

Back End as a Service

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**What is
Baas?**

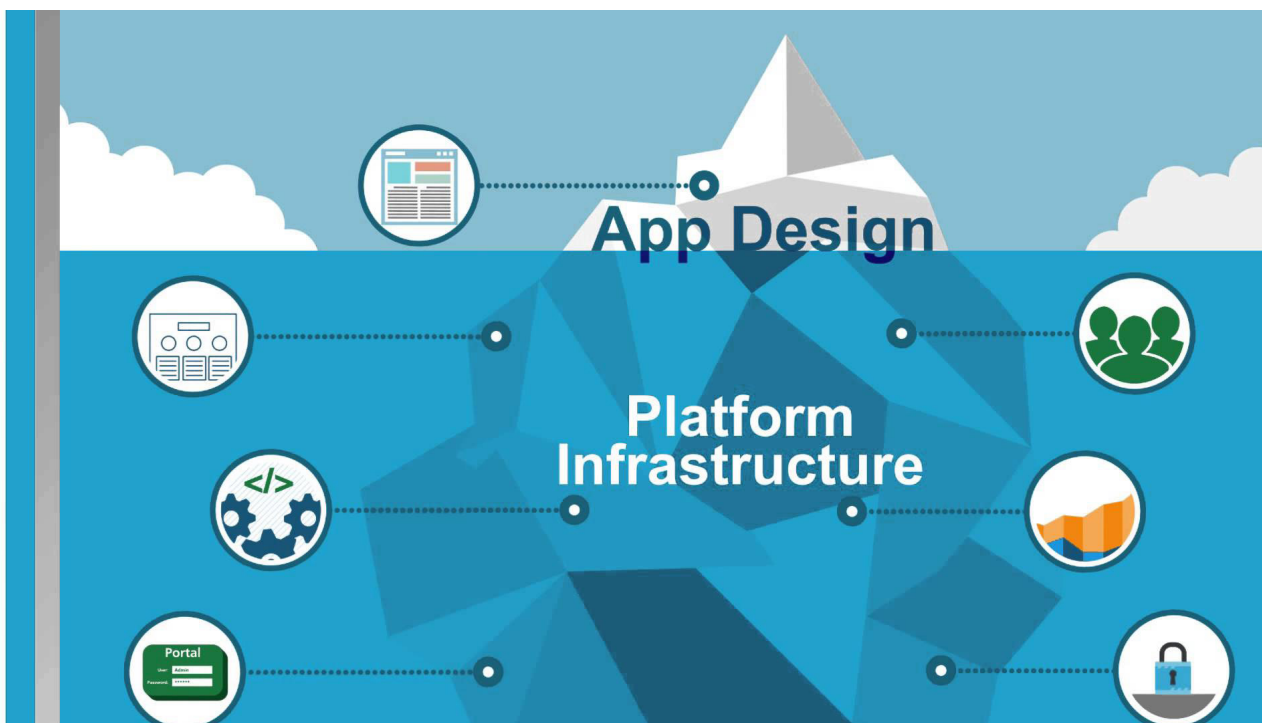
BACK END AS A SERVICE (BAAS)

SECTION 1

WHAT IS BAAS?

Back end as a service is an emerging trend that has gained increased popularity in the past few years. It is a development strategy that focuses on developing an API first, using those APIs as a base to develop upon, and then link the back end storage to the cloud. This has started to replace the “mobile first” mentality. Which traditionally stated that a mobile web page was to be constructed first and then the back end would be built for each platform.

The difference lies in the fact that BaaS starts its development based on the essential elements found in the fundamental similarities between all platforms. Things such as notifications, network integration, location services, and storage capabilities. These services would all have their own APIs, which would allow them to be integrated with applications with ease. This gives developers a consistent way to manage back end data. Which in return reduces the need for developers to recreate, modify or reengineer their back end services.



Reasons to use Baas

THREE REASONS TO USE BAAS

SECTION2

REASONS

Even though BaaS has just started gaining momentum it has some unbelievable benefits. One such benefit is the gift of reusability. Whereas in the past, developers would have to recreate elements for each new application. Companies that provide BaaS solutions give developers access to a foundation on which they can build upon. This foundation also provides developers another utility. With every application sharing the same base, developers are provided a bridge to link platforms and devices. While utilizing a BaaS, developers no longer have to fret about coding for multiple devices, or even for the web. This means increased data sharing through the cloud, greater reach for the application, and a quicker start up time.

Another huge benefit of BaaS is its ability to scale with an application. When implementing a BaaS, an application has the ability to handle more traffic automatically. Developers do not have to worry about their app taking off and not being able to handle the influx of new users and the potential back end problems that brings. This gives developers one less thing to worry about and allowing them more time to develop more quality code with fewer bugs.

BaaS may also lead to a reduction of cost. Building an application ground up requires a lot of know-how and resources. With the average salary of a mobile developer being over 70 thousand dollars a year, hiring a team can be expensive. While developers work hard to create the bulk of the application, a BaaS can be used to provide a lot of the repetitive task needed in application development. Cutting down on not only cost, but time as well. Another cost saving measure BaaS solutions can provide is a means for cloud storage. While it cost money to use a BaaS, the savings are worth it. While using a BaaS solution, a project no longer has to worry about buying hard disk, enclosures, and backing up data.

BaaS Solutions

FIVE BAAS SOLUTIONS

SECTION 3

POPULAR SOLUTIONS

1. Kinvey

Kinvey is a BaaS that specializes in rapid deployment of mobile applications and was ranked top of “Forrester Wave Enterprise Health Cloud” in 2017. Kinvey brings developers a powerful and scalable tool that can remain fully maintained off site, saving the expense of extra time. Part of the reason Kinvey has become so popular is its ability to be dynamic. Not only does Kinvey work in the cloud, but it also has the ability to provide private and hybrid cloud solutions as well. Kinvey also provides the ability to provide support for both Android and iOS.

2. Firebase

Firebase is BaaS solution developed by Google. To a developer, Firebase acts as a constructor of APIs, a server manager, and a datastore. The foundation of Firebase is broken down into three segments called develop, grow, and earn. The develop function offers a slew of tools that include a real-time database in the cloud, social authentication, cloud messaging and crash reporting's. Firebases grow category supplies the user with analytics, notifications, application indexing and dynamic links. While the earn category provides a means for mobile advertising.

3. Kumulos

Kumulos started out as a solution for API management but quickly evolved to an all-encompassing BaaS. It has become an intuitive mobile application solution for agencies looking for a way to bring push notifications, app store customization, document sharing and analytics to their applications. Kumulos has set its self apart because it is no longer just a BaaS. They offer other enticing features such as a brandable customer portal, and application hosting.

4. Appcelerator

Appcelerator sets its self apart by working with the Titanium SDK to enhance the speed at which they are able to develop applications. Appcelerator also excels at deploying applications as well as hosting servers. Appcelerator is also renowned for its ability to simplify data access through APIs. Appcelerator also comes with a dashboard. This dashboard provides clients with visual representations of app installs, sessions, crashes, API calls, and

FIVE BAAS SOLUTIONS

SECTION3

POPULAR SOLUTIONS

analytics.

5. AnyPresence

AnyPresence has staked its claim in the BaaS industry by providing its clients with a number of ways to enhance application mobilization with increased control. AP provides its clients with portable run-time code, integration kits, non-proprietary technology stack, JustAPI enhancements and much more. AnyPresence is quickly becoming more than a BaaS powerhouse. Customers can expect to see AnyPresence to also add middleware service provider to its wheelhouse.

THREE SOLUTIONS PROS / CONS

Kinvey

Pros: Asynchronous file uploading, light weight, reliable, a lot of tools available to customers.

Cons: Can be expensive, Free version isn't very viable.

Firebase

Pros: Scales well, tools that help migrate data out of firebase, JSON, Realtime, easy to integrate crash monitoring and analytics.

Cons: Customers entire backend is proprietary, scales well but it can get expensive, can not develop an app unless connected to the internet, security and data validation are strings in JSON files.

Appcelerator

Pros: rapid prototyping, uses java, a well-known language, services multiple platforms, reliable.

Cons: Uses a lot of resources, can get expensive, can become extremely complex, not as flexible as other BaaS, can have latency issues.

Solution Examples

EXAMPLE APP WITH BAAS

SECTION 4

LOCAL COFFEE SHOP APP

An app that would function well off a BaaS would be an application for a local coffee shop. For a job like this, Google's Firebase would be the best option. The user base for the coffee shop would be smaller than that of a nationally recognized organization, so the fear of expensive scalability wouldn't exist. Firebase also provides the ability to have social login. Through social log in, the coffee shop could have access to their users' birthdays. This could allow them to do things like send them a voucher for a free cup of coffee on their birthday, increasing brand loyalty. Firebase also gives its clients cloud messaging. This cross-platform messaging would allow the coffee shop to inform their customers of events that might be coming to the shop soon, deals available, new drinks coming to the menu, as well as various other ways to drive user engagement.

**Companies
using Baas**

COMPANY USING BAAS

SECTION 5

JAMPP

One company that is currently using Google's Firebase is a mobile marketing firm out of England called Jampp. They provide an in-depth analysis of their clients' application and help them boost mobile sales. Firebase provides Jampp with Google Analytics, which they then use to tailor what kind of ads optimize revenue for their clients. Jampp also uses the analytics from Firebase to predict user characteristics. Which allows them to better tailor the clients' app to its user base.



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