Project Plan
Asynchronous Service Desk Callback App
The Capstone Experience

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Functional Specifications

• The main focus is to reduce the amount of time General Motors employees waste on hold with Global Service Desk

• GM employees submit requests using native iOS application

• Allow employees to better utilize time waiting

• Global Service Desk employees will use the web application to work on these requests
Design Specifications

• Submit help tickets
• View submitted help tickets
  ▪ Specific details
  ▪ Status of ticket
  ▪ Ability to cancel ticket
• Query information to help you solve your issue
• Links to help articles and step by step wizards
Screen Mockup: Ticket List/Details

My Tickets

- **Incident**: I cannot login into my outlook account with my new GMID password
  - Status: Submitted
  - 30m

- **Incident**: Frequent GMID lockouts
  - Status: Dispatched
  - 2h

- **Request**: I need my password reset
  - Status: Callback
  - 8/21/2015

- **Request**: I can not figure out how to turn on my computer
  - Status: Canceled
  - 8/17/2015

- **Incident**: I can not figure out how to turn on my computer
  - Status: Closed
  - 8/13/2015

+ Add Ticket

My Tickets

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- **Incident**: I can not figure out how to turn on my computer
  - Status: Closed
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+ Add Ticket

Incident Details

- **Status**: Submitted
- 3:15PM EST
- 9/25/2015
- Interaction ID: SD102900036

**Issue:**
I can not login into my outlook account with my new GMID password

**Additional Information:**
Ever since I changed my password my outlook says it can not connect to the exchange server

Has this issue been resolved?

- Yes
- No

Call Global Service Desk
Screen Mockup: Search/Submit Ticket
Screen Mockup: Web Service Manager

Two Tabs –
• Global Ticket Queue List
• Personal Ticket Queue List

Ticket Details –
• Name
• Phone
• Email
• Category
• Issue
• Description
• Interaction ID
• Timestamp
Technical Specifications

• The application and website communicate with an Apache2 webserver to sync with the MySQL database, as seen in the next slide

• The application uses the Microsoft Exchange server to authenticate users and upload schedules

• The front-end of our application uses Swift 2 to perform on the user end, and JSON to communicate with the webserver
System Architecture

Website
- Ticket Queue
- Ticket View

Website gets updated with incoming ticket information and user availability

iOS
- Service Request
- Status View
- Queue View
- Call Scheduling
- Login

JSON Requests to Apache2, Data Posted back

Server
- Apache 2
- Ubuntu
- PHP
- MySQL

ME Authenticates Logins and references user schedules to avoid calling while a user is busy
System Components

• Hardware Platforms
  ▪ Server Rack
  ▪ iOS Device

• Software Platforms / Technologies
  ▪ Windows Server 2012 with Hyper-V
  ▪ Ubuntu 14.04.3 with Apache2 with SSL, MySQL, phpMyAdmin, OpenSSH
  ▪ Microsoft Exchange 2013
  ▪ Xcode v6.4
  ▪ PhpStorm v8.0.3
Testing

- **Web/API Testing**
  - Codeception testing framework
  - Behavior Driven Development (BDD) style suites
  - Unit and API tests
  - Selenium for frontend testing
- **iOS Testing**
  - Apple’s XCTest framework
  - Unit and Performance tests
  - Manual testing on various devices
Risks

• Integration into GM’s system
  ▪ Need to implement solution with access to GM databases and user accounts.
  ▪ Mitigation: Generalize our solution, keep consistent documentation.

• Microsoft Exchange integration
  ▪ Need to integrate with user’s Exchange schedule.
  ▪ Mitigation: Time management, researching API’s

• Code Consistency
  ▪ Need to keep our code consistent between all members, as well as have backups in case of emergency.
  ▪ Mitigation: Utilization of code sourcing tools such as Github or SourceTree

• Feature creep
  ▪ GM wants our app to support various features not essential to the core function.
  ▪ Mitigation: Consulting with client, time management