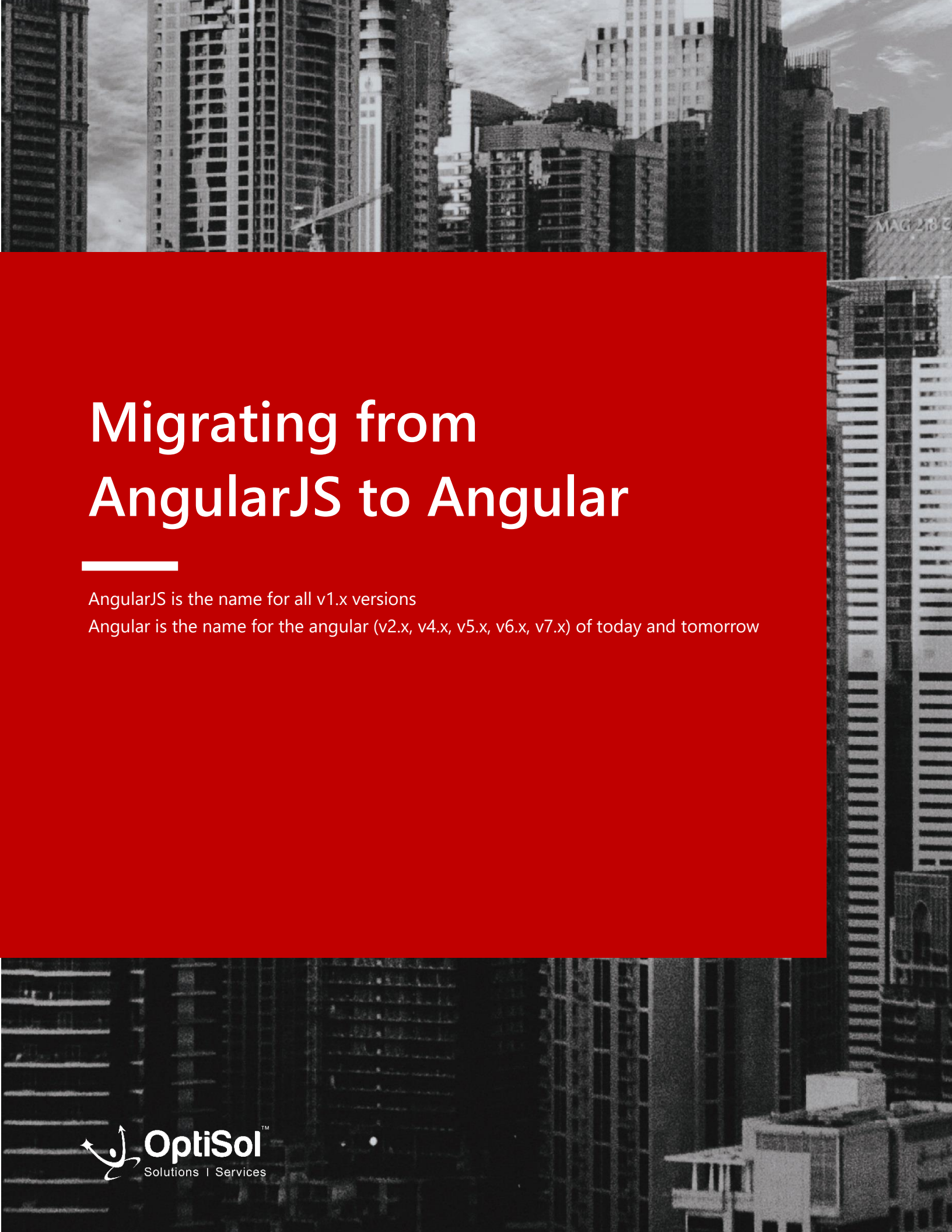




Migrating from AngularJS to Angular

AngularJS is the name for all v1.x versions

Angular is the name for the angular (v2.x, v4.x, v5.x, v6.x, v7.x) of today and tomorrow

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Five compelling reasons to migrate to a higher version of Angular JS

Introduced in the year 2009, the advent and growth of Angular JS has been nothing short of spectacular. It swiftly evolved into a large open source library for web applications, and its expansiveness coupled with its popularity and the growth of the Javascript ecosystem were instrumental in Google acquiring Angular JS. However, times are changing. Google had announced in early 2018 that Angular JS would have its Long Term Support (LTS) till June 30th, 2021, after which it would not maintain the library. As a consequence, the need and necessity for migrating to Angular, the higher version of Angular JS has become stronger.

Here are five compelling reasons for organisations using Angular JS to migrate to Angular:



Maintainability of code – Over a period of time, when the application code size (in Angular JS) gets bigger, bad patterns like tight coupling, duplicate code, long methods, large classes, and more bugs are detected in the code. To solve these issues, refactoring the code is required. However, instead of Code Refactoring in the same version the code can be rewritten in Angular 7: a seamless migration to a higher version addressing both code refactoring and migration in one swift move.



Performance – Typically, as the number of lines in a code increase, the amount of data being handled in the application increases, and consequently, the performance of the application gradually degrades. Angular has reduced the bundled file size by 60% compared to Angular JS. This translates to reduction in codes being generated and hence an accelerated application performance when compared to Angular JS.



Tools – One inconvenience which developers have overlooked because of the gazillion advantages provided by Angular JS is the use of external tools for testing and debugging. In contrast, Angular comes with the advantage of having inbuilt application testing and debugging, along with command line tools. Additionally, the CLI takes care of Jasmine and Karma configuration. Developers can also unit test an Angular app with other testing libraries and test runners. Each library and runner has its own distinctive installation procedures, configuration, and syntax. Another attractive facet of Angular is that the Continuous integration (CI) servers allow the developers to set up their project repository so that their tests run on every commit and pull request.



Language – JavaScript does not provide Type Safety which enables a developer to store a value in the variable. However Angular uses Typescript for Type Safety, where the developer can switch on the Type Safety to store values based on the variable type. Typescript also supports type inference using TSL (Typescript Language Service). In a nutshell, Typescript can be looked as a super set of Javascript which augments the benefits that Javascript provides, especially in a multi-developer, large project scenario.



Better Architecture (Think reusability) – Angular JS's two-way data binding concept results in delays and bottlenecks for development projects. In contrast, Angular uses an architecture based on a hierarchy of components and services, which helps in reusing elements, thereby saving time and ensuring faster project deliveries.

An Illustrative Case Study

Our Client

US based Emergency Dispatch Service

Over a period of time, one of our client applications grew bigger in size and its performance slowed down. The performance was not optimal when we included more new features to the application.

Problem Statement

The challenges and the problem statement we faced while working with AngularJS are:

- Maintainability of code and code refactoring became difficult as there were a lot of dead codes and also it took lot of time to fixbugs. There is no enforced code structure in AngularJS.
- Some of plugins which was in AngularJS are in maintenance mode, there have been no update for long time.
- The repository was not updated for long time. Active development was happening only in the angular version of plugin.
- Large amount of data and data handling became cumbersome in AngularJS.

We had to keep building upon the existing AngularJS application for a few months and work on bug fixes in parallel. The application's end users expected new features as well as performance improvements.

Client intended to migrate to the latest version of Angular at the earliest and our team was quite excited with the client's perspective. Working with the most cutting-edge tool set is always an opportunity to grow as professionals and to dive into all the latest solutions.

Approach: Big Bang

We decided on refactoring the application with latest version of Angular using the big bang approach. To reconcile further development with fixing bugs, we decided that half of the team would work on new features and the other half would be re-writing the old components in Angular.

Going Big Bang

- The first thing we paid attention to was the architecture, as the main demand of our client was the opportunity to customize the widget so that a customer sees only his/her personalized themes and settings, whereas all the customer styles are kept on repos.
- After architecture, we thought about routes (URLs), that is how URLs change while one is surfing the website.
- We did have all the plugins and UI ready, so we were able to migrate over a short period of time.
- Due to type-checking feature, we were able to identify errors at an early stage while writing code.
- We made use of unit testing capabilities in Angular CLI to improve the quality in code.
- Data interaction and performance was better compared to that of AngularJS.
- Build is more simplified.

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We are equipped with creative engagement models and operations framework that suits outsourcing needs from all gamut of customer's startup, Independent Software Vendor (ISV), small or mid-size companies and Enterprises. It has been serving its customer base across breadth and width of technology outsourcing needs that spans across.