

Amazon API Gateway

Create, maintain, and secure APIs at any scale

Amazon API Gateway is a fully managed service that makes it easy for developers to create, publish, maintain, monitor, and secure APIs at any scale. APIs act as the "front door" for applications to access data, business logic, or functionality from your backend services.

Using API Gateway, you can create RESTful APIs and WebSocket APIs that enable real-time two-way communication applications. API Gateway supports containerized and serverless workloads, as well as web applications.

API Gateway handles all the tasks involved in accepting and processing up to hundreds of thousands of concurrent API calls.

Concepts

- **Application programming interface (API):** A set of rules and protocols that create communication bridge between applications or a server.
- **Resources:** API resources are organized in a resource tree according to the application logic.
- **Method type:** Standard HTTP methods include GET, POST, PUT, PATCH, and DELETE.
- **Method request:** A configuration that the client uses to access back-end resources through an API.

How API Gateway Works

The following diagram shows API Gateway architecture.



Use Cases

Microservice Architectures

Route requests to the appropriate services.

Legacy system integrations

Enable incremental migration or newer architectures.

Real-time communication applications

Build chat applications, real-time dashboards, alerts, and notifications.

Analytics and monitoring

Keep logs for debugging, reporting, and analytics.