AWS integration for Alchemer workflow

Overview

Amazon Web Services (AWS) is a comprehensive cloud platform that provides a wide range of services, including serverless compute, storage, and data processing capabilities. Organizations use AWS to run applications, store and manage data, integrate systems, and automate workflows without the need to provision or maintain infrastructure.

The Alchemer integration with AWS enables organizations to securely send survey and workflow data to AWS services such as AWS Lambda and Amazon S3. This allows teams to execute custom business logic through Lambda functions, store and transfer files in S3, and seamlessly connect with other systems. By automating data processing, triggering downstream workflows, enriching decision logic, and centralizing file storage, this integration helps streamline operations, reduce manual effort, and improve the scalability and reliability of business processes.

Common uses for the Alchemer AWS integration

- Push survey-generated files (CSV, JSON, attachments, or PDFs) to AWS Lambda to run custom processing logic such as validation, normalization, encryption, or format conversion.
- Send Review Action PDFs to Lambda for automated downstream workflows, including approval routing, status updates, or triggering follow-up actions in external systems.
- Push uploaded files directly into a private S3 bucket.
- Send workflow field data to any AWS endpoint via an outbound webhook to trigger custom processing or downstream automation.
- Send a file from an Alchemer survey to an AWS endpoint for storage or further processing.
- Send a Review Action PDF to an AWS endpoint for downstream processing or storage.
- Retrieve a customer's profile from Amazon Connect Customer Profiles using a customer profile ID captured in a workflow, to personalize communications or trigger downstream actions.

What can the Alchemer AWS integration do?

- Push file to Lambda
- Push Review Action PDF to Lambda
- Push file to S3
- Push data to AWS
- Push file to AWS
- Push Review Action PDF to AWS
- Get customer profile in Amazon Connect Customer
- Start workflow for each row in a CSV file in S3

You will need

- AWS Cognito OAuth 2.0 credentials for 'Push data to AWS', 'Push file to AWS', and 'Push Review Action PDF to AWS'
- AWS IAM credentials (access key and secret key) for 'Push file to AWS S3', 'Get customer profile in Amazon Connect Customer', and 'Start workflow for each row in a CSV file in S3'. The 'Push file to AWS S3' action signs its requests with AWS Signature Version 4.
- AWS Lambda basic authentication credentials for 'Push file to Lambda' and 'Push Review Action PDF to Lambda'
- Alchemer API credentials for 'Push file to AWS' and 'Push file to Lambda'
- To set up Cognito OAuth 2.0 or IAM credentials, see AWS Authentication.
- An Alchemer plan that includes integrations and the Integration Manager permission enabled.
    - Contact us if you are unsure if your plan includes integrations.

Setup Alchemer AWS integration in workflow

AWS | Push file to Lambda

Your browser does not support HTML5 video.

You will need:

- AWS Lambda basic authentication credentials
- Your webhook URL

To learn about anti-virus scanning at upload and file upload security, see File Upload Question.

Configure the action

1. Open your workflow in **Workflow builder**.
2. On the right side, drag and drop the AWS connection where you want the action to trigger.
3. In the connection box, click the pencil icon in the top right corner.
4. Select **AWS | Push file to Lambda**.
5. **AWS | Alchemer API Credentials:** Provide your Alchemer API key, secret, and datacenter.
6. **AWS | File to push:** Select the field in this workflow that contains the file you want to push. Please choose only one.
7. **AWS | Webhook setup:** Enter your AWS endpoint.

8. Save the action.

Status codes

- 200: Outbound webhook was successfully sent
- 400: The external integration returned an error

AWS | Push Review Action PDF to Lambda

You will need:

- AWS Lambda basic authentication credentials
- Review action field value HVA & an HVA containing the name for the file

Configure the survey

Your browser does not support HTML5 video.

Create new or open an existing survey.

1. Add your questions to the survey.
2. Create a new page, click action and click to add the "Review" action.
3. Create another page after the review action to store the data in new Hidden Value Actions.
    - One Hidden Value Action to capture the merge code from the review action.
    - One Hidden Value Action to capture a name to be used for the file sent to Lambda. It is recommended to use the [survey("session id")] merge code as it will always provide a unique value.

Configure the action

Your browser does not support HTML5 video.

1. Open your workflow in **Workflow builder**.
2. On the right side, drag and drop the AWS connection where you want the action to trigger.
3. In the connection box, click the pencil icon in the top right corner.
4. Select **AWS | Push Review Action PDF to Lambda.**
5. **AWS | Select Datacenter:** Select your Alchemer Datacenter.
6. **AWS | PDF to push:** Select the fields in this workflow that contain the name of your Review Action PDF and the HVA where you are storing the Review Action PDF. See video above for instructions.

7. **AWS | URL Endpoint**: Enter your AWS endpoint that you would like to send this PDF to.

8. Save the action.

Status codes

- 200: Outbound webhook was successfully sent
- 400: The external integration returned an error

AWS | Push file to AWS S3

Your browser does not support HTML5 video.

You will need:

- AWS IAM credentials
- Field in this workflow that contains a URL to use to push to S3

To learn about anti-virus scanning at upload and file upload security, see File Upload Question.

Configure the action

1. Open your workflow in **Workflow builder**.

2. On the right side, drag and drop the AWS connection where you want the action to trigger.

3. In the connection box, click the pencil icon in the top right corner.

4. Select **AWS | Push file to AWS S3.**

5. **AWS | Authentication:** Select an existing or create a new authentication with your IAM key and secret. This action authenticates to S3 using AWS Signature Version 4 request signing. Provide the name of the bucket where you wish to send the file.

   Note: Only include the bucket name, do not include s3:// or any folder pathing here. Pathing will be defined in the File name. If your bucket is **alchemer-s3-bucket**, this is what you will enter in this field.

6. **AWS | Select URL:** Select the field in this workflow that contains the URL you would like to push to S3. Alchemer generates a short-lived, secure download link and uses it only within the integration to transfer the file. The link is never exposed to respondents or users, so your bucket can remain private.

7. **AWS | File name**: You can set a file name, this is optional. The current UNIX timestamp will be used if no file name is set.

   Note: If your folder path and permissions are defined for **my_folder_1**, your file name should be

my_folder_1/myfile.csv. Do not include an initial forward slash.

8. Save the action.

Status codes

- 200: Successfully pushed file
- 400: The external integration returned an error

AWS | Push data to AWS

Send an outbound webhook to an AWS endpoint from an Alchemer workflow. Use this action to send selected workflow field values to any AWS endpoint to trigger custom processing or downstream automation.

You will need:

- AWS Cognito OAuth 2.0 credentials
- Your webhook URL
- The fields you want to send to AWS

Configure the action

1. Open your workflow in **Workflow builder**.
2. On the right side, drag and drop the AWS connection where you want the action to trigger.
3. In the connection box, click the pencil icon in the top right corner.
4. Select **AWS | Push data to AWS.**
5. **AWS | Authentication:** Select an existing or create a new authentication to connect to AWS using Cognito OAuth 2.0.
6. **AWS | Fields to push:** Select the fields in this workflow that contain the values you want to use in your webhook. Add a mapping for each field you want to include.
7. **AWS | Webhook setup:** Set your webhook delivery settings.
    - Select the **Method** (POST).
    - Optionally add any **Custom headers**.
    - Enter your AWS **URL Endpoint**.
    - Select the **Body type** (JSON) and construct your body.
    - Optionally insert field parameter codes into the webhook URL and body. These codes are automatically replaced with the corresponding workflow field values when the workflow runs.
8. Save the action.

Status codes

- 200: Outbound webhook was successfully sent
- 400: The external integration returned an error

Setting up your AWS endpoint

The Push data to AWS action sends data as a JSON POST to an AWS endpoint that you create and control. A common pattern is:

- Create the endpoint in Amazon API Gateway.
- Protect the endpoint with a Cognito user pool authorizer. Use the same user pool you set up for Alchemer, and accept the alchemer/read and alchemer/write scopes described in AWS Authentication.
- From API Gateway, route requests directly to Amazon SQS (see Integrate Amazon API Gateway with Amazon SQS), to an AWS Lambda function, or to other AWS services. From there, data can flow on to downstream services such as Amazon Connect Customer.
- Enter the endpoint's invoke URL as the AWS URL Endpoint in the AWS | Webhook setup step.

AWS | Push file to AWS

Send a file from an Alchemer survey to an AWS endpoint in an Alchemer workflow.

You will need:

- AWS Cognito OAuth 2.0 credentials
- Your Alchemer API credentials
- Your webhook URL
- The file you want to send from a survey

To learn about anti-virus scanning at upload and file upload security, see File Upload Question.

Configure the action

1. Open your workflow in **Workflow builder**.
2. On the right side, drag and drop the AWS connection where you want the action to trigger.
3. In the connection box, click the pencil icon in the top right corner.
4. Select **AWS | Push file to AWS**.
5. **AWS | Authentication:** Select an existing or create a new authentication to connect to AWS using Cognito OAuth 2.0.
6. **AWS | Alchemer API credentials:** Provide your Alchemer API key, secret, and datacenter.
7. **AWS | Webhook setup:** Enter your AWS URL endpoint.

8. **AWS | File to push:** Select the field in this workflow that contains the file you want to push. Please choose only one.

9. **AWS | Unique identifier:** Select a question to use as your unique identifier. It is recommended to use a Hidden Value Action that stores the [survey("session id")] merge code of the respondent, as it will always provide a unique value.

10. Save the action.

Status codes

- 200: Outbound webhook was successfully sent
- 400: The external integration returned an error

AWS | Push Review Action PDF to AWS

Push a Review Action PDF to an AWS endpoint from an Alchemer workflow.

You will need:

- AWS Cognito OAuth 2.0 credentials
- A Review action added to your survey with 'Create a link to the PDF' enabled
- The PDF Link, PDF Session ID, and PDF Name merge codes stored in Hidden Value Actions
- Your webhook URL

Configure the survey

Create new or open an existing survey.

1. Add your questions to the survey.

2. Create a new page, click action, and add the "Review" action. Enable **Create a link to the PDF**.

3. Create another page after the review action to store the data in new Hidden Value Actions.
    - One Hidden Value Action each to capture the **PDF Link**, **PDF Session ID**, and **PDF Name** merge codes from the review action.
    - It is recommended to use the [survey("session id")] merge code as it will always provide a unique value.

Configure the action

1. Open your workflow in **Workflow builder**.

2. On the right side, drag and drop the AWS connection where you want the action to trigger.

3. In the connection box, click the pencil icon in the top right corner.

4. Select **AWS | Push Review Action PDF to AWS**.

5. **AWS | Authentication:** Select an existing or create a new authentication to connect to AWS using Cognito OAuth 2.0.

6. **AWS | PDF to push:** Select the fields in this workflow that contain your Review Action PDF details — the PDF Link, PDF Session ID, and PDF Name — and map each to the corresponding PDF field.

7. **AWS | URL Endpoint:** Enter your AWS endpoint that you would like to send this PDF to.

8. Save the action.

Status codes

- 200: Outbound webhook was successfully sent
- 400: The external integration returned an error

Amazon Connect Customer | Get customer profile

Your browser does not support HTML5 video.

Retrieve a customer's profile from Amazon Connect Customer Profiles using a customer profile ID (ARN) captured in your workflow.

You will need:

- IAM User with read permissions for Profiles
- User access key
- User secret key
- Region of Domain for Amazon Connect Customer
- Domain name
- Field in this workflow with a customer profile ID/customer_id (ARN)

Configure the action

1. Open your workflow in **Workflow builder**.

2. On the right side, drag and drop the AWS connection where you want the action to trigger.

3. In the connection box, click the pencil icon in the top right corner.

4. Select **AWS Connect | Get customer profile**.

5. **AWS | Authenticate with AWS:** Select an existing or create a new AWS Token authentication using your IAM user's access key and secret key, along with the region and domain name for

Amazon Connect Customer.

6. **AWS | Customer profile field:** Select the field in this workflow that contains the customer_id (ARN) or customer profile ID, then confirm the selection.

7. **AWS | Fields to return:** Select the fields you would like returned from the customer profile and map each one to a field in this workflow, then confirm the selection.

8. Save the action.

Status codes

- 200: Customer profile was successfully retrieved
- 400: AWS returned an error

AWS | Start workflow for each row in a CSV file in S3

Start an Alchemer workflow for each row in a CSV file pulled from an AWS S3 bucket. This is a workflow initiator: instead of being added as an action inside a workflow, it triggers a workflow run on a schedule, once per row in your CSV file.

You will need:

- AWS S3 (IAM) credentials
- Your CSV files located in an AWS S3 bucket
- Separate source and processed prefix (folder) locations in the bucket

Configure the initiator

1. In Alchemer, create a new workflow.

2. When the initiator selection box appears, select **AWS**.

3. Select **Start workflow for each row in a CSV file in S3** .

4. **AWS | Authentication:** Select an existing or create a new authentication with your AWS S3 (IAM) credentials.

5. **AWS | Source prefix:** Enter the directory prefix where your source CSV files are located (for example, **source/**). All CSV files in this directory are processed during scheduled runs.

6. **AWS | Processed prefix:** Enter a separate directory prefix where CSV files are moved once they are processed (for example, **processed/**). Files are copied here after a run and then deleted from the source directory.

7. **AWS | Column headers:** Enter a comma-separated list of the headers in your CSV file (for example, **name,email,location**).

8. **AWS | Schedule for runs:** Set how frequently to pull the CSV files from the bucket by choosing the **Interval**, **Time unit**, and the **Start running on** and **Stop running by** dates. Runs occur at the chosen interval, at the same time of day as the start time, in your local time zone.

9. Save the initiator.

Next steps

- Ensure your CSV files are uploaded to the S3 source directory before each scheduled run.
- Ensure there are no other files in the source directory that you do not want processed. All files in the source directory are processed on each scheduled run.

Monitoring

- Monitor initiator runs from the **Monitor** tab.

Trusted IP Configuration

If your AWS S3 bucket requires Trusted IP access, add the following IPs to your allowed IP ranges based on your datacenter region:

US

- 52.26.59.155/32
- 52.8.7.130/32
- 52.40.200.248/32
- 52.39.10.61/32
- 18.144.153.142/32

EU

- 108.129.66.83/32
- 54.73.116.155/32
- 63.33.233.130/32
- 34.240.67.242/32
- 52.214.96.183/32
- 34.248.20.218/32

Australia / Pacific

- 3.105.252.6/32
- 54.79.191.214/32
- 3.24.148.13/32
- 13.238.151.247/32

- 52.63.118.146/32
- 13.238.47.241/32

For the latest list, refer to Tray's Public IPs documentation.

Testing and Validation

How to test

- Trigger the workflow and monitor individual runs in monitor tab in your workflow
  - Click on individual workflow runs to see metadata outputs
- Confirm the expected update or retrieval occurs in AWS.
- Use metadata for verification and debugging.

How to verify results

- Check the impacted record in AWS.
- Ensure retrieved or updated values match expectations.

Monitoring Integration Activity

Where to find logs

- Go to **Results → Monitor**
- Select a the integration step you want to inspect.

What logs display

- Input/Output

Troubleshooting

Authentication issues

- Incorrect or expired credentials
- Missing permissions in AWS Lambda or IAM

Lookup failures

- Invalid identifier values
- No matching records

Mapping errors

- Unsupported or invalid fields
- Incorrect formatting

API errors

- Validation issues
- Endpoint restrictions

FAQs

What permissions do I need?
Integration Manager in Alchemer and API permissions in AWS Lambda or IAM.
When does the integration run?
When the workflow triggers and reaches the integration step.
Can I use multiple AWS actions in one workflow?
Yes. Actions can work independently or together.
Why isn't my data updating?
Check the Action Log for lookup issues, mapping problems, or API errors.
What if I need additional functionality?
Contact Alchemer Support for enhancement requests.

Related Articles