

Backend as a Service

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Backend Services

- Build your own backend approach that we discussed earlier is cumbersome
 - Server setup and configuration issues
 - Backend storage and database provisioning
 - Developing the REST API and configuration
 - Additional services like notifications, user management, social networking etc. adds to the burden on developers
- Can we package the whole backend services into a easily deployable, configurable and manageable service?

Backend as a Service (BaaS)

- Model for providing mobile and web developers to link their applications to backend cloud storage and APIs exposed by the backend (Wikipedia definition)
- Relatively recent phenomenon in mobile and web development
- Provides a bridge between the front end and various cloud backends through a unified API and SDK

Backend as a Service (BaaS)

- Frees the developers from having to do backend development and instead concentrate on frontend
- If you are familiar with Cloud computing you might have heard about Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS)
- BaaS is targeted mainly at mobile and web developers to access cloud services, hence distinct from the above *aaS

What does BaaS Provide?

- Push Notifications
- File Storage & Sharing
- Social network integration
- Messaging & Chat capabilities
- User Management
- Usage Analysis tools
- Build & execute business logic

What does BaaS Provide?

- A data storage API for cloud based storage
- Binary Storage
- Device synchronizing & caching capabilities
- Online/offline workflow
- Third party Integration
- Secure connectivity
- Auto generation of REST based interfaces
- SDKs for typical mobile platforms

BaaS Advantages and Disadvantages

- ✦ Pre-built, tried and tested components
 - ✦ Reduction in server-side development effort
 - ✦ Recent technological developments integrated by the service provider and made accessible to developers
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- Black Box
 - Vendor lock-in
 - Loss of flexibility
 - Additional training needed in vendor-specific APIs

BaaS Vendors

- Commercial Vendors
 - Kumulous
 - Telerik
 - Firebase
 - FeedHenry
 - Kinvey
 - Appcelerator
 - AnyPresence
 - IBM Bluemix
- Open Source
 - BaasBox
 - Loopback
 - Sails
 - OpenMobster
 - CloudEngine
- More and more appearing in the market