Problem Statement

Current available server monitoring solutions are too expensive and most rely on proprietary software. The aim of our project is to incorporate all the functionality of server monitoring software suites into an open-source and free package.

Abstract

Modern web applications require stringent monitoring in order to isolate issues and bugs or to locate performance and concurrency problems. This project attempts to bridge the gap between small, specific open-source server-monitoring applications and expensive proprietary applications. We will provide the users with a mobile application, web application, and server monitoring agent for analyzing server uptime/performance.

Technologies











Heimall

An open-source server monitoring solution

Screenshot of Dashboard

[Person] Single-Page Application Mobile Application [Container: AngularJS] [Container: Progressive] Sign-In Controller DashboardController AgentManagementControl [Component: AngularJS [Component: AngularJS Controller] [Component: AngularJS APIInterface SMSInterface EmailSystemInterface [Component: ExpressJS [Component: Twillio API] [Component: nodemailer] API [Container: NodeJS] External SMS Syster External Email System [Software System [Software System]

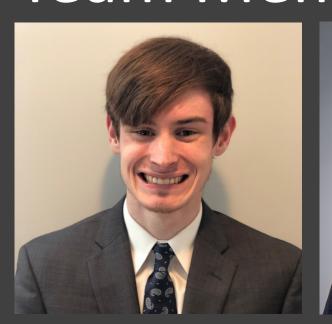
Design Diagram

Future Advancements

- Application Performance Monitoring
- Providing baseline and deviation levels from metrics history
- 3rd party plugin access

[Container: PostgreSQL]

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Challenges	Solution
Linux and Windows OS differences	Different agent code/installation
Polling rate changes from agent	Implemented Fibonacci drop-off
Iultiple agents cause server slowdown	Implement async queue
User needs to see up-to-date data	Implement sockets to feed UI data

