



*More than what you think.*

# AWS Amplify



# Abstract:

With the number of organisations adopting cloud computing are on the rise, cloud-enabled applications are increasing at a rate to keep up with the speed of this movement. The Cloud offers organizations the flexibility to scale as their businesses grow or shrink while eliminating the overhead of backend operations.

Amazon Web Services, a cloud platform, regularly adds and updates its service offerings through new products and services for mobile, web, Internet of Things, security, networking, robotics, databases, etc.,

One such service AWS offers is the Amazon Amplify. Amazon Amplify Framework, simply explained is a set of libraries, command-line interface, UI components that let the developer build the backend code and integrate it with the apps built-in iOS, Android, React Native or web frameworks such as React, Angular, and Ionic. HC Insights reports a 34.5% increase in usage of AWS Amplify over the last 12 months.

AWS Amplify is a development platform for building secure, scalable mobile and web applications.

[This whitepaper explores AWS Amplify, the features and benefits it offers.](#)

# Introduction:

AWS Amplify makes it easy to create, configure, and implement scalable mobile applications powered by AWS. Amazon Amplify is a framework that facilitates building of all the backend code required for a mobile application, and integrate it with the operating system or web framework. It makes it easy for the developer to authenticate users, securely store data and user metadata, offer selective access to data, decline access to confidential data, integrate machine learning, analyze application metrics, and execute server-side code.

Amplify basically facilitates the entire workflow of a mobile application development, from version control, code testing, to production deployment. A big advantage of Amplify being the ease of scalability, where it can accommodate anywhere between ten and tens of thousands of users. Amplify libraries and Command Line Interface which are part of the Amplify Framework, are open source and offer a simple pluggable interface that enables the enterprise to customize and create their own plugins.

Amplify also automates the application release process of both your frontend and backend allowing you to deliver features faster.

# Why Amplify?

Mobile applications require cloud services for actions that can't be done directly on the device, like backend storage, data synchronization when offline, data sharing across users, configuration and setting up sources offline. All these services also need to be integrated into the application using multiple lines of code. As the number of these application features grow, the volume of code, and the release process gets more complex, time consuming and managing the back end turns into a chore

This is where Amplify comes in. Amplify estimates, provisions and manages back ends for mobile applications. It does this by selecting the requisite capabilities like authentication, analytics, or offline data sync, and leave it to Amplify to provision and manage the AWS service that powers each of the capabilities. These capabilities, now powered can be integrated into the applications through Amplify libraries and UI components.

## What AWS Amplify offers:

AWS Amplify employs other AWS services and components which facilitate, and streamline web and mobile app development through:

### Amazon Cognito - Authentication

It offers a quick and easy way to add user sign-in, sign-up and access control along with social identity authentication and multi-factor authentication, which enhances the overall application security.

### AWS AppSync - Store and retrieve data real-time

AWS AppSync is a serverless backend for mobile/web apps that uses GraphQL API to perform data management tasks. Through in-built data services, developers do not have to worry about online and offline data access, synchronization, manipulation, and retrieval.

### Analytics - Real-Time Performance

AWS Amplify automatically records session data, authentication data, in-app metrics, and many more that evaluates the performance of an app, which saves the need for a third party analytics tool.

### Bots: Conversational Interface

By employing AWS Amplify, developers can create conversational interfaces to provide consistent, accurate, and seamless customer services. Bots is a service that uses artificial intelligence to give a competitive edge.

### AR & VR: Immersive Experience

AWS Amplify is compatible with applications that require the use of high graphics too. It allows to seamlessly integrate AR, VR and 3D scenes into the application to create immersive experiences.

### Notifications: Marketing And Promotion

Amazon pinpoint allows integration of Push notifications that help marketing boost conversion, sales, and engagement.

Apart from these listed services, AWS constantly upgrades itself, provides new services, and launches products for mobile and web app development.



## AWS Mobile Hub:

AWS mobile hub is like a one stop shop for all mobile application needs. It eliminates the need for several apps, by combining features into itself. It facilitates mobile app development with easy to use features like data storage, user authentication, backend logic, analytics, delivery, push notifications, etc.

## AWS Amplify Console

AWS Amplify Console is a Continuous-deployment lifecycle for modern web applications.

Amazon Amplify, AWS Mobile hub and AWS Amplify Console wrapped in one package, referred to as Amplify Framework enables developers to write feature-rich, modern, and scalable apps across all major mobile platforms including iOS, Android, and web.

**The way ahead** - AWS, following the popularity of AWS Amplify among the developer's community, constantly upgrades and tweaks Amplify - removing bottlenecks in configuration, management, and synchronization. Amplify essentially provides components that can simply be picked up and used thus building an app easily, and integrates faster.

### What Are The Benefits Of Using AWS Amplify?

- Pay-for-what-you-use model
- Leverage services like AWS Lambda and AppSync
- Modern, UI-driven approach to build scalable apps
- An easier and faster way to build cloud-connected, full-stack mobile and web applications
- No need to manage infrastructure and hosting
- Better user engagement through AR/VR, 3D scenes and appealing text/voice interfaces
- Faster because of in-built support for backend management and deployment
- Offers native like experiences at lower costs

## Conclusion:

The buzz is that Cloud will be amplified in the near future. AWS Amplify is a great framework to consider, If one needs to build an application from scratch or is considering an upgrade/ advancement to the existing one.

It reduces the developers' burden by providing ready-to-use functionalities and helps create serverless full-stack applications. To be able to use it for React Native app development which is a huge added advantage.

YASH has been helping startups and enterprises with AWS Consulting Services and AWS Cloud Services through its rich experience of over 30 years. With hands-on expertise in building modern, scalable and customer-centric and high-quality apps that can help gain higher and faster ROI, YASH helps businesses of every size and nature grow.

## Resources:

· [AWS Whitepapers](#) · [AWS Architecture Blog](#) · [AWS Answers](#) · [AWS Documentation](#)