



AWS Decision guide

Amazon Lightsail or Amazon EC2?



Amazon Lightsail or Amazon EC2?: AWS Decision guide

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Amazon Lightsail or Amazon EC2?

Understand the differences and pick the one that's right for you

Purpose	To explore whether Amazon Lightsail or Amazon EC2 meets your needs for a cloud platform or compute web service.
Last updated	July 23, 2024
Covered services	<ul style="list-style-type: none">• Amazon Lightsail• Amazon EC2

Introduction


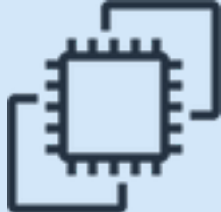
Amazon Web Services (AWS) offers services that can meet your needs for a cloud platform or compute web service. Two services that are often considered alongside one another are:


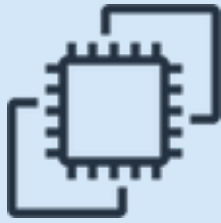
- **Amazon Lightsail** — a set of core services designed to help you build websites or web applications. Consider Lightsail if you want a simple unified platform with a few foundational services, including virtual servers, HTTP load balancing, managed databases, public container deployment, content delivery network (CDN), DNS management, and domain registration. Lightsail provides fixed and predictable monthly pricing.
- **Amazon Elastic Compute Cloud (Amazon EC2)** — an AWS service that provides on-demand, scalable computing capacity, with the goal of allowing you to develop, deploy, and scale applications faster. You can use it to launch as many or as few compute instances as you need, configure security and networking, and manage storage. You can also add capacity by provisioning larger instances (up to hundreds of cores and thousands of GiB memory) or load balancing clusters of smaller instances. Several different pricing models are available depending on your requirements.


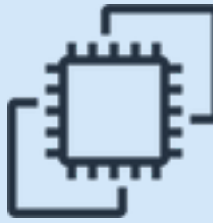
When choosing between Lightsail and Amazon EC2, keep in mind the future growth of your workload and how you intend to grow your AWS environment. If your future deployment requires advanced networking or integration with AWS services such as Amazon Relational Database Service

(Amazon RDS), Amazon DynamoDB, or AWS Lambda, you should strongly consider using Amazon EC2.

Here's a high-level view of the key differences between these services to get you started.

	 Amazon Lightsail	 Amazon EC2
Instance Size	Multiple instance types, ranging from 512 MiB to 64 GiB of RAM, and 2 to 16 vCPUs. For more information, see the <i>compute and block storage</i> tab in the differences section below.	400+ instance types, from 0.5 GiB to 24 TiB of RAM, and 1 to 448 vCPUs.
Block Storage	Preconfigured disks up to 640 GB per instance (storage size is tied to instance type). Attach additional disks up to 16 TB with variable pricing.	Amazon EBS volumes up to 64 TB per volume. Input/output operations per second (IOPS) up to 64,000 per volume (storage size is independent of instance type).
Application Blueprints	35 pre-configured blueprints, including WordPress, Magento, Drupal, Node.js, and more.	Common operating systems and with pre-configured software and services in the AWS Marketplace .
Container Support	Simple deployment of public container images for a fixed	Run container workloads natively on Amazon EC2

	 Amazon Lightsail	 Amazon EC2
	monthly cost including data transfer.	using self-managed Docker or Kubernetes, or deploy containers to separate AWS container services such as Amazon ECS, Amazon EKS, AWS Fargate, AWS App Runner, AWS Elastic Beanstalk, Lambda, and others.
Data Transfer	Generous data transfer allocation included with the fixed monthly fee for every Lightsail compute instance.	Pay per GB data transfer (out) with flexible pricing tiers and no cost for ingress traffic.
Load Balancing	Basic load balancing of HTTP/HTTPS for low volume web traffic (up to 5 GB per hour).	Flexible load balancing for any type of networking use case, including HTTP, HTTPS, TCP, UDP, health checks, auto scaling, and more.
CDN Support	Global content delivery from Lightsail sources for a fixed monthly fee (up to 50 GB per month included for the first year).	Amazon CloudFront integration provides flexible content delivery from Amazon EC2 or other AWS or external sources on a pay per GB basis (1 TB per month included for the first year).

	 Amazon Lightsail	 Amazon EC2
Performance	Choose from 2 to 8 vCPUs (1 to 4 cores), and 512 MiB to 32 GiB memory.	Unlimited scaling from a single shared to hundreds of CPU cores, and 1 to 1000s of GiB memory.
Pricing	Fixed and predictable monthly pricing.	Flexible pay-per-use hourly, or commit-based pricing.

Details on the differences

Explore differences between Lightsail and Amazon EC2 in six areas. These cover ease of use, compute and block storage, container deployments, load balancing, content delivery network, and managed database support.

Ease of use



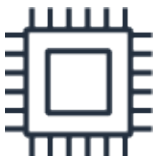
Ease of use

Lightsail offers a set of core services to deploy web servers and database backed applications, with support for load balancing, containers, content delivery network (CDN), DNS management, and domain registration. You can also choose from a set of application blueprints to deploy standard applications such as a WordPress site, or LAMP stack application. Lightsail is a good fit

for organizations with simple website and application requirements, and those who prefer fixed, predictable monthly pricing.

With Amazon EC2, you have greater flexibility to configure workloads over a broader set of compute capacities, features, and integrations with other AWS services. Amazon EC2 provides more flexible purchase options including on-demand hourly and lower commit-based pricing. A typical deployment of Amazon EC2 may require the use of other AWS services, such as databases and load balancers, that each have their own pricing models and configuration details.

Compute and block storage



Compute and block storage

Lightsail provides multiple options for your instance size, ranging from 2 vCPUs, 512 MiB memory, and 20 GB of SSD storage, up to 16 vCPUs, 64 GiB of memory, and 1280 GB of SSD storage. Lightsail compute instances also include a generous free data transfer allocation, and are billed with fixed, predictable pricing.

Amazon EC2 supports hundreds of instance types supporting any workload, with 1 to 100s of vCPUs, and 1000s of GiB RAM. Multiple individually sized storage volumes can be attached to Amazon EC2 instances with various performance tiers.

Container deployments



Container deployments

Lightsail containers provide a straightforward way to get started deploying public container images on AWS compute instances, with 0.25 vCPUs and 512 MiB RAM, to 4 vCPUs and 8 GiB RAM. Every Lightsail container deployment comes with 500 GB of data transfer for a fixed monthly fee.

Containers can be self-managed on Amazon EC2, or deployed to a fully managed AWS container service such as Amazon ECS, Amazon EKS, App Runner, Elastic Beanstalk, and Lambda. These services support both public and private images, more flexible hourly or commit-based billing, and greater vertical and horizontal scaling capabilities.

Load balancing



Load balancing

Lightsail provides a simple HTTP or HTTPS load balancer for low volume web traffic (up to 5 GB and 400k connections per hour). Lightsail load balancers handle certificate management and are available for a fixed monthly cost.

Amazon EC2 Elastic Load Balancing (ELB) offers a broader and more scalable range of load balancer options using more flexible on demand or commit pricing. Amazon EC2 load balancers support both application (HTTP, HTTPS, WebSockets) and network (TCP, UDP) traffic.

Content delivery network



Content delivery network

To improve web content load time, Lightsail lets you add a content delivery network (CDN) distribution to your website or application. Lightsail CDN distributions are available in three monthly data transfer tiers, including 50 GB included for the first year, 200 GB, and 500 GB, for a fixed monthly price.

Amazon EC2 and Elastic Load Balancing work directly with the Amazon CloudFront CDN (the same CDN used by Lightsail). Using CloudFront directly offers more integration possibilities with other AWS services or external origins. It also offers more flexible on demand and commit-based pricing than Lightsail.

Managed database support



Managed database support

Lightsail offers managed databases in four standard, and four high availability configurations, ranging from 1 to 2 processor cores, 1 GiB to 8 GiB RAM, and 40 GB to 240 GB storage. Lightsail databases are billed using a fixed, predictable monthly price.

Amazon EC2 works directly with Amazon RDS and NoSQL services, such as Amazon DynamoDB. Amazon RDS offers a more scalable and broader range of configurations, including fixed instance types ranging from 2 to dozens of vCPUs, and 100s of GiB RAM, unlimited storage, and seamlessly scalable serverless options.

Use

Now that you've learned about what these services (and the supporting AWS tools and services) are optimized for, you can now dive deeper into how best to use them.

Amazon Lightsail

- **What is Amazon Lightsail?**

Get the full story on Amazon Lightsail, including what it does, and how you can benefit from it. This guide also includes step-by-step guidance to help you get started using Lightsail — and then configure it to meet your needs.

[Explore the guide](#)

- **Creating Lightsail container service images**

Learn how to create a container image on your local machine using a Dockerfile. You can then push it to your Lightsail container service to deploy it.

[Use the tutorial](#)

- **Amazon Lightsail resource center**

Explore Lightsail tutorials, videos, and links to core concept documentation.

[Visit the resource center](#)

Amazon EC2

- **What is Amazon EC2?**

Get an overview of Amazon EC2. This guide not only provides an introduction of the service, but also covers how to get started using it and then provides in-depth descriptions of key features and how to use them.

[Explore the guide](#)

- **Amazon EC2 instance types**

When you launch an EC2 instance, the instance type that you specify determines the hardware of the host computer used for your instance. Each instance type offers different compute, memory, and storage capabilities, and is grouped in an instance family based on these capabilities. This guide walks you through EC2 instance types.

[Explore the guide](#)

- **Amazon EC2 Auto Scaling with EC2 Spot Instances**

Learn how to create a stateless, fault tolerant workload using Amazon EC2 Auto Scaling with launch templates to request Amazon EC2 Spot Instances.

[Get started with the tutorial](#)

Document history

The following table describes the important changes to this decision guide. For notifications about updates to this guide, you can subscribe to an RSS feed.

Change	Description	Date
Content update	Update to Lightsail supported instance types.	July 23, 2024
Content update	Enhanced introduction and differences sections with improved content for choosing between Lightsail and EC2.	April 15, 2024
Initial release	Initial release of the decision guide.	April 5, 2024