Migration and Modernization Customer Examples Requirements Calibration Guide for Migration and Modernization Competency – Services Path

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Introduction

AWS Migration and Modernization Competency Definition

AWS Migration and Modernization Competency Partners have deep experience helping businesses move successfully from on-premises, or other cloud environments, to AWS. They leverage advanced automation and specialized tools to manage complex projects adhering to a structured, phased approach aligned to the AWS methodology (Assess, Mobilize, Migrate and Modernize). As trusted advisors, they are committed to enhancing their customers' internal capabilities and establishing the essential groundwork for cloud adoption. Migration and Modernization Competency Partners accelerate AWS adoption by providing cloud advisory services, staff augmentation, tools for automation, education, and technical support to customers in the form of professional services.
There are two (2) categories in the Migration and Modernization Services Competency:

- **Migration Services**: recognizes partners with deep expertise in rehost, relocate, or like-to-like replatform migration patterns designed to move multiple systems swiftly to AWS. These patterns are intended for rapid or large-scale data center exits with minimal architectural changes, enabling quicker realization of cloud benefits. This category is the default category for new applicants.
- **Modernization Services**: recognizes partners with deep expertise in replatform or refactor (re-architect) patterns, where significant changes to the application architecture or underlying platform are implemented. Modernization involves transforming legacy applications and infrastructure to leverage cloud-native services, while preparing customers to operate these workloads using modern DevOps principles. Qualification for this category is below.

To qualify for the **Modernization Services Category**, AWS Partner must:

1. Possess the DevOps Services Competency
2. Choose either option (A) or (B)

- (A) Submit the self-assessment checklist presenting at least 2 (out of four (4) total) customer examples focusing on modernization patterns (refactor/re-architect or replatform) aligned to one or more AWS Modernization Pathways, which are: Move to Cloud Native, Move to Containers, Move to Managed Databases, Move to Open Source, Move to Managed Analytics, Move to Modern DevOps.

  OR

- (B) Submit the self-assessment checklist while possessing:

- At least one (1) Modern Compute or Serverless Service Delivery (SDP) Specialty: AWS Lambda Delivery, Amazon API Gateway Delivery, Amazon EKS Delivery, Amazon ECS Delivery, or AWS Graviton Delivery;
- **AND** at least one (1) Modern Data & Analytics Competency or Service Delivery (SDP) Specialty: AWS Data and Analytics Services Competency, Amazon DynamoDB Delivery, Amazon RDS Delivery, Amazon Redshift Delivery, Amazon EMR Delivery, AWS Glue Delivery, Amazon QuickSight Delivery, Amazon Kinesis Delivery, Amazon OpenSearch Service Delivery, or Amazon MSK Delivery.

Otherwise, the AWS Partner will submit the self-assessment checklist with four (4) customer examples and only qualify for the **Migration Services Category**. The AWS Partner can re-apply for the Modernization Category in the future when meeting the requirements.
Check the AWS Migration and Modernization Competency Program Prerequisites section for complete requirements.

This technical calibration guide is developed for AWS partners interested in, the Amazon Web Services (AWS) Competency. This guide covers the "Migration and Modernization Customer Example Requirements" in Migration and Modernization Self-Assessment checklist. Common requirements for specific designations will be addressed in separate documents.

The calibration guide format is the FAQs for each control. It provides clarity on the expected level of details of the requested evidence and improve the application quality. It helps partners reduce application cycle time and achieve Competency or SDP designation faster. Additionally, partners can adopt the best practices in this technical guide to improve their AWS service offerings.

Each control has the following FAQs:

Why is this important?
This section explains why a particular control is essential from a well-architected migration and modernization perspective.

What are the criteria for passing this control?
This section discusses what level of information is needed to pass a particular control. It clarifies the requirement for partner to self-assess when collecting artifacts.

Technical Enablement Resources
This section discusses how to implement the specific control using AWS services and best practices.

What are good example responses?
This section provides good response examples that meet the control and displays the level of depth and expertise required in the presented evidence.

What are unacceptable responses?
This section is composed of response examples not meeting the requirement of the control.

DES-001

Requirement

Project Scope:

Provide context and technical details about each customer example.

AWS Partner must present as supporting evidence all elements listed below for all provided customer examples:

- Statements of work or project plans agreed with the customer for each of the individual phases (Assess, Mobilize, Migrate & Modernize) within the past 36 months. Can be a single document.
- List documenting workloads/applications migrated or modernized and their source origin (on premises, other cloud)
- Date the project entered production

Criteria for Passing

- A Statement of Work or Project Plan must have scope and customer deliverables or outcomes, effort timeline, milestones, customer and partner responsibilities.
- List documenting workloads must explain how they were migrated or modernized to AWS.

Why is this important?

By adopting a Statement of Work or Project Plan, AWS Partners will be able to help customers to accelerate migrations and modernization projects in a structure way making sure that business and technical outcomes are aligned and follow AWS best practices.

How can you implement this?

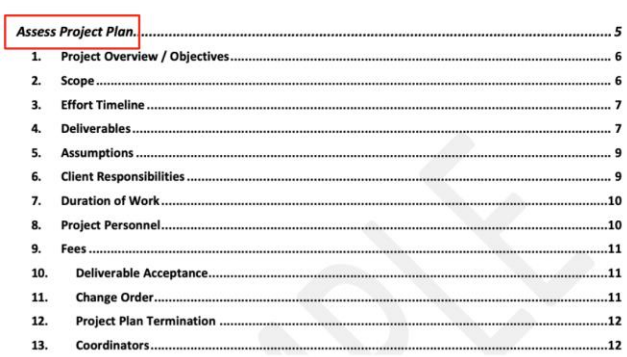
Following your own governance or deliver framework, by following a methodology AWS Partners can support customers to accelerate migrations and modernization projects in a structured way, it helps minimize risks of an unsuccessful delivery and ensures that business and technical outcomes are successfully achieved.

Additional Resources

If you don't have your own statement of work or project plan you can check the samples below in the partner central as guidance to create your own.

- Sample Combined Project Plan

Good Example Response #1



Assess Project Plan 5

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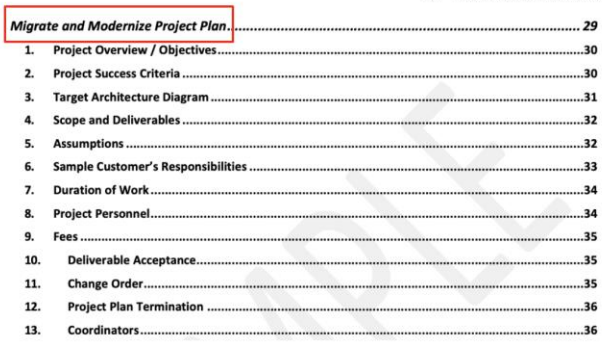

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Mobilize Workloads

Application Name	Number of Servers	Wave	Environment
App01	5	1	Dev
App02	15	2	Test
App03	20	3	UAT

Migrate & Modernize Workloads

Application Name	Number of Servers	Wave	Environment
App04	30	4	UAT
App05	35	5	Prod
App06	35	6	Prod
App07	40	7	Prod
App08	28	8	Prod
App09	22	9	Prod
App10	14	10	Prod

In the example above, you can check the relevant topics for a statement of work or project plan, as we can see these project plans are divided per migration phase, you can also combine in a single document.

Good Example Response #2

Timeframe	Milestones
Month 1	• Landing Zone deployment and validation • Hands-on Workshop: Monolith Decomposition using Domain Driven Design • Hands-on Workshop: Strangler-Fig with Refactor Spaces • Hands-on Workshop: Microservices with API Gateway, Lambda, and DynamoDB • Hands-on Workshop: QnABot Installation and Tutorials • Hands-on Workshop: Modes (Web UI, Connect call center, messaging apps, Alexa) • Amazon Connect: Initial Content, Testing, Tuning, prototype Web UI • Amazon Connect: User authentication, external data source API integration
Month 2	• Target database engine recommendation and high-level architecture on AWS. • High Level Solution Architecture for modernizing 3 .NET applications • High Level Solution Architecture for modernizing one domain service to Cloud Native architecture with serverless • Amazon Connect: Internal user testing, feedback and usage reporting, content refinement and tuning • QnABot: Deploy to production account, operations, support • Amazon Connect Workshop: Wrap-up, retrospective, future state, roadmap
Month 3	• High level migration plan for in-scope databases • High level migration and modernization plan for containerized application on AWS • High level modernization plan for moving to cloud native with serverless • Documented QnABot architecture • Operations guide for workloads migrated to AWS • AWS Well Architected Review for migrated workloads

Milestones	Dates	Milestone % of Total Project Scope	Expected Ramp of post migration quarterly revenue	Deliverables
Milestone # 1	Year 1 – Q1 Jan 2022	10%	-	Project kickoff and % ARR increase during "pilot migration" in Mobilize phase, if applicable.
Milestone # 2	Year 1 – Q2	25%	$0.1M	**Migration, Modernization, Integration, Optimization, Phase 1** In scope workloads in Wave 1,2 not previously migrated during mobilize.
Milestone # 3	Year 1 – Q3	50%	$0.25M	**Migration, Modernization, Integration, Optimization, Phase 2** In scope workloads in Wave 3,4
Milestone # 4	Year 1 – Q4	75%	$0.5M	**Migration, Modernization, Integration, Optimization, Phase 3** In scope workloads in Wave 4,5
Milestone # 5	Year 2 – Q1 March 2023	100%	$1.0M	Completion and Sign-off by Customer

Above, we have an example of effort timeline and work breakdown structure used to define sprints, wave plans, applications involved and AWS Services.

Month1- AWS Partner will deploy the Landing Zone and deliver multiple workshops to validate the solution and train the users.

Month2 – AWS Partners will deploy the target database and collect user's feedback

Month3 – AWS Partner will perform knowledge transfer and review WAR

Moreover, we also have the project milestones and the Annual Revenue Realization (ARR) expected for each milestone.

***Note**:* Your project plan may be different based on customer outcomes, gaps, processes and tools followed by your organizational and governance process.

Unacceptable/Incomplete Response

- Missing source workload and applications involved, milestones, effort timeline, fees, target AWS services, generic migration and modernization plan, migration and modernization strategy, expected outcomes.
- Missing date of production delivered project.

DES-002

Requirement

Annual Recurring Revenue (ARR):

Customer example must demonstrate AWS Service usage of at least ≥ $100K annual recurring revenue (ARR).

AWS Partner must present as supporting evidence all elements listed below for all provided customer examples:

- AWS Pricing Calculator or similar assessment created during the project demonstrating AWS Service usage of ≥ $100K annual recurring revenue (ARR)
- For projects funded by Migration Acceleration Program (MAP), provide the MAP-ID.

Criteria for Passing

- AWS Pricing Calculator or similar assessment with amortized annual recurring revenue and right size optimization demonstrating AWS service usage of at least ≥ $100K annual recurring revenue (ARR).
- AWS services defined in the target solution and diagram must match in the AWS Calculator or similar assessment.

Why is this important?

Migration and Modernization projects requires investment ROI is a critical driver for moving forward. As a trusted advisor to customers, AWS Partners must be able to help customers implement cost-effective solutions.

How can you implement this?

- Consider to use AWS Pricing Calculator
- Estimate Total Cost of Ownership (TCO) with AWS Migration Portfolio Assessment

Additional Resources

- Build data-driven business case for AWS with Migration Evaluator
- Create rightsized resources to AWS with AWS Partners

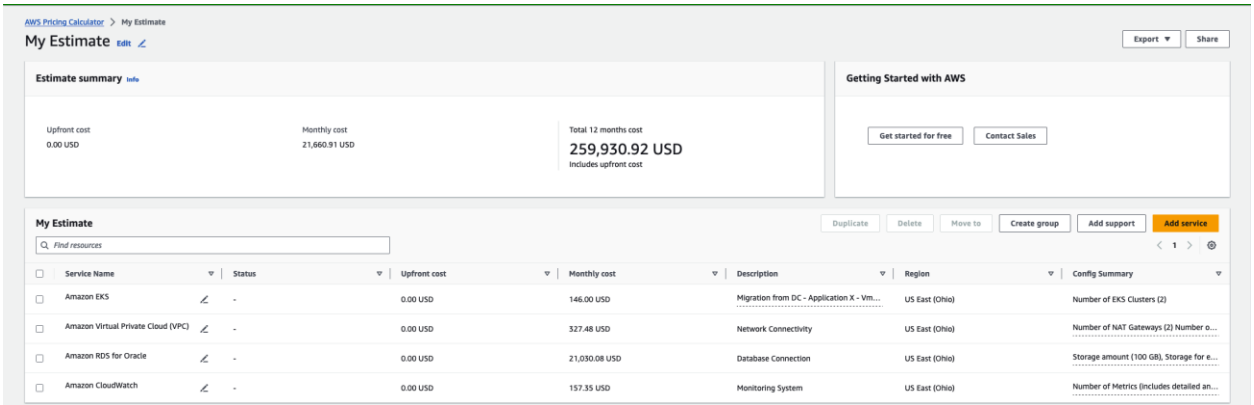
Additional Recommendations

In the absence of ARR estimate report contain respective AWS services of use case, please provide the customer's “AWS billing covering period before start date of the migration until end

date of the migration" of the AWS account where the environment was migrated as proof of ≥ $100K annual recurring revenue (ARR).

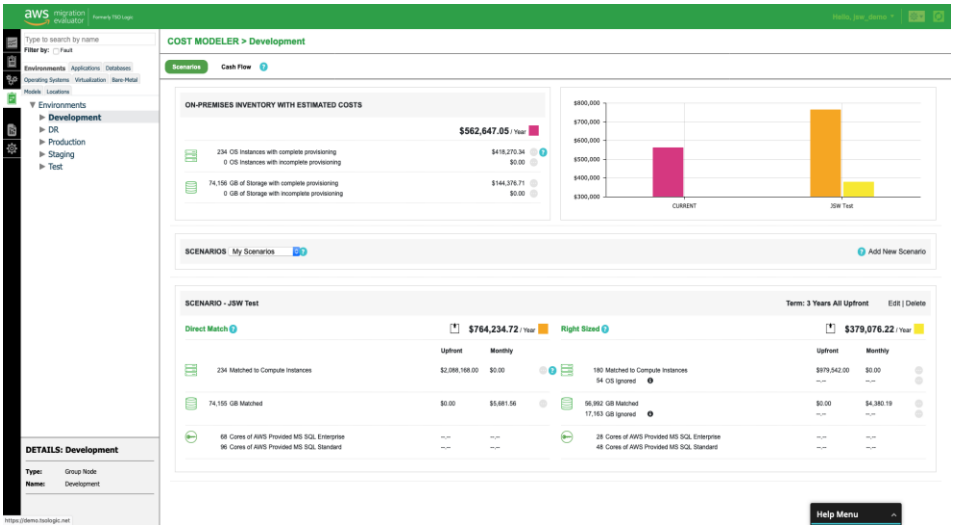
Good Example Response #1: Output AWS Calculator

As we can see the AWS services defined for the solution were duly documented in the estimate at the beginning of the project, this helps to confirm that the expense is meeting the standard defined for this control.



Good Example Response #2: Output Migration Evaluator

Here is another example of ≥ $100K Annual Recurring Revenue (ARR), the ARR is 379,076.22 USD for a migration from ON-PREMISES to AWS, by using EC2 compute instances and database services.



Unacceptable/Incomplete Response

Multiple examples of unacceptable responses:

- A written description in the self-assessment excel/word, this increases the risk of an incorrect estimate as some AWS services need other metrics like data transfer, etc.
- A simple total ARR without the composition of optimized and right-sized AWS services involved in the solution.
- AWS services that do not correspond to the migration scope or project plan, for example if the use case is migration to AWS container services, these services like ECS/EKS need to be included in the calculator, services that are not scoped and are included in the calculator/estimate will not be accepted.
- ARR estimation using OnDemand pricing option with utilization about 60%.
- Partner responding "N/A" or an answer similar to any of the following: "The whole operational activity was provided by the customer team.", "We did not perform this as part of this engagement, this was the customer's responsibility", etc. **While we understand not every engagement may require this, partners must have a practice in place. This control must be met for all customer examples submitted.**

Example of Unacceptable/Incomplete Response #2

Here is an example of an unacceptable/incomplete response, the estimate is generic, there is no breakdown of AWS services, which makes it difficult to analyze whether the estimate matches the scope of the migration project.

AWS ARR ESTIMATE						
	Compute	**Storage**	**Backup**	**License**	**Network**	**TOTAL**
Monthly Cost	$ 18,000.00	$ 6,500.00	$ 13,000.00	$ 10,000.00	$ 7,000.00	**$ 54,500.00**
Annual Cost	$ 216,000.00	$ 78,000.00	$ 156,000.00	$ 120,000.00	$ 84,000.00	**$ 654,000.00**

Note: Although we understand that a manual estimate can be used, we do not recommend to use a manual estimate as the manual estimate might miss critical metrics such as data transfer, inbound and outbound traffic.

ASP-001

Requirement

Cloud Readiness Assessment:

AWS Partners understand customer readiness to move to AWS, identifying gaps, and proposing actions to remove blockers using tools and methodology.

Partner must present as supporting evidence all elements listed below for at least 2 of the customer examples:

- AWS Migration Readiness Assessment (MRA) reports (or comparable partner report) that covers at least 4 of 6 CAF perspectives: Business, People, Governance, Platform, Security, and Operations
- Documented actions proposed to the customer to close gaps or remove blockers

Criteria for Passing

Provide the output with recommendations for the customer of Migration Readiness Assessment (MRA) or similar and how Cloud Readiness Assessment was conducted.

Why is this important?

Understanding where an organization is in its cloud journey, Identified areas of strength and weakness from a cloud-readiness perspective and create an action plan to resolve the identified gaps, so the organization can migrate at scale without having to pause to solve foundational issues.

How can you implement this?

- The MRA is conducted as an AWS-facilitated or Partner-facilitated workshops with customer stakeholders (cross-functional teams, both vertical and horizontal). The target outcome is a specific set of actions needed to build momentum and capability for the customer.
- You can take advantage of the online AWS Assessment tool to streamline the engagement process.

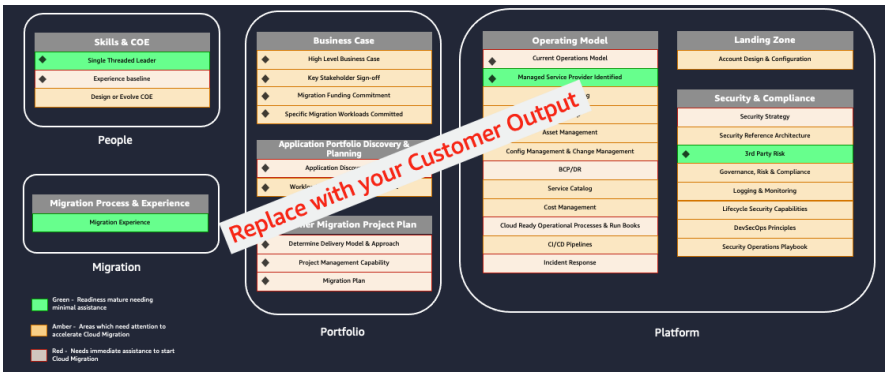
Additional Resources

- MRA Delivery Guide

Good Example Response

- PDF, accessible link, or file is attached on the application that clearly documents the Output of MRA report and recommended actions.
- The customer example must include information similar to the following:
    - People: Skills & COE
    - Migration Process & Experience: Migration Experience
    - Business Case: High Level Business Case, Key Stakeholder Sign-off, Migration Workload committed.
    - Operating Model: Current Operating Model, Service Catalog, Cost Management, Config Management, Change Management, Incident Response.
    - Landing Zone: Governance, Risk & Compliance, Security Strategy, Account Design and Configuration.

Here is an example of MRA Workstream Summary



Unacceptable/Incomplete Response

- A written description in the self-assessment checklist.
- An attached report that that does not contain actual information from your use case or is a template only
- Assessment without recommended next steps to address identified gaps
- Partner responding “N/A” or an answer similar to any of the following: “The whole operational activity was provided by the customer team.”, “We did not perform this as part of this engagement, this was the customer’s responsibility”, etc. **While we understand not every engagement may require this, partners must have CRA/MRA in place. These reports must be submitted for at least two (2) of the case studies.**

ASP-002

Requirement

Business Case or Business Justification:

Partner must present supporting evidence including a report or presentation, and the data collection and analysis tooling used to develop the Business Case or Business Justification, for at least two (2) customer examples:

The report or presentation will include:

Common elements for either Migration or Modernization:

a) Business value analysis (BVA) of migration or modernization to AWS (e.g. staff productivity, operational resilience, business agility, and/or sustainability)
b) Data collection and analysis tooling or process used to develop the Business Case or Business Justification, and tool outputs presented to the customer

Specific elements for Migration customer examples:

c) TCO estimations (cost of running in AWS, cost of staying in current environment, cost of migration to AWS, ROI)
d) Right-sizing and right-pricing for a minimum of 3 years or matching the customer refresh cycle

Specific elements for Modernization customer examples:

e) Cost comparison between modernization options, such as: Cost of running on Amazon EC2 versus cost on AWS services for containers or serverless

Criteria for Passing

- Demonstrate understanding of business drivers and provide technical justification, why migrate and modernize to AWS?
- Business Case must have description of the workload migrated as well as target AWS services defined in the solution.
- Must show the cost of running in AWS, cost of staying in current environment, cost of migration and modernization to AWS, ROI (Return on Investment).

Why is this important?

A business case is the first step that needs to be taken into account before starting a migration and modernization project, it is positioned in the Assess phase, a correct business case help to reduce the risks of affecting the estimated budget for a migration or modernization workloads, in addition to accelerating customer engagement for the mobilization phase.

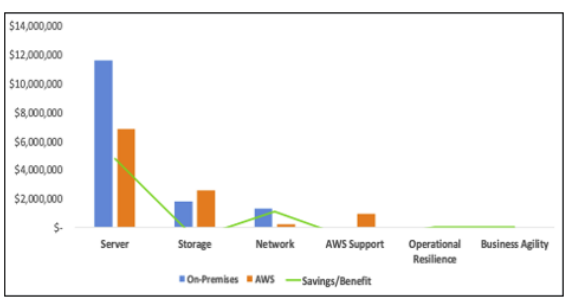
How can you implement this?

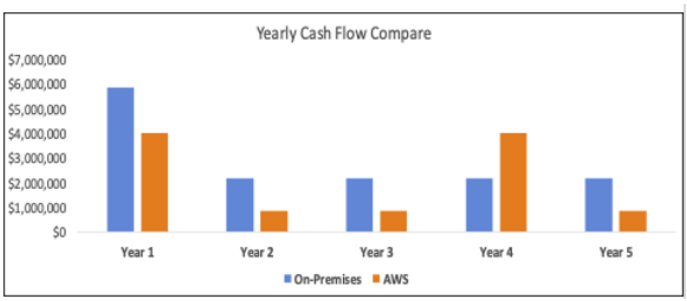
- Work with customers to establish business goals for the workload, and ensure the customer knows and is aware of the workloads that will be migrated.
- Build a data-driven business case for migration to AWS it helps you to cover all customer environment, from infrastructure to applications, it is essential to create a consistent business case.
- Leveraging AWS tooling (MPA) Migration Portfolio Assessment, (ME) Migration Evaluator or similar.

Good Example Response

- PDF, accessible link, or file is attached on the application that clearly demonstrate the estimate the cost of running in AWS, cost of staying in current environment, cost of migration to AWS, ROI, TCO saving opportunity.
- The estimate must contain the AWS services defined in the solution.

  Here is an example of a key Business Case metrics (not limited to this one) that compares the costs of running on-premises and on AWS, long-term savings, reduced infrastructure costs, as well as increased operational resiliency and business agility.





Unacceptable/Incomplete Response

- Generic documentation, self-written word/excel.
- Generic business case without mentioning applications/workload involved in the migration.
- A simple link to AWS calculator, random screenshots showing elements of Business Case.
- Absence of cost comparison between on-premises and AWS.
- Missing AWS services involved in the solution.

- Partner responding “N/A” or an answer similar to any of the following: “The business case provided by the customer team.”, “We did not perform this as part of this engagement, the customer had already decided to migrate to AWS.”, etc. **While we understand not every engagement may require this, partners must have these practices in place. Business case must be submitted for at least two (2) case studies.**

ASP-003

Requirement

Modernization Assessment (only for Modernization customer examples):

AWS Partners demonstrate their ability to assess customer readiness for modernization on AWS cloud through deep discovery and analysis of business drivers, application architecture, data transformation requirements, DevOps practices, and operational readiness.

Partner must present supporting evidence, such as reports, presentations, or proposals, which address the following (for at least two (2) modernization customer examples when applying to the Modernization category):

Assessment report or gap analysis, such as the AWS Modernization Assessment (MODA), covering:

Customer readiness to modernize

- Prioritization of applications for modernization based on business impact, technical feasibility, and dependencies

Application details and target state envisioning

- Software Development Lifecycle (SDLC) requirements or customer DevOps posture

Workload modernization design alternatives presented to the customer, highlighting the benefits, trade-offs, and alignment with their business objectives.

- Tooling used to assess the workload for modernization and the outputs presented to the customer.

Criteria for Passing

Provide the output with AWS Modernization Assessment (MODA) report or similar and how Modernization Asses was conducted.

Why is this important?

Understanding where an organization is in its modernization journey, identified areas of strength and weakness from a modernization-readiness perspective and create an action plan to transform existing applications and infrastructure into higher-value, cloud-native services.

How can you implement this?

- The MODA is conducted as an AWS-facilitated workshops with customer stakeholders (cross-functional teams, both vertical and horizontal). The target outcome is a specific set of actions needed to build momentum and capability for the customer.
- Engage with your AWS Account Manager/team to discuss program fit, and request MODA Nomination.

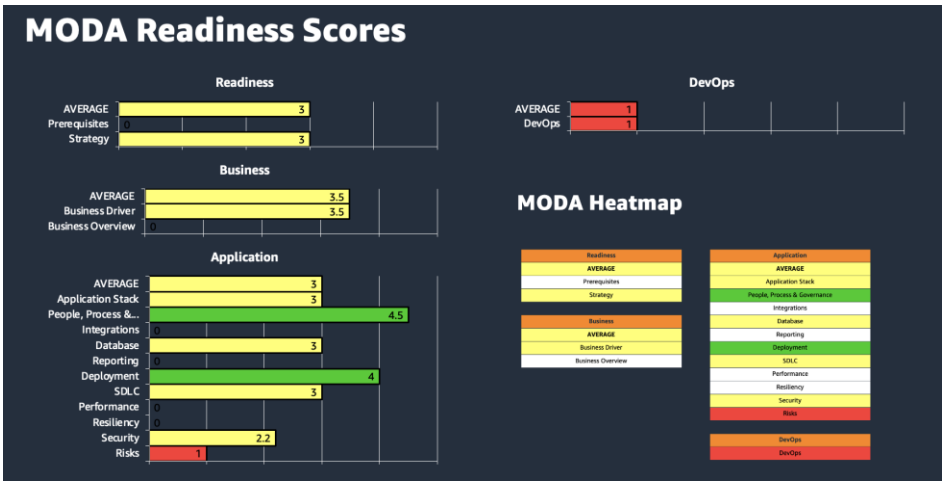
Additional Resources

- Application Modernization Assessment (MODA) delivery guide

Good Example Response

- PDF, accessible link, or file is attached on the application that clearly documents the Output of MODA report and recommended actions.
- The customer example must include information similar to the following:
    - Readiness: People, Process and Technology
    - Business Drivers
    - Application: Integrations, Performance, Security, DevOps & SLDC

Here is an example of MODA Readiness Score and MODA Heatmap



Unacceptable/Incomplete Response

- A written description in the application-assessment checklist.
- An attached report that that does not contain actual information about application, workload, stakeholders and readiness outcome or is a template only
- Assessment without recommended next steps to address identified gaps
- Partner responding “N/A” or an answer similar to any of the following: “The whole assessment activity was provided by the customer team.”, “We did not perform this as part of this engagement, this was the customer’s responsibility”, etc. **While we understand not every engagement may require this, partners must have MODA or similar report in place. These reports must be submitted for at least two (2) of the case studies.**

MOB-001

Requirement

Portfolio Discovery:

AWS Partner uses automated tooling for discovery and has standard methodology to proposed migration and modernization strategies aligned with the 7Rs.

Partner must present as supporting evidence all elements listed below for at least 2 of the customer examples:

Reports or outputs generated by discovery tools used and interviews conducted with customer, including (but not limited to): infrastructure inventory, dependency mapping, application analysis, static code analysis, code run time analysis, performance analysis, etc.

Documentation of recommended migration and modernization strategy (7Rs - Retire, Retain, Rehost, Relocate, Refactor, Replatform, and Repurchase), considering the cost optimized design, risks, timing, and licensing requirements

Criteria for Passing

AWS Partners must justify the recommended migration and modernization strategy.

The recommended migration and modernization strategy must match with (7Rs).

Reports or outputs generated by discovery tool and interview questionaries that support the decision must be attached for at least 2 of customers examples.

Why is this important?

Portfolio Discovery using automated tooling increase the chances of having accurate information customer inventory the level of automation helps to identify dependencies, which manual discovery might not be able to, besides generating insights to create the right migration or modernization scenario.

How can you implement this?

- Work with key customers stakeholders to define the eligible workloads for a migration and modernization pilot.
- Guide the customer on how to install and configure discovery tool and generate the report.

- Review the report with stakeholders to ensure that recommended migration strategy (7Rs) has been analyzed and key success metrics, cost optimized designed, risks, licensing requirements has been considered.

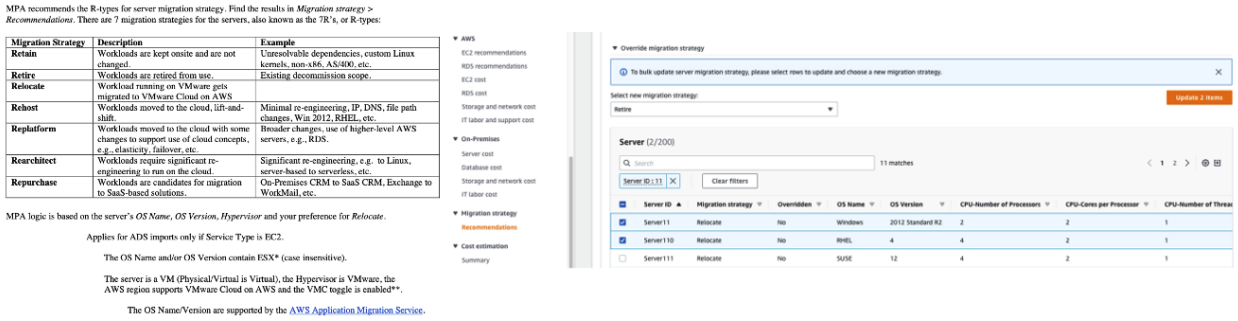
Additional Resources

- Creating AWS Migration Portfolio Assessment
- Using AWS with Migration Evaluator to Portifolio Discovery
- 3rd party discovery tooling

Good Example Response

- A PDF, accessible link, or file is attached to the application with standardized tool output report.
- If part of the application discovery was conducted through an interview with the stakeholders the results of the interview must be provided.

Here is an example of the "**Rehost**" recommended migration strategy generated AWS MPA tool



MPA recommends the R-types for server migration strategy. Find the results in *Migration strategy > Recommendations*. There are 7 migration strategies for the servers, also known as the 7R's, or R-types:

Migration Strategy	Description	Example
Retain	Workloads are kept onsite and are not changed.	Unresolvable dependencies, custom Linux kernels, non-x86, AS/400, etc.
Retire	Workloads are retired from use.	Existing decommission scope.
Relocate	Workload running on VMware gets migrated to VMware Cloud on AWS	
Rehost	Workloads moved to the cloud, lift-and-shift.	Minimal re-engineering, IP, DNS, file path changes, Win 2012, RHEL, etc.
Replatform	Workloads moved to the cloud with some changes to support use of cloud concepts, e.g., elasticity, failover, etc.	Broader changes, use of higher-level AWS servers, e.g., RDS.
Rearchitect	Workloads require significant re-engineering to run on the cloud.	Significant re-engineering, e.g. to Linux, server-based to serverless, etc.
Repurchase	Workloads are candidates for migration to SaaS-based solutions.	On-Premises CRM to SaaS CRM, Exchange to WorkMail, etc.

MPA logic is based on the server's *OS Name*, *OS Version*, *Hypervisor* and your preference for *Relocate*.

Applies for ADS imports only if Service Type is EC2.

The OS Name and/or OS Version contain ESX* (case insensitive).

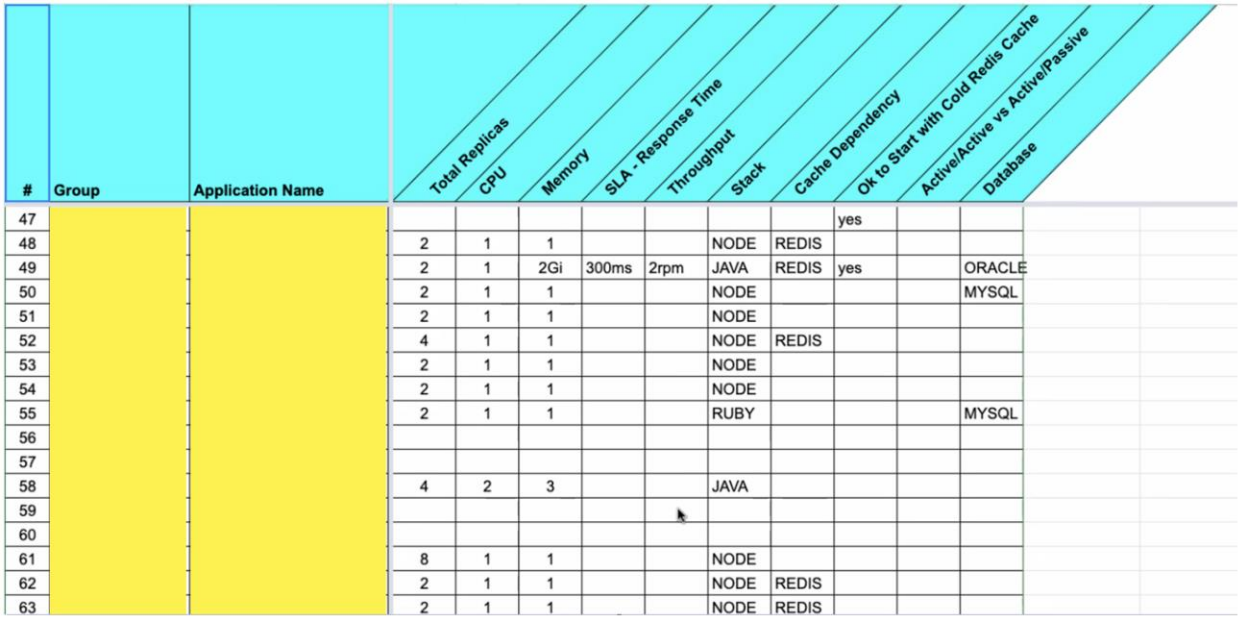
The server is a VM (Physical/Virtual is Virtual), the Hypervisor is VMware, the AWS region supports VMware Cloud on AWS and the VMC toggle is enabled**.

The OS Name/Version are supported by the AWS Application Migration Service.

Unacceptable/Incomplete Response

- Manual discovery of infrastructure written in word/excel with generic information like hostname, CPU, memory, disk, only.
- Reports that do not contain the migration and modernization strategy (7Rs) and the justification for the chosen strategy.
- Partner responding "N/A" or an answer similar to any of the following: "The whole discovery assessment was provided by the customer team." "We did not perform this as part of this engagement as customer did not authorize", etc. **While we understand not every engagement may require this, partners must have these practices in place. Portfolio Discovery must be submitted for at least two (2) case studies.**

Example of Unacceptable/Incomplete Response



#	Group	Application Name	Total Replicas	CPU	Memory	SLA - Response Time	Throughput	Stack	Cache Dependency	Ok to Start with Cold Redis Cache	Active/Active vs Active/Passive	Database
47										yes		
48			2	1	1			NODE	REDIS			
49			2	1	2Gi	300ms	2rpm	JAVA	REDIS	yes		ORACLE
50			2	1	1			NODE				MYSQL
51			2	1	1			NODE				
52			4	1	1			NODE	REDIS			
53			2	1	1			NODE				
54			2	1	1			NODE				
55			2	1	1			RUBY				MYSQL
56												
57												
58			4	2	3			JAVA				
59												
60												
61			8	1	1			NODE				
62			2	1	1			NODE	REDIS			
63			2	1	1			NODE	REDIS			

MOB-002

Requirement

Migration or Modernization Governance:

AWS Partner creates detailed documentation of the migration or modernization plan for each customer example using a standard methodology.

Partner must present as evidence the Migration or Modernization plan(s) for the application/workloads moved to AWS, including all the elements listed below for all provided customer examples:

- Communication plan to inform the necessary stakeholders (end-users, application owners, system owners, etc.) of applicable tasks, decisions, impacts to systems, etc.
- Cutover plan with associated change management activities to mitigate downtime impact in applications/workloads
- Tests and rollback plan for applications/workloads migrated or modernized based on documented Service Level Indicators / Service Level Objectives (SLI/ SLO).

Criteria for Passing

- The migration and modernization plan must follow a project management standard and/or governance process of the customer and/or AWS Partner.
- The applications/workloads that will be migrated or modernized on AWS must be included in the migration and modernization plan as well as the communication, cutover, test and rollback process.

Why is this important?

By adopting a governance model for migration or modernization projects, AWS Partners will be able to help customers accelerate migrations in a structured way, controls such as communication plan, testing and rollback, help to minimize risks and ensure that the results commercially and technically are successfully achieved.

How can you implement this?

You can follow your own governance and organizational process, or you can leverage framework as TOGAF, and AWS CAF (AWS Cloud Adoption Framework) as guidance to create your delivery model.

Additional Resources

If you don't have your own statement of work or project plan you can check AWS prescriptive Guidance Library samples as reference to create your own.

- Mobilize offering accelerators and delivery kits

Good Example Response

- PDF, word doc or internal wiki attached to the customer example must include:
    - A communication plan involving the organization's stakeholders with the main tasks of the migration.
    - Change management activities to mitigate downtime impact in applications/workloads.
    - Rollback plans for applications/workloads to be implemented in case of failures.

Unacceptable/Incomplete Response

- A lack of PDF, or document containing output of governance process.
- Missing scope, workloads/applications involved in the migration or modernization process.

- Partner responding "N/A" or an answer similar to any of the following: "The whole project management was provided by the customer team.", "We did not perform this as part of this engagement, this was the customer's responsibility", etc. **While we understand that governance process tools and methodology may vary according to each use case, items such as communication, cutover and rollback plan are critical. Partners must have these practices in place, this control must be submitted for all customer examples.**

MOB-003

Requirement

People and Skills:

AWS Partner performs migration and modernization for their customers while also preparing them for post-project success.

Partner must present as supporting evidence all elements listed below for at least 2 of the customer examples:

- RACI matrix or equivalent mechanism indicating customer and partner's role and involvement in the project (responsible, accountable, consulted, and informed)
- Documentation of a transition plan or handover delivered for the customer
- Documentation of role-based training plans created for the customer, knowledge transfer or training content delivered to the customer

Criteria for Passing

- AWS Partners must present documentation of AWS training or workshops proposed and delivered to the customer
- Reports or outputs delivered must contain the relevant topics required to train the customer to operate the migrated workload on AWS.

Why is this important?

The objective is to enable the customer to operate the environment efficiently and without dependence on the AWS partner after migration.

Knowledge transfers or official AWS training are essential to implement best practices or new operating practices related to the migrated workload.

How can you implement this?

- Throughout and at the conclusion of the project, provide post go-live and knowledge transfer of the architecture and operations including demonstration and education to customer administrators on relevant topics such as deployed services.
- Ensure that customer’s administrator is familiar on how to operate the workload based on these artifacts

Additional Resources

- Guiding principles to create a CCoE

Good Example Response

- Attached documents, screenshots, runbooks containing:
    - A thorough explanation of target solution, architecture.
    - Evidence of trainings/workshops delivered and accepted by the customer.

Unacceptable/Incomplete Response

- Statement of Work or Project Plan missing transition plan.
- Generic documentation, self-written word/excel that don't mention the workloads and applications migrated.
- Partner responding “N/A” or an answer similar to any of the following: “The whole training and transition plan was done by the customer team.”, “We did not perform this as part of this engagement, this was the customer’s responsibility”, etc. **While we understand not every engagement may require this, partners must have these practices in place. This control must be submitted for at least two (2) of the case studies.**

MOB-004

Requirement

Landing Zone:

AWS Partner uses automation to build multi-account landing zone structures and establish connectivity between source and target environments.

Partner must present as supporting evidence all elements listed below for at least 2 of the customer examples:

- Diagrams with the VPC's, networking connectivity, and data flow including connectivity with source or external environments (VPN, Direct Connect or Public Internet)
- Process or output of tools used to create and maintain the landing zone (AWS Control Tower, AWS CloudFormation, scripts or Infrastructure as Code third-party tools)

Criteria for Passing

- Provide the target diagram containing AWS multi-account structure, the integration with source environment (outside) of AWS and traffic flow.
- Description of Landing Zone implementation, provisioning method, security approach, tools used, and how integration between the source (external) and AWS environment was implemented to ensure successful migration and operation.

Why is this important?

As a foundation step landing zone implementation is critical as will support the entire migration and operation of your workload.

As trusted advisors, AWS Partners must know networking, security, and governance best practices to implement a Landing Zone that can efficiently accommodate and scale migrated workloads.

How can you implement this?

- Work with customers to do a detailed assessment to understand the customer's networking and security structure, this is important to ensure that the integration between the source environment and the target AWS environment is properly established.
- Understand the governance process of organization, application provisioning and operating model to design a target landing zone, that fits with customer requirements.
- You can follow specific recommendations below:

    - **Implement AWS Organizations, OUs and multi-account:** An implementation based on multi-account (payer, management, networking, security, logs and application accounts) allows customers to follow a governance model to ensure compliance and business compliance.
    - **Implement Access Management:** Create guardrails, through federation and single sign-on (SSO) configure roles and policies to integrate your Landing Zone with customer's infrastructure it ensures that only authorized and authenticated access can deploy and migrate resources over Landing Zone.

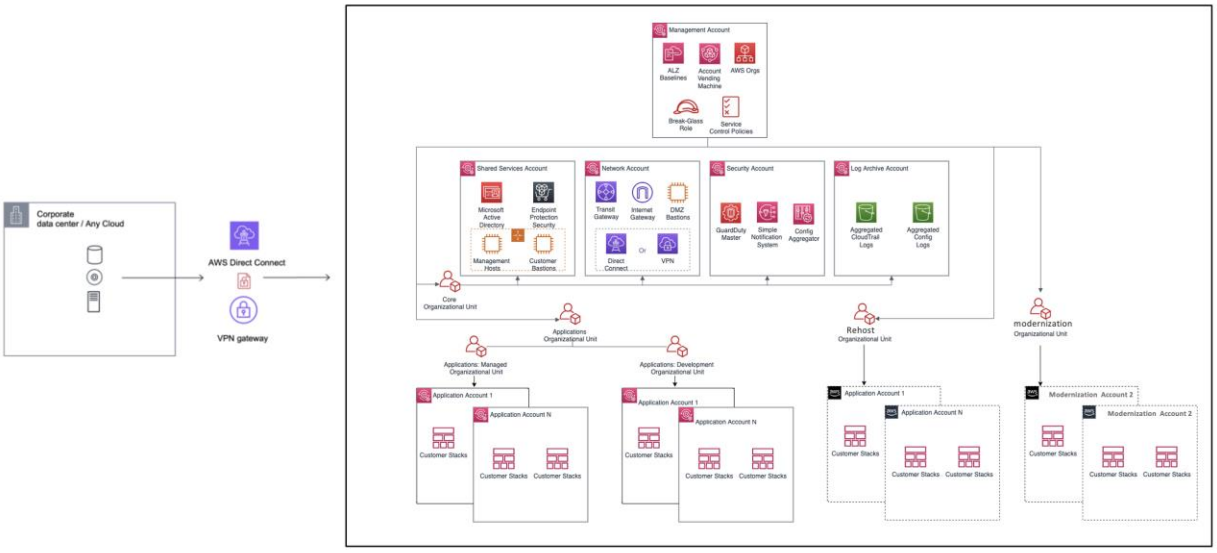
Additional Resources

- Plan your AWS Control Tower Landing Zone
- Building a Landing Zone
- Designing Landing Zone Architectures with AWS Control Tower

Good Example Response

- Attach a diagram (PDF, word, screenshot) that addresses all of the requirements listed below.
    - Provide diagram, target architecture contains the multi-account design.
    - In order to validate a migration scenario, the diagram must demonstrate the integration between source (on-premises or any cloud) workload and target deployed to migrate the data from outside to inside of AWS, for example, Virtual Private Network, Direct Connect or similar network/security integration.

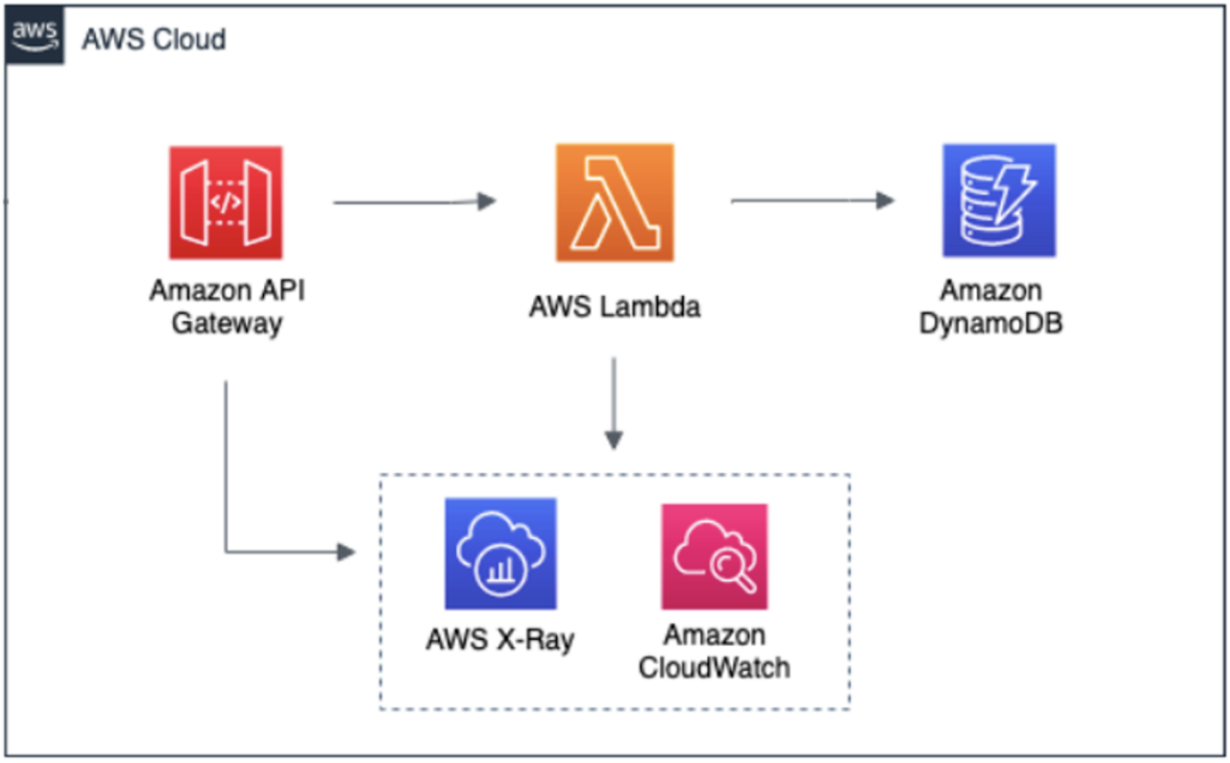
Here is an example of a good response for a multi-account landing zone implementation including integration with the source workload that was built to enable the migration



Unacceptable/Incomplete Response

- Generic Diagram without connecting source to the target/workload components:
    - Stating only “We followed the best practices and deploy 3 tier application for this migration”.
    - Stating only “We followed the best practices and deploy 3 tier application for this migration”, without mentioning the migration strategy, components, integration, data migration.
    - Projects that use a single AWS account are not good customers examples to meet this control.
- Partner responding “N/A” or an answer similar to any of the following: “the customer already had a landing zone so we did not participate in the design of the solution.” **While we understand not every engagement may require a landing zone implementation, partners must document the current landing zone its integrations and migration strategy. These diagrams must be present for at least two (e) of the case studies submitted.**

Here is an example of Unacceptable/Incomplete Response, as we are unable to validate the integration between source and target, data flow and migration methodology.



MOB-005

Requirement

Operations:

AWS Partner establishes new or reviews current operational models and helps customers develop an operations integration approach to support the target state design in the cloud.

Partner must present as supporting evidence all elements listed below for all provided customer examples:

- Runbooks or standard operation procedures (SOPs) created or changed to cover cloud operations for: deployment automation, configuration process, change and release process, business continuity, operation health, event and incident management

- Dashboard or reports of tools used for observing and analyzing events, logs, metrics and (if applicable) distributed tracing.

Criteria for Passing

- Written description of deployment and change management process (e.g., Scripts, CloudFormation or 3rd party templates including architecture diagram) that meet the criteria defined above.
- Dashboard, screenshots or reports of tools used for monitoring, detect, and remediate issues of the environment.

Why is this important?

Well defined change management process helps to avoid the misconfiguration risk and improves productivity. It enables consistent deployment and reliable operation to customers which also allows partners to scale the solution.

Additionally, using the right Monitoring and Observability tools helps customers investigate and resolve issues faster; and together with artificial intelligence and machine learning, proactively react, predict and prevent problems.

How can you implement this?

- Develop and deliver relevant documentation, i.e., video, runbooks, scripts, code with step-by-step on how to operate, maintain and scale the migrate workload.

- You can use automation tools such as AWS CloudFormation templates or leverage a Technology Partner solution to provision, secure, connect, and run solution infrastructure. You can also use 3rd party tools for Configuration Management. If the use case requires implementation of modern DevOps, leverage specific AWS services (AWS CodePipeline, AWS CodeBuild, AWS CodeDeploy, AWS CodeStar, AWS CodeCommit, Amazon Elastic Container Service, AWSOpsWorks, AWS Elastic Beanstalk).
- For monitoring and observability we recommend to **leverage** tools such as AWS CloudWatch, AWS X-Ray, AWS Cloudtrail,etc) or similar.
- You can explore AWS Cloud Development Kit (AWS CDK) to model and provision your cloud application resources using familiar programming languages.

Additional Resources

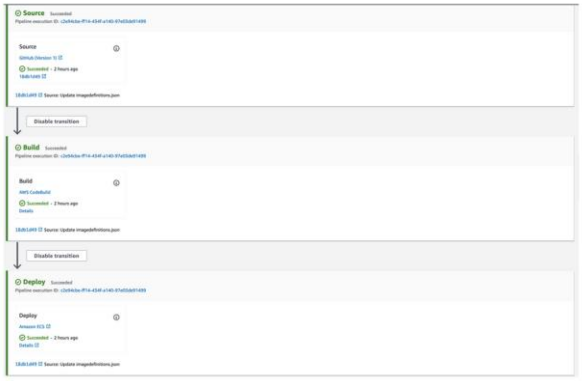
- 8 best practices when automating your deployments with AWS CloudFormation
- Best practices for developing and deploying cloud infrastructure with the AWS CDK
- Operational Excellence Pillar – AWS Well-Architect Framework

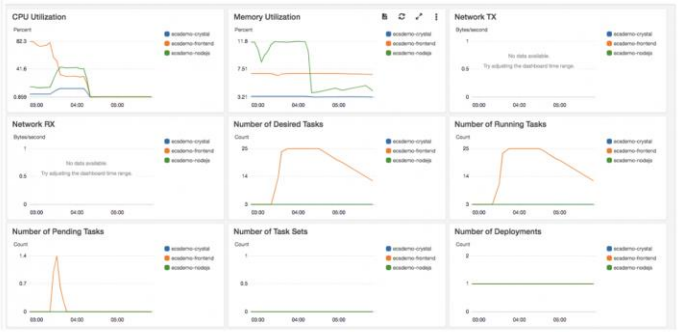
Good Example Response

Here is the summary of a runbook with step-by-step followed for the engineers to release and monitor the application after migrated to AWS.

0. A user in Cloud Platform Engineering (CPE) will commit an AWS CloudFormation template to GitHub.
1. A user in CPE will trigger a release to deploy infrastructure and application, selecting which CloudFormation template to deploy using drop-down menus within the pipeline. this drop-down menu is automatically populated via API calls to GitHub, listing the available CloudFormation templates.
2. AWS CodePipeline clones down the Github repository which contain the CloudFormation templates.
3. AWS CodeBuild starts the deployment of stack by calling the AWS CodeDeploy service.
4. The AWS CodeDeploy invoke the AWS CloudFormation service and provisions the resources within the AWS ECS Fargate cluster.
5. A user in CPE validated the deployment and the health of environment through the AWS CloudWatch dashboard.

Here is the dashboard used for the engineers to track the release and monitor the application after migrated to AWS.





Unacceptable/Incomplete Response

- Lack of concrete evidence for Operations runbooks.
- Not addressing the operational activities to deploy and manage the environment post-go live.
- A generic runbook without specifics or examples:
    - We use Terraform/Ansible and CloudFormation for Infrastructure-as-Code for deploying all our management components.
    - As a code for deploying management components, we leverage the power of Terraform/Ansible and CloudFormation for Infrastructure. Moreover, we also follow the guidelines of DevOps for all prod and UAT deployments on AWS.
- Partner responding “N/A” or an answer similar to any of the following: “The whole operational activity was provided by the customer team. All process documentation and automation scripts were studied and developed inside customer infrastructure.”, “We did not perform this as part of this engagement, this was the customer’s responsibility”, etc. **While we understand not**

every engagement may require this, partners must have these policies in place. These policies must be followed for all the case studies submitted.

MOB-006

Requirement

Security, Risk and Compliance:

AWS Partner has a standardized process to assess customer's security, risk and compliance requirements and applies automated tooling to check it is exercised.

Partner must present as supporting evidence all elements listed below for all provided customer examples:

- Documented process of how security, risk and compliance requirements are gathered from the customer
- Tooling used to meet security, risk and compliance requirements (AWS Trusted Advisor, AWS Security Hub, Amazon Security Lake or third-party tools)
- If applicable, list the frameworks that the solution had to comply with (ITAR, FedRAMP, HIPAA, etc.) and documentation of how those requirements were addressed in the design.

Criteria for Passing

- Description or document explaining how the AWS Partner collected the security requirements and improved security posture.
- Provide the runbook, tooling, screenshots, documents containing outcomes after the framework or new security posture process has been implemented.

Why is this important?

- As security is responsibility of everyone, AWS Partner must be able identify and minimize the security risks of the migrated workloads as well guide the customer on how to achieve this by using AWS Security and Compliance Services.

How can you implement this?

- Work with the customer's governance, security, or compliance teams to conduct a security assessment. Recommend AWS security services that meet the customer's business compliance needs (PCI,DDS,etc), if applicable.
- Test these services and validate the outcomes, then work with the customer to integrate the new services with the customer's security incident management.

- Consider utilizing (AWS Trusted Advisor, AWS Security Hub, AWS Config, Amazon Security Lake, Amazon Inspector or third-party tools)

Additional Resources

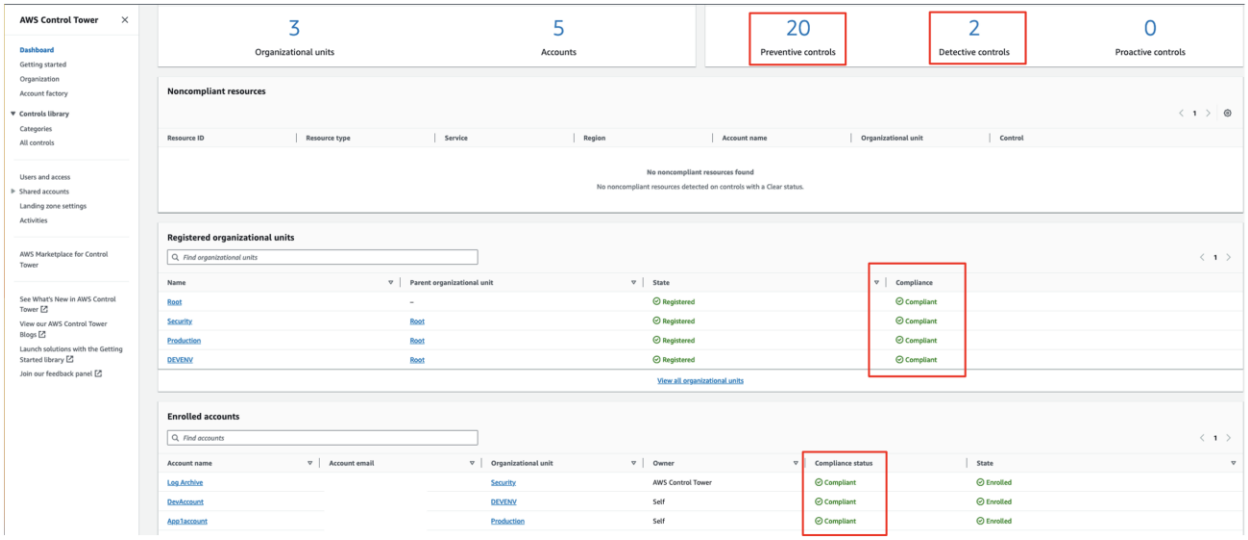
- Migrating and automating patching at scale with AWS Application Migration Service
- Optimize AWS Config for AWS Security Hub to effectively manage your cloud security posture
- Security Pillar – AWS Well-Architecture Framework

Good Example Response

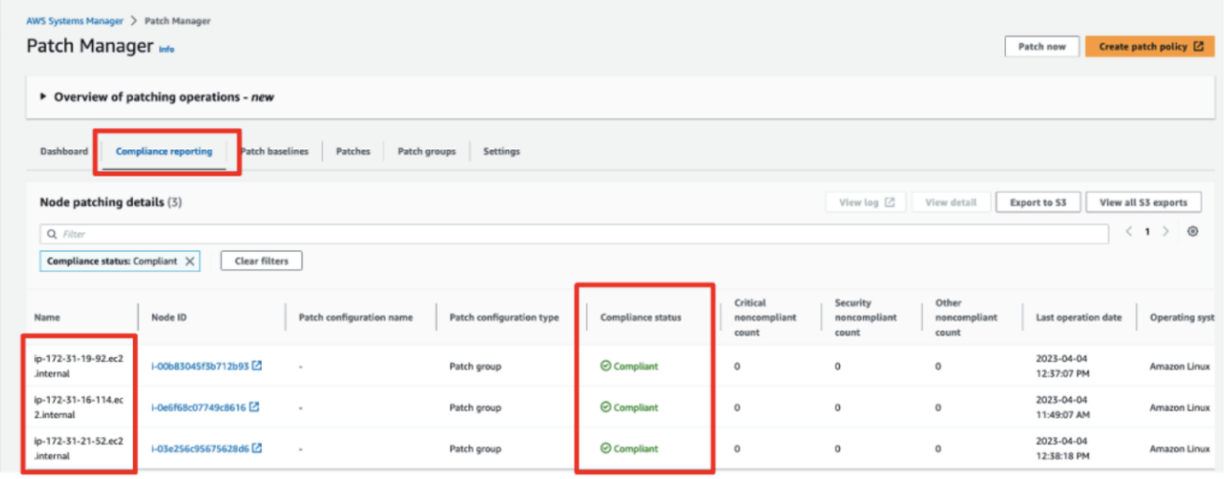
- A document describing security and compliance requirements that customer has.
- PDF, accessible link, or file is attached on the application that clearly documents the Output of Security and Compliance Report.
- The customer example must include information similar to the following:

    - An attached security finding or documentation on workload that meets the criteria detailed in the requirements above.
    - Examples of threat detection and remediation, data protection and or integration with security incident response.

Good Example Response #1: Dashboard Control Tower compliance status



Good Example Response #2: AWS Patch Manager compliance status



Unacceptable/Incomplete Response

- Lack of a Security and Compliance Assessment Report.
- A simple IAM role and or policy, security group rules as proof of security assessment or issue remediation.
- Partner responding “N/A” or an answer similar to any of the following: “The whole security analyze was performed by the customer team.”, “We did not perform this as part of this engagement as it is not part of the scope”, etc. **While we understand customer might have their own security tooling/process, partners must have these practices in place, security assessment and remediations reduce the risks of exposing the customer workloads to vulnerabilities. This control must be submitted for all the case studies.**

MOB-007

Requirement

Application Migration or Modernization Experience:

To validate the migration plan, landing zone, security, and operations requirements, AWS Partner applies a standardized process to advise customers on selecting initial workloads or application components for initial migration or modernization.

Partner must present as supporting evidence all elements listed below for all provided customer examples:

- Documented list of applications, workloads, or solution components chosen as initial migration waves.
- Documented lessons learned and how they influenced the migration and modernization plan.

Criteria for Passing

- Description of the goals, success metrics, scope defined for the migration and modernization plan.
- Description of the lessons learned and changes made on the migration or modernization plan after conducting the migration experience.

Why is this important?

Implementing a pilot project is essential to validate whether the solution is running as planned on AWS. By gaining insights into migration or modernization drivers, organizations can better validate solutions, explore the potential of new integrations, and grow the offering portfolio.

How can you implement this?

- Help the customer identify potential candidates/workloads that will validate the landing zone, security posture, and operations requirements.
- At least one production workload for each of the 7Rs strategies applied in this project is highly recommended.
- Document learnings or changes to the migration or modernization plan.

Good Example Response

- **Workload 1**
    - The pilot selected is the in-house DevOps framework used for release containerized application, a rehost method has been chosen as migration methodology.
    - We provided them a TCO using AWS Pricing Calculator for AWS EC2 and AWS ECS. Our analysis demonstrated high costs by using EC2 only, after performing a pilot with AWS CodePipeline and ECS Fargate we have found potential cost savings, additionally we improved the application deployment time by 70%, this solution allowed the customer speed innovation and increase their portfolio offering.
    - We learned that it was not possible to import the Jenkins file "as-is" to AWSCodePipeline due to the different code logic, minor adjustments to the code logic were needed to finalize the pipeline migration.
- **Workload 2**

- The pilot selected is the Test Environment for the ERP workload. The ERP has an application server, a middleware server (both modernized to containers), and an Oracle Database (migrated do RDS).
- After performing this initial pilot migration, we discovered that the 1 Gb/s Direct Connect pipe was not enough and had to be expanded to 10 Gb/s.
- We also learned that Oracle RDS does not support TLS 1.0 and adjustments were made to support TLS 1.2, which is compatible.

Unacceptable/Incomplete Response

- A simple confirmation that this was performed, simply listing some of the components considered in the pilot, or not providing a cost analysis, tests plan, lessons learn and key factors decision.
- Partner responding "N/A" or an answer similar to any of the following: "The whole pilot implementation was provided by the customer team.", "We did not perform this as part of this engagement, this was the customer's responsibility", etc. **While we understand not every engagement may require this, partners must have these practices in place. This control must be submitted for all case studies.**

MM-001

Requirement

Delivery:

AWS Partner uses agile project delivery methods to perform migration or modernization projects and employs tooling to expedite the move to AWS.

Partner must present as supporting evidence all elements listed below for all provided customer examples:

- Chronogram / Work Breakdown Structure / sprints for the project
- Documented wave plans
- Output from tools used to move servers, applications, and data to AWS or output from migration or modernization tools such as AWS DMS, AWS MGN, Migration Hub Refactor Spaces, customer scripts, AWS APN Application Modernization refactor tool, etc.

Criteria for Passing

- Description with the project timeline and the main milestones of the migration project.
- Definition of migration waves containing communication plan, tests, rollback.
- Migration and tooling methodology used to perform the migration or modernization of workloads.

Why is this important?

By adopting a delivery model, AWS Partners will be able to standardize and scale deliveries, helping customers accelerate migrations and modernization projects, minimizing the risks of an unsuccessful delivery, and ensuring that business and technical outcomes are achieved. successfully.

How can you implement this?

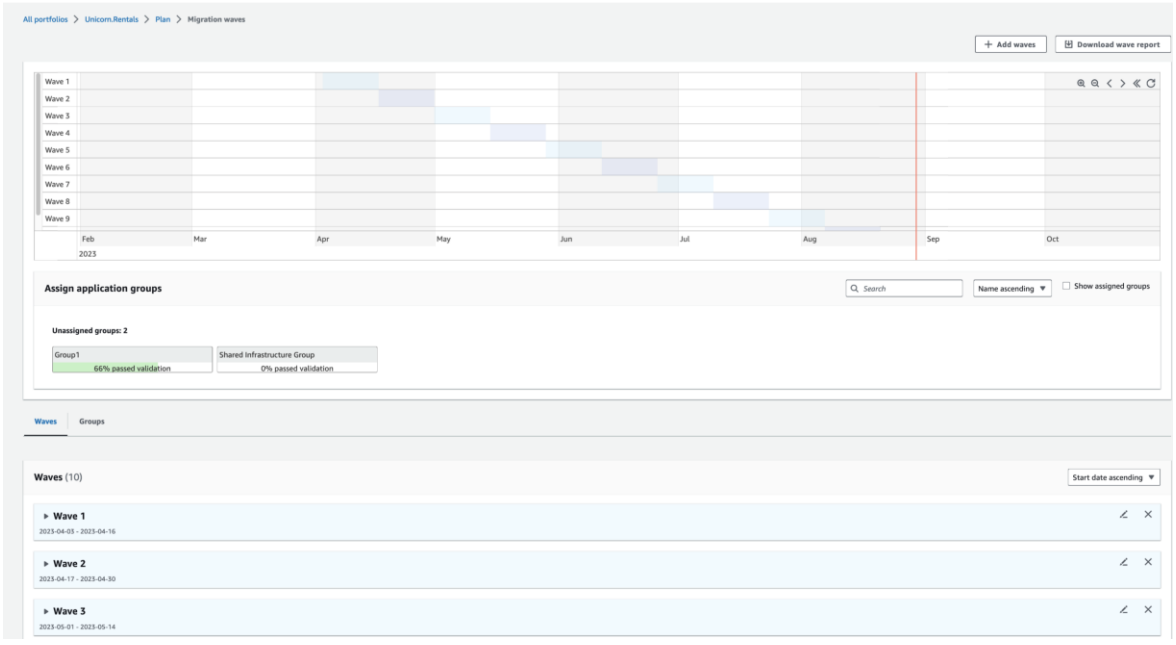
You can follow your own governance and organizational process, or you can leverage AWS MPA (Migration Portfolio Assessment) to support your delivery model.

Additional Resources

- The migration process

Good Example Response

Output of AWS Migration Portfolio with an example of migration waves



Unacceptable/Incomplete Response

- A simple confirmation that this was performed, simply listing some of the components to be migrated, or not providing timeline, breakdown, wave migrations, test and rollback plan, etc).
- Partner responding “N/A” or an answer similar to any of the following: “The whole project/migration activities were provided by the customer team.”, “We did not perform this as part of this engagement, this was the customer’s responsibility”, etc. **While we understand the process and tooling used for delivery may vary according to each governance model. These practices must be in place, this control must be submitted for all case studies.**

Resources

Visit AWS Migration and Modernization Services to get overview on how accelerate migration and modernization of your applications and data with AWS.

Explore AWS (MAP) Migration Acceleration Program and partner benefits.

Notices

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