

Service Name

Amazon Lightsail

Service Overview

Amazon Lightsail is the easiest way to get started with Amazon Web Services (AWS) for anyone who needs to build websites or web applications. It includes everything needed to launch projects quickly—instances (virtual private servers), container services, managed databases, content delivery network (CDN) distributions, load balancers, SSD-based block storage, static IP addresses, DNS management of registered domains, and resource snapshots (backups)—for a low, predictable monthly price. Lightsail simplifies cloud computing by providing pre-configured blueprints and templates, making it ideal for developers, small businesses, students, and users who prefer a simple management interface over the complexity of traditional AWS services.

Key Use Cases

- Website and web application hosting: Deploy WordPress, Drupal, or custom applications with pre-configured templates
- Development and testing environments: Create dev sandboxes and testing environments that can be quickly launched and destroyed
- Small business applications: Run business software, blogs, e-commerce sites, and collaboration tools like SharePoint
- Academic and research workloads: Use Lightsail for Research with pre-installed applications like RStudio and Scilab
- Container deployments: Deploy and manage containerized applications using Docker containers
- Email servers: Set up secure email services using software like Postfix, Exim, Dovecot, or Microsoft Exchange

Features

- **Virtual Private Servers (Instances):** Easy-to-set-up instances backed by AWS reliability with pre-configured OS and applications like WordPress, LAMP, and Windows Server
- **Container Services:** Run and manage containerized applications with automatic scaling and load balancing capabilities
- **Managed Databases:** MySQL, PostgreSQL, and MariaDB databases with automatic backups and high availability options
- **Block and Object Storage:** SSD-based block storage and scalable object storage for additional data storage needs

- **Load Balancers:** Distribute web traffic across instances with session persistence and health checks
- **CDN Distributions:** Content delivery network for caching and delivering content to end-users globally
- **DNS Management:** Domain name system management for registered domains with DNS record configuration
- **Snapshots and Backups:** Manual and automatic snapshots for instances, databases, and block storage for disaster recovery

Value Proposition

Amazon Lightsail offers unmatched simplicity for launching cloud applications with predictable, bundled pricing starting at \$0.0067 per hour. Unlike complex AWS services requiring extensive configuration, Lightsail provides pre-configured blueprints that get applications running in minutes:

- The service includes everything needed in one package—compute, storage, networking, and management tools—eliminating the complexity of choosing and configuring multiple AWS services separately
- With built-in features like automatic backups, monitoring, DNS management, and seamless integration with the broader AWS ecosystem through VPC peering, Lightsail provides enterprise-grade capabilities with consumer-friendly simplicity
- The predictable monthly pricing eliminates billing surprises, making it ideal for cost-conscious small businesses and developers who need reliable cloud infrastructure without the operational overhead

Service Integration

Amazon Lightsail integrates seamlessly with core AWS services through VPC peering, enabling access to Amazon EC2, Amazon RDS, Amazon Aurora, AWS Lambda, Amazon S3, Amazon DynamoDB, and Amazon CloudWatch. VPC peering allows Lightsail resources to communicate privately with resources in Amazon VPC, expanding capabilities beyond Lightsail's simplified offerings:

- Instances can be upgraded directly to Amazon EC2 for more advanced requirements
- Lightsail snapshots can be exported to Amazon EC2 for enhanced functionality
- The service works with AWS Identity and Access Management (IAM) for security, AWS CloudTrail for API monitoring, Amazon Route 53 for advanced DNS needs, and integrates with AWS CLI and SDKs for programmatic management
- Container services can connect to Amazon Elastic Container Registry (ECR) for container image storage and management

Onboarding and Offboarding

Getting started with Amazon Lightsail requires completing AWS account setup prerequisites and creating administrative users. Users sign in to the Lightsail console, select an AWS Region and Availability Zone, choose from pre-configured blueprints (Apps + OS like WordPress) or operating systems (OS Only like Ubuntu), select an instance plan based on memory and compute needs, optionally configure networking for dual-stack or IPv6-only, and launch their instance:

- The intuitive management console guides users through configuration with many components pre-configured
- New customers receive 750 hours free on the \$5 plan and one free month of managed databases
- Users can connect to instances via browser-based SSH/RDP or traditional clients, add storage, create snapshots, and scale resources as needed through the simplified interface

Getting Started Guide: <https://docs.aws.amazon.com/lightsail/latest/userguide/getting-started.html>

Data Removal

To offboard from Amazon Lightsail, users must delete all resources including instances, managed databases, load balancers, CDN distributions, and storage volumes. Before deletion, create snapshots of instances and databases to preserve data if needed later. Deleting instances is destructive and removes all data unless snapshots are taken first. Manual snapshots remain in the account after resource deletion and continue incurring storage charges until manually deleted. Automatic snapshots are automatically deleted when source resources are deleted. Users should also remove DNS records, static IP addresses, and container services to avoid ongoing charges.

Backup/Restore and Disaster Recovery

Amazon Lightsail provides comprehensive backup capabilities through manual and automatic snapshots for instances, databases, and block storage disks. Manual snapshots can be created anytime and stored indefinitely, while automatic snapshots are created daily and retain the latest seven copies. Snapshots contain all data needed to restore resources and serve as baselines for creating new resources. System disk snapshots enable file access when instances become unresponsive. Snapshots can be copied across regions within the same AWS account for disaster recovery, and exported to Amazon EC2 for enhanced recovery options.

Backup Capabilities

Amazon Lightsail includes built-in backup capabilities through its snapshot feature but does not directly integrate with AWS Backup service. Lightsail offers both manual and automatic snapshots for instances, managed databases, and block storage disks:

- Automatic snapshots are scheduled daily with seven-day retention, while manual snapshots persist until manually deleted
- Snapshots are incremental, storing only changed blocks for cost efficiency
- The snapshot system operates independently of AWS Backup, providing Lightsail-native backup functionality optimized for the service's simplified management approach

Disaster Recovery

Amazon Lightsail supports disaster recovery through its snapshot and cross-region copy capabilities, but does not integrate with AWS Elastic Disaster Recovery service. Users can create snapshots of instances and databases, copy them to different AWS regions for geographic redundancy, and restore resources from snapshots when needed:

- For more advanced disaster recovery requirements, users can export Lightsail snapshots to Amazon EC2 to leverage AWS Elastic Disaster Recovery and other enterprise-grade recovery services
- The service provides basic disaster recovery suitable for small to medium workloads through its built-in snapshot system

Recovery Objectives

Amazon Lightsail helps customers achieve Recovery Point Objectives (RPO) through daily automatic snapshots, providing up to 24-hour data loss protection, with manual snapshots available for more frequent backup intervals. Recovery Time Objectives (RTO) depend on instance size and data volume, typically ranging from minutes to hours for restoration from snapshots. Cross-region snapshot copying enables geographic redundancy for disaster recovery scenarios. For stricter RPO/RTO requirements, customers can export to Amazon EC2 to access advanced AWS disaster recovery services with sub-minute recovery capabilities and enhanced automation.

Service Constraints

Service Quotas:

https://docs.aws.amazon.com/general/latest/gr/lightsail.html#limits_lightsail

FAQ: <https://aws.amazon.com/lightsail/faq/>

Technical Requirements

Service Documentation: <https://docs.aws.amazon.com/lightsail/latest/userguide/what-is-amazon-lightsail.html>

User Guide: <https://docs.aws.amazon.com/lightsail/latest/userguide/>

API Reference: <https://docs.aws.amazon.com/lightsail/2016-11-28/api-reference/Welcome.html>

Pricing Overview

Please see the AWS UK G Cloud 15 Pricing Document accompanying this service in the Digital Marketplace.

Public Pricing: <https://aws.amazon.com/lightsail/pricing/>

Cost Optimization

Amazon Lightsail offers unique cost optimization through its predictable bundled pricing model that includes compute, storage, and data transfer allowances in fixed monthly fees. Customers can optimize costs by right-sizing instances using burstable performance that scales automatically based on demand, utilizing the generous data transfer allowances included in each plan, and taking advantage of automatic snapshot retention that manages storage costs by keeping only the latest seven daily backups:

- Container services provide built-in auto-scaling to optimize resource utilization
- The ability to stop instances (releasing public IP) without termination reduces costs during non-use periods
- Free tier offerings include 750 hours of the \$5 plan and one month free managed databases for new customers

Savings Considerations

Key cost savings with Amazon Lightsail include avoiding overprovisioning through right-sized instance selection with ability to upgrade via snapshots when needed, leveraging included data transfer allowances that eliminate surprise bandwidth charges common with traditional hosting, utilizing automatic snapshots that prevent expensive data recovery scenarios, and benefiting from simplified management that reduces operational overhead and administrative costs. The bundled pricing model eliminates the complexity and potential cost overruns of configuring multiple AWS services separately:

- Container services with automatic scaling prevent paying for unused capacity
- Block storage starting at \$0.10/GB provides cost-effective additional storage
- The predictable monthly billing helps with budget planning and eliminates billing surprises common with usage-based pricing models