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Overview Of The Backend as a Service (BaaS) Space

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Backend as a Service

There is an emerging trend in mobile application development, that people are calling backend as a service (BaaS), also known sometimes known as mobile backend as a service (MBaaS). With the growth in the number of mobile devices like iPhone from Apple, Android from Google, Windows Phones from Microsoft and the historic contender Blackberry, a number of BaaS providers are emerging to meet the demand for building, deploying and managing the mobile app lifecycle.

What is BaaS?

BaaS is an approach for providing web and mobile app developers with a way to connect their applications to backend cloud storage and processing while also providing common features such as user management, push notifications, social networking integration, and other features that mobile users demand from their apps these days.

This new breed of BaaS services are provided via custom software development kits (SDK) and application programming interfaces (APIs). BaaS is a relatively recent development in cloud computing, with most BaaS startups dating from 2011 or later. The global BaaS market is estimated to grow from \$216.5 million in 2012 to \$7.7 billion in 2017 from a [report published by MarketsandMarkets](#).

How Does BaaS Differ From IaaS and PaaS?

BaaS has evolved out of frustration around deployment of IaaS platforms like Amazon Web Services, just to fire up a single new mobile application--accompanied with the fact that the traditional PaaS offerings have not stayed on top of what is needed for mobile developers. BaaS is about abstracting away the complexities of launching and managing your own infrastructure, then bridging a stack of meaningful resources targeting exactly what developers need to build the next generation of mobile apps.

BaaS, has a lot of the same intent as PaaS, to speed up the application development process, but BaaS is purely a backend, providing an infrastructure that automatically scales and optimizes, bundled with a set of essential resources developers require, like content, data, messaging tools and all best 3rd party, API driven services they are used to like Facebook, Twitter and Dropbox.

What Are The Benefits of BaaS?

BaaS is all about making developers lives easier. BaaS is born out of a shortage of mobile developer talent and an overwhelming demand for high quality mobile apps, not just on iOS, but across Android, Windows and Blackberry devices.

BaaS Delivers:

- **Efficiency Gains** - Reducing overhead in all aspects of mobile app development, increasing efficiency at all stages of development
- **Faster Times to Market** - Reducing the obstacles to take a mobile app from idea to production and overhead with operations once in production
- **App Delivery With Fewer Resources** - BaaS supports development with fewer developers and supporting data and IT resources
- **Optimize for Mobile and Tablets** - BaaS providers have put a lot of time and resources into optimization of data and network for mobile apps, and reduce fragmentation problems across multiple platforms and devices.
- **Secure and Scalable Infrastructure** - BaaS provides a bundled infrastructure that deals with scalability, security, performance and other operational headaches, leaving developers to do what they do best
- **Stack of Common API resources** - BaaS brings common and essential 3rd party API resources into a single stack, preventing developers from having to go gather them separately

BaaS tends to reflect what is considered to be a no-ops development environment that allows companies and developers focus just on building the best applications with the most unique feature set. All of the infrastructure deployment and management that is historically associated with developing applications is abstracted away into a single backend platform.

What Can You Build With BaaS?

While BaaS is primarily focused on mobile application development, the approach has characteristics that can easily be used across multiple areas of development:

- **Web Development** - While BaaS is focused on mobile application development, it provides a much more flexible approach to developing web applications. It provides all the opportunity of PaaS, with less interface restrictions, just a meaningful stack of resources to build variety of web apps.
- **Mobile Apps** - BaaS is designed with developing mobile apps in mind. BaaS providers are focusing on optimizing data for mobile, bringing together essential resources like geolocation, social, places and other critical elements of mobile apps.
- **Readers** - Publishing to Kindle and other devices that are intended to support the world of book and magazine publishing. Devices like Kindle, Nook and other healthcare or education specific devices are emerging and being driven by BaaS
- **Launch APIs** - BaaS platforms provide easy to deploy API frameworks as part of their data and object stores. BaaS provides a quick way to launch APIs and other infrastructure around data and resources, potentially making it available to mobile or web developers

What is possible with BaaS varies depending on the platform provider, but we are starting to see some common building blocks emerge from the 40+ BaaS providers on the landscape currently.

BaaS is a natural response to software development being moved into the cloud, and the decoupling of common resources into individual APIs. In 2013 we know we need our platforms to perform and scale in the cloud, while bringing the resources we depend on into meaningful sets that we can efficiently build apps around, without having to go gather them from around the web.



Who Are The Top BaaS Providers?

The definition of what is a BaaS provider has not just an evolving meaning, but also means different things to different people. API Evangelist is looking to help define the space, and formulate a way for discovering new providers, while defining the different types of existing providers, potentially establishing a harder definition for BaaS.

When it comes to BaaS there are a handful of clear leaders who are dominating the space. These leading BaaS providers are delivering the features that developers are demanding, while also working define the best of breed services that are leading the space in new directions.

After reviewing the space, monitoring the blogging and tweet volume of each provider, their activity on Github as well as references to them in top blogs like Techcrunch and Gigaom, and discussion about them on Reddit and Hacker News, it is easy to identify the leaders. Because of their own efforts, but also the conversations of analysts and developers, a pattern for BaaS success begins to emerge.



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-  <http://crunchbase.com/company/appcelerator>

Appcelerator

Appcelerator is the leading enterprise-grade, cross-platform development solution on the market today, with over 1.6 million developers using its software to power over 30,000 cloud-connected mobile, desktop, and web applications used on 30 million devices every day. The company's flagship offering, Appcelerator Titanium, is the only mobile cloud platform to enable fully native, cross-platform mobile app and HTML5 web development, from a single codebase. Appcelerator's customers can leverage their existing skills and open, industry standard technologies to decrease time-to-market and development costs, increase customer adoption and revenues, and enjoy greater flexibility and control.



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Appery

Appery.io is the first mobile platform that offers a cloud-based rapid development environment integrated with pre-built back-end cloud services and industry leading team collaboration capabilities. Appery.io enables developers of all skill levels to rapidly create complete mobile apps including user interfaces, application logic, and back-end integration. It combines the simplicity of visual development with the sophistication to create complex apps that scale to millions of users. Because the platform is 100% cloud-based, you can focus on creating great applications while we worry about maintaining the platform.



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Kinvey

Kinvey (pronounced Kin-vey, like convey) makes it ridiculously easy for developers to setup, use and operate a cloud backend for their mobile apps. They don't have to worry about connecting to various cloud services, setting up servers for their backend, or maintaining and scaling them. With Kinvey, developers simply code their app using any SDK of their choice. They then connect the app to Kinvey's backend features using auto-generated APIs and libraries, and - just like that - the app is ready to launch. We'll worry about auto-scaling and maintaining your backend. You focus solely on your app.



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Parse

Parse allows your team to focus more on creating a great user experience and forget server maintenance and complex infrastructure. Instantly add push notifications, data storage, social integration, and more the moment you integrate a Parse SDK into your app. Our native SDKs for iOS, Android, Windows 8, Windows Phone 8, OS X, and JavaScript make it easy to create beautiful and powerful apps for all of your favorite devices. From desktop to mobile apps, Parse has an SDK for everyone. With Parse, you can add a scalable and powerful backend in minutes and launch a full-featured app in record time without ever worrying about server management. We offer push notifications, social integration, data storage, and the ability to add rich custom logic to your app's backend with Cloud Code.



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StackMob

StackMob's mobile platform helps developers create a mobile business by letting them easily build, deploy and grow full-featured applications from the very first version. StackMob cuts backend development time from months to minutes, letting developers focus on creating powerful apps with quality user experiences. StackMob also provides a front-end development environment that developers can use to create a single, feature-rich application that runs seamlessly on multiple mobile operating systems. Mobile represents the first personal mass-media device and one of the fastest growing industries in the world. To stay ahead in this ever-changing landscape, developers need to focus on creating differentiating value on the client side of their applications.

What Are The Common Building Blocks of BaaS?

After reviewing the top BaaS providers like Appcelerator, Appery Kinvey, Parse and StackMob, a pattern of building blocks begin to emerge. Building blocks that BaaS providers are using to assemble their platforms into meaningful stacks that developers can put to use. While each BaaS provider has their own approach, a handful of common building blocks emerge, allowing a coherent definition of what is a BaaS provider to emerge.

Using this list of common building blocks I looked to find other companies that offer similar backend services, resulting in the discovery of 45 total BaaS providers. After reviewing each BaaS provider, each feature of their offering was entered into a database--uncovering a common blueprint, of which building blocks mobile developers are seeking.

Over 200 building blocks have been identified in over 40 areas, across 45 BaaS providers. 37 building blocks in over 18 areas have been identified as common between at least 3 providers before they are included within my common BaaS blueprint.

This common BaaS blueprint represents one potential blueprint for using APIs, that are just not about consuming single API for a mobile app, but aggregating them to improve the overall delivery, management and lifecycle of mobile applications.

User Management



Users - When it comes to your backend system, it all starts with a user. Basic user management for BaaS is about giving developers what they need to enable their users to signup and engage with their applications. User management is a core element of all BaaS systems.

Content Management System



Basic - A basic backend content management system allows for the creation, management and deletion of pages, content and the overall site structure and navigation. Approaches to content management vary, but tend to be similar to web CMS, but applied to a much more simplistic, mobile format.

Data



Data Browser - Providing a quick and dirty way to browse data that is used for the backend of applications is a common interface. Data browsers range from very simple to full-blown data management interfaces.

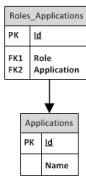


Key Value - Key-value stores allow applications to store data in a schema-less way, allowing the data to be stored in a datatype of a programming language or an object.



MySQL - MySQL is a very popular database for building web applications. It is natural that it is used as a data source for web and mobile applications. MySQL connectors for BaaS platforms is a common way to connect to existing data sources and provide familiar data

connectivity for developers.



Relational - Relational tables allow for connecting of table data in separate tables, allowing fields and their values to be related. Providing developers with the ability to build relational data connections is a common feature. BaaS implementations of relational databases tends to be done with common platforms like MySQL, but provide a very barebones implementation designed just for what developers need for rapid development.

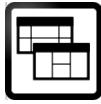


Table - Allowing developers to store data in columns and rows, or tables, is a data staple of BaaS providers. Providing a simple way to store text data in tables is essential to any developer's backend. Data tables are a base requirement for all BaaS providers.

Images & Photos



Storage - The ability to manage photos and images is an essential for any web or mobile application. Image storage systems are a common feature in BaaS platforms, with a handful providing reciprocity with common photo platforms like Instagram or Flickr.

Custom



Code - BaaS provides a framework that allows developers to rapidly develop apps, but the need to extend beyond the base functionality with custom code. Many BaaS platforms allow for the injection of custom code within controlled areas of the platform, which then executes the code within each app.



Objects - Custom Objects allow for developer developers to create their own data structure (ie. classes and objects) allowing them to store whatever data or content they want in these objects. Developers can create any object with a handful of core characteristics allowing them to control and manipulate these objects within their programs.

API



Custom - A handful of the BaaS platforms provide tools for developers to deploy custom APIs that work with custom object building blocks, allowing them to extend the API beyond core data stores. Extending platforms using custom APIs is a quick way to expand beyond initial BaaS features.



Query - Many BaaS platforms offer up a query style interface for platforms, allowing a SQL like way for developers to work with data. Programmatic query interfaces are familiar to many existing backend developers, in addition to REST interfaces.



REST API - All BaaS platforms provide an API for developers to get at all aspects of the platform from user management to data stores. APIs allow for use in building applications as well as integrating with other management systems.

Virtual Commerce



In-App Purchases - Commerce is essential for today's app developers. A common approach to enabling app commerce is by providing developers with the ability to implement purchases using virtual currency within their apps. In-App Virtual Commerce is a quick way to gamify apps, potentially making them more compelling for users.

Monetization



Promotions - To support other monetization, incentive and loyalty strategies within applications, BaaS providers are building in promotion toolsets, that provide developers with the ability to promote products or services.

Ranking



Ratings - Providing users with the ability to rank anything via an app is becoming commonplace. To support this BaaS platforms are providing developers with basic rating system as part of their ranking offerings.

Communication



Chat - Real-time chat capabilities is a common feature in both web and mobile apps. BaaS tends to provide real-time chat using a 3rd party tool, built into the platform for developers to implement.



Email - Email is ubiquitous. It makes sense that it is default feature in all BaaS platforms. Email infrastructure can be time consuming to setup and maintain for developers. BaaS providers are providing their own or using the services of major provider, but baking it into the platform.



Messaging System - With email, SMS and chat built into BaaS, some providers are providing a complete messaging system for sending and managing messages across communication systems. Not having to deliver your own messaging system is a definite time saver for developers.



Push Notifications - Push notifications are commonplace on smart phones. Users expect information and messages to be pushed to them. Push notifications is by far the most common communication and messaging tool BaaS providers deliver to developers.



SMS - BaaS targets mobile developers. In mobile apps SMS communication is dominant, and the common choice for developers to send and receive messages. SMS messaging is a default feature of any BaaS platform.

Geo



Location - Geolocation provides developers with native way for identifying the location of an user's mobile phone or an Internet-connected computer. Providing the location of a user via latitude/longitude or address location, so that the location can be used in a developer's applications.



Places - In today's mobile app driven world, developers need high quality places data of businesses and other points of interest at their disposal. BaaS tends to provide native places data, usually from an existing 3rd party provider.



Targeting - Geo Targeting of users is generally targeting of users based upon several data points including location, behavior, history, friends and other valuable information. Providing a very targeted approach to delivering information to application users. Targeting is something developers would have to spend a great deal of time on developing, BaaS bakes

it in.

Gaming



Focus - Empowering developers to build web and mobile gaming applications is a common focus for BaaS providers. Gaming is by far the major focus of BaaS providers currently, while others support a generic approach to app development with no focus.

Availability



Scaling - Abstracting away the complexity of backend infrastructure is one of the core promises of BaaS. Providing a platform that automatically scales for developers, as they need is the number one reason developers will use a backend as a service (BaaS).

Mobile Devices



Android - Android is the number two platform that developers are building for. The majority of BaaS providers support native Android application deployment for developers.



Blackberry - Blackberry is still a popular device in the enterprise and in some markets around the globe. Some BaaS providers deliver Blackberry specific SDKs and tools for developers looking to build on the handset platform.



iOS - iOS is the number one platform that developers are building application for. All BaaS providers provide tools for deployment mobile apps on the iOS platform targeting iPhone or iPad applications. iOS is the reason for many BaaS providers.



Windows - Windows phone is working hard to play catch up with both iOS and Android. Most of the leading BaaS providers are deploying Windows phone specific SDKs and other features. Don't discount Windows in the mobile phone development space, they are picking up pace.

Mobile Platforms



PhoneGap

PhoneGap - PhoneGap is a mobile development framework produced by Nitobi that was purchased by Adobe Systems. It enables software programmers to build applications for mobile devices using JavaScript, HTML5 and CSS3. PhoneGap is known for producing hybrid apps that are using web technologies, but have access to some of the best features of developing native iOS or Android apps. Many BaaS use PhoneGap as the core technology for mobile application development.



titanium

Titanium - Appcelerator Titanium is a platform for developing mobile, tablet and desktop applications using web technologies, from Appcelerator Inc. Titanium has support developing iOS, Android and Blackberry mobile applications. Appcelerator provides its own BaaS platform, but the Titanium platform is used by other BaaS providers as a tool for their developer to use as well.

Languages



HTML5 - HTML5 is a markup language for structuring and presenting content for the World Wide Web and a core technology of the Internet. HTML5 has become the standard for developing web-based or non-native mobile apps. Many of the BaaS platforms offer HTML5 as the alternative to native iOS or Android application deployment for developers.



PHP - PHP is the top web programming language. The goal of BaaS providers is to make development of apps, specifically mobile easier for a wide audience. It is logical to support PHP developers in making this transition, as they are the largest demographic of developers migrating from web to mobile.

Social



Facebook - Facebook is the top social network. It is a platform that is incorporated into all the BaaS providers, allowing developers to easily provide Facebook authentication, posting, sharing and the other common social features that users are becoming used to.



Twitter - Twitter is the top microblogging and social network. It is a platform that is incorporated into all the BaaS providers, allowing developers to easily provide Twitter authentication, tweeting, friends, sharing and the other common social features that users are becoming used to.

Enterprise



Support - While we all love a startup, the money in mobile development is selling solutions to the enterprise. Many of the BaaS providers have enterprise focused solutions, with sales and support focused on the enterprise. The enterprise seems to be warming up to the potential of BaaS, as part of their mobile strategies.

What Are the Common Approaches to BaaS Pricing?

The approaches to BaaS pricing are still evolving. Most of the providers have gone with an API call or storage cost approach to pricing, but there still is much debate about just which pricing model is most beneficial to developers and will ensure BaaS providers are profitable.

The struggle in BaaS pricing reflects a struggle between BaaS platform providers covering their costs, while generating a profit for investors and the demands of developers who are often needing to start with a freemium tier, but may have radically different needs once their applications are in production, serving potentially hundreds or thousands of users.

Today, you see most BaaS providers pricing reflect the platform in which they are built on. Many of the current BaaS providers operate on Amazon Web Services, so the BaaS pricing is currently reflecting their upfront platform costs, compute and storage.



API Calls - Charging developers per API call is the most common approach to BaaS pricing. This is another reflection of the role of APIs within the BaaS movement. The value of BaaS is in the API resources that are made available, and this is where business models tend to be built around.



Storage - Storage is the biggest cost for BaaS providers. A developer's use of disk storage for data, files, images and other objects is the most common approach to BaaS pricing along with the number of API calls. Most BaaS run in the cloud, so this storage is always a cloud-based solution.

What Are The Other Approaches to BaaS Pricing?

API calls and passing on cloud storage costs are the most common ways to approach BaaS pricing. But beyond these two areas, there are numerous other ways BaaS providers are pricing BaaS services for developers.

With mobile app users being the center of the world in mobile app development, it makes sense to charge for BaaS services based on user count. A per user fee, potentially couples a BaaS provider's monetization strategy with their developers. In this approach a provider may assume their developers will be monetizing each end-user of their platform, thus can afford to pay more as they add users.

Other BaaS providers state that charging developers based upon API calls and number of active users results in a kind of success tax. Meaning the more successful your app is, the more active users and API calls you will have, equally a significantly larger BaaS bill. There is still a lot of open discussion around this point.

BaaS pricing is far from standardized. It is much more a reflection of the IaaS layer beneath the BaaS providers than it is about the end users of the platforms. However there is a lot of experimentation going on in BaaS, resulting in numerous other approaches to pricing across 45 BaaS providers.



Active Users - To some, the number of active users is a sensible way to charge for BaaS services. Charging developers for each active user is a way to potentially keep backend costs in line with a developer's business model. Each provider has their own definition of what constitutes an "active" user.



Analytics - Many BaaS providers include a basic analytics package as one of the core platform features. There are a handful of providers who offer premium or advanced analytics for a fee. Getting the analytics you need is definitely a pain point that makes sense to potentially charge against.



Apps - Since developers are building apps with BaaS platforms, charging for services based on the number of applications makes a lot of sense. A number of the BaaS providers give you one app key for free then charge for additional production applications.



Bandwidth - Bandwidth is another one of those hard costs that are passed along from your hosting provider. If you're on AWS or other cloud provider you probably see this on your bill as a BaaS provider. It is common to pass along the cost to developers, sometimes with a surcharge.



Beta - Many BaaS providers are still trying to figure their pricing out. They are still in beta so do not provide pricing at all or disclaimers that it can change or evolve at any point. This is common with BaaS providers still trying to figure out the sweet spot for their target developers.



Campaigns - Along with the growth in the number of smart phones in consumer pockets, the number of BaaS providers who are providing mobile marketing services are growing. There are a number of BaaS providers charging per marketing campaign, as this is where the perceived value is for consumers.



Chats - Chat technology is another piece of technology BaaS providers are having to find 3rd party solutions to, so this becomes a hard cost that BaaS providers can pass along. Real-time chat is something both developers and users associate value to, so a good quality solution can be worth paying for.



Emails - Emails are a messaging area that is easy to meter, associate value to, and can be used as a good place to measure value and charge for. Some BaaS providers are outsourcing email to providers who provide dedicated email services, incurring a cost that needs to be passed on to BaaS developers.



Enterprise - Enterprise is where the money is at when it comes to delivering mobile services. As more of the BaaS providers court the enterprise you see pricing models with enterprise tiers emerge. I don't think we'll ever see details of enterprise tiers, but they will be part of most BaaS platforms looking to grow.



Features - Some BaaS providers have taken a stance that developers should only be charged for features, not by API calls, storage, etc. Claiming these costs in the cloud are negligible and developers should only be charged for premium features. Features can be from the BaaS provider or 3rd party providers through a marketplace.



Push Notifications - Push notifications are another hard costs for BaaS providers, so it makes sense that many pass this cost on to developers, while also making a potential profit by charging an associated fee. Push notifications is something that about 2/3 of the

BaaS providers use.



SSL - Some of the BaaS providers include SSL in their pricing packages. While there are some hard costs with implementing SSL for BaaS providers, it is more likely that customers will see this as an acceptable area to pay money for.



Support - Developers will value support from BaaS providers. Many of the BaaS providers offer premium support, allowing web and mobile developers to pay for support while building and operating these applications.



Synchronizations - Several BaaS providers include the ability to sync content, data and messages. These platforms structure their pricing around the number of synchronizations between the platform and the devices. Sync is a valuable feature to developers, saving them programming work while also improving the user experience.

Who Are The Other BaaS Providers?

While there are clearly leaders in the BaaS movement, there are 37 other companies working to make their mark on the space and serve the mobile app developer community. Each of these providers have their own approach to delivering their BaaS stack, but many are emulating the successful patterns of the BaaS pioneers.

Some BaaS providers are looking to enable mobile developers to build cross-platform apps on any device in any business sector. While others are looking to serve a niche like gaming or focus exclusively on strengthening the marketing efforts of companies via this fast growing world of consumer devices.



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Applicasa

Applicasa is a mobile game management platform aims to help game publishers and studios to increase in-app purchase revenue through user segmentation and event-based promotions. With our platform publishers can manage and promote their games virtual economy by targeting personalized promotions to specific users that are triggered at the right moment in order to encourage them to make more in-app purchases.



<http://www.xtify.com/>



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alt=rss](http://blog.xtify.com/feeds/posts/default?alt=rss)



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Xtify

Xtify provides mobile application publishers with the tools to create, manage and execute push and location-triggered notification campaigns across smartphone platforms. Xtify offers the only location-based push notification technology that allows publishers to send notifications to their mobile audience even when the application is closed.



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Proximo

Add a backend to your app in the next five minutes. Store data, use custom authentication, and scale like crazy. Plus add many other open and flexible features to your app instantly. We built it for us; we are sharing it with you. Proximo is your single backend for all platforms and all devices - iPhone, Android, Windows Phone, and web apps. Proximo provides a RESTful API that cross integrates a variety of context services designed to simplify the development of



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context-aware applications, including location, collaboration (both e-mail and SMS) and social networking.

Hipmob



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Hipmob

Hipmob provides hosted live chat for mobile applications. You sign up with us, we give you a code, you download our library, you integrate it into your app, and you can then talk to your users, figure out what they want and what problems they are having, and make them happy. No servers, no extra steps or code to write, wherever the users are, you get to focus on what you do well. Hipmob provides a server API to allow admins to manage their applications' settings and obtain device information.

kumulos



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Kumulos

Kumulos is a cloud Backend as a Service (BaaS) for mobile apps. We provide a stable, scalable, and secure platform to build your iPhone and Android apps on. Sharing data and connecting your users has never been easier. Drag & drop creation of data structures and API methods, with native library generation ensures a quick and painless development & integration process. We manage the infrastructure to support your app as it grows so you can focus on developing more killer features without having to worry about server administration.

Moblico DEVELOPER



<http://developer.moblico.com/>



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Moblico

Moblico's Mobile-Backend-as-a-Service platform was designed from the ground up with both the application developer and systems integrator in mind. For the developer, using Moblico's REST APIs, you can quickly and cost effectively add application features to your new app and/or your existing applications. In addition the platform is built to make application integration with existing systems a snap. Moblico's Mobile-Backend-as-a-Service is hosted in a start-of-the-art data center with full redundancy and is scaled to manage the intensive work loads that are required to support mobile.



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Geoloqi

The Geoloqi platform offers a complete, cross-platform, language, device and carrier agnostic platform for enterprise applications and IP-connected devices. A contextually aware solution, it enables persistent background location tracking, intelligent battery management, and transitions smoothly between location sources such as carrier signals, GPS and Wifi for true real-time tracking. Geoloqi's API allows developers to build location-aware services and applications without having to write code from scratch. Developers can use Geoloqi to easily add automatic check-ins, user sign-ups, location-based messaging, event triggers, and real-time GPS maps to their existing applications.



<http://www.feedhenry.com>



<http://www.feedhenry.com/home/news/feed/>



<https://twitter.com/feedhenry>

FeedHenry

FeedHenry provides a cloud Mobile Application Platform that simplifies the development, integration, deployment and management of secure mobile apps for business. This mobile platform-as-a-service (PaaS) allows apps to be developed in HTML5, JavaScript, and CSS and deployed to multiple mobile devices from a single code base.



<http://www.apiomat.com/>



<http://www.apiomat.com/blog/>



<http://www.apiomat.com/feed/>



<https://twitter.com/apiomat>

API O MAT

API O MAT is a backend-as-a-service (BAAS) provider. API O MAT offers various features such as chat, email clients, Facebook connections, content push, and WordPress syncing. The API O MAT API allows developers to access and integrate the backend functionality of API O MAT with other applications and to create new applications. Public documentation is not available; API access comes with account service.



- <http://www.playhaven.com/>
- <http://blog.playhaven.com/>
- <http://blog.playhaven.com/feed/rss/>
- <https://twitter.com/playhaven>

PlayHaven Reporting

PlayHaven is a Lifetime Value (LTV) Maximization Platform that enables mobile game creators to completely control and balance their in-game marketing and monetization needs. Embrace the flexibility of the web with PlayHaven's HTML5-powered platform to modify, analyze, and optimize the game experience in real-time to meet business goals. Since May of 2010, PlayHaven has served thousands of game developers and publishers including PocketGems, Glu, Game Circus, Fluik, Halfbrick, and several others.



- <http://api.shephertz.com/>
- <http://blogs.shephertz.com/>
- <http://blogs.shephertz.com/feed/>
- <https://twitter.com/shephertz>

App42

ShepHertz's endeavor is to make App developers successful on the Cloud, irrespective of the technology or platform on which they are developing. All their products focus on making App developers' life easy and augment their business. App's complete backend will be managed by App42. Developers will hardly need to write any server side code for their Apps. Now developers dont have to worry about OS installations, patches, security, firewalls, scalability, high availability and any server side code, be it technical or business logic. Developers can focus on their UX and client-side logic, and leave the cloud and data management to App42 Cloud Platform.



- <http://baobabsuite.com/>
- <http://baobabsuite.com/blog/>
- <http://baobabsuite.com/feed/>

Baobab

Baobab Suite is a product brought to you by afrozaar.com. Baobab Suite is a solution that provides all the necessary mobile app backend services required to ensure a secure and consistent user experience when it comes to the distribution and consumption of media content across mobile app platforms. The Baobab Suite platform has been built in collaboration with a number of media and newspaper publishing houses, who have contributed towards the products strengths by sharing their main challenges faced in the mobile space.



<http://www.iknode.com/>



<http://iknode.io/blog/>



<http://iknode.io/atom.xml>



<https://twitter.com/iknode>

iKnode

We are sick and tired of spending too much time implementing the aspects of web services. Things like security, configuration and deployment should be completely automated. We want to ship, and just focus on the functionality of our applications. Basically, creating and hosting Web Services is just too complex. We need a platform that allows you to create web services by just using your browser and focusing only the functionality of your service; because, honestly, nothing else matters. iKnode is that platform. iKnode will take care of all of the other aspects of your service and make it easily accessible for your applications.



<http://mobeelizer.com/>



<http://mobeelizer.com/blog/>



<http://mobeelizer.com/blog/feed/>



<https://twitter.com/mobeelizer>

Mobeelizer

Mobeelizer is a cloud sync infrastructure offered in SaaS helping mobile developers integrate synchronization into their mobile apps. Mobeelizer make it ridiculously easy to get synchronization for mobile apps up and running, so developers can focus on creating mobile apps, without worrying about data exchange. Using Mobeelizer automatically take care about the backend, configuration and complicated aspect of synchronization conflicts. Mobeelizer give the synchronization cloud and SDK for each mobile platforms.



<http://www.openi-ict.eu>



<http://www.openi-ict.eu/category/blog/>

OPENi

Open-Source, Web-Based, Framework for Integrating Applications with Cloud-based Services and Personal Cloudlets. To inspire innovation in the European mobile applications industry, by radically improving the interoperability of cloud-based services and trust in personal cloud storage through the development of a consumer-centric, open source mobile cloud applications platform.



OpenMobster

OpenMobster, provides a complete end-to-end Sync solution for your mobile apps. The infrastructure consists of a Cloud Server that integrates with backend Enterprise services. On the device side, this data is accessible through the MobileBean API included in the device SDK.



Sencha.io

Sencha makes web standards-based products that empower developers to create amazing cross-browser application experiences with precision and performance. We offer HTML5-based frameworks tailored for desktop and mobile experiences and design tools that make application UI and CSS3 animation development easy. We've also innovated the industry's first cloud services for mobile application developers, supporting your web application at anytime, anywhere. More than two million developers worldwide—representing more than 150,000 companies—use the Sencha family of products to build amazing applications every day.



Scringo

Scringo offers a complete set of features, enhancements and tools to simply help mobile app developers make more out of their apps. Developers can instantly find & add engagement, community-driven, social & monetization features to their apps using a fully customized, swiped-in, sidebar. Using Scringo's Developer Zone, developers can manage and customize their apps, connect with their users, listen to their feedback, send them free system messages & push notifications and gain valuable insights about their apps & users.



-  <http://www.anypresence.com/>
-  <http://www.anypresence.com/blog/>
-  <http://feeds.feedburner.com/AnyPresence>
-  <http://twitter.com/anypresence>

AnyPresence

AnyPresence is a mobile development platform that dramatically reduces the time and cost of mobile-enabling enterprise business processes, products, and services. It is the only solution that offers organizations the ability to assemble and deploy backend servers, native iOS, native Android, and HTML5 mobile web apps without platform “lock-in”. Powered by a robust mobile backend-as-a-service (MBaaS), AnyPresence also provides pre-assembled mobile app templates, a design-time API, and other patent-pending capabilities to further accelerate time-to-market.



-  <http://appacitive.com/>
-  <http://appacitive.com/blogs/>
-  <http://appacitive.com/feed/>
-  <https://twitter.com/Appacitive>

Appacitive

Appacitive is a cloud platform for building scalable backend infrastructure for mobile and rich internet applications. It allows application developers to draw their app data model and convert it into production ready api infrastructure in minutes. The appacitive platform offers features ranging from user management, storage apis, email, push notifications, visual modeling and much more.



-  <http://www.baasbox.com/>
-  <http://www.baasbox.com/category/blog/>
-  <http://www.baasbox.com/feed/>
-  <https://twitter.com/BaasBox>

BaaSBox

We believe that the adoption of the cloud computing technologies will be always more popular for some good reasons: lowering operating costs, time to market, to develop prototype and proof of concepts to test the market. The BaaS paradigm allows developers to remain focused on their applications, on the user interaction, on the app's core, delegating the backend features management and development. This is even more true for mobile applications that require a backend platform. Our proposal is to create a backend platform completely Open Source and to use it to build our BaaS offering. Users will feel more protected because they will know that can install on their platform, at any time, the BaaS software and eventually to leave our service and to manage its own backend services as they deem convenient to do so.

Cloudmine



<https://cloudmine.me>

<http://blog.cloudmine.me/>

<http://blog.cloudmine.me/rss>

<https://twitter.com/cloudmine>

CloudMine automates back-end development for mobile developers so they have more time to focus on making their apps shine. In the mobile world, developers need to focus on front end (what the user sees on their phone) and back end (what makes the app work). CloudMine lowers the barrier to entry for mobile development for independent developers, small shops, and enterprises. The CloudMine toolkit acts as a gateway to our backend solution. CloudMine stores apps' data, maintains their servers, and scales themas needed. This allows developers to build and ship apps faster and with lower risk. Specifically, many apps need to use the internet to communicate or store data. We eliminate these pain points. CloudMine handles the majority of backend work, so that mobile developers don't have to.

FAT FRACTAL



<http://fatfractal.com/>

<http://fatfractal.com/beta/blog/>

<http://fatfractal.com/prod/feed/>

<https://twitter.com/FatFractal>

FatFractal

The FatFractal Platform is an end-to-end solution for developing cloud-based apps for any connected device. Design goals for the Platform include efficiency across the board, lowest cost and ease-of-use. This section provides an overview of the FatFractal Platform's Backend Architecture. The hands-on interface for developers who are building apps is mostly at the SDK level, but we think building a cloud-based app means understanding the underlying services (and having access to them!) beyond clientside SDKs. We built our own middleware layer to prevent clientside and serverside lock-in, to allow open source development of platform services and modules and to ensure abstraction, at every level (IaaS, PaaS, Services and so on), that benefit the developer.

FLURRY



<http://www.flurry.com/>

<http://tech.flurry.com/>

<http://feeds.feedburner.com/FlurryTechBlog>

<https://twitter.com/FlurryMobile>

Flurry

Flurry helps companies build, measure, advertise and monetize mobile applications in the new app economy. The company's comprehensive measurement and advertising platform reaches over 700 million monthly unique smartphone and tablet devices across iOS, Android and other platforms.



<http://www.kii.com/>



<https://twitter.com/kiicorp>

Kii

Kii Capital is a venture fund in Silicon Valley that invests exclusively in mobile consumer apps which have demonstrated user traction. Kii Capital can provide access to Kii's global distribution channels, localization, and technology to scale companies in addition to a partnership with a fund whose management has deep mobile industry expertise and focus. Kii has joined forces with some of the largest and most influential mobile carriers and device makers in the world. This unique business network spanning Japan, Korea, China, Taiwan and Silicon Valley provides world-class opportunities for preloading apps or promoting apps through partner's app stores and marketplaces. Kii Cloud MBaaS provides a Mobile Backend-as-a-Service user management, data management and analytics in minutes for mobile apps on iOS and Android without writing a line of server code. It also provides Native JavaScript and REST APIs and an easy-to-use Ad Network SDK that helps app developers optimize their advertising revenue.

LeanEngine



<http://www.lean-engine.com/>



<https://twitter.com/LeanEngine>

LeanEngine

LeanEngine is an open source project aiming at making the development of cloud-enabled mobile applications really simple, fast and fun. It consists of a pre-configured Google App Engine server and client libraries for mobile clients. It lets you focus on developing your mobile app while it handles all the boring and complicated stuff. Stuff like logins (Facebook, Google, Twitter, OpenID), saving data to the cloud, querying data from the cloud and security. All this you can achieve with using LeanEngine libraries and a few lines of code on your clients. Not only that. Because it runs on your own instance of App Engine you keep total control of the data.



<http://www.mblox.com/>



<http://www.mblox.com/impact-ideas/blog>



<http://www.mblox.com/taxonomy/term/2/feed>



<https://twitter.com/mblox>

mBlox

The Leader in Global Mobile Engagement mBlox helps brands, agencies and solution providers create meaningful connections with their customers on mobile devices anytime and nearly anywhere. Our network of over 800 mobile operators around the world enables businesses to reach nearly 5 billion consumers. We make it easy to use interactive SMS text message campaigns, push notifications and geolocation in order to drive revenue, lifetime customer value and ROI.



<https://developer.mobage.com/>



<https://twitter.com/MobageDevs>

Mobage

Mobage is a portal and social network for games. The service is a platform for developers to deploy their games so that they can be discovered and shared by mobile game users. DeNA's Japanese-language Mobage service has 30 million users, who largely play on feature phones. Mobage is now available in Android markets in the U.S., China and Japan.



<https://www.mobdb.net>



<https://twitter.com/mobDB>

mobDB

A backend solution is platform independent (HTTP POST) and you can create feature-rich mobile app. With easy-to-use SDK and REST API, mobile app can fully manage mobDB backend and 'mobDB' backend architecture is created in a very simple way, so that your mobile app can give very good performance by start retrieving data in no time.

OpenKit



<http://openkit.io/>



https://twitter.com/OpenKit_io

OpenKit

OpenKit is the industry's first completely open platform for backend services for mobile developers, with a guarantee of "no lock-in of developer data." With OpenKit, developers get an open source toolkit on iOS and Android to plug into backend services critical to apps in the post-PC era: common services for all types of apps, including a universal account authorization service and a cloud storage service, plus app-specific services such as leaderboards/achievements for game developers.



QUICKBLOX

Quickblox

QuickBlox is a cloud hosted backend (mBaaS) consisting of 7 modules which developers and publishers can use to add extra



<http://quickblox.com>



<http://quickblox.com/blog/>



<http://quickblox.com/blog/feed/>



<https://twitter.com/QuickBloxBlog>

functionality to their smartphone, desktop and web/Facebook apps. Enterprise clients usually have system running on their own servers / AWS infrastructure managed by QuickBlox team. This provides flexibility, security and control necessary for enterprise sector. Quickblox's ready-to-go modules add new functionality, reduce development time & cost, add scalability, and quicken time to market.

Scotty App



<http://scottyapp.com>



<http://blog.scottyapp.com>



<http://blog.scottyapp.com/rss>



<https://twitter.com/getscottyapp>

ScottyApp

ScottyApp.com is a new approach to solving the backend development problem of mobile applications. It allows developers to interactively define the backend logic of their apps. Using that information ScottyApp.com creates and manages the necessary cloud services to provide a working backend infrastructure, accessible through an API created specifically for the developer's project. Developers are freed from repetitive tasks and save weeks of work. On top of that they also benefit from not having to worry about upgrading different versions, best practices for schema design and scalability.



<http://www.buddy.com>



<http://blog.buddy.com>



<https://blog.buddy.com/feed/>



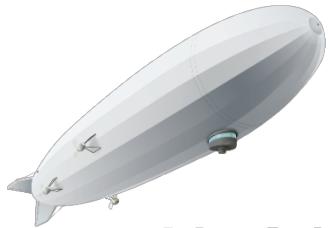
<https://twitter.com/#!/BuddyPlatform>

The Buddy Platform

The Buddy Platform is the first BaaS that Powers, Optimizes and Measures your Apps. Buddy enables developers to build engaging, cloud-connected apps without having to write, test, manage or scale server-side code or infrastructure. Build against Buddy's collections of APIs that offer complete end-to-end scenarios like geo-location, photo albums, chat/messaging, image filters, user accounts, friends and more.

Urban Airship

Urban Airship is the most globally deployed push messaging service, delivering billions of messages per month with unparalleled speed



Urban Airship



<http://urbanairship.com>



<http://urbanairship.com/blog>



<http://urbanairship.com/blog/rss>



<https://twitter.com/urbanairship>

and scale for leading brands such as CBS Interactive, ESPN, Groupon, shopkick, Viddy, Walgreens and Warner Bros. Urban Airship enables these brands and 65,000 other customers to engage consumers directly on their mobile device home screens with precision-targeted mobile messaging. Complete mobile engagement suites offer easy and effective end-to-end management of the push messaging process from customer and location targeting, to automation and delivery, including message composition, rich landing page creation and analytics to optimize effectiveness.



<http://wso2.com>



<http://wso2.com/blogs/thesource/>



<http://wso2.com/blogs/thesource/feed/>



<http://twitter.com/wso2>



<http://crunchbase.com/company/wso2>

WSO2

WSO2 is the lean enterprise middleware company. It delivers the only complete open source enterprise SOA middleware stack purpose-built as an integrated platform to support today's heterogeneous enterprise environments internally and in the cloud. WSO2's service and support team is led by technical experts who have proven success in deploying enterprise SOAs and contribute to the technology standards that enable them.

helios

an extensible open-source mobile backend framework



<https://github.com/helios-framework/helios#readme>

Helios

Helios is an open-source framework that provides essential backend services for iOS apps, from data synchronization and user accounts to push notifications, in-app purchases, and passbook integration. It allows developers to get a client-server app up-and-running in just a few minutes, and seamlessly incorporate functionality as necessary.



Geosophic

-  <http://www.geosophic.com/>
-  <http://www.geosophic.com/blog/>
-  <http://www.geosophic.com/feed/>
-  <https://twitter.com/geosophers>

Geosophic is the gaming platform that allows you to get behavior analytics from your players while offering them new engagement triggers in the form of geolocated leaderboards.

Watch Out As 1000lb Gorillas Set Their Sights on BaaS Space!

The mobile app development space has grown into such an opportunity, it has begun to attract the attention of some of the heaviest hitters in the API space, Amazon Web Services, Salesforce and Rackspace.

These tech giants are evolving their approach to delivering the cloud resources so that it better meets the demands of mobile developers. This movement signals the beginning of consolidation in the BaaS space, and the commodization of many of the common BaaS building blocks.

While it is a positive for the space that analysts are identifying as a \$7.7 billion opportunity by 2017, and that top players like AWS, Rackspace and Salesforce are noticing, it could point to the beginning of the end for many of the startup BaaS providers.



<http://developer.force.com/>



<http://blogs.developerforce.com/>



<http://feeds.feedburner.com/SforceBlog>



<http://aws.amazon.com/>



<http://aws.typepad.com/>



<http://feeds.feedburner.com/AmazonWebServicesBlog>



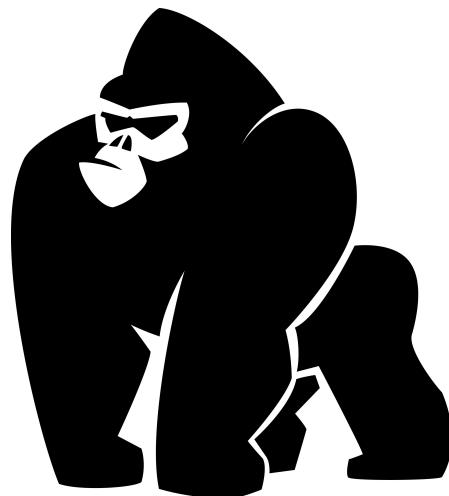
<http://www.rackspace.com/>



<http://www.rackspace.com/blog/>



<http://www.rackspace.com/blog/feed/rss/>



What Makes BaaS Relevant to APIs?

Unless you are a BaaS provider or a mobile application developer, the linkage between BaaS and APIs may not be immediately clear. But once you study the space, you quickly notice that APIs are the heart of BaaS, providing platforms with the flexibility and resources they need to meet mobile developers needs.

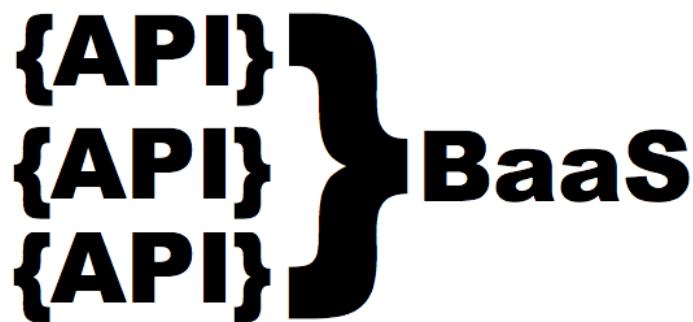
BaaS and APIs are working together in several ways:

- **Native BaaS APIs** - Each BaaS provider offers up a default set of REST APIs for manipulating core data and object stores, providing programmatic access to almost every part of the BaaS platform
- **Custom APIs** - Most BaaS providers allow for the design, deployment and configuration of custom REST APIs from data and objects defined via the system. Turning many BaaS platforms into API deployment frameworks, opening up a whole new channel for development
- **Deploy BaaS Platforms** - The growth in number of APIs resources, coupled with the BaaS movement opens up the opportunity for new providers to step up and deliver BaaS stacks, using their own API resources, bundled 3rd party APIs or a combination of the two.
- **An API Blueprint** - The patterns that are emerging among BaaS providers provide an excellent blueprint of what types of API resources mobile developers are demanding. Closely watching the BaaS space has potential to provide a blueprint of what API resources are in demand, which aren't and potential opportunities for new API resources.

BaaS is a natural progression of APIs from single uses to meaningful stacks of resources for developers. As the number of APIs a developer might use in an app grew from 1 or 2, to potentially 10 separate APIs, the need for aggregation and consolidation of resources grew as well. Mobile app developers don't have time or resources to maintain infrastructure as well as discover, qualify, integrate and maintain relationships with 10 separate API providers.

APIs have helped identify and commodize essential resources developers depend on like compute, storage, messaging and authentication, and within the BaaS framework, the next generation of essential API resources are being identified like geo, voice, targeting, friends and virtual commerce.

There is a danger that BaaS will move us back to more rigid, platform approaches to application development, but BaaS has the potential to be a kind elastic glue, that will bring together authentication and other essential resources into a permanent or temporary, but meaningful stack for developers to put to use.



The Future Is About Virtualized Operating Systems

BaaS stacks have the potential to be the operating system of the next generation of computing. BaaS has a lot of the characteristics of what we have historically defined as an OS, but tailored for apps that run on devices and in the clouds vs the desktop.

- **Windows OS** - Think of what the Windows operating system did for computing. It brought together a meaningful stack of resources into a single stack that could be installed on the new world of personal computers (PC). Windows provided application developers with a single platform they could build apps, targeting PC users. Windows provided a basic set of API resources developers could use, but ultimately it was open for the ecosystem to innovate in any business sector they desired.
- **Server OS** - When it comes to the server, many developers have migrated from desktop to web via Windows server operating systems. While to others they think of other OS flavors like Linux, BSD. These server environments provide developers with a base operating system for interfacing with user management, file system, database access and other libraries or APIs to develop either server side, network or web applications.
- **Cloud (IaaS, PaaS, SaaS)** - Cloud providers have moved the OS into the clouds--enabling developers to build at three different levels, providing a base OS, with set of often API driven resources for delivering site and apps to end users. The operating system has moved onto the world wide web, allowing for an entirely different approach to application development, usage and monetization.
- **Virtualized BaaS OS** - BaaS isn't just a new type of business. BaaS is a new way to deliver operating systems tailored for mobile and the next generation of devices, sensors and the Internet of Things. BaaS delivers the compute, storage, messaging and other essential OS features, while also bringing together other, potentially distributed resources in a single meaningful system for mobile developers to operate on and provide a meaningful experience for their users.

Using BaaS, providers can deliver virtualized operating system stacks, for general purposes, much like Windows has served for decades or deliver specialized operating systems meant specifically for telco or healthcare. Imagine virtualized OS stacks that could be delivered to support fixed installations like the energy grid or telco installations, all the way to temporary, high demand situations like disaster recovery or large scale events.

BaaS will allow us to keep much of the potential delivered by a hardened set of resources we become accustomed to with desktop and server OS's, but also realize the agility and flexibility that is delivered by loosely coupled, individual API resources. Allowing for a new approach to app design, development, deployment and lifecycle management that is much more organic and alive.

Investment in BaaS

As BaaS evolves, we are seeing the huge investment from numerous startups, as well as grabbing the attention of a handful of larger tech companies, but we are also seeing the first signs of major investment in the space.

- **Facebook Acquisition of Parse** - Facebook recently acquired one of the top BaaS providers in the space, Parse.

While there has been rumors swirling around the tech space for some time, regarding Facebook's desires to manufacture their own mobile device and possibly their own mobile operating system to rival iOS and Android, the Parse acquisition seems a little closer to reality. Facebook's investment in the BaaS space acknowledges that mobile dominance won't always be about device dominance, and the potential of well tuned, meaningful, virtualized stacks of resources for mobile developers. Facebook is looking to invest in mobile and BaaS represents that path forward.

- **Intel Investment in BaaS** - In the same timeline as the Parse acquisition, BaaS platform FeedHenry announces a 9M investment from Intel Capital--showing more investment in mobile by the chipmaker. Revealing more of the mobile aspirations of Intel, the chipmaker recently announced the acquisition of enterprise mobile service provider Aepona.
- **Lucent Mobile Acquisition of Proxomo** - Lucent Mobile, Inc. reached a definitive agreement to acquire privately-held Proxomo Software, Inc., a BaaS provider. As part of the transaction, Lucent Mobile, Inc. a private investor-backed company will operate going forward under the Proxomo name.

This is just a small slice of the investment going on in the space. To understand the market opportunity, white papers such as the [report published by MarketsandMarkets](#). will provide that, but to understand the innovation opportunity, much more experimentation and research needs to occur on exactly what resources current developers are needing to truly be successful.

The research and development environment for the future of API resources will play out within the BaaS industry, through the efforts of small startups as well as from the major tech companies.



What Are The Opportunities in BaaS?

[API Evangelist](#) doesn't focus on market or investment opportunities. I keep an eye out for product and innovation opportunities, which are a much different beast. These represent places where there are gaps in the delivery of API driven resources that developers will need to deliver the generation of not just apps, but compute.

There are numerous opportunities for innovation within the umbrella that is being defined as BaaS in the areas that are obvious and fast growing in market spaces.

- **Mobile** - We are 2-3 years into the solid growth of the mobile smartphone market. This is nothing new. But with the adoption rate, the hype and the potential within emerging markets, we can ignore the opportunity within the mobile sphere. As the demand for mobile apps grow, the demand for efficiencies in mobile app development will grow exponentially. If a business can efficiently go to market with steady flow of high quality apps designed for web, mobile and a wide variety of mobile platforms, it will succeed in the current space
- **Tablets** - Tablets are displacing the desktop, and even laptop computers. The world of developing apps for mobile is rapidly morphing into a blurry world of hundreds of different devices from iOS to Android. There is a lot of potential for delivering BaaS platforms that focus specifically on the needs of emerging tablet devices across manufacturers
- **Readers** -Devices are blurring the lines between phone, tablet and dumb terminals. Across the publishing industry, from providers like Amazon and Barnes & Nobles, we are seeing reader devices like the Kindle and Nook. As we see publishing applications like Flipboard and Zite find an audience we will see a growth in demand for backend services that support reader and other consumption focused devices
- **Niche** - Most BaaS providers are about delivering a general purpose stack of resources, allowing developers to design, develop and deploy apps across any business sector. Among the current pool of BaaS providers there are already the emergence of niche or speciality platforms in the area of gaming, e-commerce and advertising. There is a lot of opportunity to deliver BaaS platforms that deliver specialized area such as education, finance, government or beyond.
- **Transport** - Technology is penetrating every aspect of our daily lives. Automobiles are becoming a platform for digital delivery, with auto companies like Ford and GM getting into the API game. BaaS is a universal backend platform that can be tailored to any implementation. Our vehicles will have very different requirements if we are a soccer mom or a fleet of delivery vehicles in NYC. Lots of opportunities to understand the world of BaaS in the service of transportation.
- **Internet of Things** - The Internet of Things is the catch all bucket for "everything else" in the world of Internet enabled devices. We put everything from quantified self and 3D printing to smart grid technology into the Internet of Things bucket. This is the biggest, yet to be fully explored opportunity in BaaS. With the special needs of the power grid or public water supply it only makes sense there would be backends dedicated to each sector. This leaves a whole world of opportunity and speculation within the Internet of Things.

When it comes to delivering a precise, meaningful backend that drives technology, there will be unlimited opportunities for new platforms. When you view BaaS as a relevant stack of valuable API resources, bundled with a sensible business model, the model can be applied into many business sectors.

Beyond just mobile, tablets, readers and niche opportunitiy, once the world of Intenret of Things expands, the opportunity for BaaS to connect our physical worlds to our virtual worlds will be unlimited.

Summing It All Up

BaaS is an evolution. Its not a revolution, game changer or ground breaking new technology. It is a logical response to the demand for mobile applications and how to logically bring together individual API driven resources into a loosely coupled stack, that will allow mobile developers to build apps more efficiently.

If we do this right, we can meet the demand of our growing need for apps on our mobile and tablet devices as well as the backend compute resources needed for the other areas of the growing, Internet connected world.

This white paper was authored by Kin Lane, of [API Evangelist](#). Other stories, as well as short form or long form analysis on this subject, and supporting open data can be found at <http://baas.apievangelist.com>.

This document is a living white paper and will change month to month as the BaaS industry evolves. You can [download and fork the project via Github](#) and access all the content, news, analysis as well as datasets from the research.

Since this document is a living white paper, it may contain minor errors in formatting, grammar or spelling. Please let me know and I'll correct for the next revision.

{"logo": "API Evangelist"}

Appendix A: Full List of BaaS Features

Advertising

- Campaign Management
- click2call
- click2url

Analytics

- Behavior
- Button
- Pages
- Real-Time
- User

API

- Custom
- Query
- REST API
- Webhooks

Application Frameworks

- ql.io

Availability

- Load Balancing
- Performance
- Scaling

Commerce

- Product Catalog
- Shopping Cart

Communication

- Android Cloud Messaging
- Apple PUSh
- Chat
- Email
- Email Templates
- Feedback
- Interactive Voice Response (IVR)
- Messaging System
- MMS
- Push Notifications
- SMS

Content Management System

- Basic
- Question & Answers

Custom

- Code
- Objects
- Plugins

Data

- Caching
- CSV
- Data Browser
- Data Filtering
- Key Value
- MySQL
- Oracle
- Pagination
- Postgres
- Relational
- Table
- XML

Desktop

- OSX

Enterprise

- Support

Environment

- Online / Offline
- Production
- Sandbox

File Management

- Amazon S3
- Sync

Gaming

- Focus
- Leaderboards
- Rewards

Geo

- Check-ins
- Fencing
- Location
- Notifications
- Places
- Spatial
- Targeting
- Tracking
- Triggers

Images & Photos

- Collections
- Gallery
- Processing
- Storage

Languages

- C#
- HTML5
- Java
- JavaScript
- NodeJS
- Parse
- PHP
- Python
- Ruby

Links

- Sharing

Marketing

- Engagement
- Measurement
- User Acquisition

Mobile Devices

- Android
- Blackberry
- iOS
- Windows

Mobile Platforms

- Appcloud
- Eclipse
- JSME
- PhoneGap
- Titanium
- Trigger.io

Monetization

- Billing
- Passbook
- Promotions
- Revenue
- Subscriptions

Posts

- Blog

- Status

Pricing

- Active Users
- Analytics
- API Calls
- Apps
- Bandwidth
- Beta
- Campaigns
- Chats
- Emails
- Enterprise
- Features
- SSL
- Synchronizations

Productivity

- Tasking

Ranking

- Likes
- Ratings
- Recommendations
- Reviews

Reader Devices

- Kindle

Reciprocity

- Aetna
- AT&T
- Best Buy
- Box
- CrowdFlower
- Crunchbase
- Dropbox
- ESPN
- Fitbit
- Foursquare
- General Motors
- Github
- Google Apps
- Google Places
- Instagram
- Kinvey
- LinkedIn
- Mailgun

- Mandrill
- Meetup
- Moment
- MongoLab
- NY Times
- Pearson
- Salesforce
- SAP Business Suite
- SendGrid
- Siebel
- Singly
- SkyDrive
- StackMob
- Temboo
- Tribune
- Tumblr
- Twilio
- Underscore
- USA Today
- Withings
- Wordpress
- Wunderground
- Yahoo Local
- Yammer

Security

- 128-bit SSL
- HIPAA Compliance
- PCI Compliance

Social

- Facebook
- Twitter

Support

- Dedicated
- Phone
- Website

User Interface

- Visual Builder
- Web IDE

User Management

- LDAP
- Meta Data
- User Groups
- User Roles

- Users

Utility

- Backups
- Logging

Virtual Commerce

- Currency Maintenance
- Custom Virtual Store
- In-App Purchases
- Virtual Economy Regulation
- Virtual Goods Management

Appendix B: Curated News Sources

- **BlackBerry 10: The HTML5 Scorecard** (from www.sencha.com on 5/2/2013)
- **Intel banks on enterprise mobile app development again, leading \$9M FeedHenry round** (from gigaom.feedsportal.com on 5/2/2013)
- **Introducing Chat Analytics from Hipmob** (from blog.hipmob.com on 5/2/2013)
- **Featured Developer Spotlight – Lark Cookbook** (from developer.appcelerator.com on 5/1/2013)
- **Competing as an Agency in the Enterprise Mobile Space** (from kinveyposts.wordpress.com on 4/30/2013)
- **Heroku says PostGIS support enables smarter mobile app development** (from gigaom.com on 4/30/2013)
- **Webcast Re-Cap: Building AnyYolk with the Parse JavaScript SDK** (from blog.parse.com on 4/30/2013)
- **Boost Your FeedHenry App with SendGrid Email Deliverability** (from www.feedhenry.com on 4/29/2013)
- **FeedHenry Announces Partnership with SendGrid to bring Email Deliverability to Apps in the Cloud** (from www.feedhenry.com on 4/29/2013)
- **IT's Shifting Role in Enterprise Mobility: From Gatekeeper to Enabler** (from www.feedhenry.com on 4/29/2013)
- **Migrate from Parse to apiOmat** (from www.apiomat.com on 4/29/2013)
- **Facebook And The Sudden Wake Up About The API Economy** (from techcrunch.com on 4/28/2013)
- **Facebook Sees Increase In Parse Signups, Tells Developers “No Plans To Change How App Data Is Used”** (from techcrunch.com on 4/27/2013)
- **Auto-Importer Available for Parse Customers Joining StackMob** (from blog.stackmob.com on 4/26/2013)
- **Facebook Buys Parse To Offer Mobile Development Tools As Its First Paid B2B Service | TechCrunch** (from techcrunch.com on 4/25/2013)
- **App Monetization 101** (from blog.scringo.com on 4/25/2013)
- **How to Set Up your Development Environment for Android Apps** (from kinveyposts.wordpress.com on 4/25/2013)
- **Migrating from Parse? Why You Should Join StackMob** (from blog.stackmob.com on 4/25/2013)
- **The Future of Parse** (from blog.parse.com on 4/25/2013)
- **Discover Everything About Weather With Wunderground API Plug-in** (from blog.appery.io on 4/24/2013)
- **Get Access to Your Instagram Account, Find Users and Watch Popular Photos With Our New the Instagram API Plug-in** (from blog.appery.io on 4/24/2013)
- **Read News, Get Information about the Latest Music, Movie, and Book Reviews with the USA Today API Plug-in** (from blog.appery.io on 4/24/2013)
- **Search NY Times Articles with NY Times Article Search Plug-in** (from blog.appery.io on 4/24/2013)
- **Get access to your LinkedIn account, search people and companies with LinkedIn Plug-in** (from blog.appery.io on 4/23/2013)
- **Introducing the iOS SDK Beta Program** (from blog.stackmob.com on 4/23/2013)
- **Three Phases of Mobile Maturity for Enterprises** (from kinveyposts.wordpress.com on 4/23/2013)
- **Visual Mobile App Builder Tiggzi Relaunches As Appery.io, Adds New Enterprise Features** (from techcrunch.com on 4/23/2013)
- **Manage Your Health and Share Information With the CarePass Plug-in** (from blog.appery.io on

4/22/2013)

- **My first app with apiOmat – Backend as a service in real life** (from www.apiomat.com on 4/22/2013)
- **New Monetization SDK on the Windows 8 platform available today** (from www.inmobi.com on 4/22/2013)
- **The Developer's Guide to Facebook Open Graph** (from kinveyposts.wordpress.com on 4/22/2013)
- **Guest Post: A Brief History of the Cloud – And Why We Chose Parse** (from blog.parse.com on 4/18/2013)
- **How to Build Facebook Open Graph Apps for Mobile Devices** (from kinveyposts.wordpress.com on 4/18/2013)
- **Supercharge Your Fitness App with Active.com and StackMob** (from blog.stackmob.com on 4/18/2013)
- **Parse Named to the Facebook Technology Partners Program** (from blog.parse.com on 4/17/2013)
- **Welcome to Appery.io** (from blog.appery.io on 4/17/2013)
- **Adding PHP, Ruby or Python support to Titanium Studio** (from developer.appcelerator.com on 4/16/2013)
- **Don't Reinvent the Wheel: Working with iOS Core and Open Source Frameworks** (from blog.engineyard.com on 4/16/2013)
- **YMA 005 – The Power of Open** (from blog.stackmob.com on 4/16/2013)
- **Kinvey launches Salesforce CRM mobile app with support for Microsoft Dynamics, Eloqua and Marketo** (from thenextweb.com on 4/15/2013)
- **Kinvey's Mobile App for Salesforce CRM: Same Data, Different Experience** (from kinveyposts.wordpress.com on 4/15/2013)
- **[Sponsor] Windows Azure Mobile Services** (from www.windowsazure.com on 4/15/2013)
- **Important Announcement** (from blog.cloudyrec.com on 4/14/2013)
- **Adding Back-end to HTML5 apps with App42 Platform** (from blogs.shephertz.com on 4/12/2013)
- **Build Cross-Platform Apps in C# using Parse and Xamarin** (from blog.parse.com on 4/12/2013)
- **InMobi Diagnostics – A new tool for developers to improve monetization** (from www.inmobi.com on 4/12/2013)
- **Boost Your Facebook Mobile Strategy** (from blog.stackmob.com on 4/10/2013)
- **Backend as a Service Welcomes Vendor #32: Salesforce.com** (from kinveyposts.wordpress.com on 4/9/2013)
- **JavaScript SDK 0.9.0 Released** (from blog.stackmob.com on 4/9/2013)
- **Mobile and Cloud, FeedHenry's Mobile Application Platform on Rackspace** (from www.feedhenry.com on 4/9/2013)
- **MobStac Releases API for Mobile Development Platform** (from blog.programmableweb.com on 4/9/2013)
- **Rackspace Rolls Out Its Mobile Plan As Vendors Get Giddy About Backend Data Pipes And Spigots** (from techcrunch.com on 4/9/2013)
- **Salesforce.com Extends Mobile API Reach in the Cloud** (from blog.programmableweb.com on 4/9/2013)
- **StackMob Collaborates with Rackspace to Support Open Cloud Mobile Ecosystem** (from blog.stackmob.com on 4/9/2013)
- **HTML5 vs. Native When Using a Backend as a Service** (from blog.parse.com on 4/8/2013)
- **Infographics – QuickBlox API usage broken down by OS / SDK versions** (from quickblox.com on 4/8/2013)
- **helios-framework/helios · GitHub** (from github.com on 4/4/2013)
- **Appcelerator Platform Pricing Updates** (from developer.appcelerator.com on 4/3/2013)

- **Titanium SDK/Studio 3.1.0 Beta Now Available** (from developer.appcelerator.com on 4/3/2013)
- **WSO2Mobile, subsidiary of WSO2 Inc.** (from wso2.com on 4/2/2013)
- **OpenFeint Co-Founder Peter Relan's Open Source Platform OpenKit to Unveil Version 1.0 Product at GDC: Cloud Based Back-End for Unity Cross Platform Games** (from www.marketwire.com on 3/24/2013)
- **AWS Reveals In Job Listing It's Launching "A New Business," Looks To Be Pushing Deeper Into Mobile** (from techcrunch.com on 3/24/2013)
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- **Partner Webcast: Best Practices of Incorporating Email into your App Using SendGrid and Parse** (from blog.sendgrid.com on 2/21/2013)
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- [**Codecademy Launches New API Course Track with Parse**](#) (from blog.parse.com on 1/9/2013)
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