



AWS IoT Greengrass AWS Service Delivery Program Consulting Partner Validation Checklist

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Introduction

The goal of the AWS Service Delivery Program is to recognize APN Partners who demonstrate successful customer delivery and experience in specific AWS services. The AWS Service Delivery Validation Checklist is intended to prepare APN Partners who are interested in applying for AWS Service Delivery. This checklist provides the criteria necessary to achieve the designation(s) under the [AWS Service Delivery Program](#).

Expectations of Parties

Once APN Partners have applied to a designation within AWS Service Delivery, APN Partners undergo a validation of their capabilities known as the technical validation upon applying for any AWS Service Delivery designation, and every 12 months thereafter. AWS leverages in-house expertise and may leverage a third-party firm to facilitate the review.

AWS reserves the right to make changes to this document at any time. **It is expected that APN Partners will review this document in detail *before* submitting an AWS Service Delivery application, even if pre-requisites are met.** If items in this document are unclear and require further explanation, please contact your 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.

In order to begin the validation process, please follow the steps outlined below:

- Step #1: Review the Partner Validation Checklist and ensure all requirements are met
- Step #2: Submit an AWS Service Delivery Application through the APN Partner Central
 - Login to the APN Partner Central
 - Click "View My APN Account" in left navigation
 - On this page, first submit the following:
 - Your AWS Service Specific AWS Customer Case Study (2) with attached Architecture Diagrams
 - Your AWS Service Specific Consulting Practice
 - Next, scroll to AWS Service Deliveries and select the AWS service you want to apply for
 - Complete the Service Delivery Application
- Step #3: Email completed Self-Assessment to aws-service-delivery@amazon.com

Incomplete applications will not be considered and will be declined until all requirements are met.

Once your firm's application has been submitted through the APN Partner Central, the APN Team will review for completeness and for compliance with the prerequisites. Next, we send applications to in-house or third-party experts to complete a Technical Validation.

AWS recommends that APN Partners have individuals who are able to 1) provide evidence of compliance and 2) speak in-depth to the technical requirements about the AWS Service during the validation process.

Upon completion of the Technical Validation, APN Partners will receive a final status for the submitted application either confirming or not confirming the APN Partners' acceptance into the Service Delivery Designation. APN Partners may attain one or more AWS Service Delivery Designations. Attaining one designation does not guarantee approval into additional Service Delivery Designations.

AWS Service Delivery Program Prerequisites

AWS Service Delivery Partners have demonstrated success helping customers evaluate and use AWS services productively, at varying levels of complexity, and at scale by completing the below requirements.

The following items must be met before a Technical Validation review will be scheduled. These items will be validated by the AWS Service Delivery Program Manager; any deficiencies must be addressed prior to scheduling a validation review.

1.0 APN Program Requirements		Met Y/N
1.1 Program Guidelines	The APN Partner must read the Program guidelines and Definitions before submitting the application. Click here for Program details.	
1.2 Program Requirements	APN Partner is Select, Advanced, or Premier APN Consulting Partner (view requirements)	
2.0 AWS Customer Case Studies		
2.1 AWS Customer Case Studies	APN Partner has two (2) case studies demonstrating successful delivery of the AWS service(s) that are in production to their external customers, rather than in pilot or proof of concept stage. Note: <i>Public-facing references are encouraged over private references, as they may be used by AWS for marketing purposes. Evidence of a publicly referenceable case study must be provided in the form of a case study, white paper, blog post, or equivalent, and must be easily discoverable on the APN Partner's website. For best practice on how to write a Public Case Study See Here</i>	
	APN Partner provides for each reference: <ul style="list-style-type: none"> ▪ Name of the customer ▪ AWS Account ID (Will be used to verify AWS service usage) ▪ Problem statement/definition ▪ What you proposed ▪ How AWS services were used as part of the solution ▪ Third party applications or solutions used ▪ Start and end dates of project ▪ Outcome(s)/results ▪ Lessons Learned 	
2.2 Architectural Diagrams	Submitted case studies must include architectural diagrams. <ul style="list-style-type: none"> ▪ Architectural diagrams must detail how the solution interacts with the AWS Cloud; specifically, what AWS tools and services are used in the solution ▪ Diagrams must also include evidence of AWS best practices for architecture and security Note: <i>For best practice on how to build an accepted Architecture Diagram See Here</i>	
2.3 Partner Practice Landing Page	APN Partner must have an AWS-branded microsite that is related to or specific to AWS service. <ul style="list-style-type: none"> ▪ Evidence must be provided in the form of a public reference to the APN Partner's solution, practice, or service-specific webpages. ▪ APN Partner microsite must be accessible from APN Partner home page; Home page is not acceptable as a microsite. Note: <i>For best practice on how to build an accepted Landing Page See Here</i>	
3.0 APN Partner Self-Assessment		
3.1 Program Validation Checklist Self-Assessment	APN Partner must conduct a self-assessment against designation requirements using the AWS Service Delivery Validation Checklist. <ul style="list-style-type: none"> ▪ APN Partner must complete all sections of the checklist. ▪ Completed self-assessment must be emailed to aws-service-delivery@amazon.com, using the following convention for the email subject line: "[APN Partner Name], Service Delivery Partner Completed Self-Assessment." 	

AWS Service Delivery Program Requirements

In preparation for the 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, process documentation, and/or actual customer examples.

AWS IoT Greengrass Approval Criteria

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

AWS IoT Greengrass Validation Checklist	Detailed Description of Evidence	Met Y/N
<p>1.0 Case Study Requirements</p>	<p>Each Case Study demonstrates integration/connection of the following AWS services:</p> <p>Primary - AWS Greengrass (mandatory)</p> <ul style="list-style-type: none"> ▪ Case study includes Lambda on Greengrass Device shadow – uses of the shadow or other C&C mechanisms, device shadow subscriptions, updates, responding to delta messages ▪ Payload examples for messages and shadow, including size and frequency of messages sent to AWS IoT Core ▪ Device security - provisioning of certificates (and/or rotation), initial on-boarding of devices, risk mitigation, OTA ▪ Greengrass Core provisioning, initial on-boarding, and updates to the core ▪ Show expertise and best practices in integrations with other AWS Services such as AWS Lambda, Amazon DynamoDB, Amazon Cognito, etc. <p>For AWS Greengrass/ML implementations the following are mandatory</p> <ul style="list-style-type: none"> ▪ Model deployment and mapping to AWS Greengrass Core ▪ Deployment and execution of inference engine, such as Apache MXNet, or other 3rd party framework ▪ Access to host environment, disk/hardware/I/O for ML implementations, ▪ Demonstrates best practices for Amazon SageMaker for ML model training ▪ Demonstrates how to effectively train ML model and deploy to an AWS Greengrass Core ▪ Demonstrates a deployment and execution of inference engines such as Apache MXNet or other 3rd party frameworks 	<p>Customer implementation description or documentation</p>
<p>2.0 AWS Service Requirements</p>	<p>2.1 Solution Characteristics:</p> <p><i>Must be an IoT project</i> - All customer references must be valid IoT solutions, per the general guidelines provided below.</p> <ul style="list-style-type: none"> ▪ End to end solutions that generally involve control of devices -the flow is going to be data collection, analysis, and then action (sense/analyze/act) ▪ All IoT implementations follow AWS best practices such as using device shadows, rules, and response to events. For example, a project that only ingests data without ever acting on the information is <u>not</u> acceptable. In those cases, non-IoT AWS 	

	<p>services such as Amazon S3 or Amazon Kinesis may be more appropriate instead, not AWS IoT.</p> <ul style="list-style-type: none"> Solutions that use the AWS IoT broker only as a substitute for a publish/subscribe broker, although sometimes a very valid use of the broker, are still not IoT projects. An example of this is a chat client/browser to browser communications. In some cases, a more appropriate service may be Amazon SNS, not AWS IoT. <p>Cost Optimization - payload size and frequency messages, shadow size, shadow topic subscriptions</p> <p>Reliability - use of shadows or C&C mechanisms, testing for loss of AWS connectivity, recovery from hardware failure</p> <p>Performance Efficiency - payload size and frequency of messages</p> <p>Security - certificate provisioning, certificate storage, rotation, limited scoped credentials</p> <p>Operational Excellence - Over The Air updates, device recovery, monitoring AWS Greengrass, monitoring for device or message error/failure, provisioning for device replacement</p> <p>2.2 Validation Prerequisites The following AWS Service Delivery Program validations must have been completed to meet the validation requirements for AWS Greengrass:</p> <ul style="list-style-type: none"> AWS IoT Core 			
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AWS Resources

Title	Description
How to Build a Practice Landing Page	Provides guidance how to build a Practice/solution page that will meet the prerequisites of the Program.
How to Write a Public Case Study	Provides guidance how to build a Public Customer Case Study that will meet the prerequisites of the Program.
How to Build an Architecture Diagram	Provides guidance how to build a architecture diagrams that will meet the prerequisites of the Program.

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