



CRM Guide

AWS Partner Central



AWS Partner Central: CRM Guide

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AWS Partner CRM integration

This Partner customer relationship management (CRM) integration is designed to exchange referrals between Amazon Web Services (AWS) Partners and AWS. This Integration empowers participants in the AWS Partner Network (APN) Customer Engagements (ACE) program to scale operations without the need to allocate additional resources for managing coselling pipelines with AWS. By using this CRM Integration, partners can minimize manual efforts associated with maintaining information about leads and opportunities across separate systems, the partner's CRM and AWS Partner Central.

This CRM Integration provides the following advantages:

1. **Unified lead and opportunity management:** With the partner CRM Integration, your leads and opportunities are located within your CRM. You no longer must have your sales team maintain identical information across systems. Manage and nurture leads and opportunities within a single interface by scaling your sales engagements.
2. **Automate your coselling operations:** The ability to manage referrals within your CRM means that you can automate coselling based on standard rules and validations. This allows your CRM administrator to set up notifications, reports, and other Integrations. Build workflows to automatically match opportunities and assign them to the right executive. Control the quality of your sales data at the source.
3. **Simplified coselling workflow:** No need to master Partner Central operations. Your sales team doesn't require training on Partner Central to oversee coselling deals.

Options for partner CRM Integration

There are three options for a CRM Integration with AWS.

1. **AWS Partner CRM Connector:** A managed package offered by AWS for partners on Salesforce CRM (distributed on Salesforce AppExchange).
2. **Third-party solution:** Custom built Integration solution offered by third-party service providers.
3. **Building a custom solution:** Using Amazon Simple Storage Service (Amazon S3) file-exchange: partners can build a custom Integration solution that fits customization and automation requirements using Amazon S3-based file-exchange.

To help partners set up the Integration's infrastructure, AWS offers a self-service onboarding experience on [AWS Partner Central](#).

Options

At its core, the Partner Customer Relationship Management (CRM) Integration empowers partners with the capability to accept, send, and receive updates on new opportunities and leads directly from Amazon Web Services (AWS). You can choose between out-of-the-box solutions or building a custom solution to fit your needs.

To help you make an informed decision, table 1 outlines the three available Integration options.

Feature/A spect	AWS Partner CRM Connector for Salesforce	Third-party solution	Custom solution using Amazon S3
Descripti on	AWS managed package at no additional cost. Distributed over Salesforce AppExchange.	Out-of-the-box solution provided by third-party providers.	Partner develops their own Integration using Amazon Simple Storage Service (Amazon S3)–based file-transfer mechanism.
Developme nt resources required	Requires setup, configuration, and regular maintenance from CRM administrator. Low-medium development effort (depends	Depends on the third-party solution; most third-par	4–6 person-weeks for project management. High development effort of 6–12 weeks.

Feature/Aspect	AWS Partner CRM Connector for Salesforce	Third-party solution	Custom solution using Amazon S3
	on level of automation required). Requires project management.	ty providers provide complete solution with white glove support, and in some cases, compatibility with other cloud vendors.	Additional 4–8 weeks of development, quarterly for maintenance.
Skill set required	Salesforce administration and Salesforce development.	CRM administration and project management.	CRM development, basic AWS technology understanding, collaboration with CRM administrator.
Maintenance	Regular maintenance required. Maintenance can be managed by the administrator, with minimal developer support.	Rely on third-party provider for enhancements and maintenance. Partner responsible for CRM admin support.	Regular updates required. Each upgrade may need code change.
Cost	No additional cost.	Subscription cost for third-party solution.	Development and maintenance costs.

Feature/Aspect	AWS Partner CRM Connector for Salesforce	Third-party solution	Custom solution using Amazon S3
Customization	Limited to package capabilities.	Depends on third-party solution, may require additional effort for customization.	High customization, since it's a tailored solution.
Set up time	Low	Low	High
Support	AWS provides limited support.	Third-party solution provider provides support.	AWS provides file definitions, samples, and documentation for development.
Additional features	Outbound lead sharing, inbound and outbound opportunity sharing, scheduled job, auto-map.	Possible multicloud cosell features, future enhancements handled by provider, white glove support/consulting services.	High customizability, outbound lead sharing, inbound and outbound opportunity sharing.

Table 1: Integration options

Business flows

Referrals can be categorized as either a lead or opportunity.

What is a referral?

The term *referral* serves as a general descriptor for both leads and opportunities. A lead refers to a contact that has expressed interest in an Amazon Web Services (AWS) product or an AWS Partner solution. During the initial stages of the sales process, a sales representative assesses if the interested individual has the potential to become an AWS customer. This assessment and validation phase is referred to as *qualification*. If a lead is deemed qualified and is considered to have a higher probability of converting to a customer, it's then classified as an *opportunity*.

What is an AWS originated opportunity referral?

A referral shared by AWS Sales with an partner for coselling is called an AWS originated (AO) opportunity referral. The AWS Sales team receives recommendations to attach a partner to an AWS sales opportunity based on multiple factors such as the quality of information in the solution listing, past opportunities, progress in the partnership journey, or past performance.

When the AWS Sales team attaches a partner to an AWS sales opportunity, the opportunity is shared with the partner as a referral. The partner receives the referral with the customer contact details masked (contact name, title, email, and phone). The referral contains AWS contact details, customer name, project title, use case, stage, description, and other details that the partner can use to decide if they want to pursue the referral. The partner must accept or reject the referral before the `acceptBy` date and time specified in the payload. The partner sends an `Accepted` or `Rejected` value for the `partnerAcceptanceStatus` field. If rejected, partners should provide a `rejectionReason`.

While a partner accepts or rejects the AO referral, they shouldn't update any other values in the referral. Every update on a referral (from the partner or AWS) can take up to one hour to sync with the CRM. After acceptance, AWS sends a new payload with the unmasked details of the customer contact. Partners should actively engage the opportunity and provide regular updates to AWS.

What is a partner originated opportunity referral?

A referral shared by an AWS Partner with AWS for coselling or visibility, is called a partner originated (PO) opportunity referral. The status of the referral is initially set to `Submitted`. By default, all PO opportunity referrals go through a validation (review) process. During this process the status of the opportunity is set to `In-review` and no updates are accepted to the opportunity until validation is completed.

If the validation succeeds, the opportunity status is set to `Approved`, and partners can send updates to the opportunity. If the validation fails, the status of the opportunity is set to `Action Required`, and the validator's comments are shared as part of the `apnReviewerComments` field. In the `Action Required` state, the partner can only update a limited set of fields (refer to the field definitions for details).

After the partner updates and resubmits the opportunity, it moves back to the `Submitted` state and the validation process starts again. When the validation passes, the referral is set to `Approved`, and partners and AWS can share regular updates about the opportunity. The validation process can take up to five business days.

Note

AWS doesn't currently support the `Partner Shares Lead with AWS` scenario. Partners that receive a lead through an external source typically pursue it themselves. After the lead becomes a viable opportunity that meets validation criteria, partners can submit it to AWS as a partner originated opportunity referral.

Closing a referral

When a partner closes a referral as `Launched`, they're must attach an AWS account associated with the customer. If the referral is being closed as `Closed Lost`, partners must give a `closedLostReason`. For a referral that relates to a sale on AWS Marketplace, partners must attach an AWS Marketplace offer to the opportunity.

Partners can check if an opportunity is marked as `Launched` or `Closed Lost` on the AWS CRM by using the field `awsStage`.

Note

The `awsStage` field is different from `stage`. The `stage` field is for sharing regular updates about a referral, while `awsStage` is a read-only field that indicates the current referral stage.

Setting up

To set up the CRM Integration with Amazon Web Services (AWS), regardless of your Integration path, you must have access to AWS owned Amazon Simple Storage Service (Amazon S3) buckets in APN Customer Engagements (ACE) for each environment. The bucket is an intermediary for bidirectional file transfers. The following sections can help you set up your CRM Integration with AWS.

Prerequisites for CRM Integration

Before you set up the CRM Integration, ensure you meet the following criteria:

1. You must be an [ACE eligible partner](#). For more information, refer to [the section called “FAQ”](#).
2. The partner alliance lead must complete the onboarding process described in this document. Other profiles will not have access to the CRM Integration onboarding experience.
3. The team implementing the Integration must be familiar with the ACE program and the coselling process. For more information, refer to the following resources on Partner Central:
 - [ACE Opportunity Submission Quick Guide](#)
 - [ACE Validation Process](#)
 - [ACE Program FAQs](#)
 - [What is ACE Pipeline Manager?](#)

Who's involved in setting up the Integration?

The following roles are essential in setting up the CRM Integration:

1. **Partner alliance lead:** Has permission to initiate a new Integration request through Partner Central. The partner alliance lead oversees the progress of the Integration and monitors the status from the CRM Integration page within Partner Central.
2. **Program manager:** Entrusted with driving the Integration process from the partner's side. This person is able to define essential processes and necessary enablement post-integration.
3. **Partner CRM administrator:** Helps map fields between AWS and the partner's CRM. If partners choose an Integration through the AWS Partner CRM Connector, the administrator is critical to its setup.
4. **Developers:** For partners that choose the custom option, developers build and implement the custom Integration.
5. **Partner cloud operations and IT team:** Configures authentication credentials, such as AWS Identity and Access Management (IAM) user/role. This involves creating an AWS account and an AWS user for secure access.
6. **AWS Partner development manager (PDM):** The partner's AWS point of contact. All communication with the AWS team is routed through the PDM. For more information, refer to [the section called "FAQ"](#).
7. **AWS Partner solutions architect (PSA):** Works closely with the PDM to assist with any technical questions the partner has.
8. **AWS CRM Integration support:** Addresses technical support issues that partners raise through Support Center in Partner Central.

AWS concepts involved in the Integration

Environments and access

The CRM Integration operates within two distinct environments: sandbox (also known as UAT or Beta) and production (also known as Prod). AWS creates an AWS owned Amazon S3 bucket within the AWS Partner Network (APN) for each environment. The sandbox S3 bucket connects to the APN sandbox environment, and the production S3 bucket connects to the APN production environment.

To access each S3 bucket securely, you need to set up (or reuse) an AWS account for each environment. If you're an independent software vendor (ISV), we recommend reusing your existing AWS Marketplace account. In the AWS account, you need to create an IAM user (for AWS Partner

CRM Connector) or IAM role (for third-party or custom Integration). The IAM role or user is used for provisioning access to the S3 bucket that AWS sets up for the partner. Partners have programmatic access to the AWS created buckets. During the onboarding process, AWS generates an access policy that you have to attach to these IAMs. You can create an AWS account and IAM user or role for each environment, at the beginning of the Integration onboarding process. However, AWS allows programmatic access to the production bucket only after you successfully test your solution's sandbox environment (Connector, third-party, or custom Integration).

Amazon S3 buckets

To access a bucket for each environment, refer to [the section called “Stage 1: Onboarding prerequisites”](#). To ensure secure interaction with S3 files, AWS uses IAM policies for partner authentication. These policies rigorously control partner permissions for uploading and downloading S3 files.

Each bucket created for partners follows the naming convention below.

ace-apn-[partner-id]-[environment]-us-west-2

- **partner-id**: A numerical unique identifier assigned to each partner in the AWS Partner Network, consisting of up to 10 digits. Partners can locate their Partner ID by navigating to: **AWS Partner Central > My Company > Partner Scorecard > Partner ID**.
- **environment**: This field accepts two values:
 - beta: Indicates a bucket pointing to a sandbox environment.
 - prod: Indicates a bucket pointing to a production environment.

Folder structure in Amazon S3 bucket

AWS uses S3 buckets with different folders for the Integration, as shown in table 1.

Purpose	Folder name	Description
Retrieve ACE leads	lead-outbound	Contains new leads or updates existing leads. Partners have read and delete access to this folder. After a file is processed, delete it.
Retrieve ACE opportunities	opportunity-outbound	Contains a file of new or updated opportunities. Partners have read and delete access to this folder.
Send new or update existing ACE opportunities.	opportunity-inbound	Contains files with new or updated opportunities.

Purpose	Folder name	Description
Send ACE updates about leads	lead-inbound	Contains files with updated leads.
Retrieve results for opportunities sent to ACE	opportunity-inbound-processed-results	Contains files with the results of processed opportunities. Partners have read and delete access to this folder.
Retrieve results for leads from ACE	lead-inbound-processed-results	Contains files with the results of processed leads. Partners have read and delete access to this folder.

Table 1: Folder structure of S3 bucket

Note

Amazon S3 treats folders as objects that are only visible if they contain files. But partners can read and add files to folders even if a folder doesn't appear.

IAM

AWS Identity and Access Management (IAM) is a web service that helps you securely control access to AWS resources. With IAM, you can centrally manage permissions that control which AWS resources users can access. You use IAM to control who is authenticated (signed in) and authorized (has permissions) to use resources. For more information, refer to [Introduction to AWS Identity and Access Management \(IAM\)](#).

Your access to the Amazon S3 buckets provisioned by AWS is managed through an IAM user/role. Each IAM user/role is allow-listed for access to their respective bucket. To configure access, you need to create one IAM user/role for each environment, sandbox and production. For more information, refer to [the section called "Getting started"](#).

Getting started

To initiate the Integration process, Amazon Web Services (AWS) provides a process for registration and tracking through Partner Central called [CRM Integration onboarding](#). This functionality is only available to the partner alliance lead of an ACE-eligible partner.

Onboarding process

The onboarding process for the CRM Integration has the following steps. Regardless of the Integration option you choose, you must complete every step.

[the section called “Stage 1: Onboarding prerequisites”](#): Describes the prerequisites for the CRM Integration, including AWS account creation, AWS Identity and Access Management (IAM) setup, account linking, and IAM mapping for both sandbox and production environments.

[the section called “Stage 2: Request submission”](#): Describes the steps involved in submitting an onboarding request.

[the section called “Stage 3: Sandbox setup”](#): Describes how to set up a sandbox environment.

[the section called “Stage 4: Implementation”](#): Describes the step after AWS provisions the Amazon Simple Storage Service (Amazon S3) bucket used for testing the Integration. Partners implement the Connector based on the chosen Integration option (AWS Partner CRM Connector, custom Integration, or third-party solution).

[the section called “Stage 5: Testing”](#): Describes the steps involved in testing the Integration with different business flows.

[the section called “Stage 6: Production approval”](#): Describes the steps involved in migrating the data (backfilling) and moving the Integration solution to the production environment.

[the section called “Stage 7: Launch”](#): Describes the steps leading up to the launch and post launch activities.

Stage 1: Onboarding prerequisites

Before you start the onboarding steps, ensure you have met the five prerequisites below.

Regardless of the CRM Integration type, there are two mandatory prerequisites:

1. [the section called “Have an AWS account”](#)
2. [the section called “Set up an IAM principal”](#)

Regardless of the CRM Integration type, there are three optional prerequisites:

1. [the section called “Link AWS Marketplace to Partner Central”](#)
2. [the section called “Attaching a policy to an IAM role”](#)
3. [the section called “Mapping your IAM role for CRM Integration”](#)

Mandatory prerequisites

Have an AWS account

To get started, partners must have an AWS account in place.

Partners may sign up for a free AWS account or use an existing one. For more information, refer to [Sign up for AWS](#). We recommend having two separate AWS accounts for setting up the sandbox (testing) and production environments. Reach out to your Cloud Operations or IT department to set up an AWS account. For more information, refer to [Create a standalone AWS account](#). For those who are AWS Marketplace sellers, we recommend using your [AWS Marketplace](#) account.

Set up an IAM principal

To work with the Amazon Simple Storage Service (Amazon S3) buckets AWS provides, partners need to use IAM to authenticate. Keep the names of the IAM principals handy because you need them when you submit your onboarding request. Additionally, you use a custom policy generated by AWS to attach to your IAM principals to access the Amazon S3 bucket. For more information, refer to [What is IAM?](#)

- **AWS Partner CRM Connector users:** Use an IAM user.
- **Custom or third-party solution users:** Choose between an IAM user or role. We recommend an IAM role for this purpose.

How to create an IAM user

Creating an IAM user allows individuals to access AWS services.

1. Sign in to the AWS Management Console, and then navigate to the IAM console.
2. Choose **Users**, and then choose **Create user**.
3. Enter the user name following this naming convention: `apn-ace-{partner-name}-AccessUser-{prod|beta}`. For example, for a production environment, a partner named AnyAuthority would use `apn-ace-anyauthority-AccessUser-prod`.

For more information, refer to [Creating an IAM user in your AWS account](#).

How to create an IAM role

An IAM role is a set of permissions that grant access to actions in AWS but is not tied to a specific individual. It can be assumed by anyone who needs it.

The naming convention for an IAM role follows a similar pattern to the IAM user: `apn-ace-
{partner-name}-AccessRole-
{environment}`.

For more information, refer to [Creating IAM roles](#).

Optional prerequisites

Note

Applicable only for partners who want to attach an AWS Marketplace offer to opportunities using the integration.

Link AWS Marketplace to Partner Central

AWS Partners with AWS Marketplace seller accounts can connect their accounts using the Account linking feature in AWS Partner Central. When you connect the AWS Partner Central account to an AWS Marketplace account and map user permissions across portals, it allows users to seamlessly access both accounts through single sign-on access, and enables offer-to-opportunity linking across platforms..

To enable account linking, it's best practice to have user roles assigned in AWS Partner Central, including the cloud administrator role. If a cloud administrator role is unassigned, the alliance lead may assign themselves this role to link their AWS Partner Central and AWS Marketplace accounts.

Follow these steps to link your AWS Partner Central account to an AWS account.

1. Sign in to AWS Partner Central with an Alliance Lead or Cloud Admin role.
2. Navigate to the **Account Linking** section on the homepage, and then choose **Link Account**.
3. On the **Account Linking** page, choose **Link Account** again.
4. Choose **IAM user**, and then enter the AWS Account ID for your AWS account.
5. Choose **Next**, and then sign in to the AWS account.

6. Choose **Allow** to authorize the connection between your AWS Partner Central and AWS accounts.

Attaching a policy to an IAM role

1. Verify that you completed the steps to link your AWS Partner Central account to an AWS Marketplace account. For more information, refer to [the section called “How to create an IAM role”](#).
2. Create an IAM role in your AWS Marketplace account. For more information, refer to [Controlling access to AWS Marketplace Management Portal](#).
3. Assign the following trust policy to the user:

```
{
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "aws-marketplace:ListEntities",
        "aws-marketplace:SearchAgreements"
      ],
      "Resource": "*"
    }
  ]
}
```

Alternately, partners can use an existing user in the account who has permissions to perform *ListEntities* and *SearchAgreements* actions.

Mapping your IAM role for CRM Integration

Partners who want to associate/disassociate AWS Marketplace private offers to APN Customer Engagements (ACE) opportunities need to map the IAM role that the CRM Integration can assume to call the Marketplace account. Before mapping the IAM user, partners need to have linked their AWS account to their Partner Central account.

By choosing an IAM role, you allow the CRM Integration to access and interact with your AWS Marketplace using that role.

Follow these steps to map an IAM Marketplace role to a CRM Integration user.

1. Sign in to IAM Partner Central as a user with the Alliance Lead or Cloud Admin role.
2. In the **Account linking** section of the IAM Partner Central homepage, choose **Manage Linked Account**.
3. On the **Account Linking** page, in the **IAM role for CRM Integration** section, choose **Map IAM role**.
4. Choose an IAM role from the dropdown list that has permissions to perform *ListEntities* and *SearchAgreements*, at a minimum. Verify you have completed the steps to attach a trust policy to the Marketplace user. For more information, refer to [the section called "Attaching a policy to an IAM role"](#).
5. Choose **Map role**.

Stage 2: Request submission

Request submission is a three-step process. You must complete the *Onboarding Request* form with essential details that include information about the partner's CRM system, integration solution choice, estimated Integration start date, and more. To initiate the Integration process, Amazon Web Services (AWS) provides a process for registration and tracking through Partner Central called [CRM Integration onboarding](#). This functionality is only available to the partner alliance lead of an ACE-eligible partner.

Additionally, you must submit contact details for communication and notification purposes. The following table lists the form fields, their description, and attributes.

Name	Description	Required/optional validation	Allowed field values
Partner CRM system	Name of the CRM software used for sales pipeline management	Required	Salesforce, Hubspot, Microsoft Dynamics, Zoho, Other
Partner CRM system name	Name of the CRM software used for sales pipeline management, not listed above	Required when Other is selected for	

Name	Description	Required/ optional validation	Allowed field values
		partner CRM system	
What solution would you use to integrate CRM with APN?	Choose from the different options to integrate with Amazon Web Services (AWS): 1. AWS Partner CRM Connector—Free AWS managed package available to download from Salesforce AppExchange; 2. Custom solution (Amazon Simple Storage Service (Amazon S3) or coselling APIs); 3. Third-party solution—Third-party software as a service (SaaS) offering or assisted development of custom solution	Required	AWS Partner CRM Connector (for Salesforce), custom Integration (in-house), third-party solution
Name of third-party solution provider	Company offering the solution or providing support for building and maintaining the Integration	Required when Third Party Solution is selected for <i>What solution would you be using to integrate your CRM with APN?</i>	
Estimated Integration start date	Your start date should be based on the Integration resource readiness required to build the Integration. For AWS Partner CRM Connector or third-party solution, enter the start date for when you plan to install and use the solution in a testing environment.	Required (must match MM/DD/YYYY format and be a date within the next 90 days)	

Name	Description	Required/optional validation	Allowed field values
Monthly number of records shared with AWS	An estimate of the number of leads or opportunities to be shared with AWS. Currently, the Integration requires support from AWS Engineering for testing the completed Integration. We use this estimate to prioritize outstanding requests.	Optional (must be a number)	
Additional comment	Additional information to share with AWS	Optional	

Complete the details, and then choose **Next**. On the next screen, enter partner contacts. The following table lists the partner contact form fields, their description, and attributes.

Name	Description	Type	Required/optional validation
Primary contact	The primary point of contact for communicating updates on the Integration	Email	Read-only
Third-party contact	Third-party lead's email address (who must be notified about any updates to the Integration)	Email and string	Required, when third-party solution is selected for <i>What solution would you be using to integrate your CRM with APN?</i>
Additional partner contact	Additional email addresses for additional contacts to notify about any updates to the Integration. If you need to add more than three, we recommend using a mailer group instead of individual emails.	Email and string	(Optional) When provided, must be valid email address.

Complete the details, and then choose **Next**. On the next screen, provide Amazon Resource Name (ARN) information. The following table lists the ARN information form fields, their description, and attributes.

Name	Description	Type	Required/ Optional validation	Allowed field values
ARN for connecting to sandbox	ARN of the AWS Identity and Access Management (IAM) user or role used to connect to the Amazon S3 bucket used for testing (also known as sandbox). Use the IAM user or role created in the prerequisites sections.	String	Required, must match the pattern: <code>arn:aws:iam::{\AccountID}:(user role)/{username including text,number,_}</code>	
ARN for connecting to production—<i>optional until Production Ready</i>	ARN of the IAM user or role used to connect to the Amazon S3 bucket used for production. Use the IAM user or role created in the prerequisites sections.	String	(Optional) When provided, must match the pattern: <code>arn:aws:iam::{\AccountID}:(user role)/{username including text,number,_}</code>	
Do you want to manage historical	To manage only referrals created prior to your Integration, select Yes (recommended). Select No to only manage future referrals through the Integration.	Option	Required	Yes, No

Name	Description	Type	Required/ Optional validation	Allowed field values
------	-------------	------	-------------------------------------	----------------------------

referrals via
Integration?

Complete the details, and then choose **Submit**. After you submit the form, the *Request Submitted* screen appears. If all the details are accurate, the sandbox is provisioned in less than five minutes. If there's an issue with the details, you receive an error. You have the option to correct the details and resubmit the form.

Stage 3: Sandbox setup

What's a sandbox?

After partners submit their request, AWS uses the provided information to create a test Amazon S3 bucket and generates a custom policy for access. Partners are notified when the bucket is ready, and the custom policy is available to copy from the *Sandbox Created* stage in the onboarding flow.

Partners need to copy this custom policy and attach it to the AWS Identity and Access Management (IAM) user or role they created earlier.

Attaching the custom policy to your IAM user or role

To attach the custom policy to an IAM user or role:

1. Sign in to the AWS Management Console, and then open the IAM console.
2. In the navigation pane, choose **Policies**, and then choose **Create policy** (if you need to create a new policy). To attach an existing policy, skip to step 4.
3. Use the visual editor to create the policy, choose **Review policy**, and then choose **Create policy**.
4. Search for the user or role you created earlier in the IAM console.
5. Choose the user or role, and then choose the **Permissions** tab.
6. Choose **Attach policies**, and then locate the custom policy you created or received.
7. Choose **Attach policy**.

For more information, refer to [Adding and removing IAM identity permissions](#).

Downloading IAM user credentials

To download IAM user credentials (access key ID and secret access key):

1. Navigate to the IAM console, and then select the IAM user you created earlier.
2. Under the **Security credentials** tab, choose **Create access key**.
3. Choose **Download .csv file** to download the credentials file. This file contains the user's new access key ID and secret access key.

Keep these credentials secure because they provide programmatic access to your AWS resources.

For more information, refer to [Managing access keys \(console\)](#).

Amazon S3 bucket structure

AWS structures the S3 buckets with different folders for Integration, detailed in the table 1.

Purpose	Folder name	Description
Retrieve APN Customer Engagements (ACE) leads	lead-outbound	Contains new leads or updates existing leads. Partners read and delete access. After a file is processed, it should be deleted.
Retrieve ACE opportunities	opportunity-outbound	Contains new or updated opportunities. Partners have read and delete access.
Send new or updated ACE opportunities	opportunity-inbound	Partners can upload files with new or updated opportunities.
Send updates about ACE leads	lead-inbound	Partners can upload files with updated lead data.
Retrieve results for opportunities sent to ACE	opportunity-inbound-processed-results	Contains the results for processed opportunities. Partners read and delete access.

Purpose	Folder name	Description
Retrieve results for leads sent to ACE	lead-inbound-processed-results	Contains the results for processed leads. Partners read and delete access.

Stage 4: Implementation

Overview

With the sandbox setup completed, partners are now ready to move to the Implementation stage. This is a critical phase where partners choose their Integration path, and develop the necessary configurations within their sandbox environment. Partners should collaborate closely with their APN Customer Engagements (ACE) operations team to understand the business and automation requirements, to ensure the solution aligns with the ACE business operation flow.

Integration options

Partners have three options for implementing their Integration with the ACE program:

1. **AWS Partner CRM Connector:** The Amazon Web Services (AWS) Partner Customer Relationship Management (CRM) Connector is a managed solution that AWS provides to connect your Salesforce CRM with AWS Partner Central.

Find the AWS Partner CRM Connector on the [AppExchange](#).

Documentation: Refer to [AWS Partner CRM connector](#).

2. **Custom Integration:** For those who prefer a tailored solution, custom integration allows partners flexibility and control over how their system interacts with ACE. For more information, refer to [Custom integration using Amazon S3](#).
3. **Using a third-party solution:** Partners may opt for a third-party solution that fits their specific needs. Discuss this option with your Partner Development Manager (PDM) to explore the available solutions.

For a comparison of these options and to aid decision making, refer to the [the section called "Options"](#) section.

Moving to testing

Once the implementation is complete, partners should transition to the testing phase to ensure the Integration functions as expected within the sandbox environment. This step is essential to validate the setup before going live.

To mark the *Implementation* phase as complete:

1. Navigate to the *My Integration* page in Partner Central.
2. In the **Next Steps** dialog box, choose **Mark Implementation Complete**.

Stage 5: Testing

After implementation, the integration should be tested across various data flow scenarios. Partners must ensure that all test cases pass successfully before proceeding to the next stage.

Partners must test the scenarios in Table 1 for AWS originated (AO) and partner originated (PO) opportunities. Amazon Web Services (AWS) doesn't offer access to its CRM sandbox environment for partners to test out the complete Integration. As an alternative, partners can view the request/response to ensure that the integration is working as expected. For any additional opportunity creation, or to validate opportunity through the various opportunity stages, raise an AWS Partner Network (APN) support case. For more information, refer to [AWS Partner Support](#). We recommend you create a single APN support case with the details of the opportunities you want AWS to act on. Partners can refer to the following table to verify that all test scenarios pass before moving on to the next steps.

#	Use cases	Step 1	Step 2	Expected result (verify the response in the Amazon Simple Storage Service (Amazon S3) results folder)
1	AO (AWS to partners)	AWS sends opportunity (Create APN support case	Partne rejects opporty	Any further updates on the opportunity should not flow through to AWS

#	Use cases	Step 1	Step 2	Expected result (verify the response in the Amazon Simple Storage Service (Amazon S3) results folder)
		for request		
2	AO (AWS to partners)	AWS sends opport ty (Create case for request	Partne accept: opport ty	Partner should receive the updates with PII details
3	PO (Partner to AWS)	Partne creates opport ty withou all details		Verify the appropriate errors and are actionable
4	PO (Partner to AWS)	Partne creates opport ty with all manda and some option: fields		Verify the opportunity is created in APN successfully

#	Use cases	Step 1	Step 2	Expected result (verify the response in the Amazon Simple Storage Service (Amazon S3) results folder)
5	PO (Partner to AWS)	Partne creates opporty with all manda and some option fields	AWS marks the opporty as action require with APN review comm (Create APN suppor case for reques	Partner is able to receive the update, make required changes, and send the updated values

#	Use cases	Step 1	Step 2	Expected result (verify the response in the Amazon Simple Storage Service (Amazon S3) results folder)
6	PO (Partner to AWS)	Partner creates opportunity with all mandatory and some optional fields	AWS rejects the opportunity since it doesn't have sufficient details (Create APN support case for request)	Partner should receive the disqualification. On Integration, they can't see the disqualification reason.
7	PO (Partner to AWS)	Partner sends update to an existing opportunity		Update should be successful

#	Use cases	Step 1	Step 2	Expected result (verify the response in the Amazon Simple Storage Service (Amazon S3) results folder)
8	PO (Partner to AWS)	AWS sends update on an opportunity to partner		Partner should receive the correct information
9	PO lead (Partner to AWS)	Partner creates lead without all details		Verify the appropriate errors and are actionable
10	PO lead (Partner to AWS)	Partner creates lead with all mandatory and some optional fields		Verify the lead is created in APN successfully
11	PO lead (Partner to AWS)	Partner sends update to existing lead		Update should be successful

#	Use cases	Step 1	Step 2	Expected result (verify the response in the Amazon Simple Storage Service (Amazon S3) results folder)
1:	PO lead (Partner to AWS)	AWS sends update on a lead to partne		Partner should receive the correct information

Once you complete the testing, on the **My Integration** page, choose **Mark testing complete** to proceed to the next step.

Partners building a custom Integration solution must share the results of the testing with AWS through a support case for validation. The test results from all scenarios must be attached to the support case. AWS validates the results, then enables the connection in production.

After validation of test results, the Partner Alliance Lead receives an email notification. The email confirms that the Integration has moved to the *UAT Passed* stage. The email also provides the next step information, which is to update the ARN for production and configure historical data backfill.

Stage 6: Production approval

At this point, the partner has thoroughly tested their solution in the sandbox environment. The next stage involves setting up the production environment and performing data migration to ensure all opportunities and leads can be managed through the Integration.

Production setup

Confirming IAM ARN details for production access

1. To confirm the AWS Identity and Access Management (IAM) Amazon Resource Name (ARN) details to be used to access the production bucket, choose **Update ARN for Prod**. This opens the **ARN details** page from the request submission stage.
2. If the production IAM ARN was provided at the time of the initial request submission, verify the ARN.

3. If the production IAM ARN wasn't provided initially (since it's optional at that stage), you must be provide it now.

Data backfill process

If you decide to perform a data backfill, it affects how your existing and future referrals are managed within the Integration. Data backfilling is the process of exporting existing referrals from the APN Customer Engagements (ACE) pipeline manager to your Amazon Simple Storage Service (Amazon S3) bucket and associating each with a unique identifier for your CRM Integration. This ensures referrals can be identified during future updates and includes both AWS Originated (AO) and Partner Originated (PO) opportunity referrals.

Selecting No for data backfill

If you select **No** for data backfill, it implies that you don't need access to your existing opportunities and only plan to manage future referrals through CRM. If you do this and later decide to update your existing pipeline manager opportunities, all subsequent updates will replicate in CRM as net-new opportunities. This is because CRM doesn't have a means (example: CRM unique identifier) to associate existing pipeline manager referrals to the corresponding records in your CRM Amazon S3 bucket. To avoid this, you need to provide the partner CRM unique identifier when you make future updates to existing opportunities.

Selecting Yes for data backfill

If you select **Yes** for data backfill (or initially selected **No** and now want to opt in for data backfill), you can complete the following one-time backfill process by using the bulk upload feature in ACE pipeline manager.

1. Sign in to AWS Partner Central.
2. Navigate to the **Sell** tab, and then choose **Opportunity Management**.
3. Choose **Bulk Actions**, and then choose **Update Opportunities**.
4. On the **Bulk Update** screen, download the *pipeline of validated opportunities* excel file (the instructions say *Step 1: Download the pipeline of validated opportunities*).
5. Open the excel file, and then in the *partner CRM Unique Identifier* column, enter the CRM ID. Follow the guidance in *Step 2: Manage opportunities in XLS file*.
6. Save the file as a .csv and upload it in the ACE Pipeline Manager (this is *Step 3: Upload saved CSV file*).
7. Choose **Update**.

8. Review the Pipeline Upload tracker, and after it's complete, close it.
9. Check the upload history for *Records Processed*, and if there are errors, download the error file. Correct the errors, and resubmit the file.

Note

Only approved AWS originated and partner originated opportunities that aren't currently in *submitted* or *closed lost* status, are eligible for the data backfill process. Once validated, the opportunities can be synced to a partner's CRM by populating a new CRM unique identifier on the opportunity form, when making future updates.

For more information about the data backfill process, refer to the *Update Opportunities* guidance in the *Bulk Actions* section of the *ACE Bulk Functionality User Guide*. For related inquiries, partners can raise a support case in Partner Central.

Submitting your production setup request

After determining the need for data backfill and providing the IAM ARN for the production bucket, choose **Submit** to finalize the setup. This action triggers the creation of the production bucket and the generation of the corresponding IAM policies, paralleling the sandbox setup. For more information, refer to [the section called "Stage 3: Sandbox setup"](#).

After the production environment is successfully provisioned, the Partner Alliance Lead receives an email notification. This notification serves as confirmation that the request for Integration has progressed to the *Production Approved* stage. The email also includes instructions on the subsequent steps, which involve:

- Downloading the provided IAM policy.
- Attaching the policy to the designated user/role.
- Accessing the production Amazon S3 bucket.
- Deploying your Integration solution into the production environment.

Finalizing production Integration

To complete the Integration into the production environments:

1. **Policy attachment:** Obtain the custom IAM policy created specifically for your production environment. Attach this policy to the designated IAM user/role to ensure proper permissions are set.
2. **Solution deployment:** Depending on your Integration method, the deployment steps vary.
 - **Custom solution:** Implement the code that facilitates the connection to your production environment, to ensure that it's configured to interact with the AWS services.
 - **AWS Partner CRM Connector:** If you're using the CRM Connector, install it within your Salesforce production environment by following the guidelines AWS provides.
 - **Third-party Integration:** Coordinate with your third-party solution provider to transition your Integration from the sandbox to the production environment. Follow their recommended deployment procedures.
3. **Credential management:** Retrieve the production IAM credentials, which include the secret key and access key. Update your Integration solution with these credentials to authenticate your application with AWS services.
4. **Data backfill completion:** If you opted for data backfill, ensure that you followed the prescribed steps for this one-time process. Proper backfilling is essential to maintain continuity and integrity in your opportunity and lead management.

Note: The Integration connection remains inactive until you complete the final step described in [the section called "Stage 7: Launch"](#). This means you can securely establish all necessary connections without the risk of premature data transmission.

Stage 7: Launch

With the production environment configured and the data migration complete, it's time to initiate the active phase of the Integration. The Partner Alliance Lead must choose **Activate Integration** to establish the live connection. This action enables the exchange of files through the designated Amazon Simple Storage Service (Amazon S3) bucket and marks the beginning of the Integration's operational status.

We encourage partners to share their experiences and any feedback using the feedback widget available on the *My Integration* page within Partner Central.

For guidance on post-launch procedures, including maintenance and updates, refer to [the section called "Maintenance"](#).

If you have any questions or issues post-integration, we encourage you to seek support by creating AWS Partner Network (APN) support cases. For more information, refer to [AWS Partner Support](#).

The successful launch signifies that the Integration is fully operational. Partners can now leverage the new capabilities to enhance sales operations, automate data exchanges, and foster greater collaboration with Amazon Web Services (AWS). AWS is committed to provide you with continued support to help you maintain and improve your Integrations.

Glossary

Glossary

The following table contains a list of acronyms and terms.

Acron	Full term	Definition
AWS	Amazon Web Services	A comprehensive, cloud computing platform offered by AWS, providing a variety of services such as computing power, storage, and databases, accessible from the internet.
APN	AWS Partner Network	A global partner program by AWS, designed to help partners build successful AWS-based businesses or solutions by providing business, technical, and marketing support.
ACE	APN Customer Engagements	A program that facilitates collaboration between AWS and its partners, helping to drive customer engagements and coselling opportunities.
CRM	Customer Relationship Management	A strategy and software solution used by businesses for improving relationships and interactions with current and potential customers.
AWS IAM	AWS Identity and Access Management	A web service that helps to securely control access to AWS resources by enabling the creation and management of AWS users and groups and assigning permissions.
ISV	Independent Software Vendor	A company that specializes in creating and selling software, typically designed for mass or niche markets. This is in contrast to in-house software which is created by a user organization for its own use.
PDM	Partner Development Manager	A role within the AWS Partner Network, responsible for improving relationships with AWS Partners, helping them grow and improve their offerings on AWS.

Data security

Data security and compliance

Security

At Amazon Web Services (AWS), cloud security is of the highest importance. Our customers reap the benefits of a data center and network architecture engineered to cater to the needs of the most security-sensitive organizations.

The security model at AWS is a [Shared Responsibility Model](#) between AWS and its customers. This is articulated as *security of the cloud* and *security in the cloud*.

Customer responsibility

AWS is responsible for protecting the infrastructure that runs all of the services offered in the AWS Cloud. This infrastructure is composed of the hardware, software, networking, and facilities that run AWS Cloud services.

Security in the cloud

Customer responsibility is determined by the AWS Cloud services that a customer selects. This determines the amount of configuration work the customer must perform as part of their security responsibilities. For example, a service such as Amazon Elastic Compute Cloud (Amazon EC2) is categorized as infrastructure as a service (IaaS) and as such, requires the customer to perform all of the necessary security configuration and management tasks. Customers that deploy an Amazon EC2 instance are responsible for management of the guest operating system (including updates and security patches), any application software or utilities installed by the customer on the instances, and the configuration of the AWS-provided firewall (called a security group) on each instance. For abstracted services, such as Amazon Simple Storage Service (Amazon S3) and Amazon DynamoDB, AWS operates the infrastructure layer, the operating system and platforms, and customers access the endpoints to store and retrieve data. Customers are responsible for managing their data (including encryption options), classifying their assets, and using AWS Identity and Access Management (IAM) tools to apply the appropriate permissions.

- AWS undertakes regular evaluations of its privacy and security policies to ensure they align with the prevailing regulatory and industry standards.
- In line with local legal frameworks, background verification is conducted for all potential employees, contractors, and associated third parties.

- AWS mandates all personnel to sign a nondisclosure agreement (NDA) or confidentiality agreement to safeguard customer information.

Amazon S3 bucket configuration

- An S3 bucket is instantiated within AWS's internal account, mitigating any additional costs for partners integrating CRM with AWS.
- Each partner engaging with AWS is provisioned with their distinct S3 bucket in both environments, sandbox and production.
- Programmatic access to the respective bucket is granted to each partner, under the control of a custom access policy.
- Access is restricted to AWS's internal technical team for debugging purposes, subject to contingent authorization.
- All access endeavors to the bucket are logged, as elaborated in [Server Access Logging](#).

Certifications and audits

AWS is subjected to these third-party audits for certifications:

- [SOC2](#)
- [ISO 27001](#)
- [ISO 27017](#)
- [ISO 27018](#)

These certification reports are accessible in the [compliance resources](#). For more information, refer to [AWS Cloud Security Compliance FAQs](#) and the [Shared Responsibility Model](#).

Legal

Opportunity sharing

Prior to disseminating any opportunity with an AWS Partner, AWS Sales personnel are mandated to secure customer consent. This protocol is adhered to for referrals shared through both APN Customer Engagements (ACE) pipeline manager and partner CRM Integration.

Membership terms

- Engagement in the AWS Partner Network is regulated by the [AWS Partner Network Terms and Conditions](#).

- Enrollment in the ACE program is directed by the [APN Customer Engagements Terms and Conditions](#).
- Participation in any beta programs extended by AWS to partners is governed by the [AWS Service Terms](#).

Maintenance

In this section, we describe routine maintenance requirements for the AWS Partner Customer Relationship Management (CRM) Integration.

- **Monitoring AWS updates:** Stay current with AWS updates to processes and data models that may affect the CRM Integration.
- **Adopting new features:** Embrace new features and enhancements released by AWS to ensure your CRM Integration remains contemporary and efficient.

Release cadence

While there isn't a fixed release cadence, updates typically roll out two to four times a year. These updates may encompass new features, adjustments to data models, or alterations in AWS processes which could necessitate modifications to your CRM Integration.

Partner expectations

It's imperative for partners to allocate resources for regular maintenance and upgrades to their CRM Integration, in accordance with the updates from AWS. Here's what is generally expected:

- **Investment in maintenance:** Dedicate time and resources to assimilate updates from AWS and implement necessary upgrades to your CRM Integration.
- **Communication:** AWS usually informs the Partner Alliance Lead about the updates and associated timelines. Ensure open communication channels to receive these critical updates in a timely manner.

Recommended resource allocation

We recommend every quarter, partners designate two to four weeks of developer and sales operations time to focus on upgrading and maintaining the systems post each update. This time investment is essential to ensure that the AWS Partner CRM Integration continues to operate seamlessly and leverages the latest advancements and features provided by AWS.

FAQ

This section covers some frequently asked questions about the CRM Integration.

Q: How do I contact my Partner Development Manager (PDM)?

To find contact information for your Partner Development Manager:

1. Sign in to [Partner Central](#).
2. Choose **Support**, and then choose the **Partner Development Manager** name.

Q: How do I find my Partner ID or SPMS ID?

To find your Partner ID or SPMS ID:

1. Sign in to [Partner Central](#).
2. Choose **My company**, and see your ID under **Overview**.

Q: Is there any cost associated with the AWS account?

No. There is no cost associated with the AWS account.

Troubleshooting

Raising support cases

If you still have difficulties integrating your CRM with AWS, you can raise a support case by following these steps:

1. Sign in to the [AWS Partner Central](#) with your AWS Partner Network credentials.
2. On the [Support Center for Partner Central](#), choose **Open New Case** to log a new case. Complete the fields below.
 - i. **Type of Support Case:** AWS Partner Central.
 - ii. **Question regarding:** Partner Central Tools or ACE leads and opportunities.
 - iii. **Get Specific:** Select the most appropriate CRM Integration case type.
 - iv. **Subject:** Include a brief description of the request.
 - v. **Description:** Provide a detailed description of issues, questions, errors, and troubleshooting steps.
 - vi. **Attachments:** Synch logs and screenshots, where applicable.

Troubleshooting during CRM Integration onboarding

A few common error messages and resolutions are shown in the following table.

Error message	Error condition	Resolution steps
Only Alliance Lead contact can make this request.	When anyone other than Alliance Lead (ACE eligible) tries to: update request status, access request details, abandon request, create new request.	For internal user: Verify if the partner account is ACE eligible.
Failed to mark implementation as complete. Please try again.	When you try to mark a request as implementation complete but there is any error that occurred during the update.	Contact the support team.
No Request received.	When you try to abandon a request and there are no requests to abandon.	
Your request could not be taken at this time because of an internal error. Check again after some time.	Occurs when there is any issue when abandoning a request or during request processing, if there is any exception.	Contact the support team.
Please provide ARN Details for the IAM User/Role to provision bucket for ...	If beta/prod ARN is not provided.	IAM details provided cannot be empty. Ensure the IAM details are provided.
Duplicate Request: Bucket ARN details already created and provisioned for this IAM User/Role.	Occurs when another request is created for the same partner with the same IAM details and the request is not abandoned.	Abandon the existing request.
Please update the IAM ARN details in the existing request.	Occurs when the system tried to process the request and the request failed due to an error.	Update the IAM ARN details and resubmit.

Error message	Error condition	Resolution steps
Your request could not be taken at this time because of an internal error. Check again after some time.	After a request is submitted and something during the processing failed.	Contact the support team.

AWS Partner CRM connector

About

The AWS Partner Customer Relationship Management (CRM) Connector offers a no-code solution to integrate Salesforce with AWS. With this integration, you can manage cosales activities within your Salesforce environment while collaborating with AWS services. The connector also offers the ability for you to integrate with AWS Marketplace. This guide helps you set up and use the AWS Partner CRM Connector.

Introduction

AWS Partner integration engineering offers a new AWS managed package for AWS Partners who use Salesforce CRM. With this CRM Connector for Salesforce, AWS Partners can install a managed package directly on their Salesforce organization instead of developing and maintaining custom code for the CRM integration. This Connector package is a no-code solution for partners to scale their lead and opportunity pipeline management, as well as their AWS Marketplace business, and is available for free from the Salesforce app exchange.

AWS Partner CRM Connector application

You can install, upgrade, and uninstall the AWS Partner CRM Connector application from the Salesforce App Exchange.

Installing the AWS Partner CRM Connector package

1. Navigate to [AWS Partner CRM Connector](#).
2. Choose **Get it now**.
3. Choose **Install in sandbox**.
4. Confirm the installation details.
5. Choose **Install for administrators only**.
6. Choose **Install**. The package installation takes a few minutes to complete.

Upgrading the AWS Partner CRM Connector package

Before upgrading the AWS Partner CRM Connector package in your production Salesforce organization, refer to [ACE integration](#) and [AWS Marketplace integration](#) transition recommendations and plan for sandbox testing.

1. Navigate to [AWS Partner CRM Connector](#).
2. Choose **Get it now**.
3. Choose **Install in sandbox**.
4. Confirm the installation details.
5. Choose **Install for administrators only**.
6. Choose **Upgrade**.

Note

If you are upgrading from a previous version of the connector, first upgrade the connector in your Salesforce organization. Then complete the procedures in [Upgrading from previous versions](#).

Confirming AWS Partner CRM Connector installation

- To confirm package installation or upgrade, choose **Home, Apps, Packaging, Installed Packages**.

Uninstalling the AWS Partner CRM Connector package

Before uninstalling the AWS Partner CRM Connector, remove any user [ACE integration permission sets](#) and [AWS Marketplace integration permission sets](#).

1. Choose **Home, Apps, Packaging, Installed Packages**.
2. Choose **Uninstall**.

Available features

The AWS Partner CRM connector for Salesforce integrates with both AWS Marketplace and APN customer engagements (ACE). The following sections describe features that are supported by AWS Marketplace and ACE.

ACE features

- **AWS originated opportunities** — This lets you receive opportunities directly from AWS within your Salesforce CRM. These opportunities are potential cosell deals where AWS identifies a customer that could benefit from your solution.
- **Partner-originated opportunities** — This facilitates creating and managing cosell opportunities that you identify. You can create opportunities within Salesforce and link them to relevant AWS services that can help streamline collaboration efforts with AWS.
- **AWS lead referrals** — This lets you receive leads from AWS that might be a good fit for your offerings. These leads could be potential customers who expressed an interest in solutions like yours.
- **Dashboard** — This provides a centralized overview within Salesforce of your cosell activities with AWS. Depending on your configuration, this can include opportunities and leads.

AWS Marketplace features

Multiple AWS Marketplace seller accounts — Manage private offers, resale authorizations, and other functions for your AWS Marketplace seller accounts within a single Salesforce instance.

Supported AWS Marketplace product types — The connector currently integrates with the following AWS Marketplace product types:

- SaaS
- AMI
- Containers

Dashboards — This provide a consolidated overview of your private offers within Salesforce.

Independent software vendor (ISV) features

AWS Marketplace products

View your existing AWS Marketplace product listings within Salesforce. This lets you manage your product portfolio and cosell activities.

Private offers

Create and manage private offers for your listed AWS Marketplace products within Salesforce. Flexible payment schedules are available for all supported private offers. Future dated agreements are supported only for private SaaS and contract offerings.

Import existing private offers

You can expedite the transition process by importing existing AWS Marketplace offers directly into the connector.

Private offer management

- **Create/publish** — Publish private offers from within Salesforce.
- **Draft** — Save private offers as drafts for future editing before publishing them.
- **Modify** — Modify the private offer's expiration date.
- **Cancel** — Remove offers that have been published.
- **Clone** — Create a copy of an existing private offer as a starting point for a new offer.

Agreements

- **View** — Access and reference existing AWS Marketplace agreements in Salesforce.
- **Import** — To centralize management, import existing agreements from AWS Marketplace into the connector.

Agreement-based offers

- **Creating agreement-based offers** — Use existing agreements to create targeted customer offers, which helps to simplify the quoting and purchasing process.

Resale authorizations

Manage the lifecycle of resale authorizations within Salesforce, which includes the following:

- **Create/publish** — Create a resale authorization to authorize an AWS channel partner to resell your product.

- **Draft** — Save resale authorization requests for further review before submitting them.
- **Deactivate** — If a resale authorization is no longer required, you can deactivate it within the connector.
- **Clone** — Clone existing resale authorizations to expedite the creation of new resale authorizations.

Channel partner features

If you're part of the AWS Marketplace channel partner program, you can use shared-resale authorizations to simplify the process of reselling products to your channel partners. The connector lets you do the following:

- **View** — Access and review shared-resale authorizations within Salesforce.
- **Manage** — Channel partner private offers have the same functions as private offers, such as **Create/publish**, **Modify**, **Cancel**, and **Clone**.

Release notes

This section contains the release history for the AWS Partner Customer Relationship Management (CRM) Connector for Salesforce.

Topics

- [Version 2.2 \(April 24, 2024\)](#)
- [Version 2.1 \(April 18, 2024\)](#)
- [Version 2.0 \(November 29, 2023\)](#)
- [Version 1.7 \(October 12, 2022\)](#)
- [Version 1.6 \(January 13, 2023\)](#)
- [Version 1.5 \(January 13, 2023\)](#)
- [Version 1.4 \(December 7, 2022\)](#)

Version 2.2 (April 24, 2024)

AWS Partner CRM Connector version 2.2 contains the following features and improvements.

Core features

Enhancements to the existing resale authorization feature to support non-legacy products.

Version 2.1 (April 18, 2024)

AWS Partner CRM Connector version 2.1 contains the following features and improvements.

Core features

Channel Partners can create a synchronization schedule for shared resale authorizations.

AWS Marketplace integration for ISV sellers and Channel Partners

- You can modify the usage duration on released offers for eligible products.
- Support for future dated agreements (FDA) for private offers.
- You can import details of private offers created outside of the CRM connector.
- You can save private offers and resale authorizations as drafts.
- You can retrieve and view agreements for private offers and public offers.
- You can create agreement-based offers across multiple seller accounts for SaaS Contract products and SaaS Contract products with consumption accounts.

ACE CRM integration

- Enhanced Salesforce Lightning record form for AWS delivered ACE opportunity objects.
- You can surface sync log detail records per opportunity on AWS delivered ACE opportunity objects.
- You can link available AWS Marketplace private offers to an opportunity on the AWS delivered ACE opportunity object.

Version 2.0 (November 29, 2023)

Core features

- Modularized Application—single SF AppExchange app for both ACE CRM Integration and AWS Marketplace Seller integration features

APN Customer Engagements (ACE) integration

- Support for new data model (v14) with the ACE CRM integration.
- Creates custom objects for ACE opportunities and leads which contains all the attributes/values as defined by the ACE CRM integration with new data model validations on the custom opportunity objects.
- One-click automapping capability for new ACE custom objects to expedite mapping with installed custom objects for opportunities and leads.
- Fix for mapping missing attributes on opportunities.
- Fix for associating AWS Opportunities to Account if using standard opportunity for mapping.

AWS Marketplace integration

- As an ISV seller:
 - Synchronize available MP Products into Salesforce organization.
 - Create, view and manage ISV Private Offers on SaaS, AMI, and Container products.
 - Cancel and modify private offers.
 - Clone private offers to create new offers.
 - Create resale authorizations on SaaS, AMI, and container products.
 - Cancel and modify resale authorizations.
 - Clone resale authorizations.
 - Receive notifications when buyers subscribe to private offers.
 - View dashboard of private offers and shared resale authorizations created through the connector.
- As an AWS Channel Partner:
 - Synchronize and view shared resale authorizations created by the ISV seller.
 - Create and manage AWS Channel Partner private offers for SaaS, AMI, and container products from shared resale authorizations.

Version 1.7 (October 12, 2022)

Change log

User interface

- Add AWS Partner Network review comments optional field to mapping screen.
- Move the help section to the **Guided setup** page.

Bug fixes

- Fix an issue where incorrect payload was being displayed in syncLog detail source record in partial failure case.
- Fix an issue where partners already updated the partner CRM unique identifiers in ACE to autocorrect based on target object in organization.
- Fix an issue to stop opportunity updates being sent that have not yet been approved after the initial create request to AWS Partner. This is to prevent validation error responses being received back from AWS Partner due to the opportunity not being in approved status.

Known issues

Not applicable.

Version 1.6 (January 13, 2023)

Change log

User interface

- Add component to allow partners to raise support cases through AWS Partner Central. This is available on the **Guided Setup** page in the app.
- Administrators can correct data received in inbound payload to fix incorrect picklist values so they can be processed.

Sync log cleanup

Old sync log records are cleaned up automatically based on the application custom setting **Sync Log Retention**. This feature allows partners to configure how long they want to retain inbound and outbound synchronization log records.

Bug fixes

- Update validation message when an unmapped picklist value is present in inbound payload to indicate the incorrect value.
- Update outbound job filter to utilize configured retry count and retry days in application custom setting to autoretry the transaction once data is corrected, until number of retries is exceeded.

Known issues

Not applicable.

Version 1.5 (January 13, 2023)

Change log

User interface

- Update labels on scheduling modal.
- Update validation error messages on scheduling screen to provide more context to users on scheduling failures.
- Update the title of the application in all references with "AWS Partner CRM Connector".
- **Opportunity/lead** page
 - Update **Eligible to Sync with APN** field label to **Has Updates for AWS**.
 - Update **Sync with Partner Central** field label to **Sync with AWS**.
- **Guided Setup** page
 - Update **Enter Authentication details** field label to **Set up the APN AWS connection**.
 - Update **SPMS** field label to **Partner ID**.
 - Update **Map APN AWS** fields to **Salesforce** fields.
- **Mapping** page
 - Update **ACE pipeline manager** fields to **AWS** fields.
 - Update **Enable APN updates** fields to **Enable Inbound Updates** fields.
- **Sync Logs** page

- Replace references to "APN" with "AWS" (direction).
- Update the following sync log purpose fields labels: **Inbound Orchestration** to **Inbound File Retrieval**, **Inbound Orchestration—Record Retrieval** to **Inbound Record Retrieval**, and **Outbound Orchestration** to **Outbound File Retrieval**.

Instantaneous synchronization

Administrators can initiate a specific outbound synchronization for a single record through an added quick action. The quick action **Send to AWS** was added to the standard opportunity and lead object for reference. It can be added to any integrated standard or custom object to provide the option to immediately invoke the synchronization for a single record outside of the scheduled jobs.

Bug fixes

- Fix an issue on the sync log that showed an incorrect FLS exception error.
- Fix an issue on the Lead object when the `campaignMemberStatus` field is mapped.
- Fix a mapping issue where the `awsFieldEngagement` and `awsAccountId` fields were being excluded from the outbound mapping, when mapped.
- Update bundled dashboards from dynamic to static so they don't use the installed orgs limit for dynamic dashboards.

Known issues

Not applicable.

Version 1.4 (December 7, 2022)

Change log

User interface

- Simplify interface for sync logs.
- Simplify interface for mapping modal.
- Add confirmation modal to reset button on **Mapping** screen.
- Disable **Next** option on picklist mapping until all fields are completed.
- Add help text to tab titles in mapping modal.
- Update app label from **APN CRM Administration** to **AWS Partner CRM Connector**.

Reports and dashboards

Add new reports and dashboards for tracking sync log statuses.

Flow template

Add flow template to the package for setting custom push notification to business administrators on sync log errors.

Bug fixes

- Fix issue on date offset with UTC in mapping.
- Fix an issue when a partially processed sync log was picked for reprocessing, when encountering an error, the status on the sync log doesn't change to **Error**.
- Update eligible to sync formula on standard opportunity and lead.
- Hide read-only fields.
- Update to loading spinners.
- Update label for modal subtitle.
- Retain `apnValues_` on `_tab3` in the mapping modal.
- Update the **Edit** option so it takes the user to the current page.
- Disable tab selection unless in read-only mode.
- Disable `field required` error when optional.
- Change modal checkmarks to green.
- Add mapping tab components and utilities.
- Add new dashboard and dashboard folder for sync logs.
- Remove permission for deprecated custom report tab.

Known issues

Error when mapping the `CampaignMemberStatus` on the Lead object. Currently, AWS Partners can skip mapping this nonmandatory field when mapping leads. Fix will be in the next version.

Upgrading from previous versions

After upgrading to version 2.2 or later, do the following:

- To ensure that your product information is current, refresh your products on the **Refresh Products** tab.
- Follow the procedures in this section to complete the transition to version 2.2.

To add the Import Offer button to the Private Offers tab

1. Log in to your Salesforce organization as a system administrator.
2. Choose **Setup, Object Manager**.
3. Choose **Private Offer**.
4. In the left navigation pane, choose **List View Button Layout**.
5. Choose **Edit** to open the list view editor.
6. In the **Custom Buttons** section, in the **Available Buttons** column, choose **Import Offer**.
7. Choose the right-arrow button to add **Import Offer** to the **Selected Buttons** list.
8. Choose **Save**.


To add the Import Agreement button to the Agreements tab

1. Log in to your Salesforce organization as a system administrator.
2. Choose **Setup, Object Manager**.
3. Choose **Agreement**.
4. In the **Details** section, choose **Edit**.
5. Choose **Allow Search**.
6. Choose **Save**.
7. In the left navigation pane, choose **List View Button Layout**.
8. In the **Custom Buttons** section, in the **Available Buttons** column, choose **Import Agreement**.
9. Choose the right-arrow button to add **Import Agreement** to the **Selected Buttons** list.
10. Choose **Save**.

To add sync log details to the ACE Opportunity Record page

1. Log in to your Salesforce organization as a system administrator.
2. Choose **Setup, Object Manager**.
3. Choose **ACE Opportunity**.

4. In the left navigation pane, choose **ACE Opportunity Layout**.
5. Choose **Related Lists**.
6. Choose and move **Sync Log Details** to the **Related Lists** section of the page layout.
7. Choose **Save**.
8. Customize related lists for **Sync Log Details** and add **Created Date**, **Error Messages**, and **Status** fields to **Related Lists**. For more information, refer to [Customize Related Lists](#).
9. Choose **Save**.

 **Note**

Version 2.2 of the CRM Connector features a path for the AWS delivered ACE Opportunity object. To view the path on the ACE Opportunity page, refer to [Enable Paths](#).

To add field mapping values to Closed Lost Reason label of ACE opportunity objects


1. Log in to your Salesforce organization as a system administrator.
2. Choose the **ACE Mappings** tab.
3. In the navigation bar, choose **Opportunity**.
4. In the **Object Selector**, choose **ACE Opportunity**.
5. For the **Closed Lost Reason** label, choose **Edit Values**.
6. Choose **Auto Map**.
7. Choose **Next**.
8. Choose **Save**.

ACE integration

The APN customer engagements (ACE) CRM integration of the AWS Partner CRM connector helps AWS Partners scale their build, market, and sell engagements with AWS through a direct connection between Salesforce and AWS Partner Central. With the integration, AWS Partners can accept new leads and opportunities and receive lead and opportunity updates from AWS. AWS Partners can send new opportunities and updated opportunities to AWS.

Topics

- [Prerequisites](#)
- [Permissions sets](#)
- [Guided setup](#)
- [ACE object mappings](#)
- [Scheduling](#)
- [Sync logs and reports](#)
- [Upgrading AWS Partner CRM connector to the new data model](#)
- [Sandbox testing with the custom ACE opportunity and ACE lead objects](#)
- [FAQ](#)

 **Note**

For more information about available features for ACE, refer to [the section called “ACE features”](#).

Prerequisites

Before installing and using the AWS Partner CRM connector, your partner alliance lead must onboard this integration by submitting a request through AWS Partner Central.

Partners can use the AWS Partner CRM connector only after the initial setup through AWS Partner Central. The partner alliance lead must submit an onboarding request on the [CRM Integration page on Partner Central](#).

Program sign up for alliance lead

- You must have access to Partner Central. To sign up, refer to [Sign up for APN](#).
- You must be eligible as an APN Customer Engagements (ACE) partner. For more information, refer to the following:
 - [ACE program](#)
 - [ACE Program FAQs](#)
 - [ACE Pipeline Manager: In depth review of ACE submission form and AWS Validation Process](#)
 - [ACE Pipeline Manager User Guide](#)

Technical requirements–CRM administrator

- Confirm that you use Salesforce CRM for your sales process.
- Confirm that your Salesforce organization edition is on Lightning Experience (enterprise, professional, or unlimited). For more information, refer to [Sales Pricing](#).
- You must have a sandbox environment for testing on the Salesforce Winter '23 release or higher. For more information, refer to [Sandboxes: Staging Environments for Customizing and Testing](#).

Onboarding–project lead

- Contact your cloud operations or IT team to set up an AWS account and AWS Identity and Access Management (IAM) user. For more information, refer to [ACE CRM—How to Create IAM User](#).
- Submit a request for provisioning an Amazon Simple Storage Service (Amazon S3) bucket.
- Request that the partner alliance lead submit a CRM integration onboarding request on the [CRM Integration page on Partner Central](#).

Optional prerequisites – linking AWS Marketplace to AWS Partner Central

AWS Partners with AWS Marketplace seller accounts can connect their accounts using the account linking feature in AWS Partner Central. Refer to [Link AWS Marketplace to Partner Central](#).

Note

You can only link AWS Marketplace to Partner Central in production AWS Partner Network accounts.

Permissions sets

Three primary AWS Partner personas are supported in the AWS Partner Customer Relationship Management (CRM) connector application. These can be implemented by the AWS Partner by giving the designated Salesforce user the corresponding permission set from the app.

Topics

- [Business administrator \(APN business administrator\)](#)
- [Integration user \(APN integration user\)](#)
- [Business user \(APN business user\)](#)
- [System permissions to view reports](#)
- [Activate flow user](#)

Business administrator (APN business administrator)

- Should be given to a system admin or a business admin to configure the setup/mapping of records.
- Gives full access to the Salesforce AWS Partner Network (APN) CRM administration app.
- Can create, view, and edit field mappings.
- Can view all sync log detail records.
- Doesn't allow the user to schedule the integration, only to set up configurations.
- Doesn't give core Salesforce setup access.
- There are some settings in Salesforce that require additional access, specifically named credentials and custom settings that the AWS Partner must provide to their user. But if this permission set is paired with a Salesforce system admin profile, all of the necessary permissions to configure the application should function.

Integration user (APN integration user)

- Should be assigned to a designated system user that's responsible for processing the integration.
- To schedule the integration, a Salesforce system admin should log in as this user and invoke the system integration schedule.
- Allows for full access to configure the mappings, as well as invoke setting up the schedule.

- The integration may break if this permission isn't set on the user responsible for running the integration.
- In addition to this permission set, the user designated to process the integration should be given field level access to all mapped fields. If this isn't done, the mappings will fail to sync as assigned.
- The outbound jobs are designed to ignore updates done in the integration user context to prevent a race-around condition, with the same record updated during inbound integration being flagged to be sent for outbound integration.

Business user (APN business user)

- Can be assigned to business users who might want to see the sync log details related to their opportunities. This allows for end user troubleshooting if data is not syncing correctly.
- Does not provide visibility to the sync log records and only gives access to the object and fields.
- We recommend that sync log records are set to private, since they contain sensitive opportunity information.
- If a private model is configured, APN business users can access only the records if the partner Salesforce administrator configures record sharing with users.

System permissions to view reports

To allow a user to view reports on the **Home** tab of the AWS Partner CRM connector, an administrator must grant them the following permissions:

- Create and Customize Reports
- Edit My Reports
- Mange Reports in Public Folders
- Run Reports
- View Reports in Public Folders

For more information, refer to [Grant Users Access to Reports and Dashboards](#).

Activate flow user

To allow a user to run flows and the **Link private offer** button on an ACE opportunity, the system administrator must configure the user as a flow user.

1. Ensure that the system administrator has the correct permissions to assign a flow user. For more information, refer to [Add Run Flows Permissions](#).
2. Choose **Setup, Users**.
3. Choose a user.
4. Choose **Flow user**.

Guided setup

This page provides Salesforce administrators with step-by-step instructions for integrating the CRM connector with APN Customer Engagements (ACE).

To start configuring the integration, use the **App Launcher** to locate and open the **AWS Partner CRM connector** app. Choose the **AWS Guided Setup** tab, and then expand the **AWS ACE CRM integration** section.

Note

Ensure that you complete the [Prerequisites](#) before continuing.

Setting up named credentials

The AWS Partner CRM connector authenticates with APN using Salesforce credentials from the partner's Salesforce organization.

1. Log in to Salesforce as a system administrator.
2. Under **Named credentials**, choose **New legacy**.
3. In the **New named credential** form, enter the values from the following table.

Field	Value
Label	APN API Connection

Field	Value
URL	https://s3.us-west-2.amazonaws.com
Identity type	named principal
Authentication protocol	AWS signature version 4
AWS access key ID	Cloud-Ops provides the ID during the prerequisite steps
AWS secret access key	Cloud-Ops provides the access key during the prerequisite steps
AWS Region	us-west-2
AWS service	s3
Generate authorization header	checked
Allow merge fields in HTTP header	unchecked
Allow merge fields in HTTP body	unchecked

4. Choose **Save**.
5. Return to the **AWSGuided setup** page. In the **Authentication details** section, choose **Review** to confirm the setup of named credentials.

System configuration settings

Global configurations are managed by custom settings in the AWS Partner CRM connector app.

1. Choose **Setup, Custom settings**.
2. Locate the **AWS Partner CRM** settings, and choose **Manage**.
3. Choose **New**, and then enter the required values from the following table.

Custom setting field	Purpose
Name	Field isn't used, but because it's required, you can set it to any value.
Bucket name	Bucket name that was provisioned for the partner. It's different for beta and production environments.
Default account	An 18-digit record ID of the default account that's used when standard opportunities are used as the target object in Salesforce. Because AccountID is required on standard opportunities, the default account field allows new inbound opportunities from AWS to have a default account tied to. This can be any account record in your Salesforce organization that the integration user has access to from the sharing settings.
Outbound batch size	Number of records sent in a single payload from your Salesforce organization to AWS. This is common for both opportunities and leads. We recommend a value between 1–50. For example, if you set the batch size to 50, each opportunity payload sent from your organization to AWS contains 50 opportunity records.
Retry count	In the event of a failure, this value represents the number of times the transaction is retried.
Retry cutoff days	If a record continues to fail, this value is the number of days after which a retry is no longer attempted.

Custom setting field	Purpose
Partner ID	Unique partner identifier that is shared as part of enablement.
Sync log retention	Number of days to retain the synchronization logs.
Version	For the new data model, choose version 2. For the old data model, choose version 1.

If you're an AWS Partner and you map to the SaaS documentation tab in Partner Central, complete the following steps:

1. Choose **Setup, Custom settings**.
2. For **AWS ACE CRM validations settings**, choose **Manage**.
3. Under **AWS ACE validations**, choose **Edit**. Update the settings as required.

Setting	Description	Default
Do you map SaaS documentation from the tab?	Select if you map to the SaaS documentation tab in Partner Central.	unchecked

4. Choose **Save**.
5. Return to the **Guided setup** page, and review the custom settings.

Testing the connection

After you complete steps 1 and 2 of the setup, choose **Test** to verify connectivity. If the connection is successful, you will receive a confirmation message.

ACE object mappings

The AWS Partner customer relationship management (CRM) connector application provides partners the ability to set up object and field mapping between their Salesforce organization and AWS Partner Network (APN) through the **ACE Mappings** page, included in the application.

Mappings page

There are two ways to navigate to the **ACE Mappings** page:

- In Salesforce, choose the **ACE Mappings** tab.
- On the **Guided Setup** tab, find the **Map Leads/Opportunities** section, and then choose **Start**.

On the **ACE Mappings** page, use the left navigation pane to toggle between opportunity and lead mappings. Use the **Object Selector** to choose the source object to map APN leads and opportunities. The object selector supports mapping to both standard opportunities and lead objects as well as custom objects. Use the **Mapping View** and **Type View** filters to toggle among mapped fields, unmapped fields, required fields, and optional fields.

On the **ACE Mappings** page, the **AWS Fields** column for the object indicates the corresponding target APN fields. The **Salesforce Fields** are source fields of the selected object in the partner's organization. **Salesforce Fields** are filtered to show only applicable data types available in the organization to be mapped to the corresponding APN field. For example, a text field in APN can be mapped only to a text (string) field in the partner's organization.

Partners can control inbound updates on mapped fields if they don't want a field updated by APN. To do this, set the **Enable Inbound Updates** toggle to **False**.

For one-to-one mapping, select the relevant source field, and then choose **Save**.

Picklist mapping

The picklist modal allows both limited and extended mappings between the partner's picklist field and APN. The **ACE Mappings** page also has an Auto Map function, so if an exact match is found between the partner's field values and APN, those values are mapped automatically. The option for extended mapping lets partners map a single APN value to multiple sources, configure additional target mappings, and set default mappings.

Limited mapping

1. To open the picklist mapping modal, from the **ACE Mappings** page, select a source field, and then choose **Map Values**.
2. For **Step 1: Primary APN Values**, choose either **Auto Map** or the Salesforce value for the corresponding ACE pipeline manager, and then choose **Save**.
3. Repeat steps 1–2 as necessary until all of your ACE pipeline manager values are mapped.
4. Partners will receive a confirmation message that the value mappings were saved successfully. To close the mapping modal, choose **Close**.

Extended mapping

1. If the same source value maps to multiple APN values, proceed with the mapping as previously described.
2. On the **Primary APN Values** tab, choose the same value mapping for multiple APN values.
3. If unmapped values exist in the partner's organization, the **Additional APN Value** tab lets you map additional values to APN. This helps partners ensure that all applicable values in their organization are mapped to appropriate APN values.
4. If a single value in the partner's organization is mapped to more than one APN value, use the **Secondary APN Values** tab to set the default value for outbound integrations.

Mapping guidance

Using an AWS ACE opportunity custom object

In version 2.0 and later of the AWS Partner CRM connector, an ACE opportunity custom object is included when the connector installs from Salesforce AppExchange. Partners can use this custom object to manage AWS opportunities within Salesforce.

When using an AWS custom opportunity object on the **ACE Mappings** page, partners can automatically map AWS fields to Salesforce fields. Additionally, the AWS custom opportunity object is aligned with the new ACE data model and has validations built in to the user interface that help users submit new opportunities.

To use a custom ACE opportunity object, complete the following steps:

1. Navigate to the **ACE Mappings** page, and choose **Opportunity** from the left navigation pane.
2. Under **Object Selector**, choose **ACE Opportunity** .

3. To map Salesforce fields to AWS fields, choose the **Auto Map ACE object** button.

Using a standard Salesforce object or custom object

Partners may choose to use the Salesforce standard opportunity object or use their own custom opportunity object. To avoid failures in the ACE synchronization, ensure that the opportunity object contains all of the relevant ACE mandatory fields or conditionally mandatory fields. The data type of the mapped AWS field must be the same data type as the Salesforce field created in the custom object. If the data type doesn't match, the field will not appear in the ACE mapping screen. For example, the text field **customerCompanyName** can be mapped only to a text (string) field in the standard or custom opportunity object. For required data types, refer to the ACE opportunity fields.

To use a standard Salesforce object or custom object, complete the following steps:

1. Navigate to the **ACE Mappings** page, and choose **Opportunity** from the left navigation pane.
2. Choose your object under **Object Selector**.
3. Complete the mapping by selecting the required Salesforce fields against the corresponding AWS fields, and then choose **Save**.

Note

The Auto Map feature is available only for ACE opportunity custom objects.

Scheduling

You can create inbound and outbound synchronization schedules between Salesforce and AWS Partner Network (APN).

Prerequisites

Ensure that you complete the following before creating a synchronization schedule:

- [Map](#) all required fields on at least one object, opportunity or lead.
- Create a [system integration user](#) in Salesforce.

System integration user

Before you can create a synchronization schedule, you must create a system integration user in Salesforce with APN integration permissions. To create synchronization schedules, you must sign in to Salesforce as the system integration user. Creating a schedule without APN integration user permissions can break the APN integration.

To create a system integration user

1. Sign in to your Salesforce organization as a system administrator.
2. Create a user in your Salesforce organization. Assign a profile to the user with access to the required objects in your Salesforce organization. For more information, refer to [Add a single user](#).
3. Assign the user the **APN Integration User** permissions set. For more information, refer to [Assign permission set to users](#).

Creating a new schedule

After completing the [prerequisites](#), you can create synchronization schedules between Salesforce and APN.

To create a synchronization schedule with APN

1. Sign in to Salesforce as a user with system integration user permissions.
2. On the **Schedules** tab, choose **New**.
3. Choose the objects to schedule. You can set up schedules for both leads and opportunities or for only one object.
4. Choose the schedule frequency, from a minimum of every five minutes to a maximum of once a day.
5. Choose **Schedule**.

Note

- Only one schedule per object can be active at one time. Creating a new schedule for the same object will deactivate the existing schedule.

- To disable the inbound integration when creating a schedule, choose **Disable Inbound Integration, Schedule**.
- Creating a schedule without APN integration user permissions can break the APN integration.

Deactivating a scheduled job

1. On the **Scheduling** page, choose **Deactivate All Jobs** to turn off any active schedules.
2. Proceed through the confirmation screen to deactivate the synchronization schedule.

Viewing all schedules

From the **Schedules** tab, use the list view filters to toggle between **Active**, **Inactive**, and **All synchronization** schedules.

Sync logs and reports

Sync logs

The **Sync Log** tab, included in the connector app, shows the status of the synchronization records for both inbound and outbound synchronization with Amazon Web Services (AWS) Partner Network (APN). AWS Partners use the tab to verify a successful sync and troubleshoot potential sync errors.

AWS Partners can also use the included list views to toggle between **Inbound** and **Outbound** synchronization logs.

- **Inbound Orchestration**—Indicates the job that checks for available inbound records from APN to process.
- **Inbound Orchestration Record Retrieval**—Indicates the job that picks up and processes pending inbound records from APN.
- **Outbound Orchestration**—Indicates the job that sends pending outbound transactions from the partners organization to APN.

The **Sync Log** record page shows the status of the synchronization job, the number of records in the payload, the number of records processed successfully, and the number of records in error.

The related **Sync Log** details show the individual record details processed as part of the synchronization job and their individual statuses. The following tables explain each type of log file and its related contents.

Log types

Purpose	Definition
Outbound File Retrieval	<p>This sync log record is created when the outbound job runs based on frequency and there is a new set of pending records that must be synced with AWS. It's not created if there are no records that match the filter specification for the outbound sync. Updates for AWS is true and Last Sync Date is null or Last Sync Date is before the Last Modified Date and Last Modified By is the user who scheduled the sync jobs.</p>
Inbound File Retrieval	<p>This sync log record is created as a log of the list callout to determine if there are pending inbound transactions from AWS to be processed. This log is always created based on your inbound sync schedule frequency.</p>
Inbound Record Retrieval	<p>This sync log record is created only when the parent Inbound File Retrieval job identifies that there are pending inbound transactions from AWS to be picked up and processed. This record contains the actual details of the file from AWS containing the opportunity or lead records.</p>

Outbound file retrieval results

Direction	Purpose	Status	Definition
From AWS	Inbound file retrieval	API Success	Indicates a successful list call to the bucket was made to check if any pending inbound records exist that must be processed.
From AWS	Inbound file retrieval	Error	Indicates that the list call was not successful, most likely due to invalid credentials or permission issue.

Inbound file retrieval results

Direction	Purpose	Status	Definition
From AWS	Inbound record retrieval	API success	A get call was made to retrieve the file listed from the Inbound File Retrieval operation, if one or more files exist and are pending to be processed.
From AWS	Inbound record retrieval	Partial	The file was retrieved, and one or more records were attempted to be processed, but not all of the records

Direction	Purpose	Status	Definition
			<p>were successfully processed. In this case, you must review the sync log to troubleshoot the failure.</p>
<p>From AWS</p>	<p>Inbound record retrieval</p>	<p>Error</p>	<p>None of the records were successfully processed from AWS to your Salesforce. This could be due to one of the following reasons:</p> <ul style="list-style-type: none"> • There was a connection error and the file couldn't be retrieved. • The file was retrieved but none of the records in the file could be written to your Salesforce object (most likely due to a validation or permission issue).

Direction	Purpose	Status	Definition
From AWS	Inbound record retrieval	API success	If one or more files exist and are pending to be processed, a get call is made to retrieve the file listed from the Inbound File Retrieval operation.
From AWS	Inbound record retrieval	Partial	The file was retrieved , and one or more records were attempted to be processed, but not all of the records were successfully processed. In this case, you must review the sync log to troubleshoot the failure.

Direction	Purpose	Status	Definition
From AWS	Inbound record retrieval	Error	<p>None of the records were successfully processed from AWS to your Salesforce. This could be due to one of these reasons:</p> <ul style="list-style-type: none"> • There was a connection error and the file couldn't be retrieved. • The file was retrieved but none of the records in the file could be written to your Salesforce object (most likely due to a validation or permission issue).
From AWS	Inbound record retrieval	Processed	Record(s) included in the file were successfully processed and inserted into your mapped object.

Reports

The AWS Partner CRM connector package includes reports to allow AWS Partners to track the ongoing status of the synchronization between the AWS Partner's organization and APN.

To view reports for synchronization

1. In the AWS Partner CRM connector app, choose the **Reports** tab.
2. Choose **All Folders > AWS Partner CRM connector**.

Available reports include the following:

- **Inbound Sync Logs–Error**: Inbound synchronization record failures by day.
- **Inbound Sync Logs–Success**: Inbound synchronization record successes by day.
- **Outbound Sync Logs–Error**: Outbound synchronization record failures by day.
- **Outbound Sync Logs–Success**: Outbound synchronization record successes by day.
- **Synchronization Summary**–Summary of inbound and outbound synchronization jobs by day.

Sending and receiving opportunities and leads

To designate an opportunity or lead for synchronization with APN, the **Sync with Partner Central** field must be set to **True**. Additional key fields for integration include the **Last APN Sync Date** and the **Eligible to Sync with APN** field.

These fields are included for standard opportunities and leads; however, they must be created and mapped for the corresponding object when the source objects are set to custom.

- **Sync with Partner Central**—Included in the app for standard opportunities and leads. If a AWS Partner chooses to map to custom objects, a custom boolean field must be created and mapped in the opportunity and lead mappings, respectively.
- **Last Sync Date with APN**—Indicates the last time the record was successfully sent to APN or received from APN. This field is auto-set when the record is successfully sent to APN or an update is received from APN.
- **Eligible to Sync with APN**—A formula field that determines if the record is targeted to be sent to APN in the next scheduled job. Calculated based on if the record was modified since the last time the outbound schedule ran, and it was updated by a user other than the designated integration user for the AWS Partner's organization.

Upgrading AWS Partner CRM connector to the new data model

Important

Test and approve the new data model upgrade in your sandbox Salesforce organization before upgrading your production environment. For the new data model and changes between the old and new models, refer to the following GitHub [aws-samples/partner-crm-integration-samples](https://github.com/aws-samples/partner-crm-integration-samples):

- **Opportunity-FieldsAndStandardValues-DiffWithPrevVersion-V14.3.xlsx**
- **Opportunity-Fields.xlsx**
- **Opportunity_-_StandardValues.xlsx**

Prerequisites

- Use field definitions for new data model guidelines of the ACE CRM integration, and migrate any required open opportunities and leads to the new data model.
- Add or remove columns in your custom or standard objects (objects used in mapping).
- Ensure that you're using version 2.0 or later of the AWS Partner CRM connector.

To upgrade to the new data model


1. Log in to your Salesforce organization as a system administrator.
2. Deactivate any active schedules.
3. Choose **Setup, Custom Settings, AWS Partner CRM connector Settings**, and then update the version to **2.0** or later.

Note

Starting with version 2.0, the **Version** field is mandatory. This field specifies the payload version that partners use to interact with the CRM Integration. When partners move to version 2.0, they must fully adopt its specifications. Reverting to previous versions isn't permitted.

4. Choose the **ACE Mapping** tab.

5. Create, review, and update all required field mappings and details. For sandbox testing, use the custom ACE opportunity and ACE lead object to test the new data model features. For more information, refer to [Sandbox testing with the custom ACE opportunity and ACE lead objects](#).
6. Activate schedules for opportunities and leads.
7. Review the ACE sync logs for synchronization errors and make any corrections.
8. Review the synced opportunities and leads to ensure that the data transformation is accurate. Alternatively, review the opportunities and leads in ACE to ensure that the new data model changes are captured accurately.
9. Follow your product deployment process to migrate the changes to your production Salesforce environment.

 **Note**

Should you require additional assistance, refer to [the section called “Getting help”](#).

Sandbox testing with the custom ACE opportunity and ACE lead objects

 **Note**

If you are an existing CRM connector user, refer to [Upgrading AWS Partner CRM connector to the new data model](#).

1. Log in to your Salesforce organization as a System Administrator.
2. Choose **Setup, Custom settings, AWS Partner CRM connector settings**, and update version to **2**.
3. Choose the **ACE Mapping** tab.
4. For **Opportunity**, map it to the **ACE opportunity** custom object.
5. Choose **Auto Map ACE object**.

 **Note**

For existing AWS Partners upgrading to the new version of the CRM connector that want to use the custom ACE opportunity and ACE lead objects from the connector for sandbox testing, we recommend manually deleting any available records from the

Field Mappings and Field Mapping Details objects from the database before using the Auto Map ACE object feature. You only need to do this once.

6. Review field mappings and field mapping values for picklist and multipicklist.
7. Activate schedules for opportunities and leads.
8. Review the ACE Sync Logs for synchronization errors and make any required corrections.
9. Review the newly synched opportunities and leads to ensure that the data transformation is accurate. Alternatively, review the opportunities and leads in ACE to ensure that the new data model changes have been accurately captured.

Accessing sync log detail records for ACE opportunities

You can view sync log details for AWS delivered ACE opportunities on the **Related** tab on the ACE opportunity record.

Note

These steps only apply to AWS delivered ACE opportunity objects. If you map to standard or custom objects in your Salesforce organization, you can view sync log details on the **ACE Sync Log** tab.

1. Log in to your Salesforce organization.
2. In the App Launcher, choose AWS Partner CRM connector.
3. Choose the **ACE Opportunities** tab.
4. Choose an ACE opportunity record.
5. Choose the **Related** tab to view details including **Sync Log Name**, **Status**, **Error Message**, and **Created Date**.

Linking AWS Marketplace private offers to ACE opportunities

You can link private offers directly from the AWS delivered ACE opportunity record page.

1. Log in to your Salesforce organization.
2. In the App Launcher, choose AWS Partner CRM connector.
3. Choose the **ACE Opportunities** tab.

4. Choose an ACE opportunity record.
5. Choose **Link Private Offer**.
6. In **Offer ID Look Up**, choose the private offer.
7. Choose **Save**.

FAQ

General questions

Q: Can I access the Amazon Simple Storage Service (Amazon S3) bucket, used for sending and receiving the files?

Yes. Partners can programmatically access the Amazon S3 bucket by using an Amazon Web Services (AWS) Identity and Access Management (IAM) role that can access the bucket.

Q: What are the prerequisites for using the AWS Partner CRM connector?

- [Sign up for APN](#) and have a valid AWS Partner ID.
- Join the [APN Customer Engagements \(ACE\) program](#).
- Confirm that you have a Salesforce referral administrator, and set up the application and the permission set. For more information, refer to [Assign Users to Roles](#).
- Your Salesforce production organization edition must be Lightning Experience (enterprise, professional, or unlimited). For more information, refer to [Sales Cloud Pricing](#).
- You must have a separate Salesforce sandbox (testing) organization that is on [Salesforce Winter '23 release](#) or higher. For more information, refer to [Sandboxes: Staging Environments for Customizing and Testing](#).
- You must have an AWS account for sandbox and create an IAM user/role for the sandbox environment.
- You must have an Amazon S3 bucket provisioned by the AWS Partner engineering team and attach the policy to an IAM user or role in your sandbox to access the S3 bucket. If you don't already have the Amazon S3 environment provisioned, contact your partner development manager (PDM) to raise a request for the infrastructure provisioning. For more information, refer to [Creating an IAM user in your AWS account](#) and [ACE CRM—How to Attach a Policy to IAM User](#).

Q: I haven't moved to the Salesforce Lightning version. Can I still use the AWS Partner CRM connector?

The AWS Partner CRM connector is designed for use with the Salesforce Lightning version, so the classic version may not function as intended.

Q: Can I use the package directly on my production systems?

We recommend that you install the package on production systems only after thoroughly testing it in a sandbox environment.

Q: Who are the intended users of the AWS Partner CRM connector?

AWS Partner CRM connector is designed for the following two user personas:

- Salesforce administrator/referral administrator to set up the connector.
- Sales operations user to select, accept, and update opportunities and leads to exchange.

Q: I already have an existing integration with ACE. Can I move to the connector?

Yes. AWS Partners that have an existing integration with ACE should be able to easily move to the connector. Because the connector uses the same S3 bucket in the backend, complete the following steps:

1. Disconnect your custom app or solution from the S3 bucket.
2. Sign in to the AWS account to set up the integration. Obtain or create a secret key and access key for the IAM user that is authorized to access the S3 bucket. This user has the naming format `apn-ace-{partnerName}-AccessUser-prod`. For more information, refer to [Managing access keys \(console\)](#).

Note

If you're unable to find the AWS account, submit a [support request](#).

3. To configure the connector to point to the S3 bucket, choose **Setup > Named Credentials > APN API connection**.
4. Submit a [support request](#) to delete existing objects in the S3 bucket before scheduling a job in the connector. You must complete this critical step before completing the integration and setting a synchronization schedule.
5. If the target object is different from the existing object, conduct a data backfill for your existing leads and opportunities. For more information, refer to the CRM integration *Production setup and backfill guide*.

Note

During the integration switchover, all user updates queue in the Outbound folder of the S3 bucket. After the integration is live, the user-update records are synced.

Q: Is the AWS Partner CRM connector safe to use in my Salesforce organization?

The Salesforce application has gone through both external (Salesforce security review) and internal security reviews (AWS production security review). Threats that the Salesforce security review scans for include the following:

- Salesforce Object Query Language (SOQL) and SQL injection
- Cross-site scripting
- Non-secure authentication and access control protocols
- Record-sharing violations and other vulnerabilities specific to the Salesforce platform

The code review uses the [Salesforce Code Analyzer](#) to inspect Salesforce code. Salesforce Code Analyzer uses multiple code analysis engines, including PMD, ESLint, and RetireJS. It identifies potential problems from inconsistent naming to security vulnerabilities.

For more information on the review process, refer to [AppExchange Security Review](#).

Note

Partner applications are non-Salesforce.com (SFDC) applications as defined in the Salesforce Main Services Agreement. For more information, refer to [Agreements and Terms](#).

Notwithstanding any security requirements set forth herein or any security review of a partner application that may occur, Salesforce makes no guarantees regarding the quality or security of any partner application, and customers are solely responsible for evaluating the quality, security, and functionality of partner applications to determine their adequacy and appropriateness for customers' installation and use.

While we cannot share specifically what our internal security audit covers, it is geared towards the native AWS components of the integration architecture, to which the Salesforce app connects and

covers a number of different threat modeling scenarios such as man-in-the-middle (MITM) attacks, distributed denial-of-service (DDoS) mitigations, and encryption standards. For more information, submit a support request.

Q: How do I get started with the AWS Partner CRM connector?

To set up a new integration, contact your partner development manager (PDM) or your AWS point of contact. Your PDM will verify eligibility, help set up the IAM user required for authentication and submit the request internally to set up the Amazon S3 bucket required for you to exchange files. After you have access to the S3 bucket, you can install the connector and set up the integration by following the instructions in the user guide.

Partners who already have an integration set up with AWS Partner Network (APN) can get started by installing the connector from Salesforce AppExchange and following the instructions in the user guide.

Setup

Q: How do I set up the named credentials for the package?

1. Sign in to the AWS Management Console, and open the [IAM console](#).
2. In the left navigation bar, choose **Users**.
3. Choose **Add user**.
 - Enter a user name (for example, APN CRM integration API).
 - For **Access type**, choose **Programmatic Access**.
 - Choose **Attach existing policies directly**, and choose the policy file you received from AWS during the Amazon S3 setup process.
 - Copy the access key ID and secret access key.
4. Navigate to the setup section of your Salesforce instance, and search for **Named Credentials**.
5. Choose **New Named Credential**. Enter the following values:
 - **URL**—`https://s3.us-west-2.amazonaws.com`
 - **Identity Type**—Named principal
 - **Authentication Protocol**—AWS Signature Version 4
 - **AWS Access Key ID**—Access key ID copied from IAM console
 - **AWS Secret Access Key**—Secret access key copied from IAM console
 - **AWS Region**—`us-west-2`

- **AWS Service**—S3
 - **Generate Authorisation Header**—Checked
 - **Allow Merge Fields in HTTP Header**—Unchecked
 - **Allow Merge Fields in HTTP Body**—Unchecked
6. Choose **Save**.
 7. Test the connection. On the **Guided Settings** page of the package, choose **Test**.

Mapping

Q: Why can't I edit the mapping for sync with an AWS field?

The **Sync with AWS** checkbox determines if the record (lead or opportunity) is selected for synchronization with AWS when the next scheduled job runs. The **Sync with Partner Central** field is included with the app for standard opportunities and leads. If your target object is a custom object, you must map the **Sync with AWS** field to a custom nonformula boolean field in each object.

Q: How does the Has Updates for AWS field work?

The formula field **Has Updates for AWS** determines if a record is targeted to be sent to APN in the next scheduled job. **Has Updates for AWS** is set to **True** when the following conditions are true:

- **Last Modified Date** of the record is later than **Last APN Sync Date**.
- **Last Modified User** is not the user that scheduled the integration jobs.

Q: Why can't I map the required APN CRM Unique Identifier field? The menu is unavailable, and I receive the message "No valid field to map".

The data type for the **APN CRM Unique Identifier** field should be **Text** with a length of 18 characters. We require 18 characters to match the length of the **API** field.

- Configuration: Text (18) (External ID) (Unique Case Insensitive)

Q: What are the troubleshooting checkpoints for outbound-file push from the AWS Partner's Salesforce to APN, using the connector app?

- **Sync to AWS** must be checked to sync with AWS.

- **Has Update to AWS** must be checked to sync with AWS.
- The user persona for creating the scheduling job must be different from the user persona for creating and updating the lead or opportunity.
- If the previous checks are true but the outbound batch still does not run, check the AWS Partner sync logs list view and add the column **outbound IDs**. Confirm that the opportunity ID (identifier) that is targeted to be picked is in the sync log. If the sync log is stuck in the **API Success** state, delete the sync log record and try again.

When **Expected Monthly AWS Revenue** is not an integer (for example, 1041.67 instead of 1041), the mismatch in data type causes an error in processing. To resolve this, delete the sync log stuck in the **API Success** state and correct the data before the next job run.

Q: How can I configure filters/subscriptions to sync the leads/opportunities? Can we add custom filters on status or stage fields?

The easiest way to do this is to create or update the formula field to add the dependency from the status or stage fields for a specific value, to set **Has Updates for AWS** to **True**. You can use the included field on the opportunity as a reference. Refer to the following example:

```
IF(
  OR(
    AND
      (
        OR(LastModifiedDate > awsapn_Last_APN_Sync_Date_c, LastModifiedDate =
awsapn_Last_APN_Sync_Date_c),
        awsapn_Sync_with_Partner_Central_c,
        NOT(ISNULL(awsapn_Last_APN_Sync_Date_c))
      ),
    AND(ISNULL(awsapn_Last_APN_Sync_Date_c), awsapn_Sync_with_Partner_Central_c)
  )
  , true , false
)
```

Q: Do I have to map the mandatory fields?

Yes. All mandatory fields must be mapped for you to schedule an integration job (either inbound or outbound).

Q: Can I map lookup fields?

We recommend reviewing the fields you currently enter in Partner Central to determine the most relevant fields (in addition to the required fields). For a list of available fields and their purpose, refer to the *Field Definition Guide* included in the [ACE CRM Development Kit](#) on Partner Central.

Q: Should I update the record with derived fields or create them during the mapping process?

Complex logic and derivations should be done in your Salesforce organization based on your own business logic, then populate the mapped field based on it.

Synchronization and validation

Q: After I set up the integration, why do I get a STORAGE_LIMIT_EXCEEDED error?

This issue happens when the connector is being tested in a development organization with limited storage. To fix it, clear the sync logs from the console by running the following commands:

```
List<awsapn_Sync_Log_c> syncLogs = [SELECT Id FROM awsapn_Sync_Log_c WHERE Status IN ('API Success', 'Processed') LIMIT 4000]; delete syncLogs;
```

You can also set the sync log retention period (in the guided setup) to automatically clean up sync log records older than the retention period.

Q: I received AWS referred leads or opportunities that are noncompliant with the validation imposed on my custom object. How can I fix this issue?

There are instances where leads and AWS originated opportunities don't comply with the validation rules for each field. To allow partners to accept or reject such referrals, you can correct the data before accepting a record. To accept or reject an object that is noncompliant with the data validations, complete the following steps:

1. Navigate to the sync log details of the failed record.
2. Choose **Edit Payload** to access the JSON view.
3. Update the values of non-compliant fields.
4. Choose **Save Payload** to set up the record for sync for the next job.

If the record is accepted, the you must repeat steps 1–4 again after receiving the remaining fields from AWS. For subsequent syncs, the corrected values are used. Alternatively, you can correct the values in the ACE pipeline manager on Partner Central.

Q: What is the frequency of the leads and opportunities uploads from AWS?

AWS uploads leads and opportunities to the Amazon S3 bucket every hour. This implies that every action that requires a data update through the integration can take up to an hour to synchronize.

Q: Why am I getting the following error when attempting to use the mapping screen?

```
pe.setFieldLengthWarning()@ -  
/modules/awsapn/fieldMappingRow.js:1:7831  
set salesforceFields()@- /modules/awsapn/fieldMappingRow.js:1:5624
```

The user performing the mapping doesn't have read access to the required fields. Either a system admin user with permissions to the source and target fields should be used, or the user should have the APN integration user permission set.

Q: What do the Status and Purpose fields on the sync log mean?

To determine the state and action on each sync log record, refer to the tables provided in [the section called "Sync logs"](#).

Q: Is there any built-in audit mechanism in place or any native archiving?

The sync log object keeps track of all inbound and outbound transactions. There's also a retention period that can be specified in the app configuration to determine how long you want to retain the sync log record.

AWS Marketplace integration

Using the AWS Partner CRM connector, AWS Marketplace sellers can create and manage private offers and resale authorizations directly from their Salesforce organization. For more information, refer to [What is AWS Marketplace?](#)

Topics

- [Configuring baseline AWS permissions](#)
- [Configuring Salesforce core components](#)
- [Validating AWS Marketplace integration](#)
- [Additional resources: AWS API calls for the AWS Marketplace integration](#)

Note

For more information about available features for AWS Marketplace, refer to [the section called "AWS Marketplace features"](#).

Configuring baseline AWS permissions

Follow the instructions in [Creating an IAM user in your AWS account](#) to create the user required for the integration. To install and configure the AWS Partner CRM Connector for Salesforce, the user needs programmatic and AWS Management Console access. Then follow the instructions in [Creating IAM Policies](#), and attach the following policies to the user you create.

Topics

- [Available template for baseline permissions](#)
- [Configuring AWS Marketplace account](#)
- [Required policies and permissions](#)

Available template for baseline permissions

Use an AWS CloudFormation template to configure the AWS configurations of the AWS Partner CRM connector. To download the file, refer to [AWSPartnerCRMConnectorSetup](#).

Configuring AWS Marketplace account

The following components are required to integrate AWS services in AWS Marketplace integration within the connector.

AWS seller account

You must have an AWS account that's registered as a seller and have products listed in AWS Marketplace. For more information, refer to [Drive revenue by selling in AWS Marketplace](#).

Confirm that you have added the required permissions in your AWS seller account. For more information, refer to [Policies and permissions for AWS Marketplace sellers in the Seller Guide](#).

Amazon S3 bucket

Configure an Amazon Simple Storage Service (Amazon S3) bucket to store your custom End User License Agreement (EULA). This information is required when onboarding the AWS seller account into the connector. For more information, see [Creating a bucket](#).

Amazon SQS

Set up an Amazon Simple Queue Service (Amazon SQS) queue in the us-east-1 Region (N. Virginia) to enable buyer notification for the private offer. Provide a name for the queue, for example AWSMPSQSQueue. For more information, refer to [Getting started with Amazon SQS](#) and [Subscribing an Amazon SQS queue to an Amazon SNS topic](#).

Service Linked Role setup supporting Channel Partner Private Offer

Independent Software Vendors (ISVs) and Channel Partners (CPs) must create a custom AWS Identity and Access Management (IAM) role that provides permissions to AWS for ISVs and CPs to use resale authorizations to create Channel Partner Private Offers (CPPOs). Refer to [CPPO prerequisites](#).

Required policies and permissions

AWS Marketplace

The AWSMarketplaceSellerFullAccess managed policy is required to work with AWS Marketplace Catalog API (CAPI).

To create and receive resale authorizations and create AWS Channel Partner private offers, refer to [Creating a custom IAM role](#).

Amazon S3

The Amazon S3 policy allows the IAM role or user to see the bucket defined by `${bucketName}`, upload objects to the bucket, and create pre-signed URLs for objects in the bucket. This policy is required because the connector uploads a custom EULA to an S3 bucket that's defined in the configuration and generates a pre-signed URL to pass to the AWS Marketplace CAPI.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "S3ListBucket",
```

```

        "Effect": "Allow",
        "Action": [
            "s3:ListBucket"
        ],
        "Resource": [
            "arn:aws:s3:::${bucketName}"
        ]
    },

    "Sid": "AllowS3PutObject",
    "Effect": "Allow",
    "Action": [
        "s3:PutObject"
    ],
    "Resource": [
        "arn:aws:s3:::${bucketName}/"
    ]
},
{
    "Sid": "AllowCreatePresignedUrl",
    "Effect": "Allow",
    "Action": [
        "s3:PutObject",
        "s3:PutObjectAcl",
        "s3:GetObject",
        "s3:GetObjectAcl"
    ],
    "Resource": [
        "arn:aws:s3:::${bucketName}/"
    ]
}
]
}

```

Amazon SQS

The following policy is required to extract and delete Amazon SNS notifications from the Amazon SQS queue.

```

{
  "Version": "2012-10-17",
  "Statement": [
    {

```

```

    "Action": [
      "sqs:ReceiveMessage",
      "sqs>DeleteMessage",
      "sqs:GetQueueAttributes",
      "sqs:GetQueueUrl"
    ],
    "Effect": "Allow",
    "Resource": "arn:aws:sqs:us-east-1:<AWS account
ID>:<QUEUENAME>"
  }
]
}

```

Configuring Salesforce core components

In this section, you'll learn about configuring AWS Partner personas used in the AWS Partner CRM connector, guided setup of the AWS Marketplace integration, onboarding the AWS seller account, and Salesforce configurations.

Topics

- [Permissions sets](#)
- [Guided setup](#)
- [Onboarding AWS seller account](#)
- [System configurations](#)

Permissions sets

The following three primary AWS Partner personas are supported in the AWS Partner CRM connector. You can enable these personas by giving the Salesforce user the corresponding permission set included in the application.

AWS Marketplace administrator

Assign this persona to a systems or business administrator to perform the configuration and manage schedules. This persona provides full access to the AWS Marketplace integration in the Salesforce connector.

This persona can do the following:

- Read, write, and view records for all objects related to the AWS Marketplace integration.

- View all AWS Marketplace sync log records.
- Create schedules related to AWS Marketplace entities.

Note

Certain settings in Salesforce require additional access, specifically named credentials and custom settings that AWS Partners must provide to users. However, if this permission set is paired with a Salesforce systems administrator profile, all permissions needed to fully configure the application should work.

AWS Marketplace user

Assign this persona to the user who creates and manages private offers and resale authorization.

The AWS Marketplace user can do the following:

- Synchronize AWS Marketplace products, offers, and resale authorizations.
- Modify expiry dates, and cancel and clone offers and resale authorizations.
- Access the AWS Marketplace dashboard.

AWS Channel Partner user

The AWS Channel Partner user can do the following:

- View available shared resale authorizations created by the Independent Software Vendor (ISV) seller.
- View and create AWS Channel Partner private offers from shared resale authorizations.

Guided setup

The AWS Partner CRM Connector provides a guided setup to enable the AWS Marketplace integration.

To launch the guided setup

1. Log in to the Salesforce organization as a system administrator.

2. From the App launcher, search for and choose the AWS Partner CRM Connector.
3. Choose the **AWS Guided Setup** tab.
4. At the bottom of the page, choose the AWS Marketplace integration.

Onboarding AWS seller account

1. Log in to the Salesforce organization as a system administrator.
2. In the top right corner of the page, choose the gear icon and choose **Setup**.
3. In the **Quick Find** search bar, choose **Named Credentials, Legacy Named Credentials**.
4. Enter the following details:
 - **Label**–AWS SELLER CATALOG
 - **Name**–AWS_SELLER_CATALOG_<*Provide unique account prefix*>
 - **URL**–https://catalog.marketplace.us-east-1.amazonaws.com
 - **Identity type**–Named Principal
 - **Authentication protocol**–AWS Signature Version 4
 - **AWS Access Key ID**–Access key of IAM user
 - **AWS Secret Access Key**–Secret access key of IAM user
 - **AWS Region**–us-east-1
 - **AWS Service**–aws-marketplace
5. Choose **Save**.
6. Repeat steps 1-6 to onboard other AWS services required for the integration.

The connector supports multiple AWS seller accounts. To use the connector to onboard multiple seller accounts, refer to the following table.

Named Credential Label	Named Credential Name	API endpoint	AWS Region	AWS service
AWS SELLER S3	AWS_SELLER_S3_< <i>Provide</i> >	https://s3.amazonaws.com/	us-east-1	s3

Named Credential Label	Named Credential Name	API endpoint	AWS Region	AWS service
	<i>unique account prefix></i>			
AWS SELLER STS	AWS_SELLER_STS_<Provide unique account prefix>	https://sts.us-east-1.amazonaws.com/	us-east-1	sts
AWS SELLER SQS	AWS_SELLER_SQS_<Provide unique account prefix>	https://sqs.us-east-1.amazonaws.com/	us-east-1	sqs
AWS SELLER AGREEMENT	AWS_SELLER_AGREEMENT_<Provide unique account prefix>	https://aws-marketplace.us-east-1.amazonaws.com/	us-east-1	aws-marketplace

After onboarding Named Credentials, go to the AWS Accounts table and choose **Refresh Accounts** to add the seller accounts to the AWS Accounts table.

System configurations

1. Log in to the Salesforce organization as a system administrator.
2. Open the **AWS Marketplace Integration Settings** custom settings. For more information, refer to [View and Edit Custom Settings](#).
3. Choose **Manage** to add **Default Org Level** values.
4. Enter values for the following settings.

Setting Name	Default Value	Description
Amazon SQS Queue Name	NULL	Amazon Simple Queue Service (Amazon SQS) queue used to subscribe to the Amazon Simple Notification System (Amazon SNS) topic for retrieving notifications on the private offer. Note that the connector requires that the name of the SQS queue be the same across all onboarded AWS accounts.
Add seller account to buyer list	FALSE	Enables the addition of the seller account to the buyer list so you can view the private offer within your account, similar to how a buyer would view it.
Are you in any partner programs	FALSE	
AWS Presigned URL Role Name	NULL	The AWS Identity and Access Management (IAM) role in the seller account used for presigning the Amazon Simple Storage Service (Amazon S3) URL for the custom End User License Agreement (EULA) used with the AWS Marketplace catalog API (CAPI).

Setting Name	Default Value	Description
Log_All_Outbound_Requests	FALSE	Enables logging on outbound API calls through the connector.
Log Level	ERROR	Indicates the level of logging for outbound request logs.

- Choose **Save**.
- Return to custom settings and choose **S3 Bucket Settings**.
- Choose **Manage** to add the custom setting for Amazon S3.
- Choose **New**.
- Enter values for the following settings.

Setting Name	Default Value	Description
Name	N/A	Name of the Amazon S3 setting. This name should be same as the AWS account name in the AWS accounts table.
S3 Bucket Name	N/A	Amazon S3 bucket name to store the custom EULA.
S3 Bucket Prefix	N/A	Prefix of the Amazon S3 bucket to store the custom EULA.

- Choose **Save**.
- Repeat steps 6-10 to add Amazon S3 settings for multiple seller accounts.

Validating AWS Marketplace integration

Topics

- [AWS Marketplace agreements](#)
- [Agreement-based offers](#)
- [Synchronizing your AWS Marketplace products](#)
- [AWS Marketplace private offers](#)
- [AWS Marketplace resale authorizations](#)
- [AWS Marketplace Channel Partner Private Offers](#)
- [Flexible payment schedule \(FPS\)](#)
- [Future dated agreement \(FDA\)](#)

AWS Marketplace agreements

With the CRM Connector, AWS sellers and Channel Partners can access agreements for private offers and view agreement details.

To import an agreement into the AWS Partner CRM Connector

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Agreements** tab.
4. Choose **Import Agreement**.
5. Choose the seller account.
6. Enter the agreement ID.
7. Choose **Submit**.

To refresh agreements from AWS Marketplace

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Agreements** tab.
4. Choose **Refresh Agreement**.
5. In the **Do you want to pull the list of Agreements from AWS Marketplace?** dialog box, choose **Proceed**.

Note

Available agreements for all private offers are synced and viewable on the **Agreements** tab.

Agreement-based offers

AWS Marketplace sellers and Channel Partners can create agreement-based offers (ABOs) to generate new private offers based on existing agreements.

Note

Before creating an agreement-based offer, Channel Partners should refresh the **Shared resale authorization** tab.

To create an agreement-based offer

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Agreements** tab.
4. In the **Agreements** list, choose the agreement name.
5. Choose **Create Agreement Based Offer**.
6. On the **Create an Offer** form, complete the required fields.
7. Choose **Create offer**.

Synchronizing your AWS Marketplace products

1. Log in to the Salesforce organization as a system administrator.
2. From the App launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **MP Products** tab.
4. Choose **Refresh Products** to sync the AWS Marketplace products.
5. For the prompt **Do you want to pull the list of products from the AWS Marketplace**, choose **Yes**.

Note

Available AWS Marketplace products are synced and viewable on the **MP Products** tab.

AWS Marketplace private offers

Creating an AWS Marketplace private offer

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Private Offers** tab.
4. Choose **New**.
5. On the **Create an Offer** page, at a minimum, you must complete the [required fields](#). You can also create a flexible payment schedule and future dated agreement.
 - **To create a flexible payment schedule**
 - a. (Direct private offers of AMI and Container Contract products only) In the **Product Pricing** section, choose **Contract Model**.
 - b. In the **Product and Buyers** section, choose **Enable fixed units and allow buyers to pay for this product in installments**.
 - c. Configure payments in the **Payment Schedule** section. For more information, refer to [Flexible payment schedule \(FPS\)](#).
 - **To create a future dated agreement**
 - a. In the **Service Length** section, choose **New offer starting at future date**.
 - b. Enter **Service start date** and **Service end date** (if required). For more information, refer to [Future dated agreement \(FDA\)](#).
6. Choose **Create Offer**.

Private offer required fields

Products and buyers

- **ISV**–Self
- **Products**–Choose from the list of available products synced through the connector.

- **Buyer Accounts**—Enter your own seller test account to validate the integration.

Offer details

- **Offer Name**—Enter a custom name.
- **Offer Description**—Enter a custom offer description.

Service length or contract duration

1. Choose **New offer**.
2. Choose a service length (for example, 12 months).

Offer dimensions

1. Choose the entitlement type that you want to offer.
2. Add offer rates to or update existing rates of your chosen dimensions.
3. To submit an offer in which any of the dimension rates are set at **\$0**, choose **I want to enable zero dollar pricing**.

End User License Agreement (EULA)

Choose **Standard Contract for AWS Marketplace** or **Custom EULA**. If you choose **Custom EULA**, you must configure an Amazon S3 bucket to store the custom EULA when you onboard the AWS seller account.

Renewals

For **Is this offer intended to renew an existing paid subscription with an existing customer for the same underlying product?**, choose **Yes** or **No**.


Expiration information

Enter the offer expiration date. For subscription-type products enter the subscription end date.

Viewing and refreshing the private offer status

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.

3. Choose the **Private Offers** tab.
4. From the **Private Offers** list, choose the **Private Offer Name**.
5. Choose **Refresh Offer Status**. The offer status (**PREPARING**, **APPLYING**, **SUCCEEDED**, or **FAILED**) displays at the bottom of the page.

 **Note**

Private offer status can take up to two hours to change to **SUCCEEDED**.

Modifying an offer expiration date

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Private Offers** tab.
4. From the **Private Offers** list, choose the **Private Offer Name**.
5. Choose **Modify Expiration Date**.

Canceling a private offer

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Private Offers** tab.
4. From the **Private Offers** list, choose the **Private Offer Name**.
5. Choose **Cancel Offer**.

Copying an offer URL

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Private Offers** tab.
4. From the **Private Offers** list, choose the **Private Offer Name**.
5. Choose **Copy URL**.

Cloning a private offer

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Private Offers** tab.
4. From the **Private Offers** list, choose the **Private Offer Name**.
5. Choose **Clone Offer**, which creates a new offer based on the offer you selected to clone. The CRM connector automatically inserts the AWS seller account number in the **Buyer Accounts** list. This helps the seller to refer to the private offer from the buyer's perspective.
6. Edit the **Offer Details** section of the cloned offer as necessary.
7. If necessary, re-upload the EULA.
8. Choose **Create offer**.

Using the FPS utility to populate payment schedules

When creating an AWS Marketplace private offer, use the FPS utility to populate payment schedules with fixed costs and equal payment gaps.

1. On the **Payment Schedule** tab, choose **Yes** to generate a payment schedule with fixed cost and equal payment gaps.
2. Choose a **Payment Frequency** of 15, 30, 90, or 365 days.
3. Choose **Remainder Options**. To place the remainder of the uneven payment on the first payment, choose **Frontload**. To place the remainder on the last payment, choose **Backend**.
4. For **Calendar Options**, to configure the payment frequency to include weekend days, choose **Calendar Day**. To not include weekend days, choose **Business Day**.
5. Enter the payment amount (sum of all payments), payment start date (first payment), and approximate payment end date.
6. Choose **Generate Schedule**.
7. Review and edit the payment amounts and invoice dates as needed.

Importing existing private offer details from AWS Marketplace

You can import an existing private offer from AWS Marketplace into Salesforce.

1. Log in to your Salesforce organization as an AWS Marketplace user.

2. In the App Launcher, choose AWS Partner CRM Connector.
3. Choose the **Private Offers** tab.
4. Choose **Import Offer**.
5. Enter the offer ID.
6. Choose **Submit**.

Saving an offer as a draft

You can save an offer as a draft to complete later without releasing it to the buyer.

1. Log in to your Salesforce organization as an AWS Marketplace user.
2. In the App Launcher, choose AWS Partner CRM Connector.
3. Choose the **Private Offers** tab.
4. Choose **New**.
5. On the **Create an Offer** form, complete the mandatory fields.
6. Choose **Save as Draft**.

AWS Marketplace resale authorizations

Creating an AWS Marketplace resale authorization

As an ISV, you can authorize an AWS Channel Partner to resell your products by creating a resale authorization. You can specify a fixed rate per product dimension to create a wholesale price for the AWS Channel Partner. The AWS Channel Partner can mark up the wholesale price when creating their private offer for a buyer.

To create an AWS Marketplace resale authorization

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Resale Authorizations** tab.
4. Choose **New**.
5. On the **Create a Resale Authorization** page, at a minimum, you must complete the [required fields](#). You can also create a flexible payment schedule.

To create a flexible payment schedule

- a. (Direct private offers of AMI and Container Contract products only) In the **Product Pricing** section, choose **Contract Model**.
 - b. In the **Product and Buyers** section, choose **Enable fixed units and allow buyers to pay for this product in installments**.
 - c. Configure payments in the **Payment Schedule** section. For more information, refer to [Flexible payment schedule \(FPS\)](#).
6. Choose **Create Resale Authorization**.
 7. View and refresh the resale authorization status. For more information, refer to [Viewing and refreshing resale authorization status](#).

Resale authorization required fields

Products and buyers

- **Products**—Choose from the list of available products synched through the CRM connector.
- **Buyer Accounts**—A list of comma-separated buyer accounts to target the private offer, as needed.

Resale Authorization Details

- **Resale Authorization Name**—Enter a name.
- **Description**—Enter a description (viewable by the AWS Channel Partner).
- **Reseller Account**—Enter the 12-digit AWS account number of the reseller.

Contract duration (if applicable)

- Choices include **Standard** or **Custom Duration**.
- For **Custom Duration**, enter **Custom Service Length**.

Product pricing (if applicable)

- Choices include **Usage model** or **Contract model**.
- For **Contract model**, you can enable FPS in the **Buyers and Products** section.

Product dimensions

- Add or update offer rates and units to the chosen dimensions.
- Choose **I want to enable zero-dollar pricing**, to create a resale authorization in which any of the dimension rates are set to **\$0**.

Legal terms

- Choose **Standard Contract for AWS Marketplace** or **Custom EULA for End User License Agreement** for the buyer.
- Optionally, choose **Reseller Contract for AWS Marketplace** or **Custom Contract for Reseller Agreement**.
- For **Custom EULA (Buyer)** and **Custom Contract (Reseller)**, ensure that you have configured the Amazon S3 bucket for the seller account to store the custom EULA.

Resale Authorization Duration

Choose **Duration Type** and provide details for the **Resale Authorization Expiration Date** as required.

Renewals

For **Is this offer intended to renew an existing paid subscription with an existing customer for the same underlying product?**, choose **Yes** or **No**, and enter the required details.

Deactivating a resale authorization

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Resale Authorizations** tab.
4. From the list of resale authorizations, choose the **Resale Authorization Name**.
5. Choose **Deactivate Resale Authorization**.
6. Choose **Refresh Resale Authorization Status**.

Note

The status is **Restricted** for a successfully deactivated resale authorization.

Cloning a resale authorization

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Resale Authorizations** tab.
4. From the list of resale authorizations, choose the **Resale Authorization Name**.
5. Choose **Clone Resale Authorization**
6. Review and edit the **Resale Authorization Details** section of the cloned authorization. If you use a custom EULA or a custom contract (reseller agreement) in the cloned authorization, you must re-upload the legal terms.
7. Choose **Create Resale Authorization**.

Viewing and refreshing resale authorization status

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Resale Authorizations** tab.
4. From the **Resale Authorizations** list, choose the **Resale Authorization Name**.
5. Choose **Refresh Resale Authorization Status**.
6. Choose **Proceed**.
7. Repeat steps 5 and 6 until the resale authorization status is SUCCEEDED.

Note

It is recommended to allow a 30-second interval before choosing the **Refresh Resale Authorization Status** button again. This ensures that each refresh request is fully processed and preserves data integrity by preventing potential record duplication.

Saving a resale authorization as a draft

You can save a resale authorization in draft form for completion later without releasing it to the Channel Partner.

1. Log in to your Salesforce organization as an AWS Marketplace user.
2. In the App Launcher, choose AWS Partner CRM Connector.
3. Choose the **Resale Authorizations** tab.
4. Choose **New**.
5. On the **Create a Resale Authorization** form, complete the mandatory fields.
6. Choose **Save as Draft**.

AWS Marketplace Channel Partner Private Offers

Creating an AWS Marketplace Channel Partner Private Offer

For recurring discount private offers, an ISV authorizes an AWS Channel Partner to resell one or more of their products on AWS Marketplace. The discount, called the wholesale price, is an agreed-to price or percentage discount off the product's list price. AWS Channel Partners can use the discount with buyers to the extent specified by the ISV in the resale authorization.

The following instructions explain how to create an AWS Channel Partner private offer on the **Shared Resale Authorizations** tab. You can also create an AWS Channel Partner private offer on the **Private Offers** tab.

1. Log in to the Salesforce organization as an AWS Marketplace user.
2. From the App Launcher, search for and choose **AWS Partner CRM Connector**.
3. Choose the **Shared Resale Authorizations** tab.
4. Choose the shared resale authorization.
5. Choose **Create offer**.
6. On the **Create an Offer** page, at a minimum, you must complete the [required fields](#). You can also create a flexible payment schedule and future dated agreement.
 - **To create a flexible payment schedule**
 - a. (Direct private offers of AMI and Container Contract products only) In the **Product Pricing** section, choose **Contract Model**.

- b. In the **Product and Buyers** section, choose **Enable fixed units and allow buyers to pay for this product in installments**.
 - c. Configure payments in the **Payment Schedule** section. For more information, refer to [Flexible payment schedule \(FPS\)](#).
- **To create a future dated agreement**
 - a. In the **Service Length** section, choose **New offer starting at future date**.
 - b. Enter **Service start date** and **Service end date** (if required). For more information, refer to [Future dated agreement \(FDA\)](#).
7. View and refresh the offer status. For more information, refer to [Viewing and refreshing the private offer status](#).

Note

To create a Channel Partner Private Offer (CPPO) or an agreement-based offer (ABO) using a shared resale authorization (SRA), review the shared resale authorization record details in the CRM connector.

Channel partner private offer required fields

Products and Buyers

- Enter the buyer account(s)
- Accept the reseller contract.
- Enable fixed units and allow buyers to pay for this product in installments.

Offer Details

Add your desired name.

Contract Duration

If an applicable product exists, the value defaults to the one used in the shared resale authorization.

Usage Duration

Enter a duration for the offer.

Price Adjustment

Enter your price adjustment.

ISV Legal Terms and Documentation

Review ISV terms for the buyer.

Legal Terms and Other Documentation

Upload additional legal terms, if applicable.

Expiration Information

Enter a date.

Related topics

- To modify a Channel Partner Private Offer, refer to [Modifying an offer expiration date](#).
- To cancel a Channel Partner Private Offer, refer to [Canceling a private offer](#).
- To copy the URL of a Channel Partner Private Offer, refer to [Copying an offer URL](#).
- To clone a Channel Partner Private Offer, refer to [Cloning a private offer](#).

Flexible payment schedule (FPS)

You can enable a flexible payment schedule (FPS) for private offers, resale authorizations, agreement-based offers, and Channel Partner Private Offer.

FPSs are available for the following product types:

- SaaS contract
- SaaS contract with consumption
- AMI contract
- Container contract

Future dated agreement (FDA)

You can create future dated agreements for the following product types:

- SaaS Contract with Consumption
- SaaS Contract

Note

For more information about Future Dated Agreements (FDAs), refer to [Working with future dated agreements and private offers](#) in the *AWS Marketplace Seller Guide*.

Additional resources: AWS API calls for the AWS Marketplace integration

- Refer to the [AWS Marketplace Catalog API Reference](#) to learn about the following APIs:
 - [ListEntities](#)
 - [DescribeEntity](#)
 - [StartChangeSet](#)
 - [DescribeChangeSet](#)
 - [DescribeAgreement](#)
 - [GetAgreementTerms](#)
 - [SearchAgreements](#)
- Refer to [Amazon S3 REST API Introduction](#) to learn about various API operations, related request and response structures, and error codes.
- Refer to [Welcome to the Amazon SNS API Reference](#) to learn more about Amazon SNS.
- Refer to [What is Amazon Simple Queue Service?](#) to learn more about Amazon SQS.

Getting help

For help with a CRM integration, submit a support case in AWS Partner Central.

For CRM Connector enablement or operations support, complete the following steps:

1. Sign in to [AWS Partner Central](#).
2. From the top menu, choose **Support, Contact Support**.
3. On the [AWS Partner Support](#) page, choose **Open New Case**.
4. On the **Open New Support Case** page, choose **CRM Integration**.
5. From the **Type of request** dropdown list, select a **Type**.
6. From the **Please specify further** dropdown list, select a **Subtype**.
7. Enter a subject and description.
8. (Optional) Attach files of up to 3 MB.
9. Choose **Submit**.

Custom integration using Amazon S3

About

Amazon Web Services (AWS) allows partners to integrate their customer relationship management (CRM) with AWS Partner Network (APN) Customer Engagement (ACE) Pipeline Manager in Partner Central. This is done through a CRM-agnostic and file-based transfer mechanism, facilitated by Amazon Simple Storage Service (Amazon S3).

Resources

This section is designed to assist AWS Partners interested in developing a custom solution to integrate their CRM with AWS. To support the partner, the AWS team provides a set of resources listed below.

Field definitions

These are comprehensive lists of all the fields, explaining their data types, usage, and any constraints or formatting rules that apply. They serve as a reference to ensure that when partners and AWS exchange data, it's correctly formatted and understood.

- [Opportunity](#)
- [Lead](#)

Standard values

These lists outline the standard values and enumerations for various fields. They help to maintain consistency in the data exchanged and ensure that both parties have a common understanding of the values used.

- [Opportunity](#)
- [Lead](#)

Sample inbound files

These sample files indicate the structure of the JSON payload for a file sent from a partner to AWS (inbound to AWS).

- [Opportunity](#)
- [Lead](#)

Sample outbound files

These sample files indicate the structure of the JSON payload for a file sent from AWS to a partner (outbound from AWS).

- [Opportunity](#)
- [Lead](#)

Sample processed results

The processed result file's sample file is sent from AWS to a partner after processing any inbound payload to AWS.

- [Opportunity](#)
- [Lead](#)

Sample test cases

- [Opportunity](#)
- [Lead](#)

Sample code snippets

- [ace_read_s3.py](#)
- [Apex_Sample_REST_API_Code.cls](#)
- [S3_Authentication.cls](#)
- [Sample_AceOutboundBatch.cls](#)
- [SFDC apex s3 sample.txt](#)
- [Apex_get_files_from_s3_ace_partner_test.cls](#)
- [s3_ace_partner_test.cls](#)

Implementing a custom integration

This guide assumes that you've followed instructions in the [AWS Partner CRM integration](#) to start the onboarding journey and completed the first three stages. We also assume that you have your AWS account, AWS Identity and Access Management (IAM) setup, sandbox created, and policies attached to access the bucket, and you're now ready to start [the section called "Stage 4: Implementation"](#).

Refer to the ACE integration task checklist, [the section called "Opportunity sharing"](#), and [the section called "Lead sharing"](#).

Lead sharing

How AWS shares leads

1. **Incremental exports:** Amazon Web Services (AWS) exports new leads (and updates) referred by AWS, on an hourly basis.
2. **File creation:** AWS generates lead files adhering to a specific format. For detailed file specifications, refer to [the section called "Field definitions"](#).
3. **File upload:** The lead files are uploaded to the Lead-outbound folder.

Consuming leads from AWS

To effectively consume leads from AWS, build custom integration with the following functionalities.

1. **File retrieval:**
 - Regularly scan the lead-outbound folder using a scheduled job at an interval you choose.
 - Retrieve the lead files for processing.
2. **Data transformation and mapping:**
 - After you read the content of each file, transform and map the data to the lead records in your customer relationship management (CRM) system.
 - For guidance on field mapping, refer to [the section called "Field mapping"](#).
3. **Lead identification:**
 - Uniquely identify each lead using either `partnerCrmLeadId` or `apnCrmUniqueIdentifier`.
 - If `partnerCrmLeadId` is blank and `apnCrmUniqueIdentifier` is present, the lead is a new referral from AWS Partner Network (APN) Customer Engagement (ACE).

- If both identifiers are present, the record is treated as an update from ACE.

4. Lead ingestion:

- Ingest new leads or update existing leads in the CRM system.

5. File management:

- After you successfully process each lead and the complete file data, delete the files from the outbound folder.
- Each file is automatically archived in the lead-outbound-archive folder.

Integration and code reference:

- For reading files uploaded to the Amazon Simple Storage Service (Amazon S3) bucket, you can use AWS Lambda or read directly from your CRM system.
- Use the sample codes below for Lambda and Salesforce REST API to validate and update CRM records.
 - **Lambda for validating files:** [ace_read_s3.py](#).
 - **Salesforce REST API:** [Apex_Sample_REST_API_Code.cls](#).
- If you use a CRM system other than Salesforce, you must provide code specific to your system to update your data.

Sharing updates on leads with AWS

1. **Identify leads:** Locate the leads with updates to be shared with AWS.
2. **Data transformation:** Convert the data into the AWS format, as outlined in [the section called "Field definitions"](#).
3. **File creation:**
 - Generate lead files in JSON format.
 - Append a timestamp to each file, ensuring all file names are unique and follow the format: {name}_MMDDYYYY24HHMMSS.json.
4. **Authenticate and upload:**
 - Authenticate to the ACE Amazon S3 bucket.
 - Upload the file to the lead-inbound folder. All files shared with AWS are automatically archived in the lead-inbound-archive folder.
 - When you upload files to S3, ensure you provide full access to the bucket owner.

```
aws s3 cp example.jpg s3://awsexamplebucket --acl bucket-owner-full-control
```

See a sample result of running this command in "[Results Sample file.json](#)".

5. File processing:

- Upon receipt, AWS automatically processes the files.
- The results of the processing is uploaded to the `lead-inbound-processed-results` folder in the S3 bucket. This includes the status of successes and errors, as well as any error messages for each lead.
- These processed results are also archived in the `lead-inbound-processed-results-archive` folder.
- For more information, refer to the [the section called "Technical FAQ—leads and opportunities"](#).

6. Response handling:

- You must develop logic to consume these responses, review erroneous records, correct any errors, and resend the data to ACE.
- You can find sample errors in the FAQ and Troubleshooting sections.
- To upload a file to Amazon S3 from CRM:
 - Reference the version of the AWS signature.
 - Use an HTTPS request to upload the file.
- For reference, use the following files to upload a file to the S3 bucket:
 - **For authenticating an S3 bucket:** [S3_Authentication.cls](#)
 - **For uploading files to an S3 bucket:** [Sample_AceOutboundBatch.cls](#)
- **NOTE:** Files must not exceed 1 MB in size, and duplicate files won't be processed.

Opportunity sharing

How AWS shares opportunities

1. **Incremental exports:** Amazon Web Services (AWS) exports new opportunities (and updates) referred by AWS, on an hourly basis.
2. **File creation:** AWS generates opportunity files that adhere to a specific format. For detailed file specifications, refer to [Opportunity field definitions](#).
3. **File upload:** Opportunity files are uploaded to the `opportunity-outbound` folder.

Consuming opportunities from AWS

To effectively consume opportunities from AWS, you need to build custom integration with these functionalities.

1. File retrieval:

- Use a scheduled job to regularly scan the opportunity-outbound folder, at an interval you choose.
- Retrieve the opportunity files for processing.

2. Data transformation and mapping:

- After you read the content of each file, transform and map the data to the opportunity records in your customer relationship management (CRM) system.
- For guidance on field mapping, refer to [the section called "Field mapping"](#).

3. Opportunity identification:

- Uniquely identify each opportunity using either `partnerCrmOpportunityId` or `apnCrmUniqueIdentifier`.
- If `partnerCrmOpportunityId` is blank and `apnCrmUniqueIdentifier` is present, the opportunity is a new referral from AWS Partner Network (APN) Customer Engagement (ACE).
- If both identifiers are present, the record is treated as an update from ACE.

4. Opportunity ingestion: Ingest new opportunities or update existing opportunities in the CRM system.

5. File management:

- After you successfully process each opportunity and the complete file data, delete the files from the outbound folder.
- Each file is automatically archived in the opportunity-outbound-archive folder.

Integration and code reference:

- For reading files uploaded to the Amazon Simple Storage Service (Amazon S3) bucket, you can use AWS Lambda or read directly from your CRM system.
- Use the sample codes below for Lambda and Salesforce REST API to validate and update CRM records.
 - **Lambda for validating files:** [ace_read_s3.py](#).
 - **Salesforce REST API:** [Apex_Sample_REST_API_Code.cls](#).
- If you use a CRM system other than Salesforce, you must provide code specific to your system to update your data.

Sharing updates to opportunities with AWS

1. **Identify opportunities:** Locate the opportunities with updates to be shared with AWS.
2. **Data transformation:** Convert the data into the AWS format, as outlined in [the section called “Field definitions”](#).
3. **File creation:**
 - Generate opportunity files in JSON format.
 - Append a timestamp to each file, ensuring all file names are unique and follow the format: {name}_MMDDYYYY24HHMMSS.json.

4. **Authenticate and upload:**

- Authenticate to the ACE Amazon S3 bucket.
- Upload the file to the opportunity-inbound folder. All files shared with AWS are automatically archived in the opportunity-inbound-archive folder.
- When you upload files to S3, ensure you provide full access to the bucket owner:

```
aws s3 cp example.jpg s3://awsexamplebucket --acl bucket-owner-full-control
```

See a sample result of running this command in [Opportunity Results Success Sample.json](#).

5. **File processing:**

- Upon receipt, AWS automatically processes the files.
- The results of the processing is uploaded to the lead-inbound-processed-results folder in the S3 bucket. This includes the status of successes and errors, as well as any error messages for each opportunity.
- These processed results are also archived in the opportunity-inbound-processed-results-archive folder.
- For more information, refer to the [the section called “Technical FAQ—leads and opportunities”](#).

6. **Response handling:**

- You must develop logic to consume these responses, review erroneous records, correct any errors, and resend the data to ACE.
- You can find sample errors in the FAQ and Troubleshooting sections.
- To upload a file to Amazon S3 from CRM:
 - Reference the version of the AWS signature.
 - Use an HTTPS request to upload the file.
- For reference, use the following files to upload a file to the S3 bucket:

- For authenticating an S3 bucket: [S3_Authentication.cls](#)
- For uploading files to an S3 bucket: [Sample_AceOutboundBatch.cls](#)
- **NOTE:** Files must not exceed 1 MB in size, and duplicate files won't be processed.

Field mapping

Field mapping is an essential step in the integration process where partners align their customer relationship management (CRM) system's fields with those defined by Amazon Web Services (AWS). This ensures that both parties accurately exchange and understand data. Below are guidelines to assist in this process.

Mandatory field mapping

- Map each mandatory field to its corresponding field in your CRM system. It's essential for successful data exchange when you ensure all required fields are mapped. For more information, refer to [the section called "Field definitions"](#)
 - [Opportunity](#)
 - [Lead](#)

Handling optional fields

- Understand the role of optional fields in the integration process. Decide if you want to map these fields based on your business requirements, and be aware of any possible implications from leaving them unmapped.

Value mapping

- Align each field value in your CRM with the required AWS Partner Network (APN) Customer Engagement (ACE) list value, as specified in [the section called "Field definitions"](#). This is important to maintain data consistency and integrity.

Data type and format validation

- Verify that the data types and formats of the fields in your CRM system align with those specified in the *AWS Field definitions*. It's essential to maintain consistency in data types and formats to prevent data corruption and ensure seamless integration.

Field length and limitations

- Notice field length restrictions and other limitations. Ensure that the data from your CRM system fits into the corresponding fields in AWS without being truncated or causing errors.

Data type and format validation

- Verify that the field data types and formats in your CRM system align with those specified in [the section called "Field definitions"](#). It's crucial to prevent data corruption and ensure seamless integration with consistency in data types and formats.

Periodic review and update

- Regularly review and update your field mappings to accommodate changes in your CRM system or AWS requirements. This proactive approach ensures ongoing data exchange accuracy and efficiency.

Field mapping documentation

- Maintain comprehensive field mapping documentation. This practice aids in troubleshooting, future updates, and ensuring clarity in how data is transferred between systems.

Testing and validation

- Conduct thorough field mappings testing to validate that data is being transferred and transformed accurately. Address any discrepancies or issues immediately to ensure data integrity.

Handling unwanted overwrites

- To prevent AWS data from overwriting specific CRM fields, consider the following:
 - Creating a custom CRM field for the data you want to protect.
 - Having this custom field reviewed by a sales representative.
 - Once the custom field is approved, adding it to the opportunity record and pipeline.
- This is particularly important for fields like MRR or Stage, especially if they signify that a product has launched.

Managing downstream dependencies

- If there are downstream dependencies in your system that rely on data exchange, consider the following:
 - Creating new fields in your CRM to accommodate the AWS data.
 - Realigning your business processes as necessary to ensure seamless integration and data flow.

Best practices

Use these best practices to optimize your custom integration development and maintenance.

General best practices

1. Map all *mandatory* fields because they are the required fields in the AWS Partner Network (APN) Customer Engagement (ACE) submission form.
2. Connect with your current ACE Pipeline Manager user to understand what the process looks like. Capture any unique processes/field uses, so you can build it into your experience.
3. Consider creating separate sales pipeline stages for Amazon Web Services (AWS)-reported sales stages (example: Stage, Target Close Date, Expected Monthly AWS revenue, Next Steps). If we have different stage definitions, we might override your sales stages. When you create separate sales stages, it allows you to manage your pipeline appropriately, but still have visibility into what AWS is projecting.
4. For partner referred opportunities, the ACE team must approve/reject them before we accept any updates.
5. For AWS referred opportunities, the partner must accept or reject the opportunities.

Data exchange protocols

1. **Input conventions:** Separate multi-select picklist entries with semicolons and omit spaces.
2. **Attention to detail:** Field names and values are case-sensitive, so maintain accuracy.
3. **Deletion procedures:** Execute field removal by transmitting the value `null` for the chosen field.
4. **Synchronization:** The synchronization processes operate on an hourly basis, causing potential delays in data reflections. Updates to AWS can take up to one hour to reflect in the AWS customer relationship management (CRM). Avoid sending multiple documents per hour.

Field-specific best practices

1. **Inbound modifications:** To protect the integrity of your data, disable modifications for fields such as `stage`, `closedDate`, and `closedLostReason`. To track AWS values without affecting your local Salesforce values, use these read-only fields: `awsStage`, `awsCloseDate`, and `awsClosedLostReason`.
2. **Customer mapping and validation:** Ensure customer website accuracy because it's pivotal for AWS CRM mapping. Pair it with the customer name for superior CRM account mapping.
3. **Project description clarity:** Furnish a clear description detailing customer challenges and solution alignments. AWS uses this to validate the opportunity.
4. **Provisioning:** (Optional) When you provision end-customer contact specifics, it enables AWS to retrace leads and campaigns. This leads to enhanced funding verdicts.

Additional best practices

1. Adhere to the latest payload field definition guidelines.
2. Maintain sandbox bucket naming consistency with the specified format.
3. Use the recommended naming pattern for the production bucket.
4. Prioritize sandbox environment testing before live deployment.
5. Maintain distinct identifiers for records between AWS and partner CRMs.
6. Post-processing, delete files in the outbound Amazon Simple Storage Service (Amazon S3) folder. Originals remain in the archives.
7. To prevent errors, set up field level validations at the source.

Quotas

Inbound file to Amazon Web Services (AWS)

Operation	Limit
Maximum opportunities	500 per file
Maximum file size	1 MB
Frequency of synchronization	Near real-time
Maximum number of submitted files	10,000 per 24-hour period

Outbound file to partner

Operation	Limit
Maximum file size	5 MB
Frequency of synchronization	Hourly

Version history

Current fields version: 14 (November 15, 2023)

The following table describes important changes to the custom integration fields for leads and opportunities after 2020. To be notified of future updates, subscribe to the RSS feed.

Change	Version	Date
Update S3 quotas	14	1/17/2024
Changes to integration opportunity fields:	14	11/15/2023

Change	Version	Date
<ol style="list-style-type: none"> 1. Update validation for the following fields: country, postalCode , partnerPrimaryNeedFromAws , projectDescription , campaignName , useCase, version, spmsId 2. Add a text area for the following fields: awsProducts , otherSolutionOffered , parentOppId , solutionOffered , primaryContactTitle , recommendedNextBestActions , offers, backwards CompatibilityChanges 3. Add new number field: customerDuns 4. Add new select and multiselect picklist fields: opportunityType , salesActivities , engagementScore , rejectionReason , cosellConvertReason 5. Deprecate fields: awsFieldEngagement , contractVehicle , 		

Change	Version	Date
<p>partnerPrimaryNeedFromAwsOther , isThisAPublicReference , isThisForMarketplace , leadSource , isNetNewBusinessForCompany , publicReferenceTitle , publicReferenceUrl , rfxSolicitationNumber , subUseCase</p>		
<p>Changes to integration opportunity fields:</p> <ol style="list-style-type: none"> 1. Update validation for the following fields: IsOppFromMarketingActivity , marketingActivityChannel , marketingActivityUseCase , awsSFCampaignName , isMarketingDevelopmentFunded 2. Add new fields: apnReviewerComments , acceptBy, apnCrmLeadUniqueIdentifier 3. Update FAQ 	13	03/29/2023

Change	Version	Date
<p>Changes to integration opportunity fields:</p> <ol style="list-style-type: none"> 1. Update descriptions for the following fields: aWSStage, aWSClosedate , aWSClosedLostReason 2. Update validation: isMarketingDevelopmentFunded 3. Add new fields: procurementType , customerSoftwareValue , contractStartDate , contractEndDate , customerSoftwareValueCurrency , IsOppFromMarketingActivity , marketingActivityChannel , marketingActivityUsecase , awsSFCampaignName <p>Changes to standard values on opportunity:</p> <ol style="list-style-type: none"> 1. Update standard values to align with Amazon Partner Network (APN) production: <ol style="list-style-type: none"> i. Remove the following picklist values from campaignName : <i>APN</i> 	12	09/01/2022

Change	Version	Date
<p><i>Marketing Central, AWS Field Event, Integrated Partner Campaign, Partner Led Event, Partner Prospecting, WWPS Marketing, Windows RMP, VMware Cloud</i></p> <p>ii. Add the following picklist values to campaignName : <i>ATO (Authority to Operate), ISV Immersion Day SFID Program, VMware Cloud on AWS, Windows</i></p> <p>2. Add new picklist fields: IsOppFromMarketing Activity , marketing ActivityChannel , marketingActivityU secase , ProcurementType , customerSoftwareValueCurrency</p>		

Change	Version	Date
<p>Changes to integration opportunity fields:</p> <ol style="list-style-type: none"> 1. Add new field: aWSClosedLostReason —type is text and length is 255 2. Provide context about "inbound" versus "outbound" and "not required" versus "optional" information <p>Changes to standard values on opportunity fields:</p> <ol style="list-style-type: none"> 1. Update standard values for the following fields to align with APN production: <ol style="list-style-type: none"> i. Rename industry/vertical <i>Oil & Gas</i> to <i>Energy—Oil & Gas</i>; rename <i>Power & Utilities</i> to <i>Energy—Power & Utilities</i> ii. Add country values: <i>Democratic Republic of the Congo</i>; <i>Iran, Islamic Republic of</i>; update <i>Bonaire, Sint Eustatius and Saba</i> to <i>Bonaire, Sint Eustatius, and Saba</i>; update <i>Saint Martin (French Part)</i> to <i>Saint Martin (French Part)</i> 	11	03/21/2022

Change	Version	Date
<p>Changes to integration opportunity fields:</p> <ol style="list-style-type: none"> 1. Update validation for the following fields: contractVehicle , isThisForMarketplace , isNetNewBusinessForCompany , deliveryModel , awsFieldEngagement , additionalComments 2. Add new field: rfxSolicitationNumber —type is text and length is 255 3. Delete field: partnerDeveloperManagerPhone <p>Changes to standard values on opportunity:</p> <ol style="list-style-type: none"> 1. Update standard values for the following fields to align with APN production: UseCase <i>Training</i>; Closedlostreason <i>Financial/Commercial</i> 2. Remove fields: isThisForResell , isManagedServicesIncluded 	10	01/26/2022

Change	Version	Date
<p>Changes to standard values on lead fields:</p> <ol style="list-style-type: none"> 1. Remove <i>Other</i> value for Industry Vertical <p>Changes to integration lead fields:</p> <ol style="list-style-type: none"> 1. Update city field length from 255 to 40 2. Update field name from Current Lead Stage to currentLeadStage 3. Update field name from Lead Source to leadSource 4. Update field name from Lead Age to leadAge 5. Update field name from Level of AWS Usage to levelofAWSUsage <p>Changes to integration opportunity fields:</p> <ol style="list-style-type: none"> 1. Update customerCompany name field length from 255 to 120 2. Update customerPhone field length from blank to 40 	9	9/16/2021

Change	Version	Date
3. Update expected Monthly AWS Revenue from <i>Currency (16,2)</i> to <i>Currency (18,0)</i>		
Update Closed Lost reason codes	8	6/24/2021

FAQs

Use these common questions and answers to assist in the custom integration.

Topics

- [General FAQ](#)
- [Technical FAQ—fields](#)
- [Technical FAQ—Amazon S3](#)
- [Technical FAQ—leads and opportunities](#)
- [Technical FAQ—versioning and backward compatibility](#)

General FAQ

How does the integration work?

Q: Can I access the Amazon Simple Storage Service (Amazon S3) bucket used for sending and receiving the files?

Yes. Partners can programmatically access the Amazon S3 bucket using the secret/access key of the AWS Identity and Access Management (IAM) that has access to the bucket. Partners won't have console access to the S3 buckets because these buckets are in Amazon Web Services (AWS)'s own account.

Q: What skill set does the partner's developer need?

The partner's developer needs to be familiar with their customer relationship management (CRM) system and Amazon S3.

Q: Do the sample code files include complete code or does the partner have to write the code?

The partner needs to write the code based on the provided sample code files.

Q: If the partner develops their solution in Python, Golang, or any other language, does AWS Partner Network (APN) Customer Engagement (ACE) provide any software development kit (SDK) in those languages for this integration?

No.

Q: What is the sync process from the Amazon S3 bucket to internal ACE?

Every hour, a batch process runs to pick up the files and synchronize information. Any update the AWS sales team makes on the record can take up to one hour to be sent to the partner's bucket. Partners may receive an email notification about updates immediately, but the updates from AWS may still be delayed by one hour.

Q: What is the frequency of lead and opportunity file uploads by ACE?

ACE sends the leads and opportunities data every one hour.

Q: Is there a sandbox environment for ACE?

Yes. We do have a sandbox environment for ACE, but we can't provide access to partners due to security reasons. Raise a support case on Partner Central if you want to have new opportunities or leads pushed into your bucket.

Q: How do we maintain identifiers across the partner's CRM and APN?

To provide more flexibility for our partners, we use two sets of identifiers in our system.

1. `apnCrmUniqueIdentifier`: AWS manages this identifier. It starts with OXXXXXX for opportunities and LXXXXXX for leads.
2. `PartnerCrmUniqueIdentifier/partnerCrmLeadId`: The partner manages this identifier on opportunities and leads, respectively, within their CRM. Partners should add this identifier while ingesting new opportunities to trace updates back to their CRM.

When an opportunity is sent without `apnCrmUniqueIdentifier` or `partnerCrmUniqueIdentifier`, AWS treats it as a new opportunity and assigns a new `apnCrmUniqueIdentifier` for the opportunity.

When an opportunity is sent with a `apnCrmUniqueIdentifier` or `partnerCrmUniqueIdentifier`, AWS treats it as an update action and updates the existing opportunity with the payload data.

Q: How do I prevent duplicate records from getting created in both systems?

From the partner CRM side, there must be a unique identifier for each record that's sent to ACE, which is called `partnerCrmUniqueIdentifier`. Similarly, ACE also maintains a unique identifier for each record, which is called `apnCrmUniqueIdentifier`. When the data is sent, both ACE and the partner have to include these two fields, which helps to identify if the record is a new opportunity (if blank) or an existing opportunity (if populated).

Technical FAQ—fields

Q: Does the integration support CSV format?

No. The integration accepts only JSON file formats.

Q: When do the files have to be deleted from outbound folders?

Delete the files only after you successfully process them.

Q: If I accidentally delete the files from outbound folders, where can I find the original files?

The files are available in the `opportunity-outbound-archive` and `lead-outbound-archive` folders.

Q: What do I do for support during development?

For assistance during development, reach out to AWS Partner Network (APN) support on Partner Central.

Q: What is the difference between `opportunityOwnerName` and `opportunityOwnerEmail`?

- `opportunityOwnerName`: The opportunity owner's name in the partner organization. This needs to be a Partner Central user.
- `opportunityOwnerEmail`: The opportunity owner's email in the partner organization. This needs to be a Partner Central user. If not provided, the opportunity is created with the Partner Central Alliance Lead as the owner.

Q: What's the time zone for all the date fields (`targetCloseDate`, `lastModifiedDate`, `createdDate`, and `acceptBy`)?

The time zone for the date fields is Greenwich Mean Time (GMT).

Q: Are the inbound JSON files versioned?

No. Amazon Web Services (AWS) doesn't support versioning of the files. APN Customer Engagement (ACE) processes the file immediately after receiving and then deletes the file after successful processing. If we receive the same file name again, it's rejected.

Q: What fields in the Amazon Simple Storage Service (Amazon S3) JSON file indicate the creation and latest update date of a particular lead and opportunity?

`createdDate` and `lastModifiedDate`.

Q: How do you determine if an opportunity is new or existing?

The field `PartnerCrmUniqueIdentifier` is a unique identifier on each opportunity that we require from the partner. This identifier must be defined in the source CRM of the partner's system. We use this to determine if an opportunity already exists in AWS. If the `PartnerCrmUniqueIdentifier` is available in AWS, we use the information shared to update the opportunity. If `PartnerCrmUniqueIdentifier` is not available in AWS, we use the information shared to create a new opportunity.

Similarly, when we send data to the partner, we include both `PartnerCrmUniqueIdentifier` and `apnCrmUniqueIdentifier`. If the opportunity shared by AWS is being sent for the first time, you won't see any value for `PartnerCrmUniqueIdentifier`. This helps you to treat the opportunity as new from ACE. Once you ingest it into your CRM, you send the updates back to us with both `PartnerCrmUniqueIdentifier` and `apnCrmUniqueIdentifier`.

Q: Is it possible to have more than one outbound and result JSON file in Amazon S3?

Yes. Sometimes we may generate more files in the outbound folder. Similarly, if you send files to the inbound folder, we process them and keep the results files in the result folder. You must tag/delete the result files after processing.

Q: Does the outbound file contain more than one record?

Yes. The outbound file can contain multiple records.

Q: If 20 inbound opportunities are sent in a single input JSON file under the opportunities section, and one of the opportunities doesn't comply with APN standard, what happens?

If the format is incorrect, regardless of the case, the entire file is rejected. If the format is correct but only one opportunity can't be processed on our end, the results file includes all 20 opportunities and their status, along with the error message for the failed opportunity.

Q: What are the key attributes to validate if the JSON file was processed successfully?

These are the key attributes to help you understand if the JSON file processed successfully.

```
{
  "inboundApiResults": [
    {
      "warnings": null, // no warnings
      "partnerCrmUniqueIdentifier": "XXXX", //uniqueId from Partner side
      "isSuccess": true, // file successfully processed
      "errors": null, //no errors reported
      "apnCrmUniqueIdentifier": "OXXXX" //uniqueId from AWS side
    }
  ]
}
```

Q: What happens if I send an invalid JSON?

You receive this error response: "[{input JSON}] is not of type object".

Q: How many lead/opportunity records can be included in a single inbound JSON file?

A maximum of 50 records can be in one file.

Technical FAQ—Amazon S3

Q: Where can I get the Amazon Simple Storage Service (Amazon S3) REST API documentation?

For more information, refer to the [Amazon S3 REST API Introduction](#).

Q: How do I get the Amazon Web Services AWS Key Management Service (AWS KMS) key details to authenticate to access the Amazon S3 bucket?

AWS Partner Network (APN) shares a policy that includes the key name.

Q: How do I authenticate Amazon S3 from Salesforce.com (SFDC)?

Use the sample code file [S3_Authentication.cls](#) to authenticate the S3 from SFDC.

Q: How do I upload the file from the AWS software development kit (SDK) to S3?

Use the following AWS CLI command to upload the file to S3.

```
aws s3 cp example.json s3://awsexamplebucket/opportunity- inbound/filename.json --acl bucket-owner-full-control
```

The sample code file [Sample_AceOutboundBatch.cls](#) contains code to upload the data file from SFDC.

Q: Who owns the Amazon S3 bucket?

AWS owns and manages the Amazon S3 bucket. You have programmatic access to your own S3 bucket with the AWS Identity and Access Management (IAM) user.

Q: Are there separate folders or buckets for receiving and sending files?

There is one bucket with different folders for receiving and sending the files. Refer to the user guide for further details on the folders.

Q: Do I need to access the S3 bucket using AWS Lambda, or can I access it directly using the customer relationship management (CRM) system?

You can access it both ways.

Q: Is the Amazon S3 bucket secured or encrypted?

Yes. We enable the default encryption mechanism that Amazon S3 offers.

Q: Is it possible to enable Amazon Simple Notification Service (Amazon SNS) listening to the S3 bucket, so I can only act on the event, instead of polling periodically?

No. Currently, APN Customer Engagement (ACE) doesn't support this feature.

Q: What folders do I have access to and what is the purpose of each folder?

You can find the list of S3 folders in [the section called "Setting up"](#).

Technical FAQ—leads and opportunities

Send and receive leads and opportunities

Q: Is there a file naming convention?

Each file name needs to be unique. We recommend the file name `PartnerProvided FileName +{timestamp}.json`.

Q: What's the structure of the results?

Sample files for the results (success and error) can be downloaded from the following locations:

- [Lead Results Success Sample.json](#)
- [Opportunity Results Success Sample.json](#)
- [Lead Results With Errors Sample.json](#)
- [Opportunity Results With Errors Sample.json](#)

Q: What's the naming convention of the results?

`PartnerProvidedFileName_result.json`

Q: What if I submit a second JSON file with the same name?

We won't process the file, and the file is moved to the archive folder.

Q: What is the inbound file size limit?

The inbound file size limit is 1MB.

Q: Is there a maximum number of opportunities and leads that can be batched into one JSON file?

Given the 1MB limit, we recommend you have one opportunity or lead per file.

Q: I'm getting an access denied error message, so I'm not able to upload the files. What should I do?

Partners receive an *Access denied* message for two reasons.

1. You uploaded the file into the outbound folder instead of the inbound folder. Upload the file into the inbound folder.
2. You need to provide a access control list (ACL). Use the following Amazon Web Services (AWS) CLI command for uploading the data file:

```
aws s3 cp example.json s3://awsexamplebucket --acl bucket-owner-full-control
```

Q: What happens if files with extensions such as .pdf, .docx, or anything other than .json are uploaded?

We reject the files and generate a *.error.json file with the reason details.

Q: What do I do after I receive a data issue error message in production?

1. If the data needs to be corrected in the partner's customer relationship management (CRM) system, after you correct the data, send the revised file to Amazon Simple Storage Service (Amazon S3).
2. If any clarifications are required for the data, reach out to your Partner Development Manager (PDM).
3. For any other technical support, raise an AWS Partner Network (APN) support case in the APN Portal.

Q: Where can I find the results files and how long are they available?

The results files are in the lead-inbound-results and opportunity-inbound-results folders. They're available until you delete them. You can delete the files after successful pull.

Q: If I need to find a results file after I delete it, where can we find it?

You can find the results files in the lead-inbound-results-archive/YYYY/MM/DD and opportunity-inbound-results-archive/YYYY/MM/DD folders.

Q: If there is any failure in APN processing the file, how am I notified?

APN has alarms that automatically create Sev2 tickets to track the processing errors. We review, resolve, and communicate these to partners.

Q: What fields can be updated after the opportunity is launched?

The following fields can be updated only by Independent Software Vendor (ISV) Accelerate Partners:

- isThisForMarketplace
- isNetNewBusinessForCompany
- deliveryModel

- `awsFieldEngagement`
- `additionalComments`

Q: I received a *Record not editable* error. What does it mean?

When you send a new partner referred opportunity, it goes through the validation process and the APN Customer Engagement (ACE) team must approve or reject it. While the opportunity is in review and has not yet been validated, you can't update the record, and you receive this error.

Q: What happens if there is no activity on my side (example: I'm not processing the file or not sending any inbound opportunity)?

If you don't send any information or aren't processing the files we provide, we currently don't have a mechanism in place to alert you. We encourage you to monitor your system to ensure the information is flowing to APN.

Q: How soon are the JSON results available in the results folder following the submission of a new/updated inbound opportunity/lead?

The processing is almost real time. You should receive the files in less than five minutes.

Q: If I send an inbound opportunity CRM that doesn't comply with the format/length restriction of the APN standard, how does the system handle it? Does it generate the error report?

If the file isn't in the field definition format, the result file from APN calls out the file.

Q: I don't have an AWS account ID at the time of launching. What do I do?

Per the ACE process, Launched means workload completed and billing started. This requires an AWS account ID. For more information, refer to the [ACE Program FAQs](#).

Q: Following User Acceptance Testing (UAT), how should the historical data be handled during the move to production?

By default, when any updates happen in ACE, we send those opportunities to the Amazon S3 bucket. For historical data that you don't want to process, you need to provide the `partnerCrmUniqueIdentifier` with dummy values such as `X0001`, `X0002`...`X000N` in the extract for what you don't want to process in your system. You need to write code to recognize these identifiers and process them accordingly. The rest of the opportunities provide the correct

`partnerCrmUniqueIdentifier` value. This ensures that you have full control on what to process and what not to process in your system.

Q: Does the outbound file contain more than one record?

Yes. The outbound file can contain more than one record.

Q: Why does the data send *Accept to view* for some fields?

For an AWS referred opportunity or lead, all PII fields are masked with the label *Accept to view* until the opportunity or lead is accepted by you. Once accepted, you receive all data fields in the next sync cycle.

Q: What do I do when a new AWS referred opportunity or lead is synced for the first time?

When a new opportunity or lead is synced for the first time, you need to accept or reject it to get additional data (example: customer contacts).

Creating and updating opportunities/leads

Q: How do I ingest new *Partner Referred (Originated)* opportunities into ACE through the integration?

To create new opportunities in ACE through the integration, you need to ingest the required opportunity information in the defined JSON format into the `opportunity-inbound` folder. AWS processes this information, creates a new opportunity in ACE, and shares results of a successful/failed create operation in the `opportunity-inbound-processed-results` folder.

Q: How does the integration differentiate between new opportunity submissions and updates?

The field `PartnerCrmUniqueIdentifier` on each opportunity is a required unique identifier required. This identifier must be defined in your system source CRM. AWS uses this to determine if an opportunity already exists in ACE. If it's available in ACE, we use the information shared to update the opportunity, but if it's not available in ACE, we use the information shared to create a new opportunity.

Q: If I've already implemented the update functionality through the integration, what do I need to do to use the integration to submit (create) new opportunities?

You need to make the following changes to the existing integration:

1. Start ingesting new opportunities for creation in the opportunity-inbound folder. Provide updates in the same folder.
2. Ensure that the mandatory fields required to create are available in the Opportunity JSON shared.
3. Verify each new opportunity has a unique `PartnerCrmUniqueIdentifier` that doesn't exist in ACE/Partner Central. An important go-live best practice is to map and update the existing data in ACE to each `PartnerCrmUniqueIdentifier` in your CRM so we don't create duplicates when we receive updates. For assistance, contact ACE.

Q: As part of the go-live process, how do I update existing opportunities in ACE with my `PartnerCrmUniqueIdentifier`?

The ACE team supplies you with a list of all open opportunities to aid in preparation for the production launch. You must map these existing opportunities in ACE to their respective `PartnerCrmUniqueIdentifier`, and return the updated file to ACE for integration into AWS's CRM.

If you choose to sync only a subset of the opportunities AWS provides, you must develop logic to bypass AWS updates for any opportunities you don't want to process. This approach should also be applied to future opportunities, post-onboarding. You must supply the associated `partnerCrmUniqueIdentifier` for opportunities that need alignment across both CRMs. Additionally, you should indicate which opportunities you won't be updating (example: Marking closed-lost or closed-won opportunities) to exclude them from updates. It's important that all open/active opportunities that AWS shares, and you accept, are assigned a `partnerCrmUniqueIdentifier`.

Q: Can I update only specific fields in the opportunity or lead?

Yes. You can provide only the fields that require updates, along with the necessary identifiers.

Q: Is it possible to change the `ApnCrmUniqueIdentifier`?

No. This identifier remains constant for AWS and uniquely identifies each opportunity.

Q: What if I provide an incorrect `partnerCrmUniqueIdentifier`?

If you provide an incorrect identifier, a new opportunity is created. Ensure accuracy to avoid data duplication.

Q: Can I update opportunities that AWS submitted?

Yes. You can update opportunities AWS submitted using the correct `partnerCrmUniqueIdentifier`.

Q: How soon can I expect results for submitted opportunities?

The processing is almost real time, and results are usually available within a few minutes in the `opportunity-inbound-processed-results` folder.

Q: What should I do if there are processing errors for opportunities submitted?

Review error details in the results files, address issues, and seek further assistance from the ACE support team.

Q: Can I delete an opportunity through the integration?

No. Direct deletion is not supported. You can update an opportunity to reflect a *Closed* status.

Q: What does the *Record not editable* error mean?

This error occurs if you try to update an opportunity in ACE review. These opportunities can't be edited until validated.

Q: What if don't send updates or new opportunities?

No new data is received and processed if you don't send updates or new opportunities through the integration.

Q: How long are the results files available?

Results files are available for a reasonable duration. You should retrieve and manage them promptly.

Technical FAQ—versioning and backward compatibility

Q: What is a payload in Amazon Web Services (AWS) data exchange?

A payload is a structured piece of data formatted in JSON, sent either inbound to AWS or outbound from AWS. Each key in this JSON structure is referred to as a *field*, and each field has an associated *value*.

Q: How is the payload version determined?

Payload version is specified within the `version` field of the payload itself. Payloads adhering to field definition v13 are considered Payload Version 1.0, while those following the format defined in field definition v14 or higher are referred to as Payload Version 2.0.

Q: What does backward compatibility mean in this context, and how is it handled?

Backward compatibility ensures that existing opportunities don't fail when new and mandatory fields are introduced in newer payload versions. AWS maintains this by auto-assigning default values to fields required in the new version. You might notice values in the AWS Partner Network (APN) Customer Engagement (ACE) UI that you did not explicitly provide through the Customer Relationship Management (CRM) Integration. Details and conditions for each field are explained in the field description or additional details about the field.

Q: Is backward compatibility a permanent feature?

No. Backward compatibility is time-bound, designed to provide flexibility for you to plan and implement upcoming changes. It stops working beyond a specified cut-off date, which will be announced later in the year as part of a wider launch.

Q: What happens when I start sending payloads with version 2.0?

Once you send a payload with version 2.0, the system assumes that all necessary changes have been implemented, and validations for the new payload version apply to all subsequent changes. It's essential that you don't implement features partially between version 1.0 and version 2.0 payloads.

Q: Can I revert back to payload version 1.0 after updating to version 2.0?

No. Transitioning to payload version 2.0 is a one-way process. Once you update to version 2.0, you can't revert back to version 1.0 of the payload.