

# Migrating from AngularJS to Angular

## Part 3 – Rollout options

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## Three Approaches to Angular Migration Roll-out

Angular JS applications come in different sizes and complexities, depending on the business processes it is intended to support. As the complexity and size increases, the time taken to migrate to Angular also increases. For business critical applications built on Angular JS, big bang migration to Angular is a risk especially when there are evolving business needs. Code freeze over a period of time to complete migration and implementing new changes quickly after migration to Angular, will be a challenge.

Here are the approaches to Angular Migration that can be considered by businesses, based on the complexity of applications:

### Large modular applications having less dependencies: module-wise serial roll out

For applications that are modular and having fewer dependencies across modules, roll-out can be done one module after another. During course of migration, there will be a set of modules running on Angular and another on AngularJS. Technically they can be treated as separate applications. Both the applications will share a common data model & integration layer.

### Large modular applications having dependent features: develop new features and bundle as web components

For these types of applications, new features can be built and rolled out using Angular, and bundled to Angular JS application, as Web Components. Web Components will provide dependency isolation, reduce rework, and allow Angular code to run in Angular JS applications. Further, web components are supported by all the latest browsers. Importantly, there will be just one application bundle that will physically run with Angular & Angular JS components.

### Small applications that do not undergo frequent business changes: a big bang approach

Such applications are the right candidates for big bang upgrade and roll-out. Angular JS to Angular rewrite can be done in one stretch and implemented in one shot.

## Our Client

### US based R&D Organization

Our customer provides advanced solutions for 3D printing applications – including medical device, aerospace, automotive and a wide variety of consumer goods – as well as industrial inkjet materials, impacting a wide variety of markets.

### Problem Statement

Customer was acquired by a larger organization and the Angular JS application used for task tracking and research management was rolled out to a larger user base. With the increased user base, PlotlyPython Libraries used for visualization and embedded using iframe in Angular JS application, increased carbon foot print by consuming lots of server resources. Client wanted to optimize the resource consumption and rollout quickly without waiting for full angular migration to get over.

This was a case of large modular applications having dependent features, and so we adopted the second approach -> develop new features and bundle as web components

Since the application size was relatively large and had dependencies across modules, we decided to use angular elements to create Web Components so that we can develop it using Angular and use in Angular JS. All the latest browsers support Web Components. This way we didn't have to develop a separate app using Angular JS which will be de-supported in June 30, 2021. We built the visualization components as Web components using Angular and used it inside Angular JS.

### Customer benefits

- Optimal utilization of development resources by avoiding development in two different versions
- Reduction in server resources consumption
- Scalability improved by moving the server side code to client side and hence able to support large user base, after acquisition

## About OptiSol Business Solutions

OptiSol is proficient service provider for Social, Web, Mobile, Analytics and Cloud solutions and focusing on building innovation for our clients in more than 24 countries. With 200+ smart employees, we act as the reliable outsourcing services partner, providing optimized business solutions with delivery excellence to startups and enterprises of all sizes, worldwide. Our Digital transformation services offerings include Technology Modernization, Enterprise Mobility, AI/ML and Enterprise solutions. We assist our clients to transform and thrive in a changing world.

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.