methods for precision application of materials during the molding process, have led to significant reduction in weight, increase in strength, and greatly improved blade longevity. Zephyr has pioneered the development of a proprietary automated process for continuous extrusion of the turbine blades. Patents have been filed to protect the process, but certain trade secrets must be closely guarded.

Zephyr has a mature Enterprise Architecture organization that is supported by a cross-functional Architecture Review Board. The Chief Information Officer and the Chief Operating Officer co-sponsor the Enterprise Architecture program.

Zephyr has used TOGAF and its Architecture Development Method (ADM) to develop its automated manufacturing processes and systems that are used to design, manufacture, and test the blade assemblies. They have recently updated to TOGAF 9 and have adapted the Zephyr Enterprise Architecture to closely follow the TOGAF 9 framework. All of Zephyr’s IT architects have been trained and certified on TOGAF 9. Recently, an architecture project was completed that defined a standard approach for controlling the Automated Test System that is used at each plant to perform final quality assurance tests on each completed blade assembly. The Manufacturing Architecture Board approved the plan for immediate implementation at each plant.

An Architecture Contract was developed that detailed the work needed to implement and deploy the new Automated Test System controller. The Chief Engineer, sponsor of the activity, has expressed concern that a uniform process be employed at each site to ensure consistency.

Refer to the Zephyr Enterprises Scenario

You are the Lead Architect for this activity.

You have been asked to recommend the best approach to adopt to address the Chief Engineer’s concern.

Based on TOGAF 9, which of the following is the best answer?

A. You create an Architecture Contract to manage and govern the implementation and migration process. If the contract is issued to an external party, you ensure that it is a fully enforceable legal contract. For internal development projects, you decide it is adequate to utilize a memorandum of understanding between the Manufacturing Architecture Board and the implementation organization. You recommend that if a deviation from the contract is detected, the Manufacturing