

# Modernization of Administration Website | *sddec-24-03*

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Client: DigiClips

## Problem

## Requirements

## User Needs

## Design

## Testing

### Problem

- Accessing Critical Data is difficult
  - Solution: Show only relevant information per user's role
- Coupled components reduce maintainability
  - Solution: Individualize each component
- Low UI/UX
  - Solution: Revamp aesthetics and add accessibility options

### Requirements

- **Functional:** Display Errors & Uptimes, allow modifications of files, User login & editing, and Super-admins
- **Non-Functional:** Appealing pages, and well labeled & structured
- **Constraints:** Handle 2000 error messages, and 100% converted features work
- **Standards:** Coding standards (Angular & TypeScript), and GitHub merging

### Architectural Design

Divided the architecture into two subsystems...

- **Backend Express Server**
- **Frontend Angular Server**

The Express.js Backend handles...

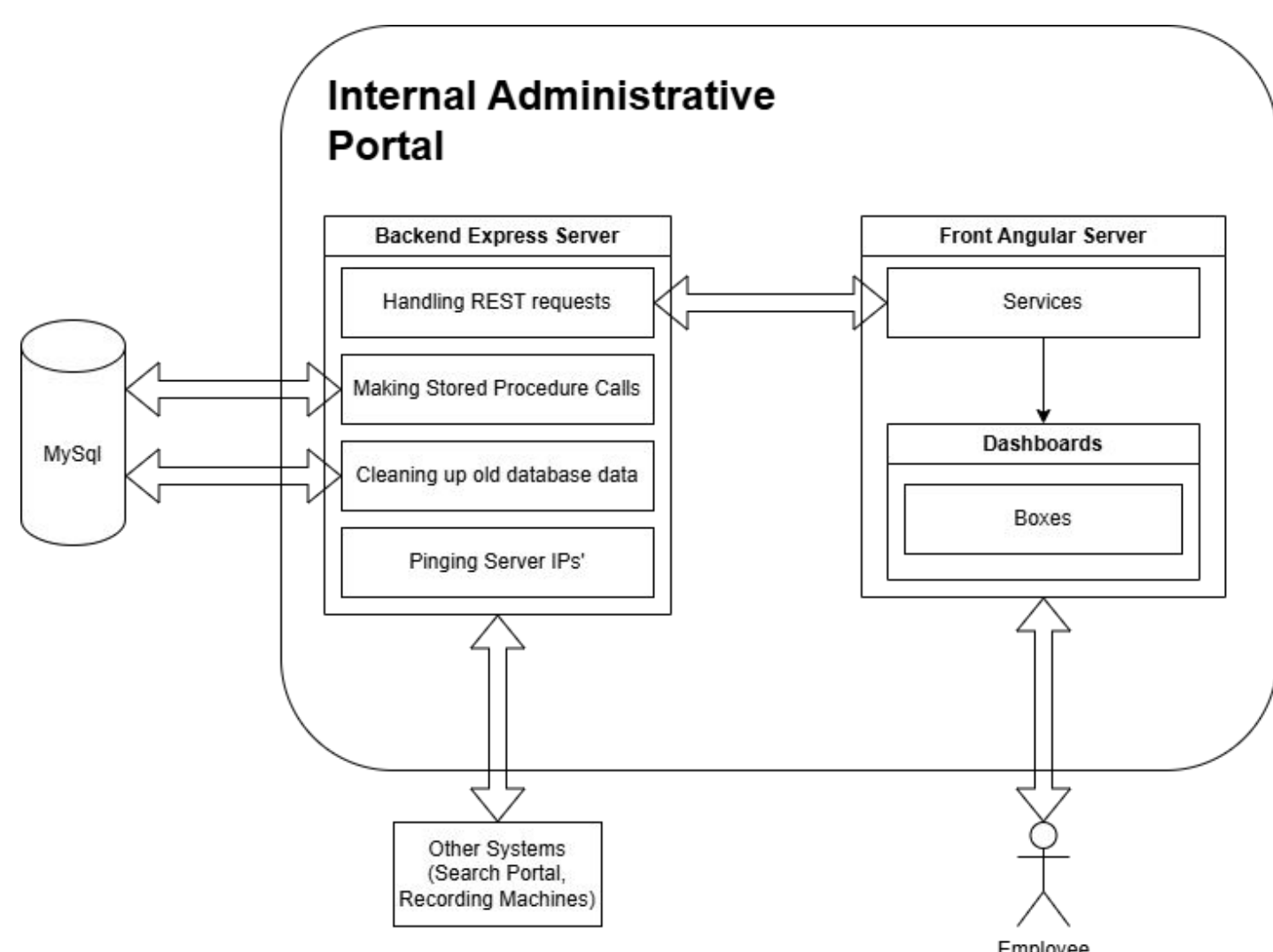
- **SQL Queries** and **IP Pings**.
- **REST Requests** made from user frontends.
- **Authentication** requests.

The Angular Frontend handles....

- Display **graphical** and **tabular** data.
- **Handling user interaction**.

The Angular is also divided into two subsystems...

- **Services** handle **storing** and **fetching data**.
- **Dashboards** and **Boxes** handle user input.



### User Needs

*Software Development Engineers*

- **Documentation** for compiling the portal
- **Guidelines** for code development
- Well documented code
- A **roadmap** for future development

*Managers*

- Monitoring of **server status**
- **Metrics** for user traffic and machine uptime
- The ability to **manage** user permissions

*Employees (Customer Support or Analyst)*

- Varies based on role
- Access to different boxes
- **Graphs** and **Statistics**

### Visual Design

Each feature broken down into a "box".

- A box is a **unit of functionality**.

A collection of boxes is a **dashboard**.

- Dashboards **target user groups**.

The reasons for these changes...

- Better **customizability**.
- Cleaner layouts and **information presentation**.
- **Removed duplicate code**.

Machine Status	
Host Name	Status
codenradio1a	●
codentv1a	●
codentv1b	●
codentv1c	●
codentv2a	●

### Testing

Primary testing was **integration** testing that was...

- Manually completed
- Connected database with real data
  - I.e. Backend machines upload error information

We also completed **unit testing** for each...

- **box** and **dashboard** element.
- Express Route (I.e. <https://myLink.com/Route>)

Finally **acceptance testing** was completed through **weekly meetings** with the client.

