

Coding a Lambda Workflow Coordinator



Thomas Compagno

VP OF TECHNOLOGY

@tomcompagno www.linkedin.com/in/tomcompagno



Overview



Discuss the flow of our Lambda function

Build the function in the console

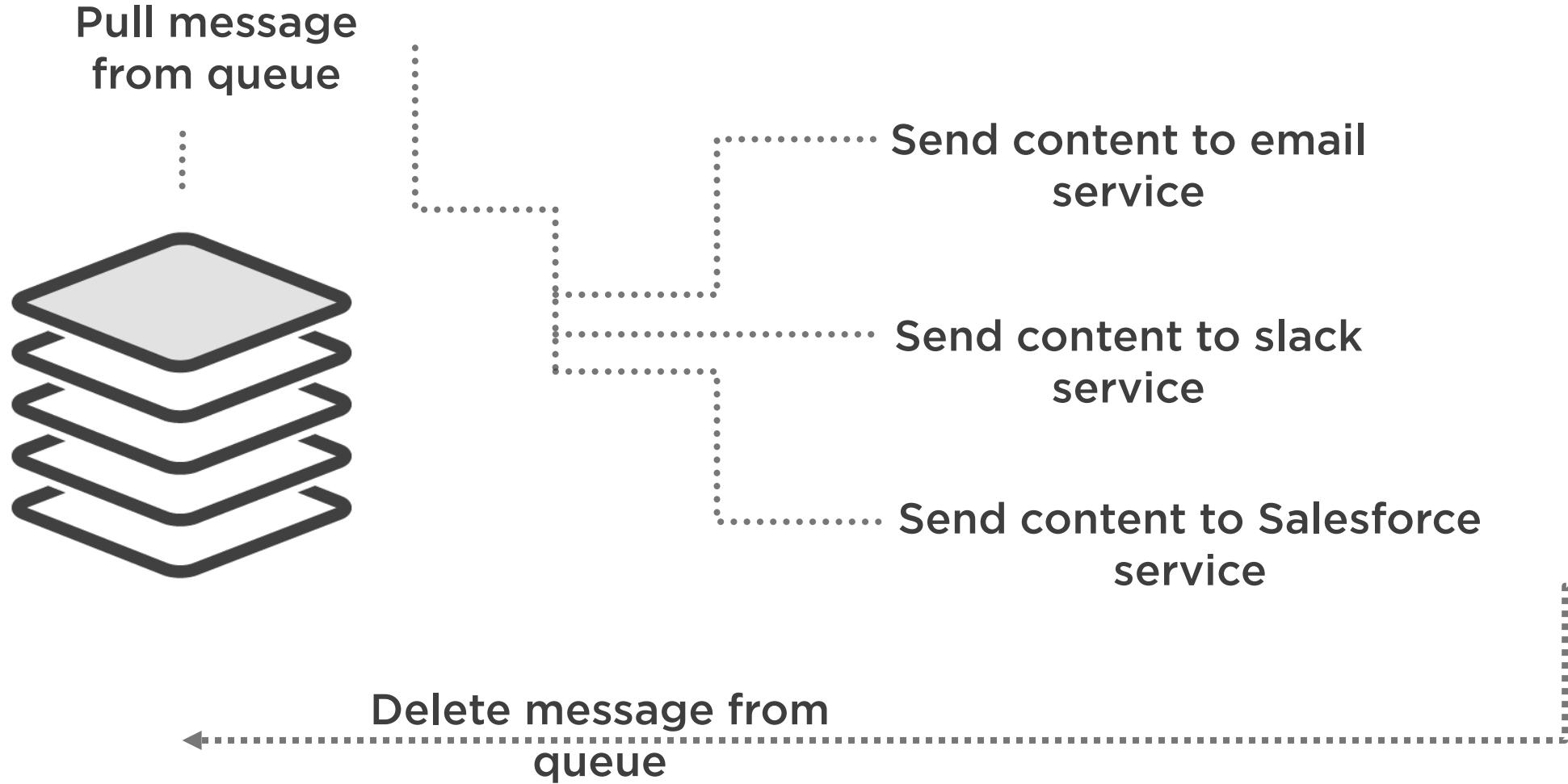
Lambda permissions

Use CLI tools to update code

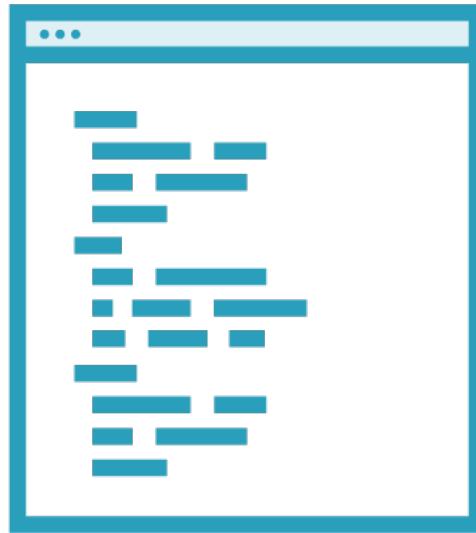
Discuss next steps



Lambda Function Workflow



Primary Amazon Service



Lambda
On demand function executor



Demo



JavaScript code walkthrough
Lambda function configuration
Provide lambda role with SQS permissions



```
const https = require('https');

const AWS = require('aws-sdk');

const SQS = new AWS.SQS({ apiVersion: '2012-11-05' });

const QUEUE_URL = process.env.queue_url;
```

Key Libraries and Environment Variables

Required external libraries for running code



Sample Send to Service Function

```
function sendSFDC(event,cb3) {  
  
var request = requests[0];  
const req = https.request(request.options, (res) => {  
    let body = '';  
    res.setEncoding('utf8');  
    res.on('data', (chunk) => body += chunk);  
    res.on('end', () => {  
        cb3(true);  
    });  
}).on('error', function(e) {  
    cb3(false);  
});  
req.write(JSON.stringify(event));  
req.end();    }
```



```
const requests = [  
  {  
    "name": "sfdc",  
    "options": {  
      hostname:  
process.env.gateway_url,  
      port: 443,  
      path: '/dev/sfdc-lead',  
      method: 'POST'  
    }  
  }  
]
```

- ◀ Array of options for each service call
- ◀ Name for clarity
- ◀ Options hold information for connecting to our API service endpoints
- ◀ Sample is to our Salesforce endpoint path



```
const params = {  
    QueueUrl: QUEUE_URL,  
    MaxNumberOfMessages: 1,  
    VisibilityTimeout: 10,  
};
```

Connection Options for SQS

Url and message parameters



Pop Message from Queue

```
SQS.receiveMessage(params, (err, data) => {
  if (err) {
    return cb4(false, err);
} else {
  if (data.Messages) {
    var message = data.Messages[0];
    var body = message.Body;
    cb4(true, JSON.parse(body), message.ReceiptHandle);
```



Primary Handler Code

```
loadMessage(function (result, payload, handle) {  
  if (result){  
    sendSFDC(payload, function(result1){  
      sendSlack(payload, function(result2){  
        sendEmail(payload, function(result3){  
          removeMessage(handle, function(){  
            callback(null, {messages: "sent  
message."});  
          }  
        }  
      }  
    }  
  }  
}
```



AWS Management Console

Secure https://us-west-2.console.aws.amazon.com/console/home?region=us-west-2# Tom

Services Resource Groups

Bell Tom Compagno Oregon Support

AWS services

Find a service by name (for example, EC2, S3, Elastic Beanstalk).

Recently visited services

-  IAM
-  SQS
-  Lambda
-  CloudWatch
-  Elastic Beanstalk

All services

Featured next steps



Manage your costs

Get real-time billing alerts based on your cost and usage budgets. [Start now](#)



Get best practices

Use AWS Trusted Advisor for security, performance, cost and availability best practices. [Start now](#)

Build a solution

Get started with simple wizards and automated workflows.

-  [Launch a virtual machine](#)
With EC2
~1 minute
-  [Build a web app](#)
With Elastic Beanstalk
~6 minutes
-  [Deploy a serverless microservice](#)
With Lambda, API Gateway
~2 minutes
-  [Host a static website](#)
With S3, CloudFront, Route 53
~5 minutes
-  [Create a backend for your mobile app](#)
With Mobile Hub
~5 minutes
-  [Register a domain](#)
With Route 53
~3 minutes

What's new?

Announcing AWS Batch

Now generally available, AWS Batch enables developers, scientists, and engineers to process large-scale batch jobs with ease. [Learn more](#)

Announcing Amazon Lightsail

See how this new service allows you to launch and manage your VPS with AWS for a low, predictable price. [Learn more](#)

[See all](#)

AWS Management Console - Tom Compagno

Secure https://us-west-2.console.aws.amazon.com/console/home?region=us-west-2#

Services ▾ Resource Groups ▾

History

Search services

Group A-Z

Compute

- EC2
- EC2 Container Service
- Lightsail ↗
- Elastic Beanstalk
- Lambda
- Batch

Storage

- S3
- EFS
- Glacier
- Storage Gateway

Database

- RDS
- DynamoDB
- ElastiCache
- Redshift

Migration

- Application Discovery Service
- DMS
- Server Migration
- Snowball

Developer Tools

- CodeCommit
- CodeBuild
- CodeDeploy
- CodePipeline
- X-Ray

Management Tools

- CloudWatch
- CloudFormation
- CloudTrail
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- Service Catalog

Security, Identity & Compliance

- IAM
- Inspector
- Certificate Manager
- Directory Service
- WAF & Shield
- Compliance Reports

Analytics

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- EMR
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- Elasticsearch Service
- Kinesis
- Data Pipeline
- QuickSight ↗

Artificial Intelligence

- Lex
- Polly

Mobile Services

- Mobile Hub
- Cognito
- Device Farm
- Mobile Analytics
- Pinpoint

Application Services

- Step Functions
- SWF
- API Gateway
- Elastic Transcoder

Messaging

- SQS
- SNS
- SES

Business Productivity

- WorkDocs

Lambda Management Console X Tom

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AWS Lambda

Dashboard Functions

Create a Lambda function Actions

Lambda > Functions

Filter

	Function name	Description	Runtime	Code size	Last Modified
<input type="radio"/>	sendEmail	send email to form email account	Python 2.7	567 bytes	14 days ago
<input type="radio"/>	processMessages		Python 2.7	759 bytes	2 months ago
<input type="radio"/>	processForm		Python 2.7	532 bytes	2 months ago

Feedback English

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Lambda Management Console X Tom

Secure https://us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/create/select-blueprint

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Lambda > New function

Select blueprint

Configure triggers

Configure function

Review

Select blueprint

Blueprints are sample configurations of event sources and Lambda functions. Choose a blueprint that best aligns with your desired scenario and customize as needed, or skip this step if you want to author a Lambda function and configure an event source separately. Except where otherwise noted, blueprints are licensed under CC0.

Select runtime Filter Viewing 1-9 of 78

Blank Function Configure your function from scratch. Define the trigger and deploy your code by stepping through our wizard. custom	kinesis-firehose-syslog-to-json An Amazon Kinesis Firehose stream processor that converts input records from RFC3164 Syslog format to JSON. nodejs · kinesis-firehose Download	alexa-skill-kit-sdk-factskill Demonstrate a basic fact skill built with the ASK NodeJS SDK nodejs · alexa Download
kinesis-firehose-apachelog-to-... An Amazon Kinesis Firehose stream processor that converts input records from Apache Common Log format to python2.7 · kinesis-firehose Download	cloudfront-modify-response-h... Blueprint for modifying CloudFront response header implemented in NodeJS. nodejs · cloudfront · response header Download	s3-get-object-python An Amazon S3 trigger that retrieves metadata for the object that has been updated. python2.7 · s3 Download
config-rule-change-triggered	lex-book-trip-python	dynamodb-process-stream



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Lambda > New function

Select blueprint

Configure triggers

Configure function

Review

Configure triggers

You can choose to add a trigger that will invoke your function.



Remove

Cancel

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Lambda Management Console X Tom

Secure https://us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/create/configure-function

Services Resource Groups Tom Compagno Oregon Support

Lambda > New function

Select blueprint

Configure triggers

Configure function

Review

Configure function

A Lambda function consists of the custom code you want to execute. [Learn more](#) about Lambda functions.

Name* myFunctionName

Description

Runtime* Node.js 4.3

Lambda function code

Provide the code for your function. Use the editor if your code does not require custom libraries (other than the aws-sdk). If you need custom libraries, you can upload your code and libraries as a .ZIP file. [Learn more](#) about deploying Lambda functions.

Code entry type Edit code inline

```
1 exports.handler = (event, context, callback) => {
2     // TODO implement
3     callback(null, 'Hello from Lambda');
4 };
```

Lambda Management Console X Tom

Secure https://us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/create/configure-function

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Lambda > New function

Select blueprint Configure triggers Configure function Review

Configure function

A Lambda function consists of the custom code you want to execute. [Learn more](#) about Lambda functions.

Name* coordinateWork

Description pull from sqs and send data to services

Runtime* Node.js 4.3

Lambda function code

Provide the code for your function. Use the editor if your code does not require custom libraries (other than the aws-sdk). If you need custom libraries, you can upload your code and libraries as a .ZIP file. [Learn more](#) about deploying Lambda functions.

Code entry type Edit code inline

```
1 - exports.handler = (event, context, callback) => {
2     // TODO implement
3     callback(null, 'Hello from Lambda');
4 };
```

Code entry type

Edit code inline

```
150  */
151  exports.handler = (event, context, callback) => {
152
153    loadMessage(function (result, payload, handle) {
154      if (result){
155
156        sendSFDC(payload, function(result1){
157
158          sendSlack(payload, function(result2){
159
160            sendEmail(payload, function(result3){
161
162              removeMessage(handle, function(){
163                callback(null, {messages: "sent message."});
164              });
165            });
166          }); //call the next url to fetch
167        );
168      } else {
169        console.log(payload);
170      }
171    );
172
173
174  };
175
```



You can define Environment Variables as key-value pairs that are accessible from your function code. These are useful to store configuration settings without the need to change function code. [Learn more](#). For storing sensitive information, we recommend encrypting values using KMS.

You can define Environment Variables as key-value pairs that are accessible from your function code. These are useful to store configuration settings without the need to change function code. [Learn more](#). For storing sensitive information, we recommend encrypting values using KMS and the console's encryption helpers.

Enable encryption helpers

Environment variables

gateway_url	x
-------------	---

queue_url	x
-----------	---

Key	x
-----	---

sn [REDACTED]	x
---------------	---

placeholder	x
-------------	---

Value	x
-------	---

Lambda function handler and role

Handler* index.handler i

Role* Choose an existing role i

Existing role* service-role/lambdaExecutionRole i

» Advanced settings

* These fields are required.

[Cancel](#)

[Previous](#)

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Timeout* 0 min 3 sec

AWS Lambda will automatically retry failed executions for asynchronous invocations. You can additionally optionally configure Lambda to forward payloads that were not processed to a dead-letter queue (DLQ), such as an SQS queue or an SNS topic. Learn more about Lambda's [retry policy](#) and [DLQs](#). Please ensure your role has appropriate permissions to access the DLQ resource.

DLQ Resource

Select resource



All AWS Lambda functions run securely inside a default system-managed VPC. However, you can optionally configure Lambda to access resources, such as databases, within your custom VPC. Learn more about accessing VPCs within Lambda. Please ensure your role has appropriate permissions to configure VPC.

VPC

No VPC



Environment variables are encrypted at rest using a default Lambda service key. You can change the key below to one of your account's keys or paste in a full KMS key ARN.

KMS key

(default) aws/lambda



* These fields are required.

Cancel

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Next

Timeout* 0 min 10 sec

AWS Lambda will automatically retry failed executions for asynchronous invocations. You can additionally optionally configure Lambda to forward payloads that were not processed to a dead-letter queue (DLQ), such as an SQS queue or an SNS topic. Learn more about Lambda's [retry policy](#) and [DLQs](#). Please ensure your role has appropriate permissions to access the DLQ resource.

DLQ Resource

Select resource



All AWS Lambda functions run securely inside a default system-managed VPC. However, you can optionally configure Lambda to access resources, such as databases, within your custom VPC. Learn more about accessing VPCs within Lambda. Please ensure your role has appropriate permissions to configure VPC.

VPC

No VPC



Environment variables are encrypted at rest using a default Lambda service key. You can change the key below to one of your account's keys or paste in a full KMS key ARN.

KMS key

(default) aws/lambda



* These fields are required.

Cancel

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Lambda > New function

[Select blueprint](#)[Configure triggers](#)[Configure function](#)**Review**

Review

Please review your Lambda function details. You can go back to edit changes for each section. When you are ready, click **Create function** to complete the setup process.

Lambda function

[Edit](#)**Name** coordinateWork**Description** pull from sqs and send data to services**Runtime** Node.js 4.3**Environment variables** gateway_url

snwyloac5.execute-api.us-west-2.amazonaws.com

queue_url

placeholder

Handler index.handler**Existing role*** service-role/lambdaExecutionRole

Secure

<https://us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/create/review>**Environment variables** gateway_url[REDACTED]-west-
2.amazonaws.com

queue_url

placeholder

Handler index.handler**Existing role*** service-role/lambdaExecutionRole**DLQ Resource****Memory (MB)** 128**Timeout** 10**VPC** No VPC**KMS key** (default) aws/lambda[Cancel](#)[Previous](#)[Export function](#)[Create function](#)

Lambda Management Console X Tom

Secure https://us-west-2.console.aws.amazon.com/lambda/home?region=us-west-2#/functions/coordinateWork?tab=code

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AWS Lambda Lambda > Functions > coordinateWork ARN - arn:aws:lambda:us-west-2:XXXXXXXXXXXX:coordinateWork

Dashboard Qualifiers Test Actions

Congratulations! Your Lambda function "coordinateWork" has been successfully created. You can now click on the "Test" button to input a test event and test your function.

Code Configuration Triggers Monitoring ?

Code entry type Edit code inline

```
1 'use strict';
2
3 const https = require('https');
4 const AWS = require('aws-sdk');
5
6 const SQS = new AWS.SQS({ apiVersion: '2012-11-05' });
7 const QUEUE_URL = process.env.queue_url;
8
9 const requests = [
10   {
11     "name": "sfdc",
12     "options": {
13       hostname: process.env.gateway_url,
14       port: 443,
```

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History

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Group A-Z

Compute Migration Security, Identity & Compliance Mobile Services

EC2 Application Discovery Service IAM Mobile Hub

EC2 Container Service DMS Inspector Cognito

Lightsail Server Migration Certificate Manager Device Farm

Elastic Beanstalk Snowball Directory Service

Lambda WAF & Shield Mobile Analytics

Batch Compliance Reports Pinpoint

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ElastiCache CloudTrail SES

Redshift Config Lex

OpsWorks Polly

Service Catalog

Artificial Intelligence Business Productivity

Lex WorkDocs

Polly

CloudWatch Metrics

IAM Management Console

Secure https://console.aws.amazon.com/iam/home?region=us-west-2#/home

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Search IAM

Dashboard

- Groups
- Users
- Roles
- Policies
- Identity providers
- Account settings
- Credential report

Encryption keys

Welcome to Identity and Access Management

IAM users sign-in link:
[https://\[REDACTED\].signin.aws.amazon.com/console](https://[REDACTED].signin.aws.amazon.com/console)

Customize | Copy Link

IAM Resources

Users: 2 Roles: 4
Groups: 1 Identity Providers: 0
Customer Managed Policies: 3

Security Status

2 out of 5 complete.

- ! Delete your root access keys
- ! Activate MFA on your root account
- ✓ Create individual IAM users
- ✓ Use groups to assign permissions
- ! Apply an IAM password policy

Feature Spotlight

Introduction to AWS IAM



0:00 / 2:16

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Additional Information

[IAM documentation](#)
[Web Identity Federation Playground](#)
[Policy Simulator](#)
[Videos, IAM release history and additional resources](#)

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Search IAM

Create New Role

Role Actions



Filter

Showing 4 results

 Role Name

Creation Time

 aws-elasticbeanstalk-ec2-role

2017-02-08 09:20 MDT

 aws-elasticbeanstalk-service-role

2017-02-08 09:20 MDT

 lambdaExecutionRole

2017-01-18 14:09 MDT

 lambdaRole

2016-07-16 16:10 MDT

Roles

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IAM > Roles > lambdaExecutionRole

▼ Summary

Role ARN

arn:aws:iam:██████████:role/service-role/lambdaExecutionRole

Instance Profile ARN(s)

Path

/service-role/

Creation Time

2017-01-18 14:09 MDT

Permissions

Trust Relationships

Access Advisor

Revoke Sessions

Managed Policies

The following managed policies are attached to this role. You can attach up to 10 managed policies.

[Attach Policy](#)

Policy Name	Actions
AmazonSESFullAccess	Show Policy Detach Policy Simulate Policy
AWSLambdaBasicExecutionRole-3bf806fd-6109-41d3-b5e9-d53ce0c7f0bf	Show Policy Detach Policy Simulate Policy



Attach Policy

Attach Policy

Select one or more policies to attach. Each role can have up to 10 policies attached.

Filter: Policy Type ▾						Showing 253 results
		Policy Name	Attached Entities	Creation Time	Edited Time	
<input type="checkbox"/>		AWSElasticBeanstalkEnhanc...	1	2016-02-08 16:17 MDT	2016-08-22 14:28 MDT	
<input type="checkbox"/>		AWSElasticBeanstalkFullAcc...	1	2015-02-06 11:40 MDT	2016-12-20 18:00 MDT	
<input type="checkbox"/>		AWSElasticBeanstalkMultico...	1	2016-02-08 16:15 MDT	2016-06-06 17:45 MDT	
<input type="checkbox"/>		AWSElasticBeanstalkService	1	2016-04-11 14:27 MDT	2017-02-22 14:12 MDT	
<input type="checkbox"/>		AWSElasticBeanstalkWebTier	1	2016-02-08 16:08 MDT	2016-12-20 19:06 MDT	
<input type="checkbox"/>		AWSElasticBeanstalkWorker...	1	2016-02-08 16:12 MDT	2016-12-20 19:01 MDT	
<input type="checkbox"/>		AWSLambdaBasicExecution...	1	2016-07-16 16:10 MDT	2016-07-16 16:10 MDT	
<input type="checkbox"/>		AWSLambdaMicroserviceEx...	1	2016-07-16 16:10 MDT	2016-07-16 16:10 MDT	
<input type="checkbox"/>		AdministratorAccess	0	2015-02-06 11:39 MDT	2015-02-06 11:39 MDT	

Cancel

Attach Policy



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Attach Policy

Attach Policy

Select one or more policies to attach. Each role can have up to 10 policies attached.

Filter: Policy Type ▾ sqs Showing 2 results

		Policy Name	Attached Entities	Creation Time	Edited Time
<input type="checkbox"/>		AmazonSQSFullAccess	0	2015-02-06 11:41 MDT	2015-02-06 11:41 MDT
<input type="checkbox"/>		AmazonSQSReadOnlyAccess	0	2015-02-06 11:41 MDT	2015-02-06 11:41 MDT

Cancel

Attach Policy



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Attach Policy

Attach Policy

Select one or more policies to attach. Each role can have up to 10 policies attached.

Filter: Policy Type ▾ sqs Showing 2 results

		Policy Name	Attached Entities	Creation Time	Edited Time
<input checked="" type="checkbox"/>		AmazonSQSFullAccess	0	2015-02-06 11:41 MDT	2015-02-06 11:41 MDT
<input type="checkbox"/>		AmazonSQSReadOnlyAccess	0	2015-02-06 11:41 MDT	2015-02-06 11:41 MDT

Cancel

Attach Policy



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Encryption keys

IAM > Roles > lambdaExecutionRole

▼ Summary

Role ARN

arn:aws:iam::██████████:role/service-role/lambdaExecutionRole

Instance Profile ARN(s)

Path

/service-role/

Creation Time

2017-01-18 14:09 MDT

Permissions

Trust Relationships

Access Advisor

Revoke Sessions

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The following managed policies are attached to this role. You can attach up to 10 managed policies.

[Attach Policy](#)

Policy Name	Actions
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AmazonSESFullAccess	Show Policy Detach Policy Simulate Policy
AWSLambdaBasicExecutionRole-3bf806fd-6109-41d3-b5e9-d53ce0c7f0bf	Show Policy Detach Policy Simulate Policy

```
#!/bin/bash

rm index.zip
zip -r index.zip .

echo "Updating Lambda"

aws lambda update-function-
code \
--function-name coordinateWork
\
--zip-file fileb://index.zip
```

- ◀ Remove old deployment file
- ◀ Zip our js into a package for deployment
- ◀ Command line call, pass our function name
- ◀ Pass our zip file containing the code



demo — bash — 120x29

```
[Thomass-MacBook-Pro:demo compagn$ chmod +x deploy_work_coordinator.sh
[Thomass-MacBook-Pro:demo compagn$ ./deploy_work_coordinator.sh update
  adding: deploy_work_coordinator.sh (deflated 45%)
  adding: lambda_function.js (deflated 72%)
update
Updating Lambda

An error occurred (AccessDeniedException) when calling the UpdateFunctionCode operation: User: arn:aws:iam::user/platform-user is not authorized to perform: lambda:UpdateFunctionCode on resource: arn:aws:lambda:us-east-1:123456789012:function:coordinateWork
Thomass-MacBook-Pro:demo compagn$
```

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- Lightsail ↗
- Elastic Beanstalk
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- Glacier
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- EMR
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- Kinesis
- Data Pipeline
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Application Services

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Feature Spotlight

Introduction to AWS IAM

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Additional Information

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[Policy Simulator](#)
[Videos, IAM release history and additional resources](#)

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Add user

Delete users



Dashboard

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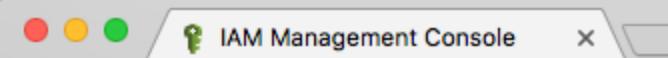
Credential report

Encryption keys

Find users by username or access key

Showing 2 results

<input type="checkbox"/> User name ▾	Groups	Password	Last sign-in	Access keys	Creation time ▾	
<input type="checkbox"/> platform-user	0	N/A		1 active	2017-02-11 12:58 MDT	
<input type="checkbox"/> platformuser	1	N/A		1 active	2017-01-18 14:29 MDT	



Tom

IAM Management Console

Secure https://console.aws.amazon.com/iam/home?region=us-west-2#/users/platform-user



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Users

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Identity providers

Account settings

Credential report

Encryption keys

Users > platform-user

Users: platform-user

User ARN arn:aws:iam::user/platform-user

Path /

Creation time 2017-02-11 12:58 MDT

Permissions

Groups (0)

Security credentials

Access Advisor

[Add permissions](#)

Number of attached policies 1

▲ AWSElasticBeanstalkFullAccess - AWS Managed policy

[+ Add inline policy](#)



Services | Resource Groups | Tom Compagno | Global | Support

Add permissions to platform-user

1

2

Permissions

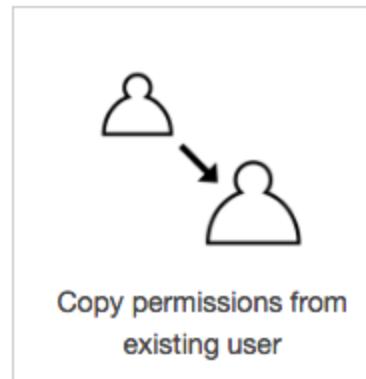
Review

Grant permissions

Use IAM policies to grant permissions. You can assign an existing policy or create a new one.



Add user to group



Copy permissions from existing user



Attach existing policies directly

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

[Create group](#)[Refresh](#)

Search

Showing 1 result

Add permissions to platform-user

1

Permissions

2

Review

Grant permissions

Use IAM policies to grant permissions. You can assign an existing policy or create a new one.



Attach one or more existing policies directly to the user or create a new policy. [Learn more](#)

Create policy

Refresh

Filter: Policy type

Search

Showing 254 results

Policy name	Type	Attachments	Description
-------------	------	-------------	-------------



Tom



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Support

Create Policy

Step 1 : Create Policy

Step 2 : Set Permissions

Step 3 : Review Policy

Create Policy

A policy is a document that formally states one or more permissions. Create a policy by copying an AWS Managed Policy, using the Policy Generator, or typing your own custom policy.

Copy an AWS Managed Policy

Start with an AWS Managed Policy, then customize it to fit your needs.

Select

Policy Generator

Use the policy generator to select services and actions from a list. The policy generator uses your selections to create a policy.

Select

Create Your Own Policy

Use the policy editor to type or paste in your own policy.

Select**Cancel**

```
"Action": [
    "lambda:UpdateFunctionCode",
    "lambda:UpdateFunctionConfiguration",
    "lambda:InvokeFunction",
    "lambda:GetFunction",
    "lambda:PublishVersion",
    "lambda:UpdateAlias" ],
"Resource": [
    "arn:aws:lambda:YOUR_AWS_REGION:YOUR_AWS_ACCOUNT_ID:function:YOUR_FUNCTION_NAME"
]
```

◀ List of actions, key being updateFunctionCode

◀ Other actions you may find useful

◀ This needs to be swapped with your Lambda ARN we mentioned earlier



Secure https://console.aws.amazon.com/iam/home?region=us-west-2#/policies\$new

Services Resource Groups Tom Compagno Global Support

Create Policy

Step 1 : Create Policy

Step 2 : Set Permissions

Step 3 : Review Policy

Review Policy

Customize permissions by editing the following policy document. For more information about the access policy language, see [Overview of Policies](#) in the [Using IAM](#) guide. To test the effects of this policy before applying your changes, use the [IAM Policy Simulator](#).

Policy Name

Description

Policy Document

1

Use autoformatting for policy editing

Cancel Validate Policy Previous Create Policy

IAM Management Console IAM Management Console Lambda Management Console

Secure https://console.aws.amazon.com/iam/home?region=us-west-2#/policies\$new

Tom

Services Resource Groups

Create Policy

Step 1 : Create Policy

Step 2 : Set Permissions

Step 3 : Review Policy

Review Policy

Customize permissions by editing the following policy document. For more information about the access policy language, see [Overview of Policies](#) in the [Using IAM](#) guide. To test the effects of this policy before applying your changes, use the [IAM Policy Simulator](#).

This policy is valid.

Policy Name

UpdateLambdaFunction

Description

Ability to push code to lambda function

Policy Document

```
12 "lambda:UpdateAlias"  
13 ],  
14 "Resource": [  
15 "arn:aws:lambda:  
16 coordinateWork"  
17 ]
```

 Use autoformatting for policy editing

Cancel

Validate Policy

Previous

Create Policy



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Welcome to Identity and Access Management

IAM users sign-in link:

[https://\[REDACTED\].signin.aws.amazon.com/console](https://[REDACTED].signin.aws.amazon.com/console)[Customize](#) | [Copy Link](#)

IAM Resources

Users: 2

Roles: 4

Groups: 1

Identity Providers: 0

Customer Managed Policies: 4

Security Status



2 out of 5 complete.

Delete your root access keys



Activate MFA on your root account



Create individual IAM users



Use groups to assign permissions



Apply an IAM password policy



Feature Spotlight



Additional Information

[IAM documentation](#)[Web Identity Federation Playground](#)[Policy Simulator](#)[Videos, IAM release history and additional resources](#)

Services Resource Groups

Add user Delete users

Search IAM

Find users by username or access key

Showing 2 results

User name	Groups	Password	Last sign-in	Access keys	Creation time
platform-user	0	N/A	1 active	2017-02-11 12:58 MDT	X
platformuser	1	N/A	1 active	2017-01-18 14:29 MDT	X

Dashboard Groups Users Roles Policies Identity providers Account settings Credential report

Encryption keys



Services

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Users > platform-user

Users: platform-user

User ARN arn:aws:iam:[REDACTED]user/platform-user

Path /

Creation time 2017-02-11 12:58 MDT

Permissions

Groups (0)

Security credentials

Access Advisor

[Add permissions](#)

Number of attached policies 1

▲ AWSElasticBeanstalkFullAccess - AWS Managed policy

[+ Add inline policy](#)

IAM Management Console X IAM Management Console X Lambda Management Console X Tom

Secure https://console.aws.amazon.com/iam/home?region=us-west-2#/users/platform-user\$addPermissions?step=permissions&permissionType=policies

Services Resource Groups



Attach one or more existing policies directly to the user or create a new policy. [Learn more](#)

[Create policy](#)

[Refresh](#)

	Policy name	Type	Attachments	Description
<input type="checkbox"/>	AWSLambdaBasicExecutionRole-3...	Customer managed	1	
<input type="checkbox"/>	AWSLambdaBasicExecutionRole-6...	Customer managed	1	
<input type="checkbox"/>	AWSLambdaMicroserviceExecutio...	Customer managed	1	
<input checked="" type="checkbox"/>	UpdateLambdaFunction	Customer managed	0	Ability to push code to lambda function



	Policy name	Type	Attachments	Description
<input type="checkbox"/>	AWSLambdaBasicExecutionRole-3...	Customer managed	1	
<input type="checkbox"/>	AWSLambdaBasicExecutionRole-6...	Customer managed	1	
<input type="checkbox"/>	AWSLambdaMicroserviceExecutio...	Customer managed	1	
<input checked="" type="checkbox"/>	UpdateLambdaFunction	Customer managed	0	Ability to push code to lambda function
<input type="checkbox"/>	AWSDirectConnectReadOnlyAccess	AWS managed	0	Provides read only access to AWS Direct Connect via the AWS Manage...
<input type="checkbox"/>	AmazonGlacierReadOnlyAccess	AWS managed	0	Provides read only access to Amazon Glacier via the AWS Management...
<input type="checkbox"/>	AWSMarketplaceFullAccess	AWS managed	0	Provides the ability to subscribe and unsubscribe to AWS Marketplace s...
<input type="checkbox"/>	AutoScalingConsoleReadOnlyAcce...	AWS managed	0	Provides read-only access to Auto Scaling via the AWS Management C...
<input type="checkbox"/>	AmazonDMSRedshiftS3Role	AWS managed	0	Provides access to manage S3 settings for Redshift endpoints for DMS.
<input type="checkbox"/>	AWSQuickSightIOTAnalytics	AWS managed	0	Allows QuickSight to use IOT Analytics

Cancel

Next: Review

IAM Management Console X IAM Management Console X Lambda Management Console X Tom

Secure https://console.aws.amazon.com/iam/home?region=us-west-2#/users/platform-user\$addPermissions?step=review&permissionType=policies&policies=arn:aw... ☆ :

Services ▾ Resource Groups ▾ ★

Tom Compagno Global Support

Add permissions to platform-user

1

2

Permissions

Review

Permissions summary

The following policies will be attached to the user shown above.

Type	Name
Managed policy	UpdateLambdaFunction

Cancel

Previous

Add permissions



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Permissions

Groups (0)

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[Add permissions](#)

Number of attached policies 2

- ▲ UpdateLambdaFunction - Managed policy
- ▲ AWSElasticBeanstalkFullAccess - AWS Managed policy

[+ Add inline policy](#)

```
Error parsing parameter '--zip-file': Unable to load paramfile fileb://index.zip: [Errno 2] No such file or directory: 'index.zip'
Thomass-MacBook-Pro:demo compagnet$ ./deploy_work_coordinator.sh update
rm: index.zip: No such file or directory
   adding: .DS_Store (deflated 97%)
   adding: deploy_work_coordinator.sh (deflated 27%)
   adding: index.js (deflated 72%)
   adding: index_handler.zip (stored 0%)
update
Updating Lambda
{
  "CodeSha256": "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX",
  "FunctionName": "coordinateWork",
  "VpcConfig": {
    "SubnetIds": [],
    "SecurityGroupIds": []
  },
  "MemorySize": 128,
  "FunctionArn": "arn:aws:lambda:XXXXXXXXXXXXXX:function:coordinateWork",
  "Environment": {
    "Variables": {
      "queue_url": "https://XXXXXXXXXXXXXX.queuemsg.sns.amazonaws.com/leadData",
      "gateway_url": 'https://XXXXXXXXXXXXXX.leadmsg.sns.com'
    }
  },
  "Version": "$LATEST",
  "Role": "arn:aws:iam::XXXXXXXXXXXXXX:role/lambdaExecutionRole",
  "Timeout": 10,
  "LastModified": "2017-03-12T17:37:27.166+0000",
  "Handler": "index.handler",
  "Runtime": "nodejs4.3",
  "CodeSize": 4095,
  "Description": "pull from sqs and send data to services"
}
Thomass-MacBook-Pro:demo compagnet$
```

Summary

- Built JavaScript Lambda function
- Configured Lambda with console
- Provided Lambda role with SQS permissions
- Deployed with CLI tools

