



# AWS Industrial Software Competency

## Consulting Partner Validation Checklist

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partner  
network

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## Table of Contents

<b>INTRODUCTION</b> .....	<b>3</b>
<b>EXPECTATIONS OF PARTIES</b> .....	<b>3</b>
<b>AWS INDUSTRIAL SOFTWARE SOLUTION CATEGORIES</b> .....	<b>4</b>
<b>AWS INDUSTRIAL SOFTWARE ISV COMPETENCY PARTNER SOLUTIONS</b> .....	<b>4</b>
<b>AWS INDUSTRIAL SOFTWARE COMPETENCY PROGRAM PREREQUISITES</b> .....	<b>5</b>
<b>AWS INDUSTRIAL SOFTWARE CONSULTING PARTNER VALIDATION CHECKLIST</b> .....	<b>8</b>
1.0 Industrial Software Practice Checklist.....	8
2.0 Industrial Software Case Study Checklist.....	9

## Introduction

The goal of the AWS Competency Program is to recognize AWS Partner Network Partners (“APN Partners”) who demonstrate technical proficiency and proven customer success in specialized solution areas. The Competency Partner Validation Checklist (“Checklist”) is intended for APN Partners who are interested in applying for AWS Competency. This Checklist provides the criteria necessary to achieve the AWS Industrial Software Competency (as defined below) designation under the AWS Competency Program. APN Partners undergo an audit of their capabilities upon applying for the specific Competency. AWS leverages in-house expertise and may also utilize a third-party firm to facilitate the audit. AWS reserves the right to make changes to this document at any time in its sole discretion.

## Expectations of Parties

It is expected that APN Partners will review this document in detail before submitting an application for the AWS Competency Program, even if all of the prerequisites are met. If items in this document are unclear and require further explanation, please contact your AWS Partner Development Representative (PDR) or Partner Development Manager (PDM) as the first step. Your PDR/PDM will contact the Program Office if further assistance is required.

When ready to submit a program application, APN Partners should complete the Partner Self-Assessment column of the Checklist set forth below in this document.

To submit your application:

1. Log in to the [APN Partner Central](https://partnercentral.aws.partner.com/) (<https://partnercentral.aws.partner.com/>), as Alliance Lead
2. Select “View My APN Account” from the left side of the page
3. Scroll to “Program Details” section
4. Select “Update” next to AWS Competency you wish to apply for
5. Fill out Program Application and Click “Submit”
6. Email completed Self-Assessment to [competency-checklist@amazon.com](mailto:competency-checklist@amazon.com)

If you have any questions regarding the above instructions, please contact your PDR/PDM.

AWS will review and aim to respond back with any questions within five (5) business days to initiate scheduling of your audit or to request additional information.

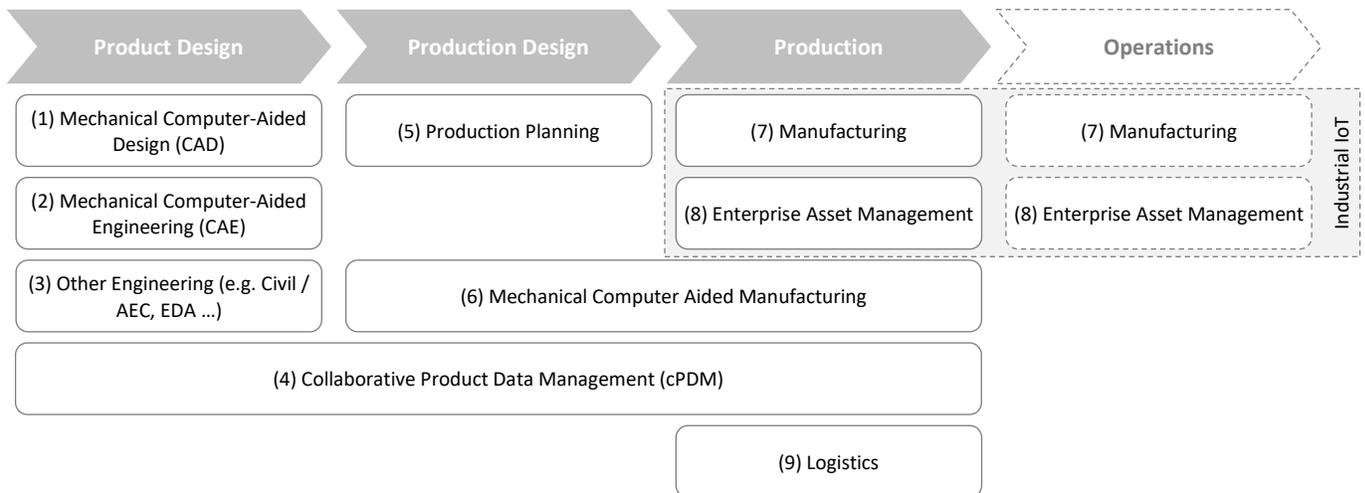
APN Partners should prepare for the audit by reading the Checklist, completing a self-assessment using the Checklist, and gathering and organizing objective evidence to share with the auditor on the day of the audit.

AWS recommends that APN Partners have individuals who are able to speak in-depth to the requirements during the audit. The best practice is for the APN Partner to make the following personnel available for the audit: one or more highly technical AWS certified engineers/architects, an operations manager who is responsible for the operations and support elements, and a business development executive to conduct the overview presentation. APN Partners should ensure that they have the necessary consents to share with the auditor (whether AWS or a third-party) all information contained within the objective evidence or any demonstrations prior to scheduling the audit.

## AWS Industrial Software Solution Categories

The AWS Industrial Software Competency (referred to as “AWS Industrial Software Competency” or “Competency” in this document) applies to solutions that support the core value generation processes in Discrete/Process Manufacturing, Electricity, Gas & Water Supply, and Construction. These core processes (“Industrial Software Categories”) are:

- 1.) **Product Design:** Applications and services used in the design phase, including computer aided design (CAD), computer aided engineering (CAE), electronic design automation (EDA), and Civil engineering.
- 2.) **Production Design:** Applications for factory layout and Computer-Aided Manufacturing (CAM), Product Lifecycle Management (PLM), Product Data Management (PDM).
- 3.) **Production:** Discrete and process industry applications like Manufacturing Execution Systems (MES), Manufacturing Operations Management (MOM), Plant Information Systems (PIMS), supply chain logistics, and analytic applications for industrial use.
- 4.) **Operations:** Industrial Internet of Things (IoT) applications, using IoT technologies to enable industrial processes, and industrial-specific applications, such as manufacturing-specific Enterprise Resource Planning (ERP) solutions. This category does not include consumer IoT applications that use IoT services to enable product functionality that is used by consumers.



An APN Partner applying for this Competency will need to provide four customer case studies that relate to Industrial Software. Each customer case study will need to describe a solution that fits into one of the four Industrial Software Categories described above.

## AWS Industrial Software ISV Competency Partner Solutions

Vertical AWS Competencies like the AWS Industrial Software Competency are designed for APN Partners with vertical-specific solutions and practices on AWS. In the case of Industrial Software, customers use a variety of software from Independent Software Vendors (ISV), and rely on their Consulting Partners to provide advice and services on how to deploy and manage these ISV solutions. Therefore, industrial customers will be seeking APN

Partners who have an established practice around the leading ISV solutions, in addition to expertise with AWS services.

ISVs providing industrial software on AWS are validated as part of the AWS Industrial Software Competency for Technology Partners, and are listed on the AWS web site: <https://aws.amazon.com/manufacturing/partner-solutions/>.

An APN Partner applying for this Competency must demonstrate their expertise in one or more of these ISV solutions by providing evidence that they have staff within their practice skilled in these ISV solutions. (See section 3.3 below for precise details on the staff certification requirements.)

## AWS Industrial Software Competency Program Prerequisites

The following items will be validated by the AWS Competency Program Manager. AWS may also utilize a third-party firm to facilitate this audit. Missing or incomplete information must be addressed prior to scheduling of the validation review.

1.0 APN Program Requirements		Met Y/N
<b>1.1 Program Guidelines</b>	The APN Partner must read the Program Guidelines and Definitions before applying to the AWS Industrial Software Competency Program. <a href="#">Click here for Program details</a>	
<b>1.2 Consulting APN Partner Tier</b>	APN Partner must be Advanced or Premier APN Consulting Partner before applying to the Industrial Software Competency Program.	
<b>1.3 AWS Certified Personnel</b>	In addition to the AWS training and certification requirements for the APN Partner's tier (Advanced or Premier APN Consulting Partner), at least two (2) staff in the industrial practice must hold AWS professional level certifications. Certifications held by staff outside of the industrial practice do not count towards this requirement.	
2.0 AWS Customer Case Studies		Met Y/N
<b>2.1 Industrial Software-Specific Customer Case Studies</b>	2.1.1 APN Partner must have four (4) unique customer case studies specific to completed Industrial Software projects on AWS. Two (2) of the four (4) case studies must be publicly referenceable.	
	2.1.2 Case studies must fit into one of the Industrial Software Categories: Product Design, Production Design, Production, and Operations/Industrial IoT. Case studies that involve a generic IT problem for an industrial customer will not be accepted.	
	2.1.3 Case studies must be for projects that are in production, rather than in the pilot, development, or proof of concept stages, and case Studies must be for projects that were completed within the last 18 months.	
	2.1.4 Each of the four case studies must provide the following information: <ul style="list-style-type: none"> <li>▪ Name of the customer</li> <li>▪ Problem statement/definition</li> <li>▪ What you proposed to solve the problem faced by the customer</li> <li>▪ How AWS services were used as part of the solution</li> <li>▪ How APN Partner's industrial domain knowledge was used as part of the solution</li> <li>▪ Other third-party applications or solutions used in the solution</li> <li>▪ Date of project completion</li> <li>▪ Outcomes and results</li> </ul>	
	This information will be requested as part of the Program Application process in Partner Central.	
	2.2.1 Two (2) of the four (4) AWS customer case studies must be public; evidence must be in the form of publicly available case studies, white papers, or blog posts.	

<p><b>2.2 Publicly Available Case Studies</b></p>	<p>2.2.2 Public case studies must be easily discoverable on the APN Partner’s website, e.g., must be able to navigate and link to the case study from the APN Partner’s home page.</p> <p><i>Note: Upon approving the APN Partner as an AWS Industrial Software Competency Partner, these public case studies are used by AWS to showcase the APN Partner’s demonstrated success in the practice area and to inform customers that APN Partner has the experience and knowledge needed to develop and deliver solutions to meet their objectives.</i></p> <p><i>Note: For best practice on how to write an accepted public case study <a href="#">See Here</a>.</i></p>	
<p><b>3.0 AWS Industrial Software Practice and Focus</b></p>		<p><b>Met Y/N</b></p>
<p><b>3.1 APN Partner Practice Landing Page</b></p>	<p>AWS customers are looking for expertise in the development and delivery of Industrial Software solutions on AWS. Therefore, an APN Partner’s internet presence, including webpage layout, specific to their AWS Industrial Software Practice helps inform customers about the APN Partner’s Industrial Software capabilities and experience.</p> <p>APN Partner must have a landing page that describes their AWS Industrial Software Practice, technology partnerships, links to AWS customer case studies, including the two public case studies submitted for this Competency, and any other relevant information supporting the APN Partner’s expertise related to Industrial Software and highlighting the partnership with AWS.</p> <p>The Industrial Software Practice page must be accessible from APN Partner's home page. The home page itself is not acceptable as a practice landing page unless APN Partner is a dedicated Industrial Software consulting company and the home page reflects the APN Partner’s concentration on Industrial Software.</p> <p><i>Note: For best practice on how to build an accepted APN Partner Practice Landing Page <a href="#">See Here</a></i></p>	
<p><b>3.2 Industrial Software Thought Leadership</b></p>	<p>AWS Industrial Software Competency Partners have deep domain expertise in Industrial Software, including by developing innovative solutions that leverage AWS services.</p> <p>APN Partner must have public-facing materials (e.g., blog posts, press articles, videos, etc.) showcasing the APN Partner’s focus on and expertise in one or more of the AWS Industrial Software Categories. Links must be provided to examples of materials published within the last 12 months, and these materials must relate to one or more of the AWS Industrial Software Categories.</p>	
<p><b>3.3 Industrial Software ISV Solution Certified Staff</b></p>	<p>Given that ISV solutions are critical to AWS industrial customers, AWS Industrial Software Competency Consulting Partners must demonstrate that they have staff experienced with the solutions contained on the AWS Industrial Software Competency for Technology APN Partners list. The ISV solutions validated as part of the AWS Industrial Software Competency for Technology Partners, are listed on the AWS web site: <a href="https://aws.amazon.com/manufacturing/partner-solutions/">https://aws.amazon.com/manufacturing/partner-solutions/</a>.</p> <p>APN Partners must demonstrate that they have staff proficient in at least one of these ISV solutions. The evidence required depends on the maturity of the ISV Partner’s training and certification programs.</p> <p>3.3.1 Where the ISV APN Partner has a certification program for individuals, the APN Partner must have at least two (2) staff holding the relevant ISV solution certification.</p> <p>3.3.2 In cases where the ISV APN Partner does not have a certification program for individuals, alternative evidence will be accepted that demonstrates that staff have been adequately trained in that ISV solution. If the ISV APN Partner has its own consulting APN Partner program, then evidence of the APN Partner’s membership of that program will be accepted. Alternatively, the ISV APN Partner may attest, in writing, that the APN Partner has staff who have been appropriately training on the ISV solution.</p>	
<p><b>4.0 APN Partner Self-Assessment</b></p>		<p><b>Met Y/N</b></p>

**4.1 AWS  
Competency  
Partner Program  
Validation  
Checklist Self-  
Assessment**

APN Partner must conduct a self-assessment of their compliance to the requirements of the Checklist.

- APN Partner must complete all sections of the Checklist.
- Completed self-assessment must be emailed to [competency-checklist@amazon.com](mailto:competency-checklist@amazon.com), using the following convention for the email subject line: “[APN Partner Name], Industrial Software Competency Consulting Partner Completed Self-Assessment.”
- It is recommended that APN Partner has their AWS Partner Solutions Architect PDM review the completed self-assessment before submitting to AWS. The purpose 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 Industrial Software Consulting Partner Validation Checklist

The following items relate to the APN Partner’s industrial software practice. While APN Partner will often have substantial capabilities outside of their industrial software practice, the focus of this validation is on the APN Partner’s industrial software practice. Therefore, only the staff, resources and projects associated with the APN Partner’s specific industrial software practice will be considered in this section.

1.0 Industrial Software Practice Checklist		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 Industrial Software practice and showcases the APN Partner’s demonstration capabilities.</p> <p>Presentation contains information about the APN Partner’s AWS Industrial Software practice, including AWS-specific differentiators, e.g., what is unique about the APN Partner’s Industrial Software practice that can only be accomplished leveraging AWS.</p> <p>Overview presentations contain:</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 Industrial Software 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. Pricing and/or information regarding terms between the APN Partner and the end customer should be removed from this presentation.</p>	
<b>1.2 Maintaining AWS Expertise</b>	<p>APN Partner can describe how they stay current on AWS Service releases related to their AWS Industrial Software Practice. APN Partner can describe how they stay current on AWS Service releases related to their AWS Industrial Software Practice.</p> <p>Evidence must be in the form of a verbal description on enablement materials leveraged by APN Partner to stay current on AWS services and features, as well as training programs they provide employees to stay current, including regular review of the Well-Architected Framework.</p>	
<b>1.3 Maintaining Industrial Software ISV Competency Solution Expertise</b>	<p>APN Partner can describe how they stay current on one of the Industrial Software ISV Competency Solutions that their practice specializes in.</p> <p>Evidence must be in the form of a verbal description on enablement materials leveraged by APN Partner to stay current on the ISV Solution, as well as training programs they provide employees to stay current.</p>	
<b>1.4 End of Project Customer Satisfaction Survey</b>	<p>APN Partner asks customer to complete AWS Customer Satisfaction Survey at the end of the project. This is accomplished by searching for the APN 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>	

The following items relate to the four case studies provided by the APN Partner.

The purpose of this review is to validate that solutions referenced in the submitted case studies are aligned with the AWS best practices articulated in the AWS Well-Architected Framework.

To simplify and expedite compliance, the APN Partner is encouraged to use materials that were prepared as part of the project, rather than developing new materials specifically for this Competency. This documentation could be in any form, for example design documentation, runbooks, etc.

Each of the requirements below will be validated against all four of the case studies. The validation process is only successful if all of the mandatory requirements, as listed in the “must” section, are fulfilled for all of the four case studies. *The optional requirements, listed in the “preferably” section, are best practices that should be considered for future projects.*

2.0 Industrial Software Case Study Checklist		Met Y/N
<b>2.1 Architecture Diagrams</b>	<p>APN Partner must provide architecture diagrams for each submitted case study. The architecture diagrams must illustrate all of the major processes, including: how solution operates normally, how the solution is backed up, and how the solution is restored after a failure.</p> <p>Each architecture diagram must:</p> <ul style="list-style-type: none"> <li>• Illustrate the AWS services used and the relationships between them.</li> <li>• Show the storage locations of customer data (including secrets like credentials, keys or certificates), labeled clearly and explicitly during every phase of operation, including the backup phases.</li> <li>• Show the network configuration, including VPCs, subnets, security groups, and NACLs.</li> <li>• Show integration points with other applications and systems, for example ISV solutions, and on premises systems.</li> </ul> <p><i>Preferably, the architecture diagram will also:</i></p> <ul style="list-style-type: none"> <li>• <i>Use AWS Simple Icons (<a href="#">detail</a>)</i></li> </ul>	
<b>2.2 Operational Excellence</b>	<p>The documentation should demonstrate that the solution was designed in accordance with the principles of the <a href="#">Operational Excellence</a> pillar of the AWS Well-Architected Framework.</p> <p>The documentation must show evidence of:</p> <ul style="list-style-type: none"> <li>• Health checks and monitoring that were deployed</li> <li>• Processes for any required periodic maintenance, including processes that ensure compliance with security best practices, especially key rotation, secure storage, and certificate maintenance, as well as software patches and upgrades</li> <li>• Processes for engaging with AWS support</li> <li>• Processes for engaging with ISV solution support (if applicable)</li> </ul> <p><i>Preferably, the documentation also shows that:</i></p> <ul style="list-style-type: none"> <li>• <i>Deployment of code changes is automated</i></li> <li>• <i>Runbooks and escalation process are defined</i></li> <li>• <i>AWS Business Support is enabled for the AWS Account</i></li> </ul>	
<b>2.3 Security</b>	<p>The documentation should demonstrate that the solution was designed in accordance with the principles of the <a href="#">Security</a> pillar of the AWS Well-Architected Framework.</p> <p>The documentation must show evidence of:</p> <ul style="list-style-type: none"> <li>• Processes for protecting secrets like credentials, keys or certificates, including AWS access keys</li> <li>• Encryption of these secrets at rest, or processes for mitigating the lack of encryption</li> </ul>	

	<ul style="list-style-type: none"> <li>• Amazon Elastic Compute Cloud (Amazon EC2) security groups scoped to restrict access to the greatest degree possible, and at least restricting inbound traffic to specific ports</li> <li>• Amazon Simple Storage Service (Amazon S3) buckets having appropriate access controls in place</li> <li>• Encryption of all traffic crossing a VPC boundary, or processes for mitigating this lack of encryption</li> <li>• Encryption of all sensitive data at rest, or processes for mitigating this lack of encryption</li> </ul> <p><i>Preferably, the documentation also shows that:</i></p> <ul style="list-style-type: none"> <li>• AWS account root user is not used for routine activities</li> <li>• Multi-Factor Authentication (MFA) has been enabled on the AWS account root user</li> <li>• AWS Identity and Access Management (IAM) user accounts are used for all routine activities</li> <li>• MFA is enabled for all interactive IAM users</li> <li>• IAM credentials are rotated regularly</li> <li>• Strong password policy is in place for IAM users</li> <li>• IAM credentials are not shared among multiple users</li> <li>• IAM policies are scoped down to least privilege</li> <li>• Hard-coded credentials (e.g. access keys) are not used</li> <li>• All credentials are encrypted at rest</li> <li>• AWS access keys only used by interactive users</li> <li>• AWS CloudTrail is enabled for all AWS accounts in every region</li> <li>• AWS CloudTrail logs are stored in an S3 bucket owned by another AWS account</li> <li>• AWS CloudTrail S3 log bucket has Versioning or MFA Delete enabled</li> <li>• Amazon EC2 security groups are tightly scoped</li> <li>• Amazon S3 buckets within your account have appropriate levels of access</li> <li>• Amazon S3 buckets have not been misconfigured to allow public access.</li> <li>• A monitoring mechanism is in place to detect when Amazon S3 buckets or objects become public</li> <li>• A monitoring mechanism is in place to detect changes in Amazon EC2 instances and Containers</li> <li>• All data is classified</li> <li>• All sensitive data is encrypted</li> <li>• Cryptographic keys are managed securely</li> <li>• All data in transit is encrypted</li> <li>• Security incident response process is defined and rehearsed</li> </ul>
<p><b>2.4 Reliability</b></p>	<p>The documentation should demonstrate that the solution was designed in accordance with the principles of the <a href="#">Reliability</a> pillar of the AWS Well-Architected Framework.</p> <p>The documentation must show evidence of:</p> <ul style="list-style-type: none"> <li>• Architecting the solution to be resilient to availability zone disruptions, Amazon EC2 instance failures, and other service failures</li> <li>• Planning network connectivity to ensure appropriate levels of availability</li> <li>• Aligning infrastructure scaling with business requirements, either by implementing auto-scaling or appropriately sizing capacity</li> <li>• Processes for backing up the environment</li> <li>• Processes for restoring the environment after a failure</li> </ul> <p><i>Preferably, the documentation also shows that:</i></p> <ul style="list-style-type: none"> <li>• Network connectivity is highly available</li> <li>• Infrastructure scaling mechanisms align with business requirements</li> <li>• AWS and Application logs are managed centrally</li> <li>• AWS and Application monitoring and alarms are managed centrally</li> <li>• Infrastructure provisioning and management is automated</li> <li>• Regular data backups are being performed</li> <li>• Recovery mechanisms are being tested on a regular schedule and after significant architectural changes</li> <li>• Solution is resilient to availability zone disruption</li> </ul>

	<ul style="list-style-type: none"> <li>• <i>Resiliency of the solution has been tested</i></li> <li>• <i>Disaster Recovery (DR) plan has been defined</i></li> <li>• <i>Recovery Time Objective (RTO) is less than 24 hours</i></li> <li>• <i>DR plan is adequately tested</i></li> <li>• <i>DR plan includes recovery to another AWS account</i></li> </ul>
<p><b>2.5 Performance Efficiency</b></p>	<p>The documentation should demonstrate that the solution was designed in accordance with the principles of the <a href="#">Performance Efficiency</a> pillar of the AWS Well-Architected Framework.</p> <p>The documentation must show evidence of:</p> <ul style="list-style-type: none"> <li>• Consideration given to the performance characteristics of the compute, networking, storage and database services used.</li> </ul> <p><i>Preferably, the documentation also shows that:</i></p> <ul style="list-style-type: none"> <li>• <i>Consideration given to reviewing these selections as new capabilities become available</i></li> <li>• <i>Monitoring of services in production to ensure that they continue to perform as expected</i></li> <li>• <i>Consideration of tradeoffs between the characteristics of different services to optimize the architecture</i></li> </ul>
<p><b>2.6 Cost Optimization</b></p>	<p>The documentation should demonstrate that the solution was designed in accordance with the principles of the <a href="#">Cost Optimization</a> pillar of the AWS Well-Architected Framework.</p> <p>The documentation must show evidence of:</p> <ul style="list-style-type: none"> <li>• Consideration given to the evaluation of cost when selecting services</li> <li>• Consideration given to different pricing models like Amazon EC2 reserved instances or spot instances</li> <li>• Consideration given to data transfer charges</li> </ul> <p><i>Preferably, the documentation also shows that:</i></p> <ul style="list-style-type: none"> <li>• <i>The architecture includes mechanisms to scale capacity up and down to meet business requirements</i></li> <li>• <i>Processes are in place to govern usage, monitor costs, and decommission unused resources</i></li> <li>• <i>Processes are in place to review new services and features to look for cost optimizations</i></li> </ul> <p><i>Evidence provided for this section should relate to considerations of Cost Optimization in the selection of AWS Services, and should not include any discussions between the APN Partner and their customer related to the pricing of APN Partner’s consulting services.</i></p>

## 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 an architecture diagrams that will meet the prerequisites of the Program.
<a href="#">APN Partner Readiness Doc</a>	Provides guidance and best practice examples of the Program prerequisites.

*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.*