

Introduction to Axway Appcelerator Mobile Solution Platform

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Introduction

Axway Appcelerator Mobile Solution Platform manages the entire lifecycle of a mobile application from creation of cross-platform mobile apps to collecting analytics and testing, debugging, deploying, and crash monitoring and more all using one language (JavaScript). Mobile applications built with this platform are run against a standalone JavaScript engine which invokes native APIs. As a developer, you are in fact writing a native application - it's just that you're using cross-platform JavaScript rather than non-portable Java or Objective-C.

At a high-level, this platform is the combination of:

- Titanium SDK
- Appcelerator Studio
- Modules
- Appcelerator CLI
- Alloy
- Appcelerator Dashboard
- API Builder
- API Runtime Services
- Mobile Backend Services
- App Designer
- App Preview
- Mobile Analytics

Titanium SDK

The Titanium SDK tools combine your JavaScript source code, a JavaScript interpreter, and your static assets into an application binary that will be installed to an emulator or mobile device. Fortunately for you, Appcelerator Studio will manage almost every aspect of this build chain, leaving you to focus on building your apps.

Appcelerator Studio

Appcelerator Studio (Studio) is Appcelerator's free IDE (http://en.wikipedia.org/wiki/Integrated_development_environment) (integrated development environment). You can use Studio to write, test, and debug your mobile applications. Studio also has integrated templates and sample applications to make it even easier to get started creating your own apps. In addition, Studio will help you manage Titanium SDK updates and module usage.

Appcelerator CLI

The **Appcelerator CLI** is a set of command-line tools to develop and deploy mobile and cloud applications. The Appcelerator CLI provides a unified interface for using the other Appcelerator command-line tools, such as the Titanium CLI, Alloy CLI, and API Runtime Services CLI.

Hyperloop

Hyperloop gives you direct access to the native APIs. Titanium SDK already covers plenty of the native APIs and makes them cross-platform addressing the most popular APIs. This technology was built for those developers who require access to even the most obscure APIs out there. Hyperloop is available on all Platform tiers and apps that are registered with the AMPLIFY Appcelerator Services.

Alloy

The **Alloy framework** is designed to rapidly develop quality Titanium applications. Alloy is based on the model-view-controller architecture and contains built-in support for Backbone.js and Underscore.js (<http://underscorejs.org/>).

Appcelerator Dashboard

Appcelerator Dashboard is a web application you use to manage all aspects of your AMPLIFY Appcelerator Services development. You can manage Titanium applications, as well as iOS and Android applications built with Objective-C (or Swift) and Java. It enables you to create, deliver, analyze, and manage your mobile apps.

API Builder

Axway API Builder provides various backend services, including analytics, that are included in our list of Titanium components. Titanium analytics provide basic usage-level statistics, including how often your app is used and on which platforms. You can even log custom analytics events so that you can track the use of specific features, like button clicks, data access, or any other type of user interaction. These services are provided transparently to the developer via the core API.

Mobile Backend Services

Mobile Backend Services (MBS) provides pre-built, automatically-scaled network services, and data objects for your client applications. MBS can be integrated with your Titanium, Node.js, Android, or iOS application and also provide the ability to send push notifications to Android and iOS devices subscribed to push channels.

App Designer

The **Appcelerator App Designer** is an integrated WYSIWYG layout design tool for developing mobile applications using Appcelerator Titanium. App Designer features two views: **Design** and **XML**. The Design view allows you to have an editor view for both your design and layout while the XML views allows you to view your code.

App Preview

App Preview is an Appcelerator Studio feature that allows you to distribute beta versions of your apps to testers and stakeholders. Users should be able to upload their beta apps to App Preview.

App Preview supports the Android and iOS platforms and comes along with CLI hook installed with the App core.

Mobile Analytics

Mobile Analytics collects and presents information in real time about how your application's user acquisition, engagement, and usage. By default, it provides the number of applications installs, the number of sessions, and the average application session length organized by application name, platform and geography. Your application can send custom analytic events, which are collected and logged, to learn how users use your application. You can also create *event funnels* - ordered sets of custom events that correspond to a business process or application flow you want to track as a whole.

Titanium at 10,000 feet

Titanium exists as a bridge between the native operating system and your app's code.

At the bottom of the stack is the client operating system: iOS and Android. At the top is your app built JavaScript. In between, is the Titanium SDK and the APIs it exposes. You write your app in JavaScript, calling on the Titanium APIs to take actions like drawing buttons, opening windows, utilizing the camera, and so on. The Titanium bridge (part of the SDK) translates those calls into their native equivalents. In other words, when you create a Titanium button, it's actually a proxy for a true native button. When you modify the Titanium button, say to change its label or add an event listener, the SDK applies corresponding changes to the native equivalent. When events occur in native-land, the SDK bubbles them up to your JavaScript code.