



# AWS Migration Competency Consulting Partner Validation Checklist

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# Table of Contents

|  |           |
|--|-----------|
| <b>AWS MIGRATION COMPETENCY PROGRAM PREREQUISITES .....</b>                | <b>3</b>  |
| 1.0 APN Program Membership .....   | 3         |
| 2.0 AWS Case Studies.....  | 3         |
| 3.0 AWS Migration Practice and Focus .....                                 | 4         |
| 4.0 Partner Self-Assessment .....  | 4         |
| <b>AWS MIGRATION COMPETENCY PARTNER VALIDATION CHECKLIST .....</b>         | <b>5</b>  |
| 1.0 Migration Practice Overview .....                                      | 5         |
| 2.0 Technical Requirements.....  | 6         |
| <b>APPENDIX A: MIGRATION STRATEGY (PATTERN) .....</b>                      | <b>11</b> |
| <b>APPENDIX B: MIGRATION COMPLEXITY .....</b>                              | <b>12</b> |
| <b>APPENDIX C: EXAMPLE OF ARCHITECTURE DIAGRAMS .....</b>                  | <b>13</b> |
| <b>APPENDIX D: EXAMPLES OF OPERATIONAL EXCELLENCE .....</b>                | <b>14</b> |
| <b>APPENDIX E: EXAMPLES OF SECURITY BEST PRACTICES .....</b>               | <b>15</b> |
| <b>APPENDIX F: EXAMPLES OF RELIABILITY BEST PRACTICES .....</b>            | <b>16</b> |
| <b>APPENDIX G: EXAMPLES OF PERFORMANCE EFFICIENCY BEST PRACTICES .....</b> | <b>17</b> |
| <b>APPENDIX H: EXAMPLES OF COST OPTIMIZATION BEST PRACTICES .....</b>      | <b>18</b> |

# AWS Migration Competency Program Prerequisites

AWS Migration Competency Partners provide solutions or have deep experience helping businesses move successfully to AWS, through all phases of complex migration projects, discovery, planning, migration, and operations. They focus on developing their customer’s internal skills and helping to build the foundations required for complex migrations to AWS. They are experts in reducing friction when migrating legacy applications.

Below are the AWS Migration Competency categories that an APN Partner may apply for. Also, included are examples of the characteristics a firm would possess to be classified under the respective category.

| Category             | Work Scope  |
|----------------------|---|
| Migration Consulting | Migration Consulting Partners provide expertise and training to help develop customers’ cloud capabilities. These Partners provide Migration, DevOps, application, and environment modernization consulting to set customers on the path to success.  |
| Migration Delivery   | Migration Delivery Partners accelerate customer cloud adoption by providing technical personnel, tools, education, and technical support to customers in the form of professional services. These Partners either are, or have a relationship with, an AWS certified Managed Service Provider to help customers with ongoing support of AWS workloads where required. |

| 1.0 APN Program Membership                 |  | Met Y/N |
|--|--|---------|
| 1.1 Program Guidelines                     | The APN Partner must read the Program Guidelines and Definitions before applying to the Migration Competency Program. <a href="#">Click here for program details</a>   |         |
| 1.2 Consulting Partner Tier                | Partner must be Advanced or Premier APN Consulting Partner before applying to the Migration Competency Program.  |         |
| 2.0 AWS Case Studies                       |  | Met Y/N |
| 2.1 Migration-Specific Case Studies        | <p>APN Partner must provide a minimum of five (5) and no more than 10 AWS customer case studies specific to completed Migration projects in Production.</p> <ul style="list-style-type: none"> <li>2 of the AWS case studies must be public (i.e., documented in a case study, white paper, or blog post). Public case studies must mention AWS, the end customer, and the APN Partner.</li> <li>Case studies must be related directly to the Migration segment, and not be reused for other segments.</li> <li>Case studies must be for projects started within the past 36 months, and must be for projects that are in production, rather than in pilot or proof of concept stage.</li> <li>All case studies submitted must have supporting documentation providing evidence of compliance to the requirements of this checklist.</li> </ul> <p>This information will be requested as part of the Program Application process in APN Partner Central.</p> <p><b>Note:</b> Case studies must be for projects that are in production, rather than in pilot or proof of concept stage. Projects that are still in development stage will not be accepted.</p> <p><b>Note:</b> For best practice on how to write an accepted Public Case Study <a href="#">See Here</a></p> |         |
| 2.2 Migration-Specific Case Study Criteria | <p>APN Partner must provide the following information for each case study:</p> <ul style="list-style-type: none"> <li>Name of the customer</li> <li>Customer challenges</li> <li>How the solution was designed and deployed to meet the challenges</li> <li>3rd-party applications or solutions used</li> <li>Date the project entered production</li> <li>Outcome(s)/results</li> </ul> <p>The migration strategy (or strategies) <sup>[1]</sup> used to migrate each application must be stated.</p> <p>From the entire submitted case studies, the complexity-weighted<sup>[2]</sup> number of applications<sup>[3]</sup> migrated must be ≥ 50 and the complexity-weighted number of servers must be ≥ 500.</p>  |         |

|  |   |                |
|--|---|----------------|
|  | <p>This information will be requested as part of the Program Application process in APN Partner Central.</p> <p>All of the AWS Case Studies provided will be examined in the Documentation Review of the Technical Validation. The Case Study will be removed from consideration for inclusion in the competency if the Partner cannot provide the documentation necessary to access the reference against each checklist item, or if there were Critical Findings identified during the validation.</p> <p>[1] “Migration strategy” is also called “migration pattern.” Refer to Appendix A for specification of migration strategies.</p> <p>[2] Refer to Appendix B for definition of “migration complexity”.</p> <p>[3] Applications need to be distinct. Applications that are services or components of a larger application are counted as a single application. <u>Please provide the list of application names and a brief description of each application.</u></p>  |                |
| <b>3.0 AWS Migration Practice and Focus</b>                                |   | <b>Met Y/N</b> |
| <b>3.1 Migration Certified Staff</b>                                       | <p>APN Partner must have the below certifications for the Migration category being applied for:</p> <p><b>Migration Consulting:</b></p> <ul style="list-style-type: none"> <li>▪ ≥ 10 AWS Certifications in total <ul style="list-style-type: none"> <li>○ ≥ 6 Professional Level AWS Certifications with 4 in DevOps</li> </ul> </li> </ul> <p><b>Migration Delivery:</b></p> <ul style="list-style-type: none"> <li>▪ ≥ 30 AWS Certifications in total</li> <li>▪ ≥ 8 Professional Level AWS Certifications</li> <li>▪ Must be an audited AWS Managed Service Provider or hold the AWS DevOps Competency</li> <li>▪ Provides professional services to perform migrations on behalf of customers</li> <li>▪ Provides project management functions for migration projects.</li> </ul>   |                |
| <b>3.2 APN Partner Practice Landing Page</b>                               | <p>AWS customers are looking for expertise in the development and delivery of Migration solutions on AWS; a Partner’s internet presence specific to their AWS Migration practice provides customers with confidence about the Partner’s Migration capabilities and experience.</p> <p>APN Partner must have a landing page that describes their Migration practice on AWS. This includes posting an AWS public support statement, AWS solutions and competency use cases, technology partnerships, customer references, and any other relevant information supporting the APN Partner’s expertise related to Migration and highlighting the partnership with AWS through the APN.</p> <p>Migration practice page must be accessible from Partner home page. Home page is not acceptable as a practice page unless Partner is a dedicated Migration consulting company and home page reflects Partner’s concentration on Migration.</p> <p><b>Note:</b> For best practice on how to build an accepted APN Partner Practice Landing Page <a href="#">See Here</a></p> |                |
| <b>3.3 Migration Thought Leadership</b>                                    | <p>AWS Migration Competency Partners are viewed as having deep domain expertise in Migration, having developed innovative solutions that leverage AWS services.</p> <p>Partner must have public-facing materials (e.g., blog posts, press articles, videos, etc.) showcasing the APN Partner’s focus on and expertise in Migration. Links must be provided to examples of materials published within the last 12 months.</p>  |                |
| <b>4.0 Partner Self-Assessment</b>   |   | <b>Met Y/N</b> |
| <b>AWS Competency Partner Program Validation Checklist Self-Assessment</b> | <p>APN Partner must conduct a self-assessment of their compliance to the requirements of the AWS Migration Consulting Partner Validation Checklist.</p> <ul style="list-style-type: none"> <li>▪ APN Partner must complete all sections of the checklist.</li> <li>▪ Completed self-assessment must be emailed to <a href="mailto:competency-checklist@amazon.com">competency-checklist@amazon.com</a>, using the following convention for the email subject line: “[APN Partner Name], Migration Competency Consulting Partner Completed Self-Assessment.”</li> <li>▪ It is recommended that APN Partner has their Solutions Architect or Partner Development Manager (PDM) review the completed self-assessment before submitting to AWS. The purpose</li> </ul>  |                |

of this is to ensure the APN Partner’s AWS team is engaged and working to provide recommendations prior to the audit and to help ensure a positive audit experience.

## AWS Migration Competency Partner Validation Checklist

In preparation for the competency validation process, Partners should become familiar with the items outlined in this document, and prepare objective evidence, including but not limited to: prepared demonstration to show capabilities, technical and process documentation, and actual customer examples.

Migration Consulting and Migration Delivery Partners share a common set of validation requirements. Migration Delivery Partners need to meet two additional validation requirements as indicated in the checklist below.

Please review by the Migration category your firm wishes to apply for (Migration Consulting or Migration Delivery).

The AWS Competency Program is guided by [AWS best practices](#) and [Well Architected Framework](#).

| 1.0 Migration Practice Overview                        |  | Met Y/N |
|--|--|---------|
| <b>1.1 Customer Presentation</b>                       | <p>APN Partner has a company overview presentation that sets the stage for customer conversations about their AWS Migration practice and showcases Partner’s demonstration capabilities.</p> <p>Presentation contains information about the Partner’s AWS Migration practice, including AWS-specific differentiators, e.g., what is unique about the Partner’s Migration practice that can only be accomplished leveraging AWS. Overview presentations shall provide the following information:</p> <ul style="list-style-type: none"> <li>▪ Company history</li> <li>▪ Office locations</li> <li>▪ Number of employees</li> <li>▪ Customer profile, including number and size of customers, including industry</li> <li>▪ Overview of AWS Migration Practice</li> </ul> <p>Evidence must be in the form of a presentation delivered by a business development executive at the beginning of the validation session and should be limited to 15 minutes.</p> |         |
| <b>1.2 AWS Migration Services Expertise</b>            | <p>AWS customers seeking Migration consulting or delivery services view AWS Migration Competency Partners as the go-to experts in the field. Potential customers often ask for examples of solutions built for other customers when choosing a Partner and want confidence that consultants are up to date on AWS Migration services. APN Partner must have at least two (2) public case studies to showcase the Partner’s AWS Migration service.</p>  |         |
| <b>1.3 Maintaining AWS Expertise</b>                   | <p>APN Partner can describe how they stay current on AWS Service releases related to their AWS Migration Practice.</p> <p>Evidence must be in the form of a verbal description on enablement materials leveraged by Partner to stay current on AWS services and features.</p>  |         |
| <b>1.4 End of Project Customer Satisfaction Survey</b> | <p>Partner asks customer to complete AWS Customer Satisfaction Survey at the end of the project. This is accomplished by searching for the Partner in the AWS Partner Solutions Finder and asking Customer to leverage the “Rate this Partner” feature.</p> <p>Evidence must be in the form of a demonstration to show where the “Rate this Partner” feature is located on the AWS Partner Solutions Finder and proof of implementation of this process.</p>   |         |

| 2.0 Technical Requirements  | Met Y/N  |
|---|--|
| <p><b>2.1 Well-Architected Framework</b></p> <p>The <a href="#">AWS Well-Architected Framework</a> is based on five pillars — operational excellence, security, reliability, performance efficiency, and cost optimization.</p> <p>Case Studies must demonstrate how AWS Well-Architected Framework was applied in the areas outlined below. Deliverables for the competency application are <b>listed below</b>.</p> |  |
| <p><b>(1) Architecture</b></p>  | <p>Evidence must include AWS architecture design and diagrams for each of the projects or migrated applications per project. The architecture information must cover all the AWS components and services deployed as well as design requirements, assumptions, and functional components and their interaction mechanisms.</p> <p>For an architecture diagram example, refer to Appendix C.</p>  |
| <p><b>(2) Operational Excellence</b></p>  | <p>APN Partner demonstrates the ability to run and monitor systems to deliver business value and to continuously improve supporting processes and procedures.</p> <p>Evidence must be in the form of documentation to show how target environments were designed and deployed for <a href="#">Operational Excellence</a> which may cover the following areas:</p> <ul style="list-style-type: none"> <li>▪ Security and control</li> <li>▪ Deployment automation</li> <li>▪ Configuration process</li> <li>▪ Change and release process</li> <li>▪ Business continuity</li> <li>▪ Operations health</li> <li>▪ Event and incident process</li> <li>▪ Business management</li> </ul> <p>For examples of Operational Excellence Best Practices, refer to Appendix D.</p> <p>Specifically, the following practices in the customer’s new environment must appear in at least one (1) case study (separate practices may appear in different case studies):</p> <ul style="list-style-type: none"> <li>▪ Implement Identity Access Management with user multi-factor authentication; create and assign roles and policies for users and processes according to their responsibilities</li> <li>▪ Implement monitoring, centralized logging, and alert with such services as AWS Amazon CloudWatch, AWS CloudTrail, Amazon S3, and Amazon Simple Notification Service</li> <li>▪ Automate infrastructure and application deployment using such services as AWS CloudFormation and AWS CodePipeline</li> </ul> <p>Evidence must be in the form of design documentation or demonstration of the production deployment in AWS.</p> |
| <p><b>(3) Security</b></p>  | <p>APN Partner demonstrates the ability to protect information, systems, and assets while delivering business value through risk assessments and mitigation strategies.</p> <p>Evidence must be in the form of documentation to show how target environments were designed and deployed through <a href="#">AWS Security Best Practices</a> which shall cover the following areas:</p>   |

|                                   |  |  |
|-----------------------------------|--|--|
|                                   | <ul style="list-style-type: none"> <li>▪ Identity and access management</li> <li>▪ Detective controls</li> <li>▪ Infrastructure protection</li> <li>▪ Data protection</li> <li>▪ Incident response</li> </ul> <p>For examples of Security Best Practices, refer to Appendix E.</p> <p>Specifically, the following practices in the customer’s new environment must appear in at least 1 case study (separate practices may appear in different case studies):</p> <ul style="list-style-type: none"> <li>▪ Implement Security Groups to restrict traffic between Internet and VPC and to restrict traffic within the VPC. In all cases, the implementation allows only the most restrictive possible settings.</li> <li>▪ Do not expose AWS Access Keys, except in the following cases: <ul style="list-style-type: none"> <li>○ humans access AWS services and the keys are stored securely</li> <li>○ a service accesses AWS services where it is not feasible to use an EC2 instance role, ECS Task Role, or similar mechanism and the IAM Policy is tightly scoped.</li> </ul> </li> <li>▪ Classify, secure, and encrypt data in transit and at rest appropriately</li> <li>▪ Use KMS or an APN partner solution managed cryptographic keys</li> </ul> <p>Evidence must be in the form of design documentation or demonstration of the production deployment in AWS.</p> |  |
| <b>(4) Reliability</b>            | <p>APN Partner demonstrates the ability of a system to recover from infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues.</p> <p>Evidence must be in the form of documentation to show how target environments were designed and deployed for <a href="#">Reliability including High Availability and Durability</a>. For examples of Reliability Best Practices, refer to Appendix F.</p> <p>Specifically, the following practices in the customer’s new environment must appear in at least one (1) case study (separate practices may appear in different case studies):</p> <ul style="list-style-type: none"> <li>▪ Specify and measure Recovery Time Objective (RTO) and Recovery Point Objective (RPO) for each of the applications</li> <li>▪ Design and implement architectures that accommodate failure of services such as EC2 and the failure of a complete Availability Zone</li> <li>▪ Design and implement Backup &amp; Restore, cold or warm standby redundancy, or multi-region Disaster Recovery</li> </ul> <p>Evidence must be in the form of design documentation or demonstration of the production deployment in AWS.</p>   |  |
| <b>(5) Performance efficiency</b> | <p>APN Partner demonstrates the efficient use of AWS resources and solutions to meet requirements and how to maintain that efficiency as demand changes and technologies evolve.</p> <p>Evidence must be in the form of documentation to show how target environments were designed and deployed for <a href="#">Performance Efficiency</a>. For examples of Performance Efficiency Best Practices, refer to Appendix G.</p> <p>Specifically, the following practices in the customer’s new environment must appear in at least one (1) case study (separate practices may appear in different case studies):</p>  |  |

|                              |   |  |
|------------------------------|---|--|
|                              | <ul style="list-style-type: none"> <li>Specify and measure performance metrics such as service response time and database query throughput for each of the applications</li> <li>Select Compute, Storage, and Network resources or solutions purposefully for performance efficiency</li> </ul> <p>Evidence must be in the form of design documentation or demonstration of the production deployment in AWS.</p>   |  |
| <b>(6) Cost Optimization</b> | <p>APN Partner demonstrates a continual process of refinement and improvement of a system over its entire lifecycle.</p> <p>Evidence must be in the form of documentation to show how target environments were designed, deployed, operated with <a href="#">Cost Optimization</a>. For examples of Cost Optimization Best Practices, refer to Appendix H.</p> <p>Specifically, the following practices in the customer’s new environment must appear in at least one (1) case study (separate practices may appear in different case studies):</p> <ul style="list-style-type: none"> <li>Implement auto-scaling at each layer of the architecture</li> <li>Consistently recommend right-sizing target instances before migration, and post migration, identify either over or under-provisioning for correction</li> <li>Identify opportunities to optimize costs using Reserved or Spot Instances</li> </ul> <p>Evidence must be in the form of design documentation or demonstration of the production deployment in AWS.</p> |  |

## 2.2 Consistent Methodology and Process

Case studies must demonstrate a consistent methodology and process applied through multiple migration phases as exemplified below. Though specific details may vary from project to project, a solid migration framework with major phases and work areas must be clearly identified and exercised consistently across all the projects.

|   |   |  |
|---|---|--|
| <b>(1) Migration Readiness Assessment (MRA)</b> | <p>MRA determines Customer’s readiness based on <a href="#">AWS Cloud Adoption Framework</a> comprised of Business, People, Governance, Platform, Security, and Operations perspectives:</p> <ul style="list-style-type: none"> <li>Business Perspective helps Customer move from separate strategies for business and IT to a business model that integrates IT strategy. It involves Customer’s IT strategy, IT finance, benefits realization, and business risk management. Customer’s strategy stakeholders, business managers, finance managers, and budget owners shall participate in the Migration Readiness Assessment.</li> <li>People Perspective helps Human Resources and personnel management prepare their teams for cloud adoption by updating staff skills and organizational processes to include cloud-based competencies. It involves resource management, incentive management, career management, training management, and organizational change management. Human Resources, training managers, and people managers shall participate in the Migration Readiness Assessment.</li> <li>Governance Perspective provides guidance on identifying and implementing best practices for IT Governance, and on supporting business processes with technology. It involves Customer’s program and project management, business performance measurement, portfolio management, and license management. CIO, program managers, project managers, enterprise architects, business analysts, and portfolio managers shall participate in the Migration Readiness Assessment.</li> <li>Platform Perspective helps Customer design, implement, and optimize the architecture of AWS technology based on business goals and objectives. It</li> </ul> |  |
|---|---|--|



|  |   |  |
|--|---|--|
|  | <p>helps provide strategic guidance for the design, principles, tools, and policies Customer will use to define AWS infrastructure. The Platform Perspective also includes principles and patterns for communicating Customer’s target state environment, implementing new solutions on the cloud, and migrating on-premises workloads to the cloud. It involves systems and solution architecture, provisioning of compute, network, storage, and database, and application development. CTO, IT managers and solution architects shall participate in the Migration Readiness Assessment.</p> <ul style="list-style-type: none"> <li>▪ Security Perspective helps Customer structure the selection and implementation of controls. Following this guidance can make it easier to identify areas of non-compliance and plan ongoing security initiatives. It involves Identity and Access Management (IAM), detective control, infrastructure security, data protection, and incident response. CISO, IT security managers, and IT security analysts shall participate in the Migration Readiness Assessment.</li> <li>▪ Operations Perspective helps Customer run, use, operate, and recover IT workloads to levels that meet the requirements of business stakeholders. It involves service monitoring, application performance monitoring (APM), resource inventory, management, release/change management, reporting and analytics, business continuity/disaster recovery, and IT Service Catalog. IT operations managers and IT support managers shall participate in the Migration Readiness Assessment.</li> </ul> <p><i>Refer to Appendix I for MRA example</i></p> <p>Evidence must include an assessment report with identified customer readiness gaps, suggested actions, and Statement of Work for executing the Migration Readiness &amp; Planning next.</p> |  |
| <p><b>(2) Migration Readiness &amp; Planning (MRP)</b></p> | <p>The purpose of MRP is to validate foundational migration capability and business case and plan migration project next. MRP may consist of the following work streams:</p> <ul style="list-style-type: none"> <li>▪ MRP execution and migration planning with role and responsibility assignment (RACI)</li> <li>▪ Portfolio discovery and analysis</li> <li>▪ Operations model assessment and design</li> <li>▪ Landing Zone design and initial implementation</li> <li>▪ Security and compliance specification</li> <li>▪ Migration pilot implementation</li> <li>▪ Migration team/organization establishment, training plan, and training activities</li> <li>▪ Business Case justification supported by Total Cost of Ownership (TCO) calculations</li> </ul> <p>Evidence must reflect the results of each of the work streams in the form of documentation or demonstration of the production implementation in AWS.</p>   |  |
| <p><b>(3) Migration Project</b></p>                        | <p>The migration project may consist of the following work areas on a per application basis:</p> <ul style="list-style-type: none"> <li>▪ Design: migration pattern, application architecture, operations, cutover plan and process, reusable templates, migration tooling, and validation test plan</li> <li>▪ Migration: servers, databases, data, infrastructure services, followed by basic validation test</li> <li>▪ Integration: connectivity, application interfaces, operations (backup/restore, ...)</li> <li>▪ Validation: functionality, performance, reliability, security, compliance</li> <li>▪ Cutover: meeting RTO and RPO with rollback plan</li> </ul>   |  |

|   |   |  |
|---|---|--|
|   | Evidence must reflect the results of each of the work areas in the form of documentation or demonstration of the production implementation in AWS.  |  |
| <b>(4) Optimization</b>   | <p>It may involve one or more of the following work areas:</p> <ul style="list-style-type: none"> <li>▪ Cost optimization (e.g., right-sizing services, resource reservation, leveraging spot instance, monitoring and analyzing service usage and cost)</li> <li>▪ Application optimization (e.g., performance, functional, design)</li> <li>▪ Process optimization (e.g., development process automation)</li> <li>▪ Operational optimization (e.g., operations support systems, infrastructure as code)</li> </ul> <p>Evidence must reflect the results of the committed work areas in the form of documentation or optimization result report or demonstration of the production implementation in AWS.</p> |  |
| <b>(5) Completion</b>   | <p>Case studies must show completed projects.</p> <p>Evidence must include customer’s acceptance letter and training materials.</p>   |  |
| <b>(6) Professional Services</b><br>(Delivery Partner Specific) | Each of the customer case studies must be accompanied by a signed Statement of Work (SOW) showing the scope and scale of professional services provided.  |  |
| <b>(7) Project Ownership</b><br>(Delivery Partner Specific)     | Each of the customer case studies must be accompanied by a project plan as well as the SOW with Responsibility Matrix (RACI) that shows the partner jointly or singly owned project management of the migration.  |  |

## AWS Resources

| Title   | Description  |
|---|--|
| <a href="#">How to Build a Practice Landing Page</a>                  | Provides guidance how to build a Practice/solution page that will meet the prerequisites of the Program.   |
| <a href="#">How to write a Public Case Study</a>                      | Provides guidance how to build a Public Customer Case Study that will meet the prerequisites of the Program.   |
| <a href="#">How to build an Architecture Diagram</a>                  | Provides guidance how to build a architecture diagrams that will meet the prerequisites of the Program.  |
| <a href="#">Partner Readiness Doc</a>                                 | Provides guidance and best practice examples of the Program perquisites.   |
| <a href="#">Tips for becoming an AWS Migration Competency Partner</a> | Learn the key elements of the AWS Migration Competency Validation Checklist for APN Consulting and Delivery Partners, and explain the principles and rationales behind the requirements. |

*AWS reserves the right to make changes to the AWS Competency Program at any time and has sole discretion over whether APN Partners qualify for the Program.*

## Appendix A: Migration Strategy (Pattern)

There are six Migration Strategies or Patterns as defined below. One or more strategy may be used to migrate an application.

| Pattern Label | Migration Pattern Name        | Pattern Description   | Examples   |
|---------------|-------------------------------|---|--|
| R1            | <b>Retain</b>                 | <ul style="list-style-type: none"> <li>Client will keep host / application in their source environment</li> <li>Minimal analysis / validation of scope and application dependencies</li> <li>Dependency on integrating service management</li> </ul>  | Unresolved Physical Dependencies<br>Mainframe/AS400<br>Non x86 UNIX Applications   |
| R2            | <b>Retire</b>                 | <ul style="list-style-type: none"> <li>Application and host decommission at source</li> <li>No migration to target</li> </ul>   | Existing Decommission Program Scope<br>UNIX, AIX, SCO;<br>Clustered host for DR, alternative HA hosts  |
| R3            | <b>Rehost</b>                 | <ul style="list-style-type: none"> <li>Like for Like application migration to target cloud</li> <li>Minimal effort to make the application work on the target cloud infrastructure (minimal application layout change)</li> <li>Storage migration will be needed (without conversion)</li> <li>UAT - Some level of application testing</li> </ul> | Simple to Medium V2V, P2V<br>Storage: Local to DASD<br>RHEL 6 above<br>Win 2008 above  |
| R4            | <b>Repurchase</b>             | <ul style="list-style-type: none"> <li>Application will be replaced, potentially to new cloud-native application or SaaS platform</li> <li>Storage migration may be needed</li> </ul>   | No infrastructure migration<br>CRM to Salesforce, HRMS to Workday<br>Storage: Local to Cloud   |
| R5            | <b>Replatform</b>             | <ul style="list-style-type: none"> <li>Up-Version of the OS and/or Database onto the target cloud</li> <li>Storage migration will be needed (without conversion)</li> <li>Some level of application changes</li> <li>Application reinstallation on the target</li> <li>UAT is highly recommended</li> </ul>                                       | W2K3 to Win 2012; Win 2008 below; RHEL below; Oracle 8 to 11; All databases<br>New application releases<br>All clusters (MS cluster, DR)<br>MS SQL same technology (RDS) |
| R6            | <b>Refactor / Rearchitect</b> | <ul style="list-style-type: none"> <li>OS and/or Database porting</li> <li>Middleware and application change to cloud service offering</li> <li>Data conversion; Database transition to MySQL, Aurora, etc.</li> <li>Application architecture changes may also require Up-Version or Porting</li> <li>UAT required; HPC Grid, No ITIL</li> </ul>  | AIX to Linux<br>Oracle to SQL; SQL to Aurora<br>Middleware, IBM products<br>Custom / complex application changes   |

Application Modernization / Change Effort

## Appendix B: Migration Complexity

Migration Complexity is measured by the strategy (or pattern) used to migrate an application and the additional consideration and effort taken during the migration of that application. Each migration strategy has different complexity weightage and is described as follows.

| Migration Strategy / Pattern | Migration Complexity |
|------------------------------|----------------------|
| Rehost                       | Low                  |
| Replatform                   | Medium               |
| Repurchase                   | Medium               |
| Refactor                     | High                 |

The migration complexity indicates the degree of partner's competency demonstrated through migration projects. The migration competency associates the migration complexity with the migrated workloads in terms of migrated applications and migrated servers. Specifically,

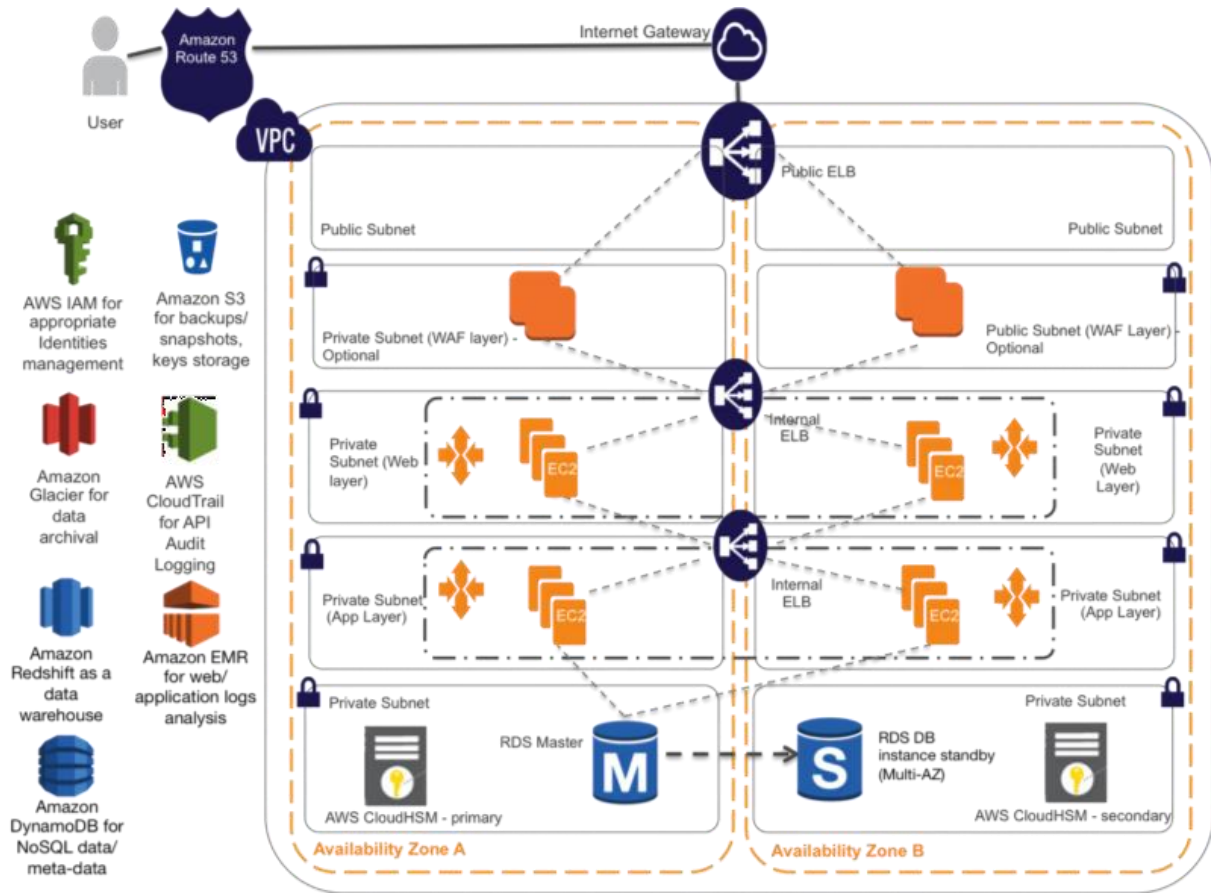
- Complexity-weighted number of applications = (number of migrated applications) x (migration complexity)
- Complexity-weighted number of servers = (number of migrated servers) x (migration complexity)

Complexity per application = [1, 2] for rehost, [2, 4] for repurchase, [2, 4] for replatform, [4, 8] for refactor

For example, a Rehost-based migration strategy for 10 applications and a Refactor-based strategy for 5 applications may result in the same complexity-weighted number, since the Refactor can be more complex and require more effort compared to the Rehost.

Partner will not specify migration complexity on migrated applications within the references. The partner does need to describe the migration strategy (or strategies) for each of the referenced applications.

# Appendix C: Example of Architecture Diagrams



## Appendix D: Examples of Operational Excellence

The competency application shall demonstrate the [Operational Excellence](#) including the following areas if applicable.

| Operation Area             | Best Practice  |
|----------------------------|--|
| Security and control       | <ul style="list-style-type: none"><li>▪ Enforce strict identity &amp; access management</li><li>▪ Implement centralized logging, monitoring, alert</li></ul> |
| Deployment automation      | <ul style="list-style-type: none"><li>▪ Automate infrastructure deployment</li><li>▪ Automate application deployment</li></ul>                               |
| Configuration process      | <ul style="list-style-type: none"><li>▪ Use configuration management, license management</li></ul>   |
| Change and release process | <ul style="list-style-type: none"><li>▪ Automate application lifecycle management</li><li>▪ Implement change management</li></ul>                            |
| Business continuity        | <ul style="list-style-type: none"><li>▪ Implement Backup &amp; Restore and Disaster Recovery (DR)</li><li>▪ Design for High Availability (HA)</li></ul>      |
| Operations health          | <ul style="list-style-type: none"><li>▪ Monitor, analyze, and report events on security, performance, availability, and scaling</li></ul>                    |
| Event and incident process | <ul style="list-style-type: none"><li>▪ Implement Incident Management</li></ul>  |
| Business management        | <ul style="list-style-type: none"><li>▪ Conduct capacity planning &amp; forecasting</li><li>▪ Manage cloud financials</li></ul>                              |

## Appendix E: Examples of Security Best Practices

The competency application shall demonstrate the [Security Best Practices](#) including the following areas where applicable.

| Security Area                  | Best Practice  |
|--------------------------------|--|
| Identity and access management | <ul style="list-style-type: none"><li>▪ Protect AWS credentials</li><li>▪ Implement fine-grained authorization</li></ul>   |
| Detective controls             | <ul style="list-style-type: none"><li>▪ Capture and analyze logs through centralized logging</li><li>▪ Integrate auditing controls with notification and workflow</li></ul>                            |
| Infrastructure protection      | <ul style="list-style-type: none"><li>▪ Protect network and host-level boundaries</li><li>▪ Perform system security configuration and maintenance</li><li>▪ Enforce service-level protection</li></ul> |
| Data protection                | <ul style="list-style-type: none"><li>▪ Encrypt data in transit and at rest</li><li>▪ Use token mechanisms to protect data access</li></ul>  |
| Incident response              | <ul style="list-style-type: none"><li>▪ Perform monitoring, logging, event processing, forensic analysis</li><li>▪ Isolate and contain incident</li><li>▪ Automate restoration post incident</li></ul> |

## Appendix F: Examples of Reliability Best Practices

The competency application shall demonstrate the [Reliability Best Practices](#) including the following areas where applicable.

| Reliability Area  | Best Practice   |
|-------------------|---|
| High Availability | <ul style="list-style-type: none"><li>▪ Eliminate single point of failure</li><li>▪ Contain faults within instance, host, VPC, or Availability Zone</li></ul> |
| Durability        | <ul style="list-style-type: none"><li>▪ Replicate data across multiple instances, Availability Zones, or Regions</li></ul>                                    |
| Disaster Recovery | <ul style="list-style-type: none"><li>▪ Implement Backup &amp; Restore, cold or warm standby redundancy, or multi-region disaster recovery</li></ul>          |
| Fault coverage    | <ul style="list-style-type: none"><li>▪ Automate operations to minimize errors</li><li>▪ Test failure scenarios through fault injection</li></ul>             |



## Appendix G: Examples of Performance Efficiency Best Practices

The competency application shall demonstrate the [Performance Efficiency Best Practices](#) including the following areas where applicable.

| Performance Area | Best Practice  |
|------------------|--|
| Selection        | <ul style="list-style-type: none"><li>▪ Determine right Compute resources (instances, containers, functions)</li><li>▪ Choose right Storage services and characteristics per access pattern</li><li>▪ Optimize Database solutions per database technologies (OLTP, NoSQL, OLAP, ...), and efficiency factors (access patterns, characteristics, operational requirements, ...)</li><li>▪ Design Network per traffic locality (Placement Group, Edge Location, ...), networking features (Route53, Direct Connect, ...), and product features (SR-IOV, ...)</li></ul> |
| Validation       | <ul style="list-style-type: none"><li>▪ Define performance metrics</li><li>▪ Construct load generators for performance test</li><li>▪ Conduct performance test, analysis, and further optimization</li></ul>   |
| Monitoring       | <ul style="list-style-type: none"><li>▪ Implement performance monitoring in production and analyze data for performance improvement</li></ul>  |
| Tradeoffs        | <ul style="list-style-type: none"><li>▪ Make design tradeoffs between constraints and performance</li></ul>  |

## Appendix H: Examples of Cost Optimization Best Practices

The competency application shall demonstrate the [Cost Optimization Best Practices](#) including the following areas where applicable.

| Cost Optimization Area      | Best Practice  |
|-----------------------------|--|
| Cost-effective resources    | <ul style="list-style-type: none"><li>▪ Right-size resources based on usage over time</li><li>▪ Purchase resources per business needs (e.g., EC2 On Demand, Spot, or Reserved Instances)</li><li>▪ Select proper geographic locations</li><li>▪ Use Managed Services (e.g., Amazon RDS, AWS Lambda, ...)</li></ul> |
| Matching supply with demand | <ul style="list-style-type: none"><li>▪ Use Demand-based, Buffer-based, or Time-based approach</li><li>▪ Apply auto-scaling to grow or shrink resources at run time</li></ul>  |
| Expenditure awareness       | <ul style="list-style-type: none"><li>▪ Estimate, monitor, plan, report on, and analyze AWS spend</li><li>▪ Assign costs to owners with account structuring and tagging</li><li>▪ Track project and product lifecycle to reduce unnecessary costs</li></ul>  |
| Optimizing over time        | <ul style="list-style-type: none"><li>▪ Measure, monitor, and improve</li><li>▪ Use the newest services, features, and instance types</li></ul>  |

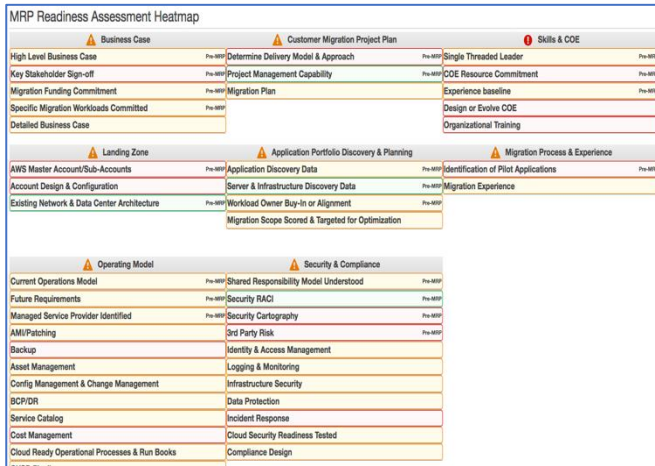
# Appendix [I]: Migration Readiness Assessment

The Migration Readiness Assessment(MRA) is a process of assessing a customer’s current state, identifies readiness gaps and makes recommendations to fill gaps in information and preparation for scoping the MRP and selecting portions that are needed vs not and tailoring the engagement and the SOW.

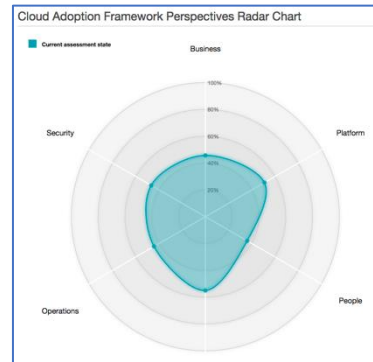
The MRA is completed interactively in a cross-group setting involving key stakeholders across your IT organization, building a common view of your current state. You may have representatives from IT Leadership, Networking, Operations, Security, Risk and Compliance, Application Development, Enterprise Architecture, and your CCoE or Cloud Business Office (CBO) respond to MRA [CAF](#) Aligned questions. Lastly, you will able to create a migration roadmap and identify the necessary data you will need for your business case.

MRA output includes **action plan, next steps, scope of work(SOW)** and visuals like a **radar chart** and **heat map**. The MRA tool is available for partner through APN credential from [here](#).

Sample output from MRA workshop:



Example of a Cloud Adoption Framework Radar Scoring Chart



Example of a Cloud Adoption Framework Radar Chart

| Operating Model - Score : 1.789               |            |
|---|------------|
| Current Operations Model [Pre-MRP]            | 4 - Green  |
| Future Requirements [Pre-MRP]                 | 3 - Yellow |
| Managed Service Provider Identified [Pre-MRP] | 4 - Green  |
| AMI/Patching                                  | 2 - Yellow |
| Backup  | 1 - Red    |
| Asset Management                              | 1.75 - Red |
| Config Management & Change Management         | 1 - Red    |
| BCP/DR  | 1 - Red    |
| Service Catalog                               | 1 - Red    |
| Cost Management                               | 4 - Green  |
| Cloud Ready Operational Processes & Run Books | 1 - Red    |
| CI/CD Pipelines                               | 1 - Red    |

Breakdown scoring for the Operation Model