Create modern applications with serverless compute on AWS

Embrace serverless compute with AWS Lambda Partners and their integrated products

Build applications aligned to the speed of business

Digital transformation, along with advanced technologies such as machine learning, IoT, and real-time data processing, are driving business innovation. To gain a competitive advantage, organizations are building modern, scalable applications that leverage these technologies and enable business agility.

At the same time, IT teams across all industries are struggling to support rapidly changing and unpredictable demands with more traditional compute technologies. They are also dealing with the operational challenges and time-consuming tasks of provisioning and managing infrastructure.

Serverless compute on AWS

Modern applications are built with a combination of modular architecture patterns and agile developer processes, allowing organizations to innovate faster while reducing risk, time to market, and total cost of ownership. These applications are often well-suited for serverless computing, in which all the underlying infrastructure, updating, and scaling is managed for customers.

By the end of 2021, 25% of developers will regularly use serverless.¹

¹ Source: Predictions 2021: Cloud Computing Powers Pandemic Recovery, Forrester, October 2020

With serverless compute, you can:

- Move from idea to market faster
- Easily build better, more resilient applications
- Adapt to customer needs at any scale
- Deliver near real-time processing
- Lower costs with a pay-for-value billing model

Additionally, with serverless compute you can free up IT to focus on value-adding activities like creating applications that support new business opportunities and improving performance to support rich customer experiences.
Drive innovation with AWS Lambda

AWS Lambda is a serverless compute service that lets you run code without provisioning or managing servers. With AWS Lambda, you can run code for virtually any type of application or backend service—all with zero administration. It automatically scales your application by running code in response to each event, so you only pay for the compute time you consume.

How it works

Upload and run code with high availability and fault tolerance built in:

- **Upload your code into a Lambda function or write code in AWS Lambda’s code editor**
- **Set up your code to trigger from AWS services, HTTP endpoints, or in-app activity**
- **AWS Lambda runs your code when triggered, scaling to meet demand**
- **Get visibility into performance with real-time metrics from Amazon CloudWatch**

AWS Lambda natively supports Node.js, Python, Go, Java, C#, PowerShell, and Ruby code, and provides a Runtime API which allows you to use any additional programming languages to author your functions. Plus, built-in support for the AWS Software Development Kit (SDK) makes it easy to call other AWS services, such as an Amazon S3 bucket or an Amazon DynamoDB table.

**AWS Lambda benefits**

<table>
<thead>
<tr>
<th>No servers to manage</th>
<th>Continuous scaling</th>
<th>Subsecond metering</th>
<th>Consistent performance</th>
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<tbody>
<tr>
<td>Automatically run code without managing infrastructure. There’s no provisioning of servers, updating of operating systems, or applying security patches.</td>
<td>Each trigger is processed individually by your code, so your application scales precisely with the size of each workload.</td>
<td>Pay only for the compute time you use, measured in increments of 1 millisecond (ms), with no upfront investment.</td>
<td>Optimize your code execution time by choosing the right memory size, so functions are hyper-ready to respond.</td>
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**Use cases**

- **Real-time stream processing:** Use AWS Lambda along with AWS real-time streaming service, Amazon Kinesis, to process data for application activity tracking, transaction order processing, click stream analysis, metrics, or metering.
- **Machine Learning:** Preprocess data before feeding it to your machine learning model and also serve your model for prediction, at scale.
- **Internet of Things (IoT):** Build serverless backends to handle IoT telemetry.
- **Mobile backends:** Create rich, personalized app experiences for your users through in-app updates.

“Half of all new applications built with AWS in 2020 are using AWS Lambda as their compute engine.”

**Andy Jassy**

AWS re:Invent 2020
Work with validated AWS Partners

The AWS Service Delivery and AWS Service Ready Programs identify AWS Partners with technical experience and proven success specializing in delivering an AWS service, or in building products that work with AWS services. You can simplify your technology evaluation process and increase purchasing confidence, knowing these companies’ solutions have passed a strict AWS validation of security, performance, and reliability.

Go serverless with confidence

AWS Lambda Delivery Partners have deep expertise delivering AWS Lambda to end customers following AWS best practices. Their solutions are vetted through a rigorous review of customer case studies, architectural diagrams, and technical capabilities. They can help you build solutions or migrate them to a microservices architecture running on serverless computing.

AWS Lambda Ready Products provide developer tooling solutions that seamlessly work with AWS Lambda. These products are validated by AWS serverless experts who review product architectures, customer documentation, case studies, and integration details for sound architecture and high availability.

With AWS Lambda Delivery Partners and AWS Lambda Ready Products you can:

Move to serverless with professional support
AWS Lambda Delivery Partners can provide hands-on design, build, and migration support for your organization’s move to serverless.

Leverage deep, focused experience
Benefit from AWS Lambda Delivery Partners’ extensive expertise, plus knowledge of AWS best practices and the latest AWS Lambda capabilities.

Maximize your AWS Lambda investment
AWS Lambda Delivery Partners help you configure optimally upfront, saving time and money.

Decrease evaluation and implementation time
Spend less time evaluating, identifying, and implementing compatible tools. AWS Lambda Ready Products directly interface with AWS Lambda in a customer’s AWS account.

Enhance AWS Lambda capabilities with validated tools
AWS Lambda Ready Products work seamlessly with AWS Lambda, allowing customers to use their technology at scale in production environments.

Reduce risk of technology failure
AWS Lambda Ready Products have a proven track record of successfully working with AWS Lambda. This means less troubleshooting and fewer headaches for your IT organization.

“Customers are increasingly looking into application modernization when refactoring or building new applications to achieve the availability, scalability, business agility, and cost optimization benefits of running on AWS. By leading with a serverless-first mentality, customers can achieve the agility and rapid time-to-market that’s the differentiator in today’s world. AWS Lambda is at the center of event-driven serverless architectures and our validated AWS Lambda Partners and Products are ready to support and accelerate your modernization journey.”

– Santiago Cardenas,
Global Technology Lead, AWS Serverless Partners

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