



Get Started for Free

Contact Us

AWS Lambda ▾

- Overview
- Features
- Pricing
- Getting Started
- Resources
- FAQs
- Partners

[Products](#) › [FAQs](#)

# AWS Lambda FAQs

General ▾

## General

[Open all](#)

Q: What is AWS Lambda?

Q: What is serverless computing?



[Get Started for Free](#)[Contact Us](#)

- 
- Q: What kind of code can run on AWS Lambda? +
- 
- Q: What languages does AWS Lambda support? +
- 
- Q: Can I access the infrastructure that AWS Lambda runs on? +
- 
- Q: How does AWS Lambda isolate my code? +
- 
- Q: How does AWS Lambda secure my code? +
- 
- Q: What AWS regions are available for AWS Lambda? +

## AWS Lambda Functions

[Open all](#)

- 
- Q: What is an AWS Lambda function? +
- 
- Q: Will AWS Lambda reuse function instances? +
- 
- Q: What if I need scratch space on disk for my AWS Lambda function? +
- 
- Q: How do I configure my application to use AWS Lambda ephemeral storage? +
- 
- Q: Is AWS Lambda ephemeral storage encrypted? +
- 
- Q: What metrics can I use to monitor my AWS Lambda ephemeral storage usage? +

[Get Started for Free](#)[Contact Us](#)

Q: Can I use ephemeral storage while Provisioned Concurrency is enabled for my function? +

Q: How do I configure my application to use AWS Lambda ephemeral storage? +

Q: Is AWS Lambda ephemeral storage encrypted? +

Q: What metrics can I use to monitor my AWS Lambda ephemeral storage usage? +

Q: Why must AWS Lambda functions be stateless? +

Q: Can I use threads and processes in my AWS Lambda function code? +

Q: What restrictions apply to AWS Lambda function code? +

Q: How do I create an AWS Lambda function using the Lambda console? +

Q: How do I create an AWS Lambda function using the Lambda CLI? +

Q: Does AWS Lambda support environment variables? +

Q: Can I store sensitive information in environment variables? +

Q: How can I manage my AWS Lambda functions? +

Q: Can I share code across functions? +

Q: How do I monitor an AWS Lambda function? +

Q: How do I troubleshoot failures in an AWS Lambda function? +

[Get Started for Free](#)[Contact Us](#)

Q: When should I use AWS Lambda functions with more than 3008 MB of memory?



Q: How long can an AWS Lambda function execute?



Q: How will I be charged for using AWS Lambda functions?



Q: Can I save money on AWS Lambda with a Compute Savings Plan?



Q: Does AWS Lambda support versioning?



Q: How long after uploading my code will my AWS Lambda function be ready to call?



Q: Can I use my own version of a supported library?



Q: How does tiered pricing work?



Q: Can I take advantage of both tiered pricing, and Compute Savings Plans?



## Using AWS Lambda to process AWS events

[Open all](#)

Q: What is an event source?



Q: What event sources can be used with AWS Lambda?





Q: How are events represented in AWS Lambda?




[Get Started for Free](#)[Contact Us](#)


DynamoDB table? 


Q: How do I use an AWS Lambda function to process records in an Amazon Kinesis stream? 

Q: How does AWS Lambda process data from Amazon Kinesis streams and Amazon DynamoDB Streams? 


Q: How should I choose between AWS Lambda and Amazon Kinesis Data Analytics for my analytics needs? 

Q: How do I use an AWS Lambda function to respond to notifications sent by Amazon Simple Notification Service (SNS)? 

Q: How do I use an AWS Lambda function to respond to emails sent by Amazon Simple Email Service (SES)? 

Q: How do I use an AWS Lambda function to respond to Amazon CloudWatch alarms? 

Q: How do I use an AWS Lambda function to respond to changes in user or device data managed by Amazon Cognito? 

Q: How can my application trigger an AWS Lambda function directly? 

Q: What is the latency of invoking an AWS Lambda function in response to an event? 

Q: How do I create a mobile backend using AWS Lambda? 

[Get Started for Free](#)[Contact Us](#)

app making the request?

Q: How can my AWS Lambda function personalize its behavior based on the identity of the end-user of an application?



Q: How do I create an Alexa skill using AWS Lambda?



Q: What happens if my function fails while processing an event?



## Using AWS Lambda to build applications

[Open all](#)

Q: What is a serverless application?



Q: How do I deploy and manage a serverless application?



Q: How can I discover existing serverless applications developed by the AWS community?



Q: How do I automate deployment for a serverless application?



Q: How do I get started on building a serverless application?



Q: How do I coordinate calls between multiple AWS Lambda functions?



Q: How do I troubleshoot a serverless application?



Q: Can I build serverless applications that connect to relational databases?



Q: How is AWS SAM licensed?



[Get Started for Free](#)[Contact Us](#)

Q: How can I use Container Image Support for AWS Lambda? +

Q: Which container image types are supported? +

Q: What base images can I use? +

Q: What container tools can I use to package and deploy functions as container images? +

Q: What AWS Lambda features are available to functions deployed as container images? +

Q: Will AWS Lambda patch and update my deployed container image? +

Q: What are the differences between functions created using ZIP archives vs. container images? +

Q: Is there a performance difference between functions defined as zip and container images? +

Q: How will I be charged for deploying Lambda functions as container images? +

Q: What is the Lambda Runtime Interface Emulator (RIE)? +

Q: Why do I need the Lambda Runtime Interface Emulator (RIE) during local testing? +

Q: What function behaviors can I test locally with the emulator? +

+

[Get Started for Free](#)[Contact Us](#)

## AWS Lambda Snapstart

[Open all](#)

- Q. What is AWS Lambda SnapStart? +
- Q. How do I configure my Lambda function to use Lambda SnapStart? +
- Q. How do I choose between Lambda SnapStart and Provisioned Concurrency (PC)? +
- Q. Which runtimes does Lambda SnapStart support? +
- Q. Can I enable both Lambda SnapStart and PC on the same function? +
- Q. Can I configure a Lambda SnapStart function with a virtual private cloud (VPC)? +
- Q. Can I configure Lambda SnapStart on both x86 and Arm architectures? +
- Q. Can I enable Lambda SnapStart with Amazon Elastic File System (EFS)? +
- Q. Can I enable Lambda SnapStart with larger ephemeral storage (/tmp) beyond 512 MB? +
- Q. Does the process of caching and resuming from snapshots introduce software compatibility considerations? +
- Q. Can I execute my own code before a snapshot is created or when the function is resumed from snapshot? +



[Get Started for Free](#)[Contact Us](#)

with Lambda SnapStart:

Q. How can I encrypt the snapshots of initialized execution environment created by Lambda SnapStart?



Q. Is there a time limit for how long my code initialization can run with Lambda SnapStart?



## Provisioned Concurrency

[Open all](#)

Q: What is AWS Lambda Provisioned Concurrency?



Q: How do I set up and manage Provisioned Concurrency?



Q: Do I need to change my code if I want to use Provisioned Concurrency?



Q: How will I be charged for Provisioned Concurrency?



Q: When should I use Provisioned Concurrency?



Q: What happens if a function receives invocations above the configured level of Provisioned Concurrency?



## AWS Lambda functions powered by Graviton2 processors [Open all](#)

Q: What are AWS Lambda functions powered by Graviton2 processors?



Q: Why should I use AWS Lambda functions powered by Graviton2 processors?





Get Started for Free

Contact Us

- Q: Do I need an Arm-based development machine to create, build, and test functions powered by Graviton2 processors locally?

+
- Q: Can an application use both functions powered by Graviton2 processors and x86 processors?

+
- Q: Does AWS Lambda support multi-architecture container images?

+
- Q: Can I create AWS Lambda Layers that target functions powered by AWS Graviton2 processors?

+
- Q: What languages and runtimes are supported by Lambda functions running on Graviton2 processors?

+
- Q: What is the pricing of AWS Lambda functions powered by AWS Graviton2 processors? Does the AWS Lambda free tier apply to functions powered by Graviton2?

+
- Q: How do I choose between running my functions on Graviton2 processors or x86 processors?

+

Amazon EFS for AWS Lambda

[Open all](#)

- Q: What is Amazon EFS for AWS Lambda?

+
- Q: How do I set up Amazon EFS for Lambda?

+
- +

[Get Started for Free](#)[Contact Us](#)

Q: Will my data be encrypted in transit? +

Q: Is my data encrypted at rest? +

Q: How will I be charged for Amazon EFS for AWS Lambda? +

Q: Can I associate more than one Amazon EFS file system with my AWS Lambda function? +

Q: Can I use the same Amazon EFS file system across multiple functions, containers, and instances? +

## Lambda Functions URLs

[Open all](#)

Q: Do AWS Lambda functions support HTTP(S) endpoints? +

Q: How do I configure a Lambda function URL for my function? +

Q: How do I secure my Lambda function URL? +

Q: How do I invoke my function with a Lambda function URL? +

Q: Do Lambda function URLs work with function versions and aliases? +

Q: Can I enable custom domains for my Lambda function URL? +

Q: Can Lambda function URLs be used to invoke a function in a VPC? +

[Get Started for Free](#)[Contact Us](#)

## Lambda@Edge

[Open all](#)

- Q: What is Lambda@Edge? +
- Q: How do I use Lambda@Edge? +
- Q: When should I use Lambda@Edge? +
- Q: Can I deploy my existing Lambda functions for global invocation? +
- Q: What Amazon CloudFront events can be used to trigger my functions? +
- Q: How is AWS Lambda@Edge different from using AWS Lambda behind Amazon API Gateway? +

## Scalability and availability

[Open all](#)

- Q: How available are AWS Lambda functions? +
- Q: Do my AWS Lambda functions remain available when I change my code or its configuration? +
- Q: Is there a limit to the number of AWS Lambda functions I can execute at once? +
- Q: What happens if my account exceeds the default throttle limit on concurrent executions? +

[Get Started for Free](#)[Contact Us](#)

Q: How quickly do my AWS Lambda functions scale?



Q: What happens if my Lambda function fails while processing an event?



Q: What happens if my Lambda function invocations exhaust the available policy?



Q: What resources can I configure as a dead letter queue for a Lambda function?



## Security and access control

[Open all](#)

Q: How do I allow my AWS Lambda function access to other AWS resources?



Q: How do I control which Amazon S3 buckets can call which AWS Lambda functions?



Q: How do I control which Amazon DynamoDB table or Amazon Kinesis stream an AWS Lambda function can poll?



Q: How do I control which Amazon SQS queue an AWS Lambda function can poll?



Q: How do I access resources in Amazon VPC from my AWS Lambda function?



Q: What is Code Signing for AWS Lambda?



Q: How do I create digitally signed code artifacts?



[Get Started for Free](#)[Contact Us](#)

Q: Can I enable code signing for existing functions?



Q: Is there any additional cost for using Code Signing for AWS Lambda?



## Advanced logging controls

[Open all](#)

Q: What advanced logging controls are supported on Lambda?



Q: What can I use advanced logging controls for?



Q: How do I use advanced logging controls?



Q: Can I use my own logging libraries to generate JSON structured logs for my Lambda function?



Q: How will I be charged for using the advanced logging controls?



## AWS Lambda functions in Java

[Open all](#)

Q: How do I compile my AWS Lambda function Java code?



Q: What is the JVM environment that Lambda uses for executing my function?



## AWS Lambda functions in Node.js

[Open all](#)

[Get Started for Free](#)[Contact Us](#)

in Node.js?

Q: Is it possible to use native modules with AWS Lambda functions written in Node.js?



Q: Can I execute binaries with AWS Lambda written in Node.js?



Q: How do I deploy AWS Lambda function code written in Node.js?



## AWS Lambda functions in Python

[Open all](#)

Q: Can I use Python packages with AWS Lambda?



## AWS Lambda functions in C#

[Open all](#)

Q: How do I package and deploy an AWS Lambda function in C#?



## AWS Lambda functions in PowerShell

[Open all](#)

Q: How do I deploy AWS Lambda function code written in PowerShell?



## AWS Lambda functions in Go

[Open all](#)

Q: How do I package and deploy an AWS Lambda function in Go?





Get Started for Free

Contact Us



Other topics

Open all

- Q: Which versions of Amazon Linux, Node.js, Python, JDK, .NET Core, SDKs, and additional libraries does AWS Lambda support?

+
- Q: Can I change the version of Amazon Linux or any language runtime?

+
- Q: How can I record and audit calls made to the AWS Lambda API?

+
- Q: How do I coordinate calls between multiple Lambda functions?

+
- Q: Does AWS Lambda support Advanced Vector Extensions 2 (AVX2)?

+

Get started with AWS Lambda

Have more questions?







**Get Started for Free**

**Contact Us**

**Ready to get started**



**Learn more about AWS Lambda pricing**



**Sign In to the Console**

**Resources for AWS**

Getting Started

**Developers on AWS**

Developer Center



Get Started for Free

Contact Us

What Is DevOps?	Analyst Reports	PHP on AWS
What Is a Container?	AWS Partners	JavaScript on AWS
What Is a Data Lake?		
What is Generative AI?		
AWS Cloud Security		
What's New		
Blogs		
Press Releases		

Help

- Contact Us
- Get Expert Help
- File a Support Ticket
- AWS re:Post
- Knowledge Center
- AWS Support Overview
- Legal
- AWS Careers

Sign In to the Console



Amazon is an Equal Opportunity Employer: *Minority / Women / Disability / Veteran / Gender Identity / Sexual Orientation / Age.*

Language

- عربي |
- Bahasa Indonesia |
- Deutsch |
- English |
- Español |
- Français |



[Get Started for Free](#)

[Contact Us](#)

[ไทย |](#)

[日本語 |](#)

[한국어 |](#)

[中文 \(简体\) |](#)

[中文 \(繁體\)](#)

[Privacy](#)

[|](#)

[Site Terms](#)

[|](#)

[Cookie Preferences](#)

[|](#)

© 2024, Amazon Web Services, Inc. or its affiliates. All rights reserved.