CASE STUDY: THE CHANGE COMPASS

Technical Specifications

Programming: C#, Angular 6
Reporting Tool: Power BI client service

Database: MS SQL Server

Database Connectivity: Established through Web API

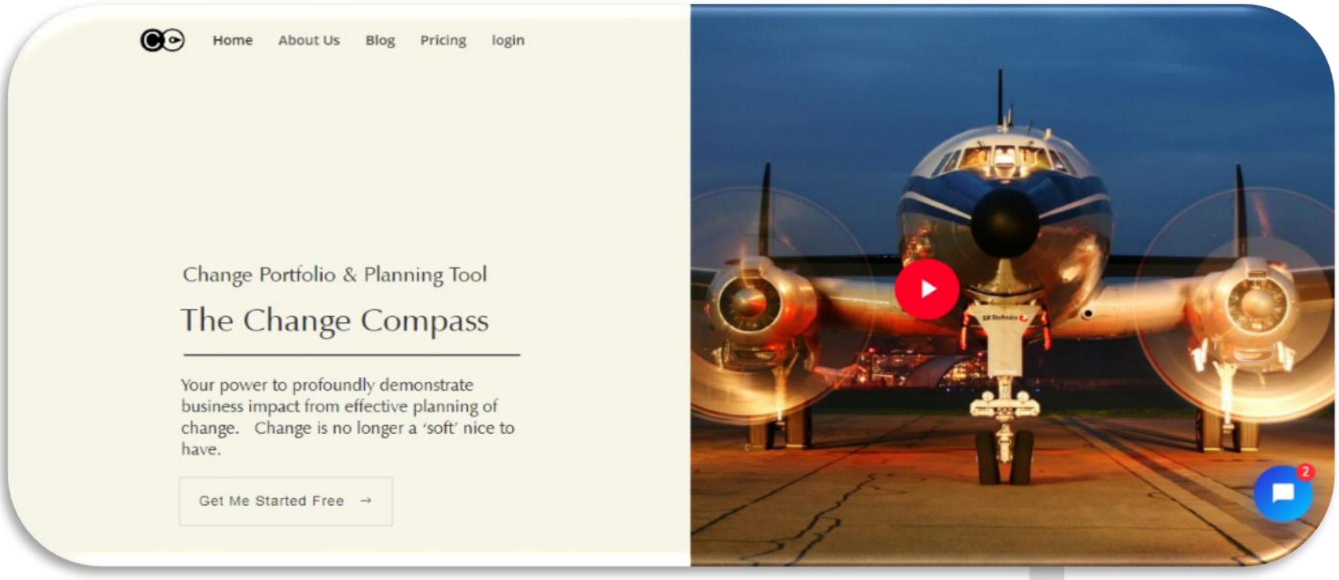
Design: HTML5, Bootstrap3, CSS3, jQuery

Hosting: AWS cloud environment

Background:

The Change Compass was built after analyzing how business stakeholders have matured, they manage change through understanding the data and tweaking their approaches over time. So, this application provides services to different organizations undergoing significant change.

This SaaS application facilitates a way of capturing and visualizing change impact to make better decisions and also improves the experience of employees as well as customers during change.



Change Portfolio & Planning Tool

The Change Compass

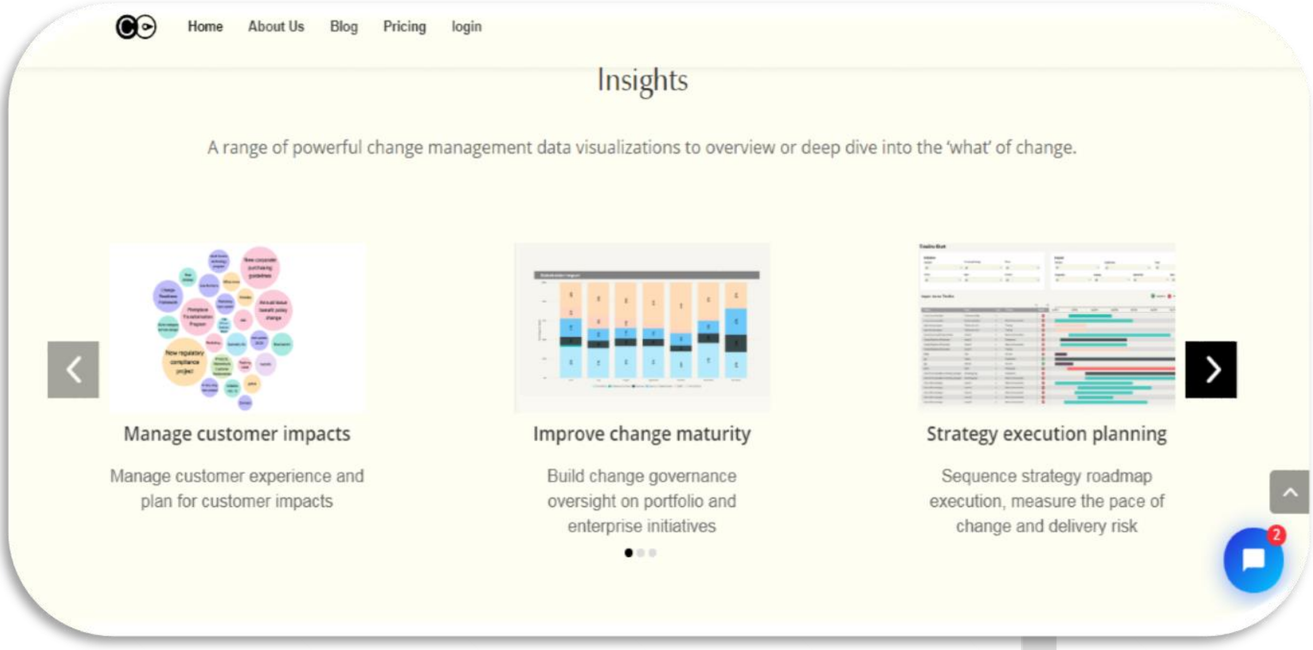
Your power to profoundly demonstrate business impact from effective planning of change. Change is no longer a 'soft' nice to have.

The Problem and Challenges:

The Client came to Ariel Software Solutions with a project on which there were a number of developers were already working and were unable to deliver the desired results.

The client wanted to make his Power BI reports dynamic which was actually a challenging tasks for our team because Power BI doesn't support the "Export" functionality on the embedded reports:

Though Power BI supports the "Export" option but this feature is not directly supported in the embedded reports due to iFrame's CORS policy.



Insights

A range of powerful change management data visualizations to overview or deep dive into the 'what' of change.

Manage customer impacts

Manage customer experience and plan for customer impacts

Improve change maturity

Build change governance oversight on portfolio and enterprise initiatives

Strategy execution planning

Sequence strategy roadmap execution, measure the pace of change and delivery risk

Solution:

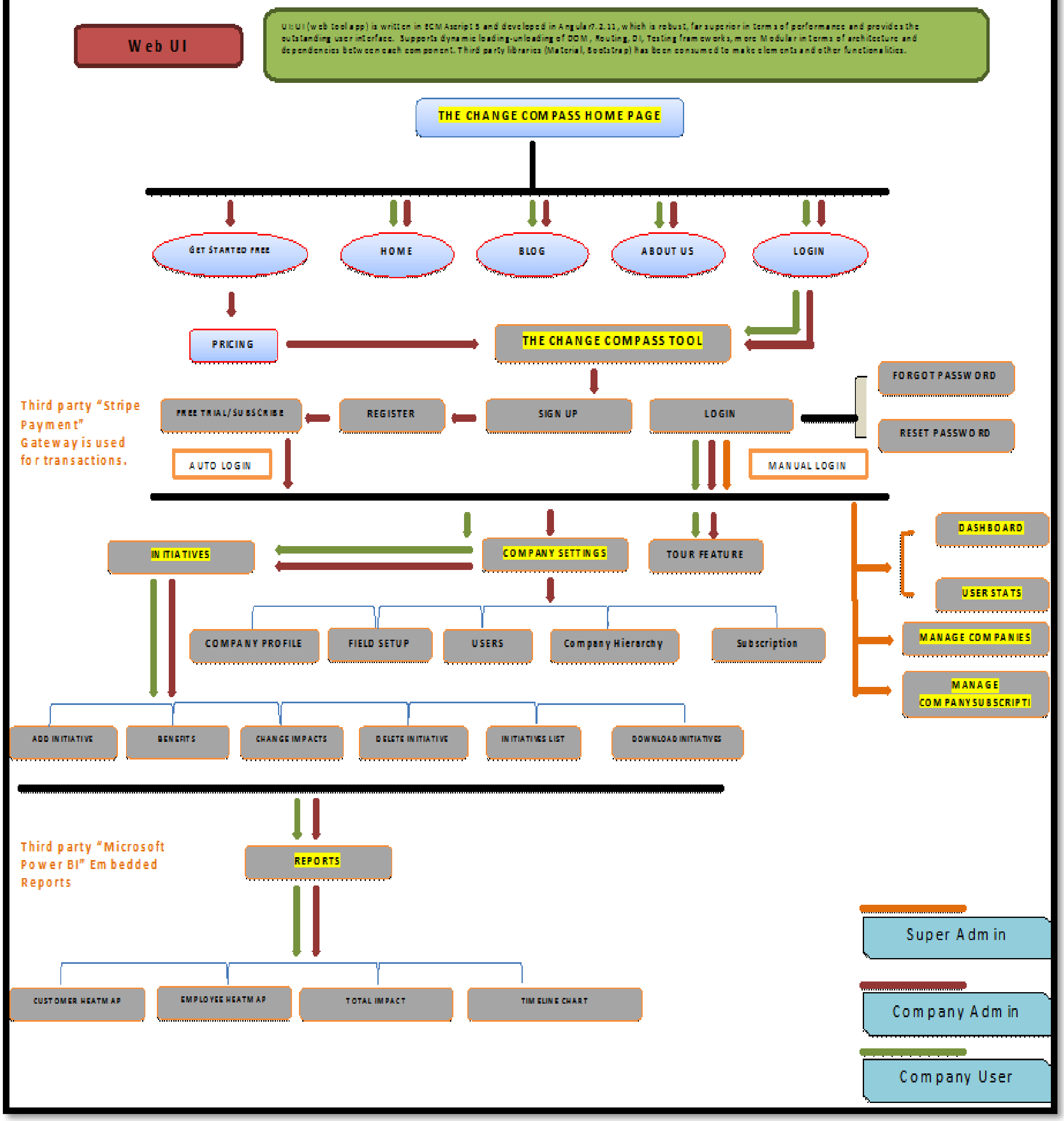
- To achieve this, we did customization in Angular 6 and Web API layer.

- On web API side, we created custom functions to do Power BI one step authentication and getting the auth tokens and the other required data to get the currently logged in user authorized.

- On front-end side, we have consumed the Power BI's service to take the screenshot of the entire report page and then generating the PDF file for the same.

Functional &Technical Infrastructure Diagram

The Change Compass (2.0)



Web UI

UI: UI (web tool app) is written in ECMAscript 5 and developed in Angular7.2.11, which is robust, far superior in terms of performance and provides the outstanding user interface. Supports dynamic loading-unloading of DOM, Routing, DI, Testing frameworks, more Modular in terms of architecture and dependencies between each component. Third party libraries (Material, Bootstrap) has been consumed to make elements and other functionalities.

THE CHANGE COMPASS HOME PAGE

GET STARTED FREE

HOME

BLOG

ABOUT US

LOGIN

PRICING

THE CHANGE COMPASS TOOL

FORGOT PASSWORD

RESET PASSWORD

Third party "Stripe Payment" Gateway is used for transactions.

FREE TRIAL/SUBSCRIBE

REGISTER

SIGN UP

LOGIN

AUTO LOGIN

MANUAL LOGIN

DASHBOARD

USER STATS

MANAGE COMPANIES

MANAGE COMPANYSUBSCRIPTI

INITIATIVES

COMPANY SETTINGS

TOUR FEATURE

COMPANY PROFILE

FIELD SETUP

USERS

Company Hierarchy

Subscription

ADD INITIATIVE

BENEFITS

CHANGE IMPACTS

DELETE INITIATIVE

INITIATIVES LIST

DOWNLOAD INITIATIVES

Third party "Microsoft Power BI" Embedded Reports

REPORTS

CUSTOMER HEATMAP

EMPLOYEE HEATMAP

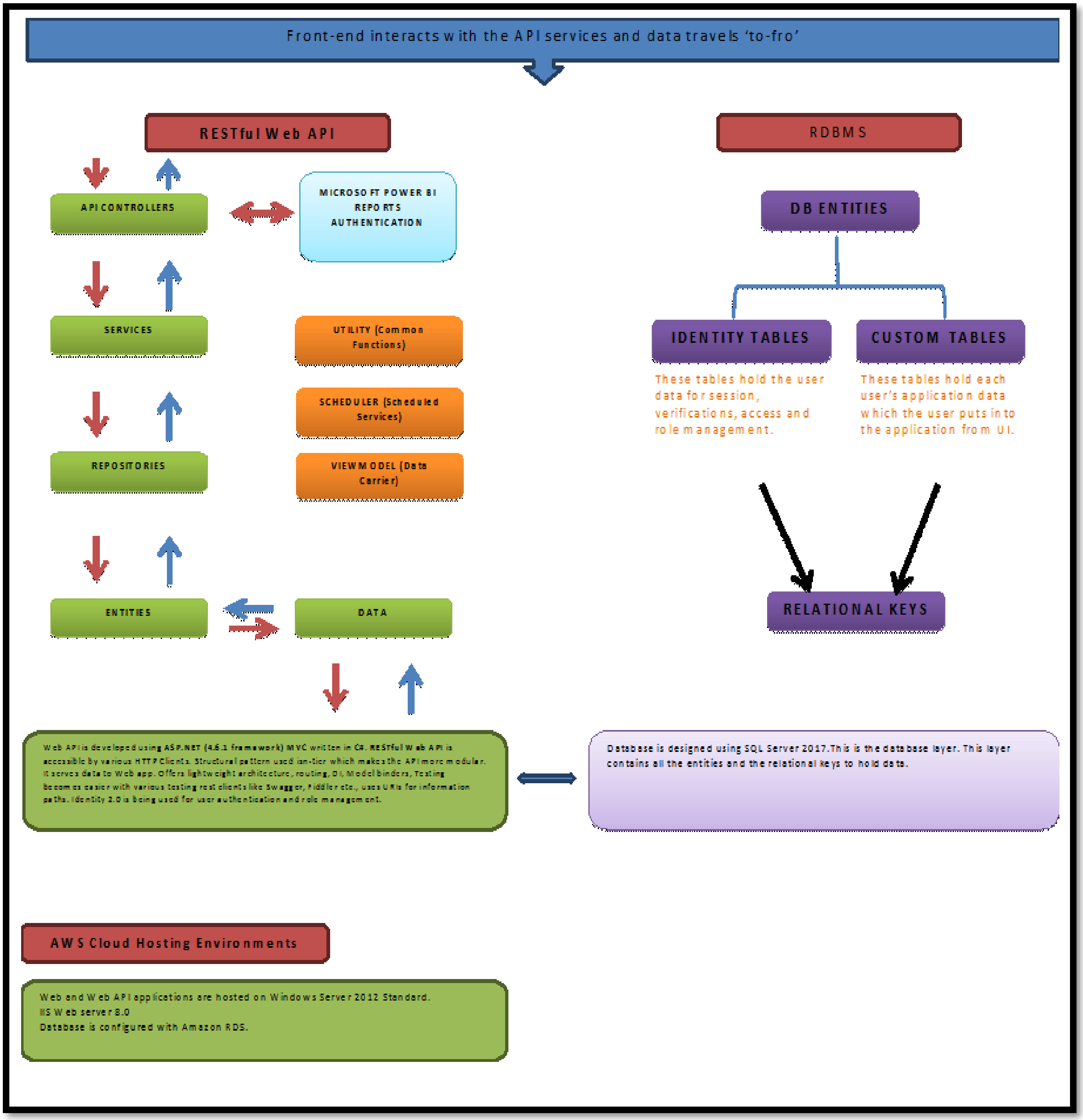
TOTAL IMPACT

TIMELINE CHART

Super Admin

Company Admin

Company User


Front-end interacts with the API services and data travels 'to-fro'
RESTful Web API
RDBMS
API CONTROLLERS
MICROSOFT POWER BI REPORTS AUTHENTICATION
SERVICES
UTILITY (Common Functions)
SCHEDULER (Scheduled Services)
REPOSITORIES
VIEWMODEL (Data Carrier)
ENTITIES
DATA
DB ENTITIES
IDENTITY TABLES
CUSTOM TABLES
RELATIONAL KEYS
AWS Cloud Hosting Environments

These tables hold the user data for session, verifications, access and role management.

These tables hold each user's application data which the user puts into the application from UI.

Web API is developed using ASP.NET (4.6.1 framework) MVC written in C#. RESTful Web API is accessible by various HTTP Clients. Structural pattern used ian-tier which makes the API more modular. It serves data to Web app. Offers lightweight architecture, routing, DI, Model binders, Testing becomes easier with various testing rest clients like Swagger, Fiddler etc., uses URIs for information paths. Identity 2.0 is being used for user authentication and role management.

Database is designed using SQL Server 2017.This is the database layer. This layer contains all the entities and the relational keys to hold data.

Web and Web API applications are hosted on Windows Server 2012 Standard.
IIS Web server 8.0
Database is configured with Amazon RDS.

Results:

The final end product was a SAAS application that was delivered within aggressive deadline and specific budget. It help users to make better decisions along with improving the overall experience of employees as well as customers during the change.