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Mapcom Self-Service Portal

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COMPUTER SCIENCE

MAPCOM SYSTEMS Self Service Portal

CAPSTONE DESIGN EXPO 2017

CS 302 | **Team members:** Kelsey Bullock, Viet Nguyen, Alvenia Weathers | **Faculty adviser:** Dr. Robert Dahlberg | **Sponsor:** MAPCOM Systems | **Sponsor adviser:** Dean Puster, David Spiller

Introduction

Mapcom is a software development company that primarily serves small, rural telecommunications companies across the country. The company is widely recognized for developing M4 Solutions, a visual operations platform that allows service providers to manage their workforce.

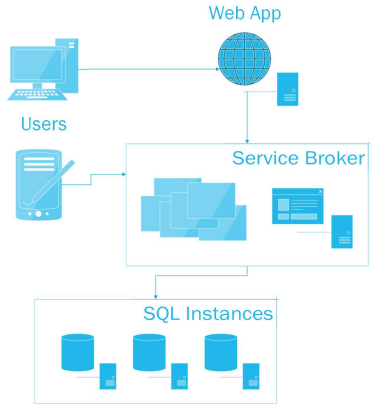
Requirements

- Design an easy to manage self-service portal to allow the customers of the telecomm companies to interact with their accounts.
- Self-service portal must have a **web** application, as well as companion **mobile** applications.
- **Constraint:** must be built using Microsoft technologies.

Objective

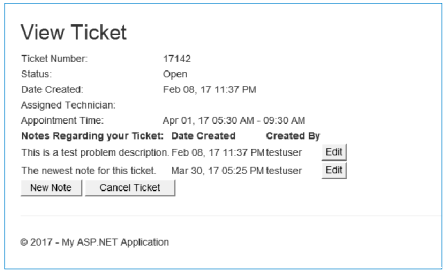
- Build an application that can be easily customized to suit the **individual needs** of Mapcom's client companies.
- Achieve a high level of adaptability by implementing a **Service Oriented Architectural Design** featuring:
  - modularity
  - reusability
  - scalability

Design

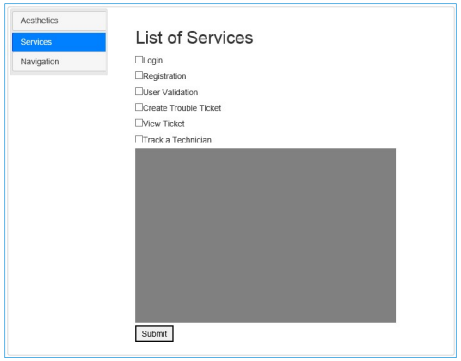


Implementation

Web Application



Admin UI



Conclusion

Our team was tasked with building an application for the customers of Mapcom's clients to interact with their respective telecomm companies more efficiently. Instead of building a static application to meet the blanket needs of all the client companies, we built an application that supports customization and extensibility. We delivered a prototype that, if implemented, will allow Mapcom to deliver personalized solutions to their clients.

In the future…

- Anonymous SMS with technician
- Guided troubleshooting
- Support for technician users
- Streamlined process for adding new services

Microsoft IIS

Microsoft SQL Server

VCU School of Engineering