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At 18North, Pune, we see ourselves to be a trusted, valued, conscious and sustainable *digital services partner* in the select service areas and the domains.

# 18North

## Application Tech Upgrade: Angular

# Application Tech Upgrade: From AngularJS to Angular



## CUSTOMER ORGANIZATION

Customer is a ISO & compliance consultant, having years of strong experience in management of systems, systems standards and development.



## REQUIREMENTS

Rebuild the entire AngularJS frontend into new Angular for:

- Ease of use
- Technology update
- High Performance
- Rich UI/UX
- Improved App Security

## APPROACH

There are the proven approaches to migrating AngularJS to Angular and using automation tools could significantly facilitate this move, But there was one aspect in which we couldn't exploit them-



## CHALLENGES

Modernizing projects with the dropped support have never been plain and straightforward, especially for large enterprises. The bigger the system, the more unpredictable issues might pop up.

We had the three major challenges in this migration:

- **Inability to use automation tools for the migration-** The only option of migration is to rewrite the frontend side from scratch due to the version incompatibility.
- **Rich user experience-** As the old application was not much user friendly, has basic UI and was poor in the experience. This was the another challenge for us.
- **Pick up suitable substitutes for existing tools-** In AngularJS to Angular migration projects, it's important to find proper equivalents for outdated AngularJS tools and libraries that fit in the new solution.



## SOLUTION OVERVIEW

Migrated a single business module of an application from AngularJS to Angular in a pilot. Rewritten the code of old module in AngularJS into new Angular with the component based architecture. The solution overview is as follows:

- **Angular pilot for a single module-** Rewrite a module in new Angular in the component based architecture with all the module functionality.
- **Integrated with backend server-** Integrated this new Angular frontend app to the existing Django REST backend.
- **Implemented XSRF-** We implemented the XSRF and CORS policies in this Angular app to protect an application from CSRF(Cross Site Request Forgery) attack, Clickjacking, Banner grabbing, Fingerprinting and more.



## BENEFIT TO THE BUSINESS

Angular is the evolution of AngularJS, an open-source platform for front-end development and has wide range of features, provides efficient architecture to maintain and develop an application, from the end user's point of view Angular migration improves the user experience and performance drastically and adds up the better service for the client.

Following is the summary of the benefits:

- Boosted performance with asynchronous requests.
- Enhanced user experience due to flexible user interfaces.
- Facilitated maintenance and support.
- Higher product performance.
- LTS support.
- 5-6X Faster project release.



## TOOLS

Angular 11, Nodejs, JIRA