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TOGAF® Certification for People

TOGAF Enterprise Architecture Practitioner
Learning Studies
Question Book

September 2022
Version 1.0

These Learning Studies support the TOGAF Enterprise Architecture Practitioner certification program and are a required part of an Accredited Training Course.

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TOGAF Enterprise Architecture Practitioner Learning Studies Question Book

Document Number: LS-2022-QB

Comments relating to the material contained in this document may be submitted to:

The Open Group
Apex Plaza
Forbury Road
Reading
Berkshire, RG1 1LX
United Kingdom

or by electronic mail to:

ogspecs@opengroup.org

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1. INSTRUCTIONS

The learning studies for TOGAF Enterprise Architecture Practitioner is presented here in book form as a set of eighteen scenario questions. It provides active learning in the form of problem-based learning to reinforce aspects of the syllabus.

You need to work your way through the story (a series of scenarios) based around a single case study (described in Section 2) with a problem in each of the scenarios. You are then required to solve the problem by selecting the best of four possible answers

> Please note that the case study in Section 2 applies to all of the scenarios. Worked solutions and detailed explanations are provided in a separate answers book.

You are encouraged to take this is as an open book exercise and to work through this document multiple times. The reference text is the TOGAF Standard, 10th Edition. It is recommended to spend at least three hours on this set of learning studies.

Scenario Scoring

Each scenario consists of a gradient scored, multiple-choice, single response question. In order to answer each question, you will need to read the scenario fully. Based on the common case study, the information provided in the scenario, and the guidance in the TOGAF standard, you need to select the best possible answer from the four possible answers.

There is a maximum of five (5) points per question.

The CORRECT answer scores five (5) points.

The SECOND BEST answer scores three (3) points.

The THIRD BEST answer scores one (1) point.

The DISTRACTER (the incorrect answer) scores zero (0) points.

You should aim to achieve a total of 54 points out of a maximum of 90 points (60%). An additional technique you can use is to rank the answers and check your choice corresponds to the sample solutions.

2.   CASE STUDY

The following scenarios are all built upon this case study of a Multinational Consumer Goods Firm.

The company is a multinational consumer goods firm. The consumer goods are designed and developed or manufactured in-house. They are distributed to a wide range of retail organizations across the globe.

The Enterprise Architecture (EA) team within the firm has been operating successfully for several years and is based on the TOGAF standard.

Core IT systems include:

• Software as a Service (SaaS) Human Resources, Product Management, and Customer Relationship Management (CRM) system,

• Platform as a Service (PaaS) hosted Enterprise Resource Planning (ERP) system

• On-premises specialist manufacturing systems that are optimized for each of manufacturing center

The firm is embarking on a Digital Transformation where it will expand its offerings from physical consumer goods products to also include digital consumer products and digital services.

The Digital Transformation strategy is based on three approaches. First, three product lines are experimenting with direct-to-consumer digital products. These products are funded as experiments and have been isolated to minimize brand impact. Second, a team is working on a common digital products platform based on a common approach to customer information integration and security. Third, two product lines are experimenting with direct-to-consumer digital products using third party platforms. Digital product development, and development of the digital products platform follow agile software development methods. The firm is taking a just-enough approach to gain experience with digital products and is willing to discard interim solutions.

The addition of digital products will not change the core of the company, it will remain a multinational consumer goods firm with distinct and independent product-lines. Digital products will be distributed through the third-party platforms or through a new direct-to-consumer model. While the Digital Transformation is underway, the CEO has made it clear that the firm needs to protect its existing consumer goods revenue.

3. UNIT 1: THE CONTEXT FOR ENTERPRISE ARCHITECTURE

3.1 Question 1

Unit # 1	Unit Name: The Context for Enterprise Architecture
Question # 1	**Description:** Central question in key concepts 1.1 Explain why guiding effective change is the purpose of Enterprise Architecture. 2_Understanding G186 §3.1 1.3 Explain what an Architecture Capability is. 2_Understanding {S0} §8, G184 §3.3

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. To date, the EA team has been focused on supporting the firms' IT Portfolio (Architecture to support Portfolio). The EA team is successful and engaged with the firms' executive management. The Architecture Roadmaps form the basis of the IT portfolio planning–which includes road mapping key capabilities for human resources (HR), finance, consumer product management, manufacturing, and the enabling enterprise applications. These capabilities are aligned with your firms' business-to-business model and value chain, and information integration has been achieved across the value chain.

The EA team was not engaged in defining the strategy for the Digital Transformation. Over the past quarter, the EA Team has had several requests for architecture work from the consumer product teams and the digital product platform team. To date, the response has been that the EA team does not have the skills, or expertise and the advice has been for the requestor to seek help externally by using consultants more experienced with consumer products.

Question

You have been asked by the EA team leader to recommend how the EA team could alter its role to support the Digital Transformation activity.

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

Answers

A. The digital products and digital product platform are all being developed as separate initiatives, which are essentially projects. To gain maximum value from the experiments, you recommend focused attention on the purpose and value. Further, the development of the digital product platform will need to address synergy and future dependency to support integration and alignment between projects.

B. You recommend that the team consider each of the products a solution and a project, and that the EA Team realign to sustain the enterprise's purpose and value of the experiment. The development of the digital product platform will need to support integration and alignment between projects. Without constraints, controls, and architecture requirements, corporate alignment and information integration will be lost.

C. Since the digital products and digital product platform are being developed as experiments, you recommend that each of the three experimental paths be considered a portfolio. This will then fit as an extension of the EA team's experience identifying projects, their terms of reference, approach, and synergies. It will help the company balance innovation and efficiency.

D. You recommend that the digital product platform be included with the current portfolio managed by the team since it aligns with other shared core IT systems. This will preserve the alignment and information integration that would otherwise be at risk. This will allow the EA team to set constraints and controls to the digital product platform.

3.2 Question 2

Unit # 1	Unit Name: The Context for Enterprise Architecture
Question # 2	**Description:** Central question in key concepts 1.1 Explain why guiding effective change is the purpose of Enterprise Architecture. 2_Understanding G186 §3.1 1.5 Explain Architecture Compliance, levels of conformance, reviews, and the role of the architect. 2_Understanding {S5} §6.1, 6.2, G186 §15.2.1, 15.2.2

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. Your personal responsibility within the EA team is the CRM.

The EA team has received several requests for architecture work from the consumer products team, however the assessment has been that the EA team does not have the capability to assist, and the consumer product team was advised to seek help externally by using consultants more experienced with digital consumer products.

One of the Consumer Product Managers has raised a concern that the consultants in their proposal have not addressed the business need to sustain existing physical products. Instead, the proposal has focused on the experiments in digital consumer products. In addition, the Consumer Product Manager wants to know how to address fundamental customer engagement changes for one of the experiments. For example, existing CRM workflows assume a physical good must be returned and inspected prior to refunding a consumer. This assumption won't be valid for either digital consumer products or digital services.

Question

You have been asked how the EA team can be engaged to support the transformation and address the concerns raised by the Consumer Product Manager?

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

Answers

A. You recommend extending the CRM platform to support direct-to-consumer digital products. You will review the existing Application Architecture and define the capabilities needed to support a direct-to-consumer relationship. This will require new interfaces to enable direct selling. You will check with the

Consumer Product Manager for additional requirements. You will recommend that the CRM roadmap be adjusted to add these new capabilities to the shared CRM platform.

B. You recommend that the EA team be engaged to take a broader approach that addresses the entire product portfolio. You review if the correct stakeholders have been identified, and if not engage them. You recommend that the EA team's capability be strengthened by the addition of specialist subject matter experts to develop architecture models and analyze gaps. This will form the basis of a renewed architecture development project.

C. You recommend reviewing where the Consumer Product Manager is dissatisfied with the consultant's proposal. You will then review the assessments made of the EA team to identify the gaps in capability that need to be addressed. The EA team can then be engaged to determine the gaps in scope for the project. The gaps will form the basis of the architecture development project.

D. You recommend that a new architecture project be scoped, and the EA team engaged to take on the work. You would create a change request to leverage the established multi-product CRM and identify changes for it to support digital consumer products. Then you will focus the architecture development project to address fundamental customer engagement changes with digital products such as how to manage returns and refunds.

3.3   Question 3

Unit # 1	Unit Name: The Context for Enterprise Architecture
Question # 3	**Description:** Central question in key concepts 1.7 Explain the need to manage multiple architecture states (e.g., candidate, current, transition, target). 2_Understanding G186 §5.4, 13 1.10 Explain why it is important to create an environment in which uncertainty of the success of change can be managed to optimize maximum business benefit and minimum business loss. 2_Understanding G152 §3.1.1

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. Your personal responsibility within the EA team is the CRM. The ongoing roadmap for the CRM is focused on incremental efficiency gains with international distributors and providing localized physical product warranty service with changes for language, different warranty service partners, and pre-paid shipping.

As part of the ongoing Digital Transformation, two of the product lines have now released digital consumer products or digital services surrounding traditional products. Both product lines have faced difficulty managing subscriptions and returns of digital product in the Customer Relationship Management system.

The Consumer Product Manager is responsible for a product that will be offered direct to the consumer. It has been proposed that this be supported by a stand-alone CRM that supports direct engagement with consumers. The Consumer Product Manager is concerned about the long-term architecture, especially given that in future physical and digital products will share the same sales and support channels.

Question

You have been asked how to address the concerns raised by the Consumer Product Manager?

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

Answers

A. You recommend establishing an architecture development project to provide standardized APIs for accessing the shared CRM. This will provide a reliable service that can be accessed by the digital product experiments. These API interfaces should draw on available industry standard approaches to provide support for a long-term solution. This can be added to the existing CRM roadmap while protecting the planned efficiency gains.

B. You recommend commencing an architecture development project to explore the options that would lead to a standardized CRM suitable for both physical and digital projects. For the candidate architectures identified, you recommend adoption of those that match prior decisions that have impacted customer engagement efficiency and fit with the current roadmap. You will publish this roadmap to the EA Repository.

C. You recommend an architecture development project is established to explore short-term workarounds that support digital-product returns and subscriptions. Once you understand the short-term workarounds you will ensure the CRM roadmap includes work packages to bring the short-term workarounds into the shared CRM so that it can continue to support all product lines, whether digital, physical, or hybrid.

D. You recommend that an architecture development project identify multiple options for the CRM. Each of these candidate architectures will be optimized for different stakeholder concerns. A key element of the different candidate architectures will be linking decisions and outcomes so that you are able to develop a set of transitions that minimize the uncertainty of achieving different objectives.

3.4   Question 4

Unit # 1	Unit Name: The Context for Enterprise Architecture

Question # 4	**Description:**
	Central question in key concepts
	
	1.2 Explain what an Enterprise Architecture looks like. 2_Understanding
	        G186 §3.2.3
	
	1.11 Briefly explain the role of the Enterprise Architect and Enterprise Architecture in a Digital enterprise for the four contexts of the DPBoK™ Standard.
	        2_Understanding G217 §4.2.1-4.2.4

Scenario

You are a new architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. You have joined the EA team while it is in transition to better support the Digital Transformation. You have experience with digital products and have been hired to extend the capability of the EA team.

The EA team have had difficulty explaining to the stakeholders involved how digital product experiments fit with the firms' existing products and practices. There has been some reluctance within the EA team to

adapt to working on a digital transformation. Instead some staff try to apply their past portfolio roadmap deliverables.

The EA team leader tells you that at a recent webinar she had heard a case study of similar experiences and noted that the TOGAF Library was named as a location for resources that are relevant to these issues.

Question

You have been asked by the EA team leader to help those involved understand how the digital product experiments fit.

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

Answers

A. You would review the TOGAF Library for material on business reference models, and digital transformation. This will provide guidance material which you can draw on, including architectures and implementation strategies for the digital organization. You would then extend the existing capability model used by the EA team to include the capabilities necessary to support a digital-first culture. Then you develop a set of briefing materials that explain the missing and changed capabilities. You take care to ensure the briefing follows the language and style of other capability development material the team has produced.

B. You would search the TOGAF Library specifically for guidance on the digital enterprise and enterprise agility. You would identify relevant publications and circulate a reading list to the EA team. You would develop an updated business capability model with a focus on digital-first. Using this model as a reference, you would then perform a gap analysis between the existing business capability and the optimal digital business capability. Then you would develop a roadmap for the senior leaders identifying the capabilities that need to be developed and changed to support a future digital business model.

C. You would explain to the EA team that there are different fundamental issues as an organization grows and use the four contexts defined in the Digital Practitioner Body of Knowledge to illustrate this. You would review the EA Team's existing viewpoint library to ensure there are viewpoints that address the fundamental issues in scaling from Founder to Enduring Enterprise. You would provide briefing materials to the team explaining how an experiment will tend to act like the Founder/Team contexts, and how the enterprise will tend to think at the Enduring Enterprise context.

D. You would create briefing materials to explain how digital products are developed with a focus on agile methods. You want to help the team understand the change from traditional IT-portfolio planning to the modern digital product approach. The most important point you need to make is the distinction between a waterfall approach and agile development. You explain that each of the digital experiments is following a minimal viable product agile software development approach. You ensure that your briefing focuses on developing an agile mindset and the need to directly support agile software development.

4. UNIT 2: STAKEHOLDER MANAGEMENT

4.1 Question 1

Unit # 2	Unit Name: Stakeholder Management
Question # 1	**Description:** Central question in key concepts 2.1 Explain how to identify stakeholders, their concerns, views, and the communication involved. 3_Applying G186 §3.3.1, B

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. Your personal responsibility within the EA team is the CRM.

The EA team recognizes that the Digital Transformation strategy will impact the business and has initiated work to review each of the core IT-Portfolio roadmaps for impacts. One area identified is the CRM which is optimized for physical goods. Changes will be required to support digital consumer products and digital services.

The EA team has been discussing possible approaches. A colleague has recommended that you consult the TOGAF Library for guidance materials and best practices related to Digital Transformation. They recommend the white paper, "*Seven Levers of Digital Transformation*", and suggest that impacts will be in Business Process (Lever 1), Customer Engagement and Experience (Lever 2), and Product or Service Digitization (Lever 3). They have also suggested that the *Digital Business Reference Model* (DBRM) is of relevance as the core elements fit into the Digital, Strategy, Structural, and Operational domains.

A Change Request was approved by the Architecture Board to consider the impact of the Digital Transformation on the CRM. A Request for Architecture Work has been approved. You have been tasked with assessing the impact and adapting the CRM roadmap.

Question

You have been asked how you will ensure you have the correct stakeholders involved and have their support?

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

Answers

A. You recommend that guidance is necessary on consumer engagement and consumer experience for digital products and digital subscription services. This is best achieved by engaging subject matter experts (SMEs). You will add these SMEs as digital product stakeholders to your existing CRM roadmap stakeholders. With the list of stakeholders, you will look for changes to motivation, priority, and special requirements that Digital Transformation creates. These changes will highlight changes to your existing viewpoint library. You will likely iterate a few times narrowing down the key concerns that will constrain the future CRM roadmap. You also expect to have to change how you represent the architecture to effectively communicate it.

B. You recommend that subject matter experts (SMEs) are engaged to provide guidance on customer engagement and customer experience for digital products and digital services. The Digital Transformation strategy will provide top-level stakeholders tied to strategic goals. There are the existing stakeholders used for the CRM roadmap. With this list of stakeholders, you will look for changes to motivation, priority, and requirements due to the Digital Transformation. These changes will highlight changes to your existing CRM roadmap viewpoint library. You will iterate a few times narrowing down the key stakeholders and key concerns that will constrain the future CRM roadmap. You will change how you represent the architecture to effectively communicate its intent.

C. You recommend that the existing CRM stakeholders be used as the stakeholders for the digital products and services since represent all the product lines, and key leadership in the firm. You will identify the special concerns associated to digital products. You will engage a digital product subject matter expert (SME) to provide guidance on roles for a digital engagement. You will align the roles identified to the existing CRM roadmap stakeholders. With the list of stakeholders, you will identify the changes required to existing CRM Roadmap viewpoint library. The largest work effort will be to update how the architecture is represented to effectively communicate it in digital terms.

D. You recommend engaging a digital product subject matter expert (SME) to provide guidance. With this guidance, and the Digital Business Reference Model you will assess the existing CRM capability model for potential impacts and gaps. You will align required new capabilities with the existing stakeholders or those identified by the SME. With this list of stakeholders, you will look for changes to motivation, priority, and requirements because of the Digital Transformation. These will highlight changes to your existing CRM Roadmap viewpoint library. You will iterate a few times narrowing down the key concerns that constrain the future CRM roadmap. You will review how you represent the architecture to ensure effective communication.

4.2   Question 2

Unit # 2	Unit Name: Stakeholder Management
Question # 2	**Description:** Central question in key concepts 2.4 Explain how to use trade-off to support the architecture development. 3_Applying {S2} §10.2 G186 §6.1.2, 6.2

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm.

The EA team is engaged in the Digital Transformation strategy, which now has an architecture and supporting roadmap. The team has initiated work into the architecting of product development processes and customer experience.

Within your personal area of responsibility, the CRM, you are working to develop an architecture that supports a radically different customer experience and engagement model. For example, the old CRM workflows assume a physical good must be returned and inspected prior to refunding a consumer or providing a replacement product. This assumption is not valid for either digital consumer products or digital services.

You have identified the following stakeholders and concerns (drawn from the TOGAF Series Guide: *A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM,* Appendices B & C):

- (Customer) Traditional physical goods customer

- (Customer) Digital download customer

- (Business Partner) Traditional high-touch bricks & mortar retailer

- (Business Requirements Owner) Call-center Operations Leaders

Two of your core Architecture Concerns are

- Change Impact (Business Partner & Business Requirements Owner)

- Value Proposition (Customer & Business Requirements Owner)

You are going to identify deficiencies in your current customer engagement from the perspective of each stakeholder, then identify changes that will address the deficiencies. You will then identify any changes that conflict or create a deficiency for a different stakeholder.

For each of the changes that is in conflict or creates a new deficiency you will perform analysis to put the conflict in comparable terms of value delivery, work, and uncertainty to achieve the value.

[Note: The EA team has adopted the role definitions in the TOGAF Series Guide: *A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM* , Section 15.2]

Question

You have been asked how you will address conflict in preferences for customer engagement?

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

Answers

A. You will focus on facilitating understanding of value, work to realize, and risk of failing. You will use the consumer product owners to provide decisions when there is a trade-off to make between preferences of the customers and business partners. Conflict between stakeholders will resolved either by superior architecture providing a priority to a stakeholder or concern, or by relaxing one or more preferences until you reach an acceptable answer.

B. You will focus on the choices based on your understanding of the superior architecture. You will use reference material from the TOGAF Library, including the white paper, the Seven Levers of Digital Transformation, to provide external guidance of items that are critical for success, notably Customer Experience and Engagement. Conflict between stakeholders will be resolved in priority of the customer, business requirements owners, and then business partners.

C. You will focus on facilitating between the different stakeholders to gain an understanding of value preference and priority as well as the scope of change. You will use stakeholder agents for the customer and business partner. Conflict within one stakeholder's preferences is resolved with that stakeholder. Conflict between stakeholders will be resolved by reference to the superior architecture, or by relaxing one or more preferences until an acceptable answer is reached.

D. You will focus on pushing to resolve each conflict and produce an answer. You draw up a Stakeholder/Concern matrix using the existing Stakeholder Map from the CRM architecture. You will also use the existing CRM architecture to provide constraining decisions and set priorities for addressing conflicts between stakeholder preferences. Conflict between stakeholder preferences will be resolved in priority of the importance of the stakeholder as identified in the Stakeholder Map.

5.   UNIT 3: PHASE A, THE STARTING POINT

5.1   Unit 3 Question 1

Unit # 3	Unit Name: Phase A, the Starting Point
Question # 1	**Description:** Central question in key concepts 3.2 Explain how to apply the phase and how it contributes to the architecture development work: • Scope of the Architecture Project • Stakeholders, their concerns, and • Business goals, business drivers, and constraints 3_Applying {S1} §3.3 G186 §5.2.1

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm.

Within your personal area of responsibility, the CRM, you see the need to develop a new target architecture. The old drivers of efficiency and extending localization of physical good warranty do not directly support the Digital Transformation. You know that there are fundamental customer engagement changes coming.

Several of the consumer product managers (responsible for both physical and digital products) have raised concerns about poor customer engagement and would like to know what the options are to improve it. They have also voiced a concern that in future the physical and digital products will not be completely distinct in terms of the sales and support channel.

Question

You have been asked by the EA team leader how you plan to set-up the architecture development project?

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

Answers

A. You will explain to the consumer product managers the available options for extending the existing enterprise CRM to include the addition of digital products. You will confirm a project timeline that fits with the CRM roadmap and budget cycle. You will engage the same stakeholders as identified by the Stakeholder Map used by the CRM roadmap. You know you will need to engage with digital product subject matter experts to help fill-in the details of direct-to-consumer digital product and third party platform interfaces to the CRM.

B. You will explain to the Consumer Product managers that this is a company wide initiative covering both digital products and physical products. You will align the project to the CRM roadmap timeline to support the budget cycle. You will confirm that the key stakeholders are the consumer product owners,

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operational executives, and someone representing corporate systems, and IT. You will identify stakeholder concerns and requirements. You will seek guidance and assistance from a subject matter expert since digital products, and customer experience are outside your normal IT-centric portfolio-based work.

C. You will help the consumer product managers understand the options to create a company-wide solution covering both physical and digital products or a product-centric solution. You will resolve this question for the consumer product owners before proceeding. You define a Stakeholder Map for the key stakeholders who you identify as the consumer product owners. You recognize that you need external assistance for the project. You will engage with digital product subject matter experts to help fill-in the details of direct-to-consumer digital product and third party platform customer engagement.

D. You will confirm the project scope, determining whether it is digital products only or company wide, and what the planning horizon is. You need to know where the project will fit in the business cycle, for example will it align with the budget cycle in the CRM. You will identify who all the key stakeholders are and their issues. Since this is outside your experience which has been focused on IT-centric portfolio-based work, you will seek assistance with digital products and customer engagement.

5.2 Unit 3 Question 2

Unit # 3	Unit Name: Phase A, the Starting Point
Question # 2	**Description:** Central question in key concepts 3.1 Explain how to identify the information necessary to execute the Architecture Vision phase and how iteration cycles will provide more information to take into account in order to execute the phase. 3_Applying {S1} §3.2 G186 §5.2.1

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. Your area of responsibility is the Customer Relationship Management (CRM) system.

You see the need to develop a new target architecture for the CRM, since the current roadmap does not include support for the digital transformation, which is adding digital consumer products and digital services.

Several of the consumer product managers (responsible for both physical and digital products) have raised concerns about poor customer engagement and would like to know what the options are to improve it. They have also voiced a concern that the physical and digital products will not be completely distinct in terms of the sales and support channel. During discussions with the product managers, concerns include time-to-market, innovation, efficiency, and risks from integrated and product-centric systems. It appears there are conflicting and contradictory positions among the product managers about their needs, and how to move forward.

Question

You have been asked how an architected approach will help resolve conflict, and lead to an improvement of customer engagement and relationship management?

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

Answers

A. You explain that the architected approach would be based on the existing CRM architecture since that it is the current baseline. You would extend the approach used to build the existing roadmap for the CRM system, which addresses competing product line demands and the capacity of enterprise resources. The extension would service digital products. This is a reasonable compromise to address current and future product needs.

B. You explain that an architected approach starts by ensuring the problem is clearly defined. You will identify stakeholders with interests that are fundamental to the problem being addressed and identify decisions that have already been made. You would develop an Architecture Vision that answers the problem and addresses the stakeholder interests. You will then obtain the agreement of the stakeholders to proceed.

C. You explain that an architected approach will start by narrowing down the problem to one that can be reasonably answered and acted upon. You will identify the key stakeholders with interests in the problem. You then develop and propose a summary answer to the problem. You ensure the stakeholders understand what the next steps will be and when changes will take place.

D. You explain that an architected approach would be based on the knowledge, and experience of the consumer product managers who are closest to the customer engagement. You will use the same approach that builds the existing CRM roadmap, that brings together competing interests between enterprise resources and the product lines. You will ensure that decisions are made based on value, and the resource necessary to deliver the value.

6. UNIT 4: ARCHITECTURE DEVELOPMENT

6.1   Unit 4 Question 1

Unit # 1	Unit Name: Architecture Development
Question # 1	**Description:** Central question in key concepts 4.3 Explain the information that is relevant to produce outputs valuable to the architecture development: • Business principles • Business goals • Business drivers 3_Applying {S1} §4.2 G186 §5.2.2 4.4 Explain how to apply Phase B and how it contributes to the architecture development work. 3_Applying {S1} §4.3 G186 §5.2.2 4.5b Explain the outputs of Phase B necessary to proceed with the architecture development work

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm.

The three different approaches described in the initial Digital Transformation strategy succeeded, with the firm delivering digital products in multiple product lines.

The business systems now consist of the following:
1.   A call-center driven CRM for physical products oriented towards warranty work. For the traditional physical products, specialist retailers manage the sales cycle, and the company only directly engages with customers for warranty.

2.   A contact center driven CRM that provides direct customer engagement for sales and support within the confines of a third-party digital product platform. The platform has limited support for marketing, promotions, and sales.

3.   An AI-bot, chat & email-based contact center driven CRM that provides direct customer engagement for sales and support. This solution easily expands to support global marketing, promotion, and sales. It has rich data analytics.

4.   An online chat/ email-based contact center supported by a disposable solution that is integrated with your go-forward digital platform that supports direct engagement for sales and support of digital products. This solution was hastily assembled from a mixture of commercial applications and SaaS tools. It has limited support for data analytics, marketing, promotions, and sales.

The firm is now moving forward with digital transformation and will be enabling all of its product lines to offer digital products, or digital services associated with their existing physical products.

You are working on a major update to the CRM Roadmap. In this update the CRM Roadmap will be extended to include digital products. A review with three key stakeholder communities has been held to understand their motivations – the digital product owners, who are driven by digital product time-to-market, the business-unit operational leaders, who are driven by customer experience, and corporate IT, who are driven by reducing sustained costs.

Question

Given that the core motivations of the key stakeholders have been identified, the EA team leader asks what do you need to know to develop the target business architecture?

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

Answers

A. You would model the current state of business capabilities, value streams, the organization map, and the information map. You would then revise that model so that it will enable faster time to market, improve customer experience, and drive down sustained cost. You would then create views that describe the business capabilities, value streams, organization map and information map in the context of time to market, customer experience, and sustained cost. Finally, you would identify the gaps between the current and target to create roadmap components of things that must be changed.

B. You would use modeling (business capabilities, value streams, organization mapping and information mapping) to determine where the business fails to support product time-to-market, customer experience, and drives costs up. You will use the models to identify changes to the business to address the motivations of the key stakeholders. You will identify changes to improve the value stream, develop the business capabilities, change the organization, and improve information flow in terms of time-to-market, customer experience, and cost. Finally, you will determine the priorities that the stakeholders place on the enhanced business capability, improved value stream and improved information flow.

C. You would model the business capabilities, value streams, organization map, and information map following the techniques described in the TOGAF Series Guides related to Business Architecture. You would use these models to put together an integrated Business Architecture. The gaps between the current state and the target architecture will identify where change is needed or where new functionality needs to be implemented. Finally, you would create architecture views that describe the target state in terms of the three concerns, that is time-to-market, customer experience, and cost.

D. You would determine where the business, for example: organizational design, processes, business location, etc., fails to support product time-to-market, customer experience, and drives costs up. You would identify what changes to the business will enable faster time to market, improve customer experience, and drive down sustained cost. You would determine what changes are required to achieve different benefits in terms of time-to-market, customer experience, and cost. Finally, you would determine whether the stakeholders think the different changes are worth the effort to change.

6.2   Unit 4 Question 2

Unit # 4	Unit Name: Architecture Development (Information Systems Architecture)

Question # 2	**Description:**
	Central question in key concepts
	
	4.3 Explain the information that is relevant to produce outputs valuable to the architecture development:
	
	• Business principles
	
	• Business goals
	
	• Business drivers
	
	    3_Applying {S1} §4.2 G186 §5.2.2
	
	4.5 Explain the information that is relevant to Phase C (Data and Applications) to produce outputs relevant to the architecture development. 3_Applying
	    {S1} §6.2, 7.2 G186 §5.2.2
	
	4.6 Explain how to apply Phase C and how it contributes to the architecture development. 3_Applying {S1} §6.5, 7.5 G186 §5.2.2
	
	4.9 Explain the outputs necessary to proceed with the architecture development work. 3_Applying {S1} §4.4, 6.4, 7.4 G186 §5.2.2

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm.

The three different approaches described in the initial Digital Transformation strategy succeeded, with the firm delivering digital products in multiple product lines. The firm is now moving forward with digital transformation and will be enabling all of its product lines to offer digital products, or digital services associated with their existing physical products.

You are continuing to work on a major update to the CRM Roadmap, the scope of which is to be extended to include digital products.   Previously a review had identified the core motivations for the key stakeholder communities as digital product time-to-market, customer experience, and driving down sustained cost.

A review of the Business Architecture has been completed with the key stakeholders. This review identified where the current direct-to-customer and third-party platform value streams and information flows had created a poor customer experience. Changes to the information flows will improve customer experience, and that this will require changes in activity inside both value streams.

The EA team leader has noted that although all the stakeholders agree customer experience can be improved, the value streams consume substantial IT resources which drives up the costs.

Question

The EA team leader asks what do you need to know to address the motivation to drive down sustained costs?

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

Answers

A. You would identify where the application architecture, specifically the information system service and logical application component, fails to support product time-to-market, customer experience, and lead to drive costs up. You would determine the changes to the information flows (data entity, logical data component) that will enable faster time to market, improve customer experience, and drive down sustained cost. Finally, you would identify stakeholder priorities for the enhanced business capability, improved value stream and improved information flow.

B. You would produce application and data models of the current state for the direct-to-customer system, the digital product platform, and the third-party product platforms. You would then develop a target architecture model showing how you will enable faster time to market and drive down sustained cost. You would then create views that describe the changes to the direct-to-customer system, the digital product platform, and either workarounds or enhancements to the third-party product platforms in context of time to market and sustained cost. Finally, you would identify the gaps between the current and target to create roadmap components of the things that must be changed.

C. You would determine where the application and data architecture of the direct-to-customer, and third-party platform systems create the information flow problem. You would identify the changes are needed to the direct-to-customer system to fix the information flow. You would identify what changes, or work arounds, can be made to the third-party platform to address the information flow. You would look for incremental changes that deliver an improvement to customer experience. You would identify what the one-time work and impact would be to reduce the sustainment cost. Finally, you will check with the stakeholders if they think the improvements in customer experience are worth the one-time and final on-going cost.

D. You would determine where the application architecture and data architecture fail to support product time-to-market, customer experience, and lead to driving costs up. You would focus on the logical application components and logical data components. You would identify what changes to those components will enable faster time to market, improve customer experience, and drive down sustained cost. You would determine what work is required to improve the direct-to-customer platform and requested enhancements to the third-party product platforms in terms of time-to-market, customer experience, and cost. Finally, you would obtain the priorities that the stakeholders place on the application development, data structures, and interfaces that improve time-to-market, customer experience, and cost.

6.3 Unit 4 Question 3

Unit # 4	Unit Name: Architecture Development (Technology Architecture)
Question # 4	**Description:** Central question in key concepts 4.3 Explain the information that is relevant to produce outputs valuable to the architecture development: • Business principles • Business goals • Business drivers 3_Applying {S1} §4.2 G186 §5.2.2 4.7 Explain the information needed in Phase D to produce outputs relevant to the architecture development. 3_Applying {S1} §8.2 G186 §5.2.2 4.8 Explain how to apply Phase D and how it contributes to the architecture development work. 3_Applying {S1} §8.5 G186 §5.2.2 4.9 Explain the outputs necessary to proceed with the architecture development work. 3_Applying {S1} §8.4 G186 §5.2.2

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. Your core responsibility is the in-house digital product platform at the Architecture to support Portfolio level. Others on the EA team support the enterprise IT portfolio and customer engagement.

The firm is moving forward with digital transformation and is enabling all of its product lines to offer digital products, or digital services associated with their existing physical products. Your specialization keeps you in regular contact with the digital product owners, their development teams, and the CIO. In prior architecture development work, you used the third-party platforms to develop a reference model for business capabilities, value streams, information map, logical application model, and supporting data architecture as a reference model for a product platform.

You are working on the in-house digital product roadmap. You have three key stakeholder communities – the digital product owners, who are driven by digital product time-to-market, the business-unit operational leaders, who are driven by customer experience, and corporate IT, who are driven by reduction in sustained cost. You know from the initial work on the Digital Transformation strategy that the stakeholders are comfortable building throw-away experimental digital products on the third-party platforms. However, everyone wants to retain the in-house digital platform. An overriding factor is the ability to meet global regulations and residency for customer personal information. From a risk management perspective, you need to be able to keep customer personal information resident in their region of the globe.

The EA team leader has recently met with the key stakeholders. He has let you know that all the stakeholders agree customer experience expectations need to be met before any releases can be made. You know that the current approach consumes substantial IT resources that drive up costs and that this needs to be addressed.

Question

The EA team leader asks what do you need to know to address the need to drive down sustained costs?

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

Answers

A. You would find out where the application architecture interacts with customer data. You would identify the changes, to applications, the in-house digital platform, or use of the third-party platforms, that could address the concern about the data regulation and residency. You would determine which of these changes are driven by other reasons, and if there any incremental changes that deliver an improvement to customer experience. You would determine the implications to the technology architecture (infrastructure) of the potential changes in application architecture. You would determine the cost drivers for infrastructure and applications in distributed data systems. You would calculate the one-time work required and the resulting impact to sustainment costs. Finally, you would check if the stakeholders think the different changes are worth the work.

B. You would model the current state of the direct-to-customer system, the digital product platform, and the third-party product platforms. You would then develop a revised model showing a target state that will enable faster time to market, improve customer experience, and drive down sustained cost. You would then create views that describe the changes to the direct-to-customer system, the digital product platform, and either workarounds or enhancements to the third-party product platforms in context of time to market, customer experience, and sustained cost. Finally, you would identify and document the gaps between the current and target to create roadmap components of things that must be changed.

C. You would determine where the application architecture (information system service & logical application component) fails to support product time-to-market, and customer experience. You would identify changes to the information flows (data entity, logical data component) that are required to meet the data regulation and residency requirements. You would determine what needs to change in the technology architecture to enable these changes. You would identify changes which impact the sustained infrastructure costs. You would obtain the priorities that the stakeholders place on enhanced business capability, improved value stream and improved information flow.

D. You would determine where the application architecture and data architecture (logical application components and logical data components) fail to support product time-to-market, customer experience, and drive costs up. You would identify changes to the information flows (data entity, logical data component) that will enable faster time to market, improve customer experience, and drive down sustained cost. You will find out the priorities that the stakeholders place on the application development, data structures, and interfaces that improve time-to-market, customer experience, and cost. Finally, you would determine the costs to make the necessary changes in the application and data architecture. These costs may be either at the applications, the product platform, or the integration to the product platform.

7. UNIT 5: IMPLEMENTING THE ARCHITECTURE

7.1 Unit 5 Question 1

Unit # 5	Unit Name: Implementing the Architecture
Question # 1	**Description:** 5.3 Describe three basic approaches to implementation. 3_Applying {S1} §9.3.8 5.4 Explain how to identify and group work packages. 3_Applying {S1} §9.3 5.5 Explain how to create and document Transition Architectures. 3_Applying {S1} §9.3 5.7 Explain why and how business value is assigned to each work package. 2_Understanding {S1} §10.3.2 G186 §3.4, 9.2.2

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. The firm is moving forward with digital transformation and will be enabling all of its product lines to offer digital products, or digital services associated with their existing physical products.

You are continuing to work on a major update to the CRM Roadmap, the scope of which is to be extended to include digital products. Several members of your team have focused on individual business capabilities, engagement models, technical features, and the limitations of the different solutions. The IT stakeholders are concerned that the experiments will become permanent. The digital product stakeholders are troubled that they are being continually questioned about long-term issues when they are trying to develop the capability to have digital products and understand the impact of different methods.

As part of the development, you refer for guidance to the architecture developed laying out the Digital Transformation Strategy (the superior architecture). You start the roadmap development by using the architecture development work to create consolidated matrices that show the *key components*, their applicability to the different engagement models, and the gap between current state and a candidate target.

[Note: "*key components*" stands in for the appropriate items in an enterprise metamodel. Many would use business capability, logical software, logical data, logical technology, etc. to maintain consistency of analysis.]

Question

The EA team leader asks what your plan is to continue the roadmap development.

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

Answers

A. You would create the necessary views that help the stakeholders understand the benefit of a fully integrated CRM system. This will address the IT stakeholder's concerns over whether the experiments become a permanent solution. You identify gaps in the superior architecture that support the direction to implement a fully integrated CRM. You quantify the business value and work required to produce a series of increments of realizable points of value. You then group the gaps and work packages to address the gaps. Finally, you consolidate the work packages into transition states that most efficiently lead to a fully integrated CRM system.

B. You would create views that address the IT stakeholders' concern, and digital products stakeholders' objectives. You use the views to agree a timeline where the stakeholders agree the gap must be realized. You identify gaps in the superior architecture that must be addressed regardless of the stakeholder's preferences. You quantify the business value and work required to reach incremental realizable points of value. You then group the gaps and work packages. You then, in conjunction with the stakeholders select whether a work package supports a revolutionary, evolutionary, or greenfield approach. Finally, you consolidate the work packages into transition states that deliver sufficient value to justify the effort.

C. You would create views that help your stakeholders understand the product development benefit of freedom to pursue different paths. You identify objectives in the superior architecture for the digital strategy that reinforce freedom to experiment. You link those objectives to the different engagement models. You then quantify the business value and work required to reach incremental realizable points of value. You then group the gaps and work packages to address the gaps with an evolutionary approach to minimize re-work. Finally, you consolidate the work packages into transition states that most efficiently enables digital product development.

D. You would create views that address your team's concerns so that they fully understand the objectives and value of different capabilities and features. You identify gaps in the superior architecture that must be addressed regardless of the current stakeholder's preferences. You quantify the business value and work required to reach incremental realizable points of value. You then group the gaps and work packages. For each work package, you identify if it is a revolutionary, evolutionary, or greenfield approach. Finally, you consolidate the work packages into transition states that will deliver sufficient value to justify the effort.

7.2 Unit 5 Question 2

Unit # 5	Unit Name: Implementing the Architecture

Question # 2	**Description:**
	Central question in key concepts
	
	5.12 Explain how the Implementation Governance is executed (Phase G).
	        3_Applying {S1} §11.3 G186 §11.4, 15.1.2
	
	5.13 Explain the outputs necessary to support Architecture Governance.
	        2_Understanding {S1} §11.4 G186 §5.2.2
	
	5.14 Explain how Architecture Contracts are used to communicate with implementers. 3_Applying {S5} §5.2 G186 §3.3.2

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. The firm is moving forward with digital transformation and will be enabling all of its product lines to offer digital products, or digital services associated with their existing physical products.

You have now completed the major update to the CRM Roadmap, the scope of which has been extended to include digital products. You have received approval of a transition architecture where the core global CRM is sustained, while the digital experiments are responsible for their own CRM. Key elements of your architecture are guidelines enabling exiting from the disposable systems, global standards for information security, and global brand protection. You have drafted multiple Architecture Requirements Specifications, complete with conformance tests.

There are several implementation teams involved:

- The in-house digital platform team

- Three direct-to-customer product teams

- Two teams using third party platforms

Question

The EA team leader asks how you will engage with the implementation teams.

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

Answers

A. You will work with each of the implementation teams to ensure they understand the applicable Architecture Requirements Specification. You use the planning horizon in the transition architecture to identify the date by which the systems must have implemented the architecture. Based on the planning horizon schedule, you will then follow-up with each of the development teams and report to your governance process.

B. You will work with each of the implementation teams. This will include updating the draft Architecture Requirements Specification, and conformance tests, in terms that fit with each development program. You will come to an agreement with the development teams, and your stakeholders, about when the new architecture is expected to be implemented. You will schedule follow-up meetings with the development teams aligned with milestones in their implementation plan. You will schedule reporting in accordance with the governance process linked to the development timeline.

C. You will publish the architectures including the Architecture Requirements Specifications for each project in your repository, so the implementation teams can access a copy. You will regularly follow-up with the implementation teams to assess their progress and ensure they implement the architecture. You will ensure that the implementations comply with the implementation guidelines, implementation specifications, as well as the interoperability requirements, as defined in the Architecture Requirements Specifications.

D. You will work with each of the implementation teams to re-draft the Architecture Requirements Specification, and conformance tests, in terms that fit with their development program. You will come to

an agreement with each of the development teams, and your stakeholders, about when the new architecture will be implemented. You will make yourself available for follow-ups with the development teams to ensure your support is available to interpret the architecture, and to be available to adjust conformance testing to their implementation. You will support reporting through the established governance process.

7.3   Unit 5 Question 3

Unit # 5	Unit Name: Implementing the Architecture
Question # 3	**Description:** Central question in key concepts
	5.3 Describe three basic approaches to implementation. 3_Applying {S1} §9.3.8
	5.6 Explain the impact of the migration projects on the organization and the coordination required. 3_Applying {S1} §10.3 G186 §5.2.2, 9, 10.4, 10.6
	5.15 Explain how to balance opportunity and viability. 2_Understanding G186 §8.3

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. The firm is moving forward with digital transformation and will be enabling all of its product lines to offer digital products, or digital services associated with their existing physical products.

You have now completed the major update to the CRM Roadmap, the scope of which has been extended to include digital products. You have received approval of a transition architecture where the core global CRM is sustained, while the digital experiments are responsible for their own CRM. Key elements of your architecture are guidelines enabling exiting from the disposable systems, global standards for information security, and global brand protection.

The EA Team leader calls you into a meeting being held with all the physical and digital product managers. It turns out that one of the third-party platforms, that includes an AI-bot, has significant limitations regarding consumer information protection and residency. This is a serious issue since the AI-bot has been incredibly successful, with sales growing 30% month-over-month. To protect the brand, product experimentation will be halted. Everyone hopes the digital product can be salvaged.

Question

The EA team leader lets you know that the product team is completely available and asks you to summarize the next steps for advising the key stakeholders.

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

Answers

A. The system choices are a revolutionary change on the product to accommodate the in-house platform, or the other third-party platform. A key consideration will be the current work plans and capacity of the in-house platform team. While it is a great opportunity to extend the in-house platform, you believe the risk is too high since the product team is used to working with commercial providers and the inhouse

platform does not have commercial-grade processes, engagement, and documentation. You will document the option for the other third-party platform.

B. The system choices are a greenfield approach using a completely new platform, undertake a revolutionary change on the in-house platform to accommodate the product, or a radical change on the product to accommodate either of the two available platforms. You explain that an evolutionary approach is not appropriate to the situation. A key consideration will be the current work plans and capacity of the in-house platform team. Each of the choices have very different impacts and risks. You will document the opportunity, risk, and work.

C. The system choices are a completely new platform, undertake a revolutionary change on the in-house platform to accommodate the product, or a revolutionary change on the product to accommodate either of the two available platforms. You refer to the transition architecture, as it anticipates some of these issues, including exiting disposable systems, information security, and brand protection. A key consideration will be the current work plans and capacity of the in-house platform team. Each of the choices has different impacts and risks. You will visually document the opportunity, risk, and work.

D. The system choices are a revolutionary change on the product to accommodate your in-house platform, or the other third-party platform. A key consideration is maximizing the available benefit from this unfortunate circumstance. This is a great opportunity to improve and extend the in-house platform. The product team knows they face a revolutionary change to their product to fit into either platform. This is a great opportunity to evolve the in-house platform with both data analytics and AI-bot technology. Both will be very useful elsewhere.

8. UNIT 6: ARCHITECTURE CHANGE MANAGEMENT

8.1 Unit 6 Question 1

Unit # 6	Unit Name: Architecture Change Management
Question # 1	**Description:** Central question in key concepts 6.1 Explain the inputs triggering change management: - Change Requests 2_Understanding {S1} §12.2 G186 §14

Scenario Text:

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. You are responsible for the CRM roadmap at the portfolio level. The initial experiments of the Digital Transformation have been successful. The organization has successfully delivered digital products. One of the experiments is now delivering 10% of corporate revenue and is projected to grow 100% this year.

The system supporting the most successful digital product is the online chat/ email-based contact center that is integrated with the go-forward digital platform. This solution was hastily assembled from a mixture of commercial applications and SaaS tools. It has limited support for data analytics, marketing, promotions, and sales.

You have completed delivery of your annual CRM roadmap. The projects to improve efficiency have been approved, and the one of the projects to extend the system into a new country to support the unique local needs of warranty is completing. Between the work to develop the annual roadmap and provide implementation governance to the expansion into a new country you have been very busy. Looking forward, one of the efficiency improvement projects will be very complex with significant process and system changes to enable chat and email contact with the customer service agents.

Question

You meet with the EA Team leader to discuss status of your work. She asks you what you see as the next steps for the CRM and how you see your role in that.

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

Answers

A. You explain that you are going to have another busy year. Adding chat and email to the global system is going to have major process, staffing, and system implications. You expect to be very busy with implementation governance. With these new capabilities you might be able to expand the CRM architecture to directly support digital products.

B. You explain that at this stage you need to seek guidance from the stakeholders to determine their preferences, priorities, and value measures. If you follow the same approach as last year, you will be tied up supporting dealing with major process, staffing, and system implications that come from adding chat and email to your global system. This would not leave you time to consider the future of the CRM.

C. You explain that you are going to have to focus on implementation governance for the major efficiency project. Adding chat and email to the global system is going to have major process, staffing, and system implications. Learning from the last round of expanding the system and developing the roadmap you will be starting sooner on the annual roadmap update this year.

D. You explain that you are going to have another busy year. Adding chat and email to the global system is going to have major resource implication, including process, staffing, and system. You would need to focus on implementation governance. With new capabilities available, you will be able to have a conversation with the CRM stakeholders about when to expand the CRM architecture to directly support digital products.

8.2   Unit 6 Question 2

Unit # 6	Unit Name: Architecture Change Management
Question # 2	**Description:** 6.2 Explain the activities necessary for effective change management (Stakeholder Management). 2_Understanding {S1} §12.3 G186 §14 6.3 Explain the outputs relevant to proceed. 2_Understanding {S1} §12.4 G186 §5.2.2

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. You are responsible for the CRM roadmap at the portfolio level. The initial experiments of the Digital Transformation have been successful. The organization has successfully delivered digital products. One of the experiments is now delivering 10% of corporate revenue and is projected to grow 100% this year.

The system supporting the most successful digital product is the online chat/ email-based contact center that is integrated with the go-forward digital platform. This solution was hastily assembled from a mixture of commercial applications and SaaS tools. It has limited support for data analytics, marketing, promotions, and sales.

You have completed delivery of your annual CRM roadmap. The projects to improve efficiency have been approved, and the one of the projects to extend the system into a new country to support the unique local needs of warranty is completing. Between the work to develop the annual roadmap and provide implementation governance to the expansion into a new country you have been very busy. Looking forward, one of the efficiency improvement projects will be very complex with significant process and system changes to enable chat and email contact with the customer service agents.

Question

You meet with the EA Team leader to discuss status of your work. She notes that neither you, nor the EA Team, can sustain how the experiments were handled. She asks what you are going to change to ensure you, and the team, can meet expectations?

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

Answers

A. You explain that you are going to need support to ensure you have the gaps, work packages, Architecture Requirements Specification, and controls documented so that you do not need to be directly engaged in the implementation project. The digital product changes and ad hoc approaches in this experimental phase are creating barriers to future support of digital products. You are going to need to focus on developing a target architecture for a combined digital/physical world. The stakeholders will need to bring together the resources to manage change.

B. You explain that the best approach given the situation is for you to stop work on the CRM Roadmap and focus entirely on implementation governance for the major efficiency project. Adding chat and email to the global system is going to have major process, staffing, and system implications. It will be important to support solution delivery by providing the controls and architecture requirements used to test conformance. You will also facilitate governance of the implementation and operational changes.

C.You explain that improving sustainability requires not building technical debt right now. When the company followed a strategy of enabling experiments, they created an ad hoc coordination burden. Due to the complex situation, it is better to deal with the technical debt as soon as possible, and address it at the architecture level. You must stay directly engaged in implementation governance of these projects. You will guide the addition of chat and email to the global system so the CRM architecture can better support digital products.

D. You explain that you are going to improve the documentation and support available to the implementation team, particularly for the Architecture Requirements Specification, and controls. The work to document these artifacts will pay off later in the project timeline, by providing purpose and constraints on the implementation team. As soon as the Project and Solution Delivery-level artifacts have been provided to the implementation team you will be free to focus on developing a target architecture for a combined digital/physical world.

9. UNIT 7: REQUIREMENTS MANAGEMENT

9.1 Unit 7 Question 1

Unit # 7	Unit Name: Requirements Management

Question # 1	**Description:**
	Central question in key concepts
	
	7.1 Explain the inputs that can feed the Requirements Management phase.
	      2_Understanding {S1} §13.2 G186 §6.1.1, 6.1.2
	
	7.3 Explain the purpose of the outputs of Requirements Management
	      {S1} 13.4

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. You are responsible for the CRM roadmap at the portfolio level. The initial experiments of the Digital Transformation have been successful. The organization has successfully delivered digital products. One of the experiments is now delivering 10% of corporate revenue.

You are developing the annual update for the CRM roadmap. When you started the annual update, your most important objectives were to improve overall efficiency and sustain the unique value proposition of each consumer product line.

During the work to develop the roadmap a decision has been taken to transition the successful digital product from running as an experiment to sustained operation. This product uses an AI-bot, chat and email-based CRM that provides direct customer engagement for sales and support. You understand the system was hastily assembled together out of third-party tools and workarounds. The system has serious customer information limitations and cannot be used globally.

Question

What would you do next?

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

Answers

A. You would assess the impact of extending the enterprise CRM to include a sustained global CRM capability encompassing the former experimental product. You would create a Requirements Impact Assessment to identify the changes that should be made and the implications of them and submit that to the Architecture Board.

B. You would confirm with the Architecture Board if the change in status of the digital product to running as a sustained operation impacts the scope of your current work on the annual update to the roadmap. If so, then you will adjust your current architecture project in alignment with the direction from the Architecture Board.

C. You would continue developing your work plan to ensure you meet expectations for the CRM roadmap. You would initiate a separate architecture project to address the CRM solution for the digital product.

D. You would confirm with your stakeholders whether the change in status of the digital product has impacted the scope, stakeholders, and the objectives for your work. Based on stakeholder direction you adjust your current architecture project.

10. UNIT 8: SUPPORTING THE ADM

10.1   Unit 8 Question 1

Unit # 8	Unit Name: Supporting the ADM
Question # 1	**Description:** Central question in key concepts 8.1 Describe how The Open Group TOGAF Library can be used to support the practitioner's work. 2_Understanding {S0} §2 8.6 Explain what to expect in a well-run Architecture Repository. 2_Understanding G186 §5.1 8.9 Explain at which level an architecture is being developed and the associated level of detail expected. 2_Understanding {S3} §3.2, G186 §3.2.1 8.12 Explain the technique of gap analysis and where it can be applied. 2_Understanding {S2} §5.1, 5.2 G186 §6.3.2 8.19 Explain how risk assessment can be used. 2_Understanding {S2} §9.4. G152 §3.2.1, 5.3.4, 5.6.1, 5.7

Scenario

You are a senior architect working with the Enterprise Architecture (EA) team at the multinational consumer goods firm. You are responsible for the CRM roadmap at the portfolio level.

Within your personal area of responsibility, the CRM, you see the need to develop a new target architecture. The old drivers of efficiency and better support for localization of physical good warranty do not directly support the Digital Transformation. You know that there are fundamental customer engagement changes coming. For example, the old CRM workflows assume a physical good must be returned and inspected prior to refunding a consumer or providing a replacement product. This assumption won't be valid for either digital consumer products or digital services.

[Note: *the following meeting takes place prior to the EA team being engaged in the Digital Transformation*.]

You are in an EA team meeting. The meeting is about the strategy change, and the pending evolution of the EA Team from an IT-centric portfolio focus to also being engaged on customer experience for digital products. As part of preparation for the meeting you had accessed the TOGAF Library, a set of guidance materials and best practices that includes materials relating to Digital Transformation. You had made notes about some relevant titles. During the meeting the EA team leader says one of the activities important to a high functioning EA team is ensure that our Enterprise Architecture Capability meets the current requirements.

Question

At the meeting the EA team leader asks you to outline how you would like to update your approach to the CRM. She notes that to maintain continuity with prior analysis and roadmap planning you will continue to work at a portfolio-level.

What is your answer and where would you go to seek guidance?

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

Answers

A. You would start by building the target architecture for a radically re-worked approach to customer relationship management. The current approach of a shared CRM will not work with a mixture of a direct engagement model, a shared platform, and using third-party product platforms. You will need the EA Repository, and meta-model to be re-worked so they can support far more detailed information capture and analysis. You noted the *Information Architecture: Customer Master Data Management* guide in the *TOGAF Standard, 10th Edition* as a guiding resource. It will be instrumental in defining the interoperability standards to maintain integration of multiple engagement systems. Without this new architecture activity your company will be unprepared for level of risk from increased use of customer's personal information, multiple online channels to that information, and complex international regulations.

B. Since the current digital strategy is experimental, you want to include more risk analysis, with the aim of reducing uncertainty on the outcome of the digital experiment. The growth of direct engagement with customers will increase the amount of personal information, external access points, and complex international regulations. This would imply there should be a focus on information security of customer data. You will develop a set of assessments that can be used to assess customer engagement success, and personal information security based on external access paths and localization. This will allow you to build a set of capability gaps that are candidates for the enterprise, and a set of patterns for the different products and projects to follow. In the TOGAF Library you noted that the *TOGAF Digital Business Reference Model (DBRM)* (part of the modular *TOGAF Standard, 10th Edition*), and the *Seven Levers of Digital Transformation* whitepaper as useful resources for industry guidance.

C. The digital experiments include a mixture of a direct engagement, building a shared platform, and using third-party product platforms. All these approaches will increase the amount of personal information collected, external access points, and complex international regulations. The *Information Architecture: Customer Master Data Management* guide (part of the *TOGAF Standard, 10 Edition*) in the TOGAF Library provides a starting point for ensuring consistent customer data. You will need the EA Repository, and meta-model to be re-worked to support far more detailed information capture and analysis. You will minimize the detailed analysis to the narrow space of customer information to develop a set of Architecture Requirements Specifications and controls on customer data interchange and protection. Applying these to the different engagement paths will minimize information security risk and ensure common customer data can be maintained. You know the CRM platform will not meet these data interchange requirements. You will be able to identify the gaps to the shared platform so your senior leader decision makers can schedule the CRM improvement work, and the necessary enhancements to the digital experiments as they migrate to become stable production systems.

D. You explain that the current model of a shared enterprise CRM might not work, and that the switch to digital products and direct customer engagement is a highly significant change. The stakeholders need to make a set of difficult decisions about the future of customer engagement. The simple choice between a common shared repository and product line specific information repository will require a number of complex trade-offs that will drive the entire customer engagement portfolio. For example, maintaining a common shared customer information repository, will require technical data integration from direct engagement, the shared product platform, and a set of third-party platforms. On the other hand, product line specific customer engagement requires duplication and increases the number of points of information security risk. You will develop a candidate architecture for the company that drives out central decisions about the customer engagement. This assessment of the target will help your stakeholders understand the target, the opportunity, and threats to customer engagement success, as well as personal information

security. This will allow you to build a set of capability gaps that are candidates for the enterprise, and a set of patterns for the different products and projects to follow.