Scalable CIS

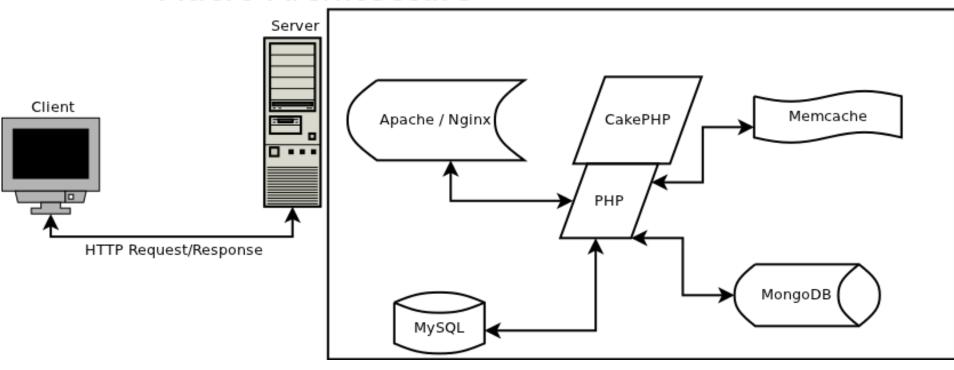
Integration of Service management with Assigned Tasks Using Customer Interaction System

Abstract

Managing and resolving customer issues is one of the main components of the Maintenance Phase of SDLC. This process is simplified with the help of Customer Interaction Systems. Organisations making use of such tools must adapt the systems based on the number of clients, as Current systems are far from flexible or scalable. The system proposed solves the problem of scalability and flexibility by integrating a document oriented NoSQL database which allows for data to be semi-structured which improves the overall throughput of the application.

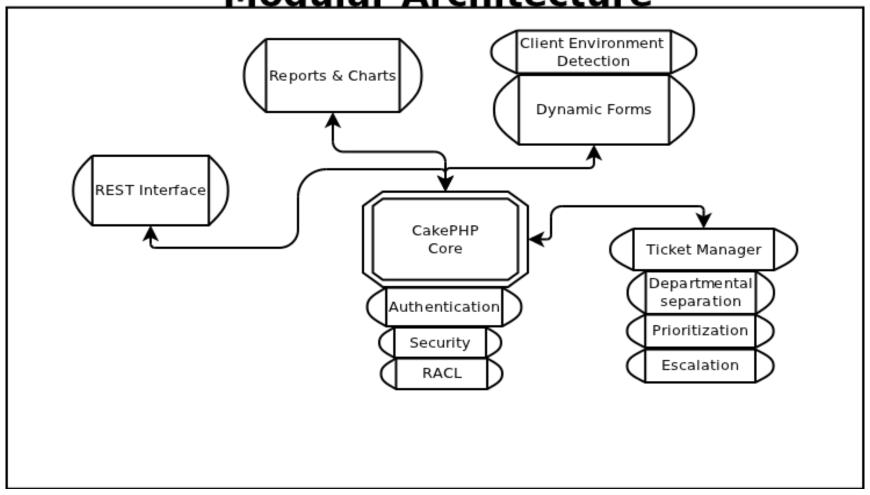
Architecture: Macro

Macro Architecture



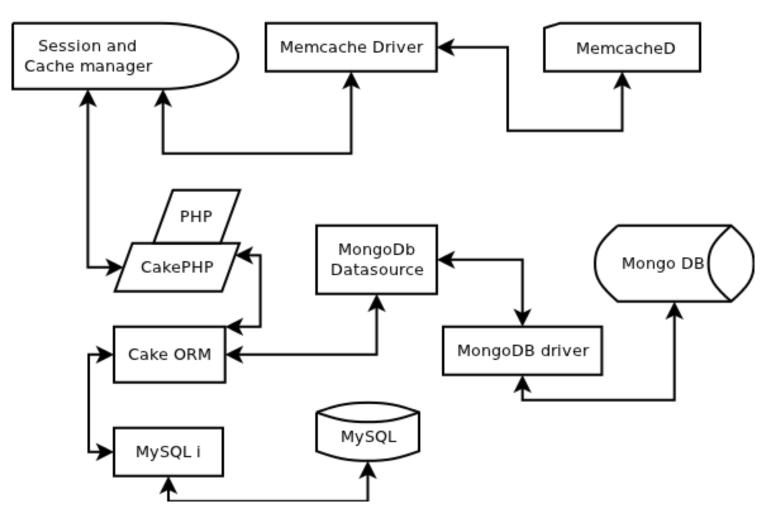
Architecture: Modular

Modular Architecture



Architecture: Data

DATA ARCHITECTURE



Modules

- Authentication
- . RACL
- Dynamic Forms
- Ticket Manager
- . Security

- . REST Interface
- Reports and Charts

- . Mongo DB Models
 - MySQL Models

Current Progress

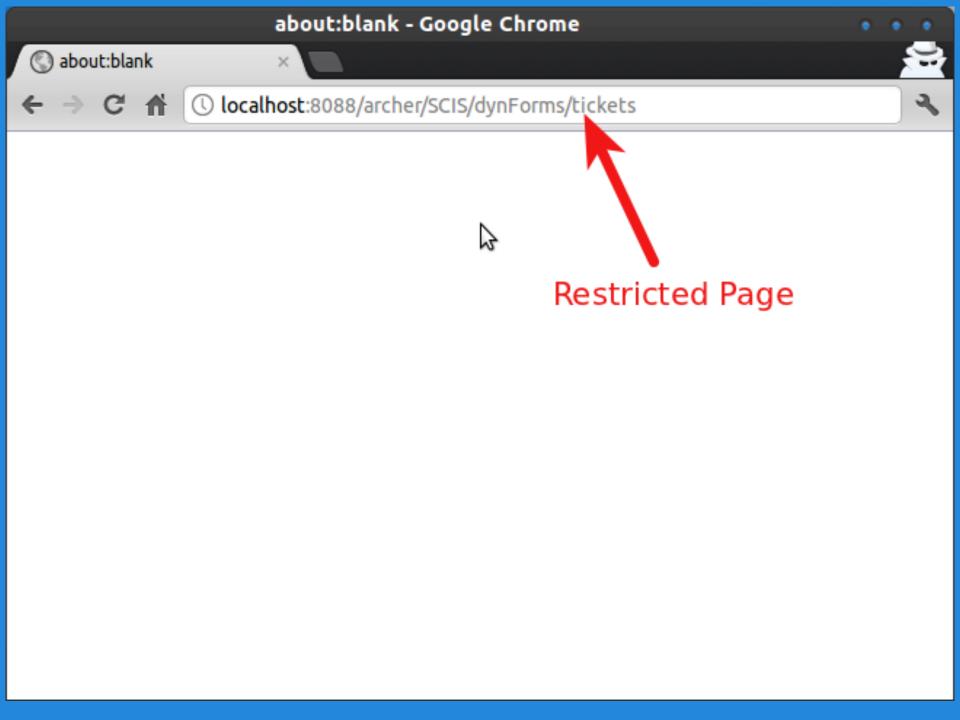
- . Authentication
- . RACL
- . Dynamic Forms
- . Ticket Manager
 - Departmentalization
 - Prioritization
 - . Escalation
- . Security

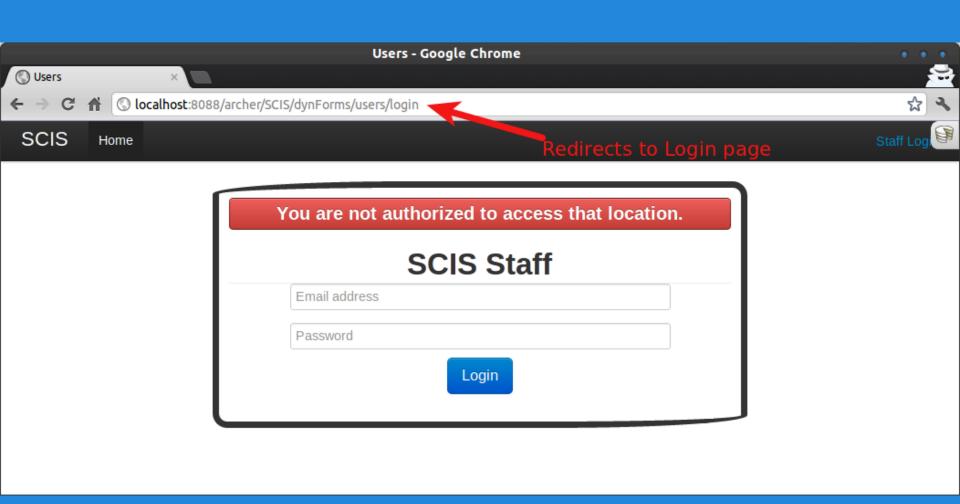
- . REST Interface
- Reports and Charts

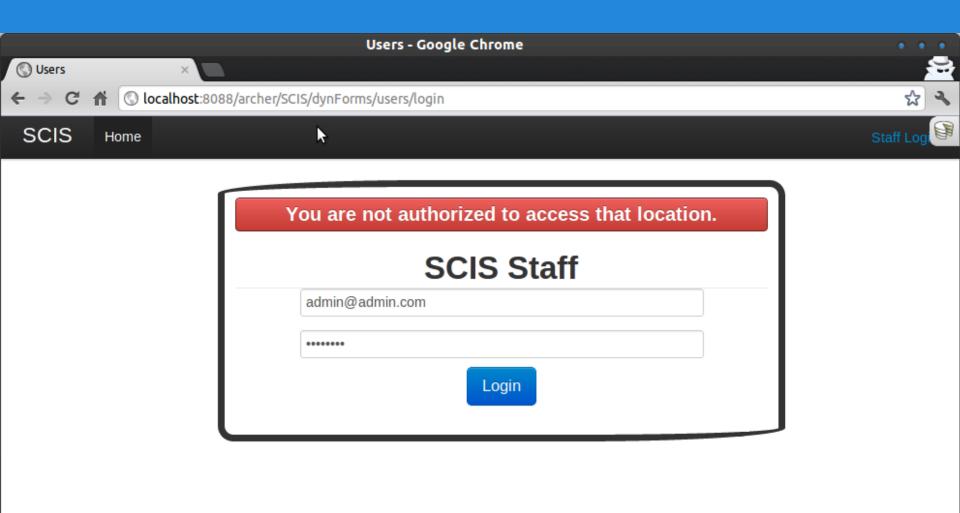
- . Mongo DB Models
 - MySQL Models

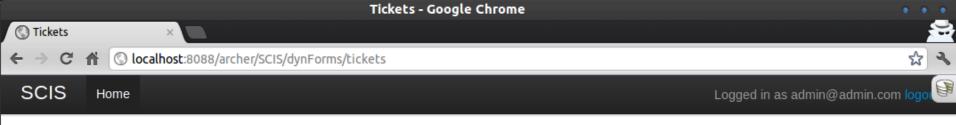
Current Progress: Authentication

- Database model for user authentication
- Login and Logout functionality
- Access restriction to sensitive pages









Index

List of Tickets

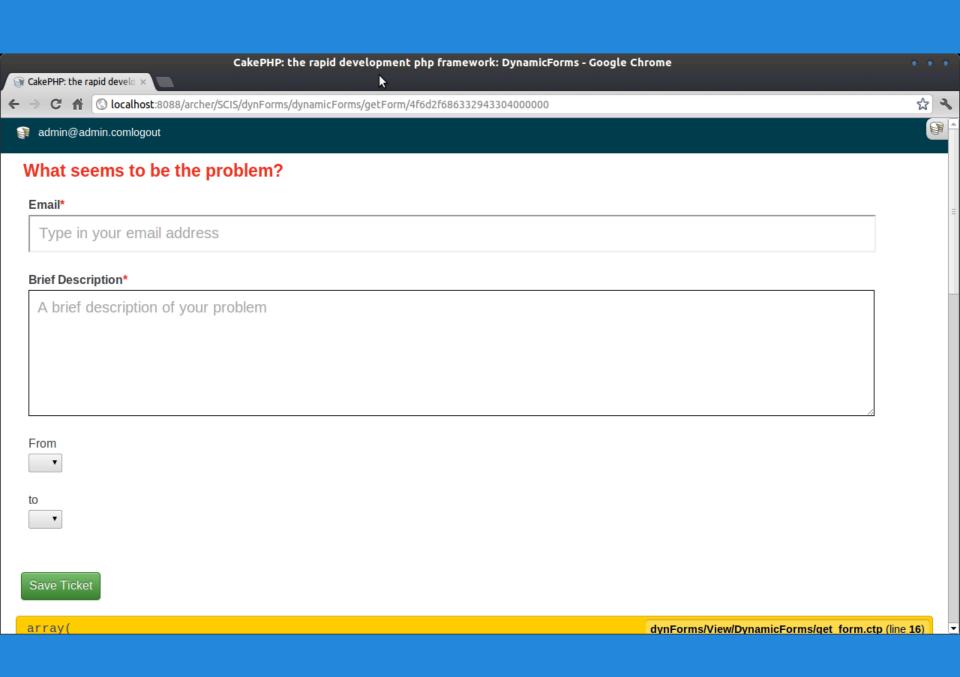
Email	Description	Status	Ticket ID	Actions
archer@linus.com	There is a mouse on my table, and the computer is asking me to move it. But My doctor has advised me not to go near mice . What do I do , Please Help.	pending	4f7e0e2a633294e307000000	
cat@feline.com	I have been unable to catch mice for the past 3 days , Humans are catching all the mice and connecting them to computers. I need advice on how to steal mice from humans	completed	4f7e0ef8633294 e08000000	1
buddy@dogs.com	My master put a picture of a Big piece of chocolate on the screen and I tried to taste it but I could not taste anything . So How do I taste things in the monitor ?	delayed	4f7e107a6332945208000000	

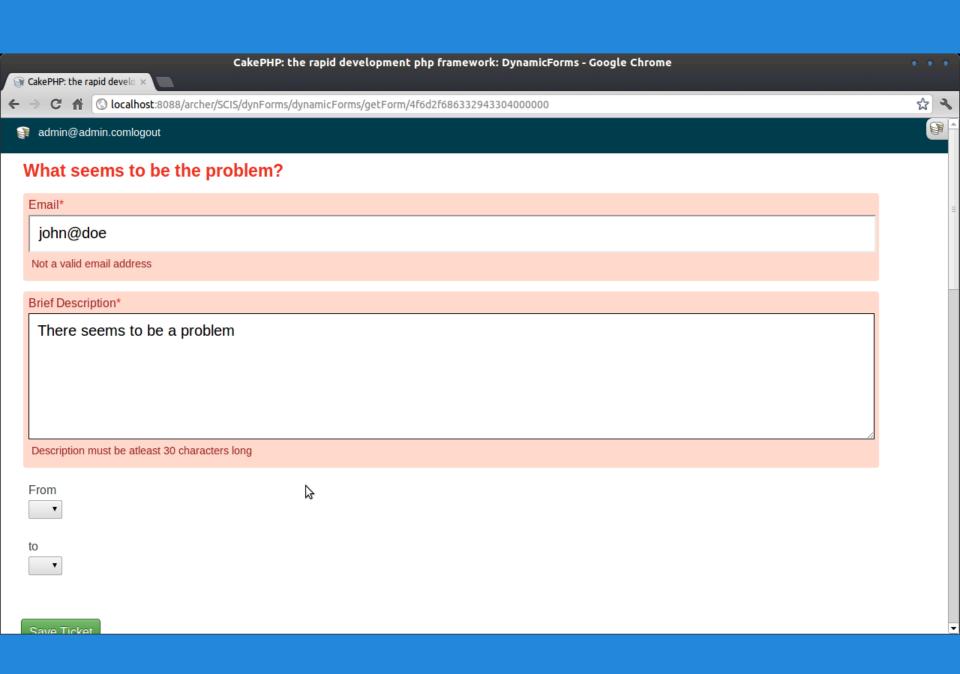
Current Progress: Dynamic Forms

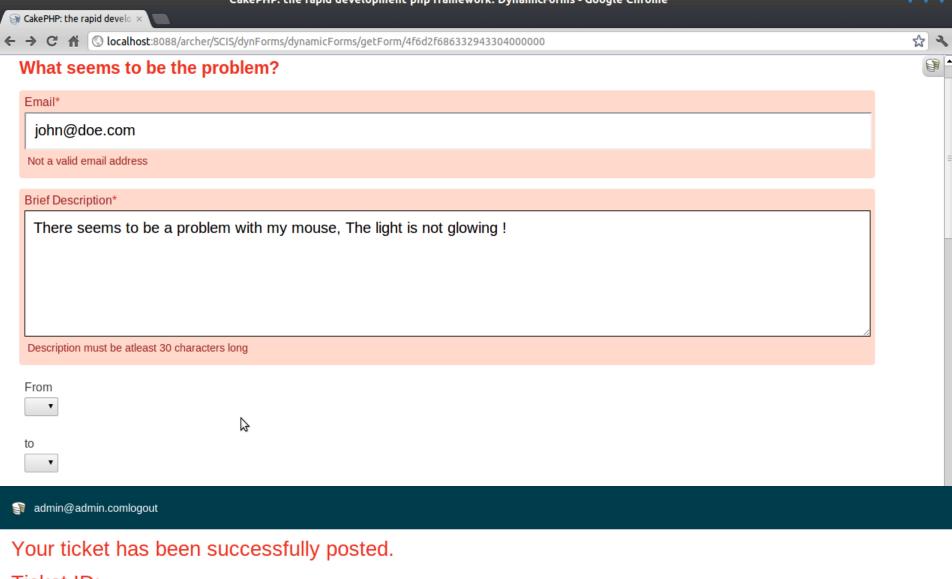
 Custom Schema for storing Dynamic Form information

- Custom Schema for storing Responses from Dynamic Forms
- Dynamic Form Generation based of Schema defined

Form Data validation







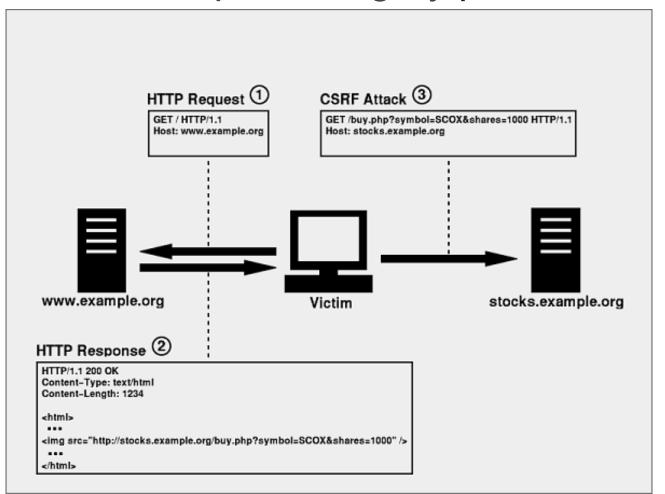
Ticket ID:

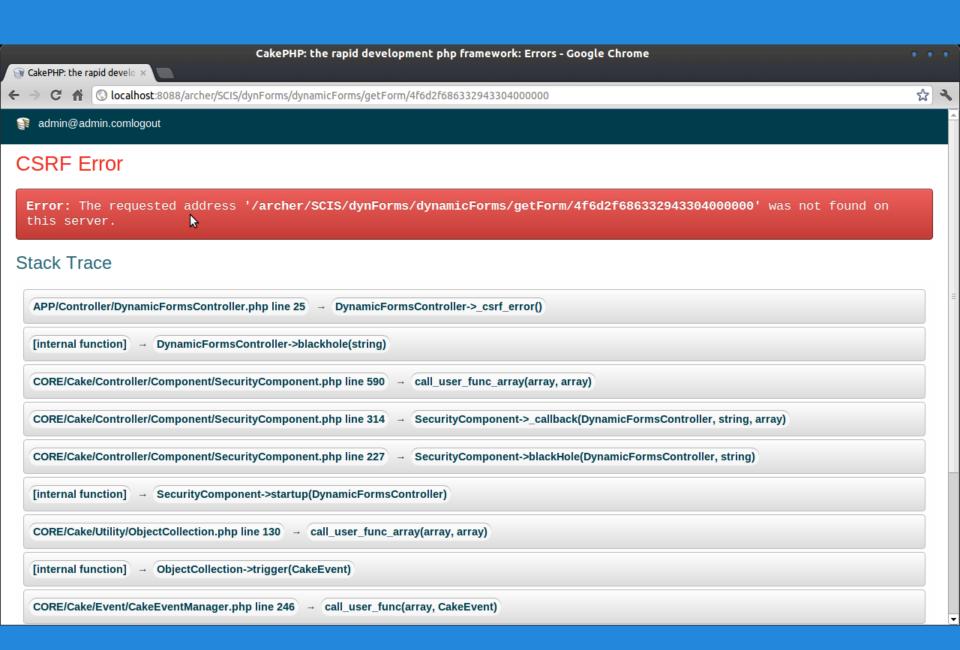
4f78fc4d6332943304000000

Please keep your ticket ID safe, so as to view its status later.

Current Progress: Security

Cross Site Request Forgery protection





Mongodb: DynamicForm

- _id
- options
- inputs
 - input_name
 - type
 - html attributes
- validation
 - o input_name
 - validation_rules

Mongodb: DynamicForm Response

- _id
- dynamicForm_id
- Abstract Data based on Form
- escalation
- department
- client_info
- status
- created
- modified

Schema Diagram

	DynamicForm			
_	•_id	MongoID		
1	dynamicForm_id	MongoID		
	°Form_Data	array		
	°created	datetime		
	°modified	datetime		
	°escalation	int		
	odepartment_id	foreign_key		
	°client_info	array		
	ostatus o	string		

DynamicForm				
*_id	MongoID			
°options	array			
°inputs	array			
°inputs.input_name	array			
°inputs.input_name.type	inputType			
°validation	array			
°validation.input_name	array			
°validation.input name.validation rule	· validationRule			

REST Interface

- Representational State Transfer.
- Ticket Details are Obtained in JSON format

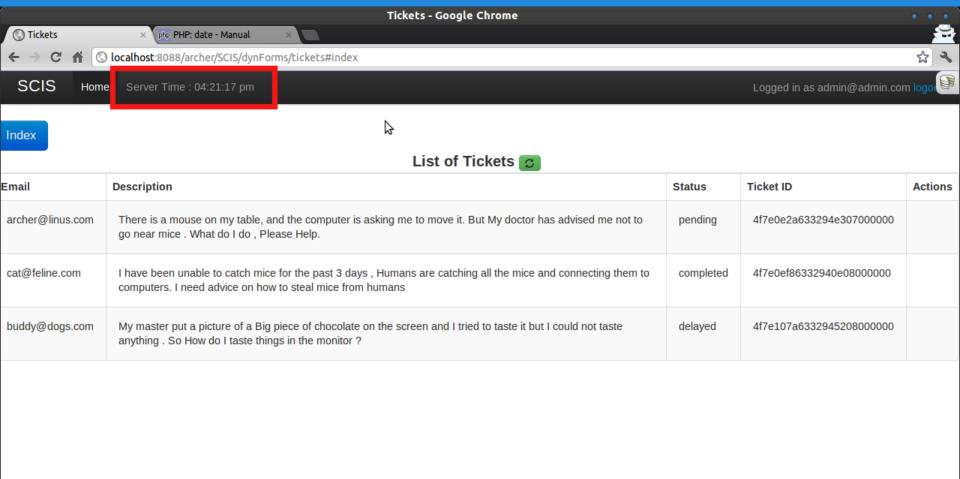
 Unrelated Applications can Communicate via this interface

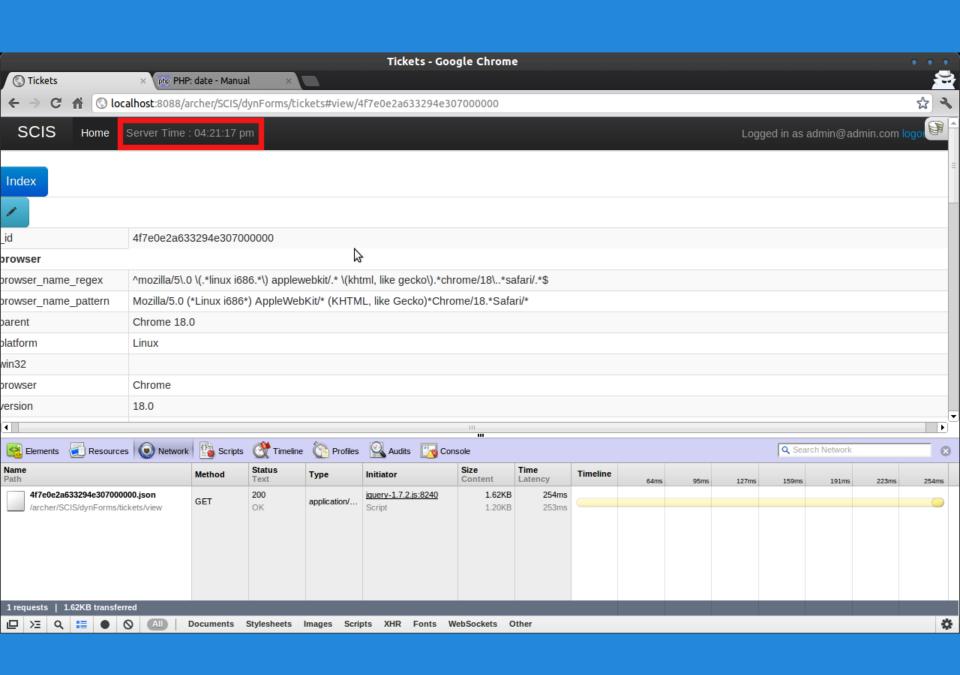
Current Implementation done in Backbone.js

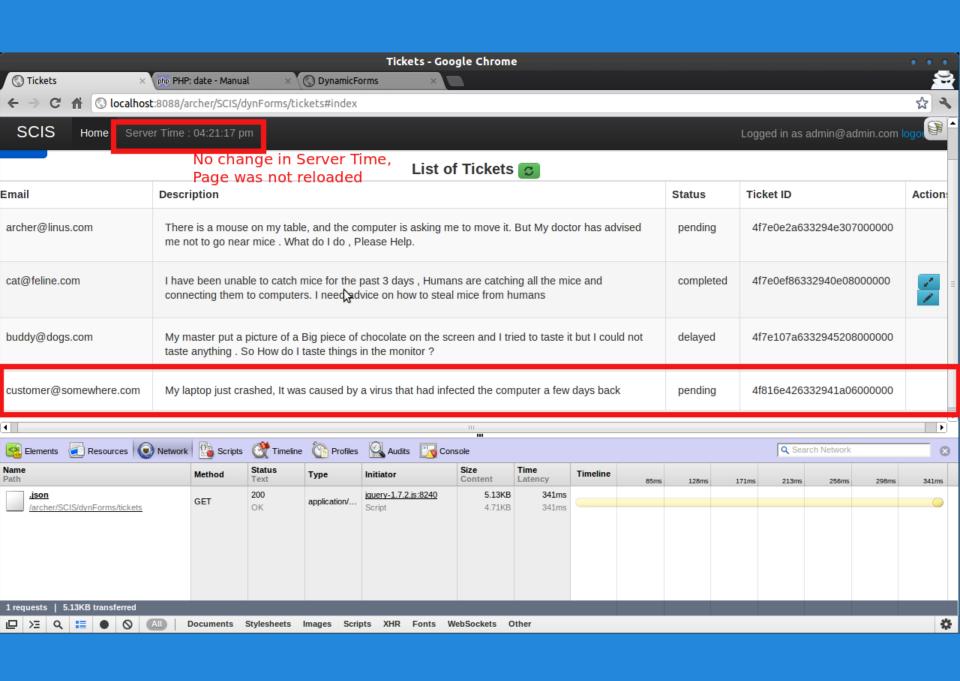
REST Client

- Javascript App written with Backbone.js
- Uses Client Side MVC Architecture

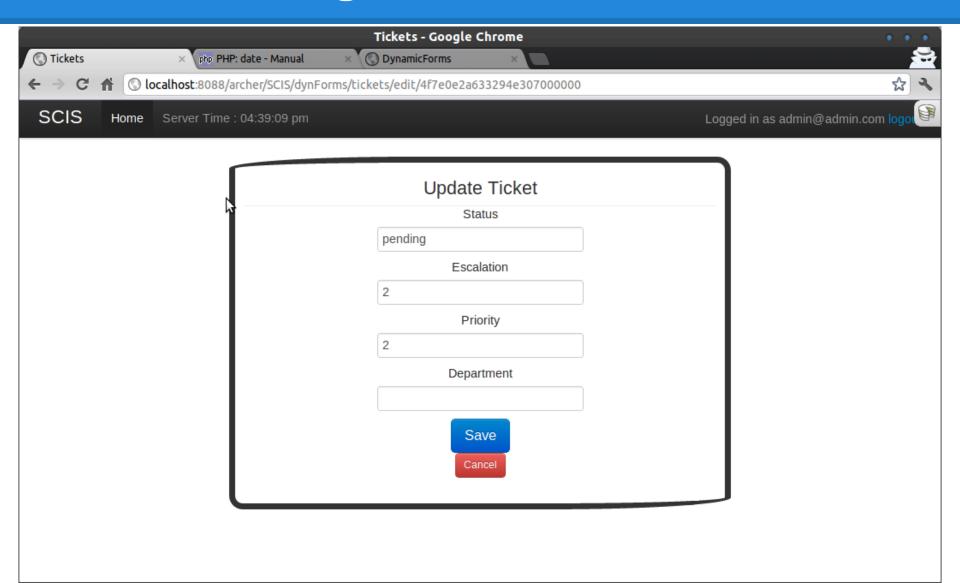
- Handles Complex Client side events
- Reduces Server Load







Ticket Manager



Environment

- Arch Linux
- Apache 2.2
- PHP 5.3.10 + MongoDB driver 1.2.9 + Memcache driver 3
- MongoDB 2.0.4
- MySQL 5.5
- Memcached 1.4
- CakePHP 2.1 stable + MongoDB Datasource
- GIT + Github for Revision control

Thank you!

Team Members

- K.Gautam
- V.Vinoth
- D.Ashok

Guide

Mrs.K.Kalaivani