



5 key Benefits of Migration



Facts

- Angular2 is still in Beta. Expected Launch – Nov-Dec. End of 2016
- Over 10808 million websites on the Internet are built using Angular JS as of 2016
- Angular JS is extremely developer friendly
- Average size of Angular JS framework including extensions is 46Kb. Opens in a Flash
- Angular2 is written entirely in Typescript and meets the ECMAScript 6 specification {
 - Angular2 will be a big change for developers compared to 1.x. Component-based development and object orientation are the major changes.
- The functionalities such as \$scopes and controllers are canceled completely.
- Big difference is that Angular2.0 is becoming an application platform rather than just a framework for writing browser based applications.
- This means that Angular2.0 component code is decoupled from the actual runtime environment, which gives you more flexibility since the code isn't necessarily tied to a particular environment (browser, mobile, server, web worker etc.)

Where it trumps over Angular 1



Apple to Apple Comparison

Angular1.X

- Angular1.X has ESS and Dart
- \$ Scope is still part of the framework
- Angular1.X has 2 ways to bootstrap angular.(Using ng-app)
- Tightly bind directives with the HTML.
- In Angular1.X, we can define a service via 5 different ways.
 - Factory
 - Service
 - Provider
 - Constant
 - Values
- Uses Dependency Injection its an Advantage
- For cross site scripting need to use \$ with Angular1.x.
- Has default Angular services. As plain text.
- Has Material design ready implementation.
- Ready Integration with third party components.

Angular2

- Angular2 provides more choice for languages. You can use any of the language from ES5, ES6, TypeScript or Dart to write Angular2 code.
- \$Scope are replaced with Components. Angular2 is a component based.
- Bootstrap is implemented via code.
- Complete change in the syntax implementation for the directives.
- One of the major change in Angular2 is, that it directly uses the valid HTML DOM element properties and events. Due to this, many of the available built-in directives in Angular 1.X are now longer required
- Angular2, class is the only way to define a service
- Everything is class in Angular2, so DI is achieved via constructor.
- Angular2 has default promise pattern being implemented for cross site scripting.
- Encrypted AngularJS 2 Storage services.
- No Material design yet.
- Very Few third party components (WIP)

The Journey



Major Changes in Version 2.0

AtScript

AtScript is a superset of ES6 and it's being used to develop Angular2.0, However you will still be able to use plain JavaScript/ES5 code instead of AtScript to write Angular apps.

Improved Dependency Injection (DI)

Dependency injection (a software design pattern in which an object is passed its dependencies, rather than creating them itself) was one of the factors that initially differentiated Angular from its competitors. Angular2.0 will address these issues, as well as adding missing features such as child injectors, annotations and lifetime/scope control.

Web Components of Angular2 –

Angular2 boasts of a complete shift of focus from Web to Mobile with Improved core functionality due to shift in modules. Angular2 is also backwards compatible due to typescripts, multiple lot of the box options avoiding design fatigue and has modern browser compatibility. This version has also brought about the end of Controller & \$Scope. The critical web components of Angular 2 are Shadow DOM, Custom Elements and HTML Imports.

The Shift

Upgrading to Angular2 is quite an easy process and should be made carefully. There are two major ways to make the shift easy. Which method you use depends on whatever requirements your project has. NG-Forward and a Step-by-Step migration of services and modules. Though NG-Forward is not a real upgrade framework for Angular2 but a process where Angular1 applications are made to look like Angular2 applications. The only difference is the applications are in Angular 2.0 Syntax and users can "flip" a switch when ready to migrate.

ngForward

- <Advantages>**
 - Can slowly update application
 - No Major overhead
- <Disadvantages>**
 - Not all Angular 2 feature and syntax supported
 - Not really Angular 2
 - Light switch installed in the dark

Angular Team

- <Advantages>**
 - Upgrade your application service by service, module by module.
 - Take advantage of Angular 2 feature immediately
 - Leverage open-source Angular 1.x modules
- <Disadvantages>**
 - Two version of Angular
 - Not all Angular 2 features supported when downgrading.

Conclusion:

One of the key element of Modernization is Mobile first, Separation of layers and ability to change and scale with no or minimal change to the core. Angular 2 will be one of the key technology contributor in this direction based on its componentization architecture and Mobile first strategy. Even though Angular 2 is based on Typescripts which some of the developers would find it challenge to learn and adapt, but looking at the new features it will be the way forward technology for most of the Web based products. The expected date of launch is Mid of 2016 but could be delayed slightly. Angular 2 is a big step forward and provides a big opportunity when combined with object oriented programming at the frontend when combined with Typescripts.

