MICHIGAN STATE UNIVERSITY

Project Plan

Endpoint Data Monitoring and Analysis Agent

The Capstone Experience

Team Rook

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From Students…
…to Professionals

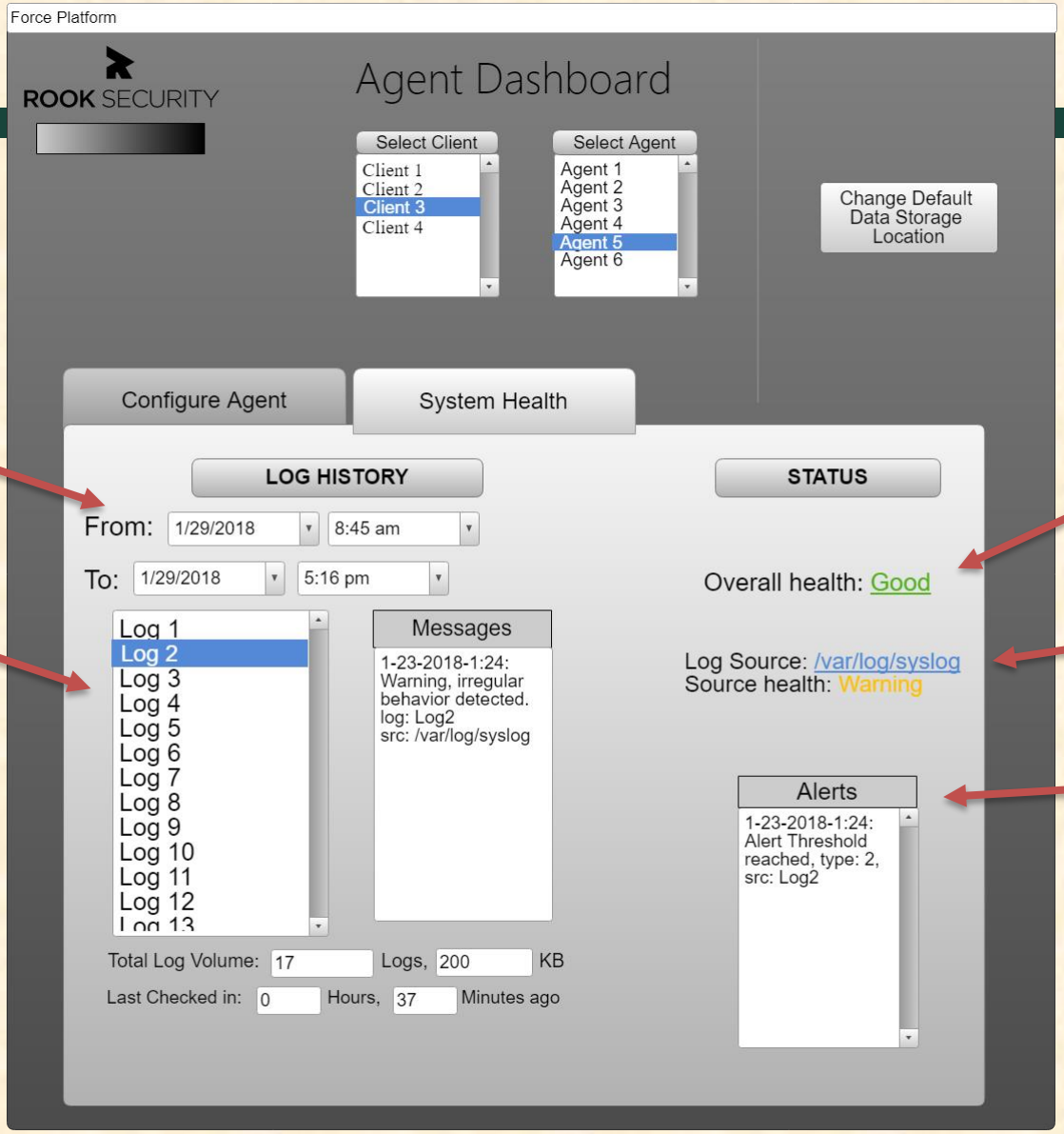
Functional Specifications

- Endpoint Agent Log Collection
  - Cross Platform Compatible
- Communication Channels for data
  - Configurable
- Web Application to Analyze Agent
  - Configuration
    - Log paths, storage location
  - Health Analysis
    - Alert priorities

Design Specifications

- Agent
  - Background Process
  - Limited client interaction
- Web Application
  - Extends Current Force Platform
    - Display Log History
    - Current Client Host Health Status
    - Configuration

Screen Mockup: System Health



Specify range of time

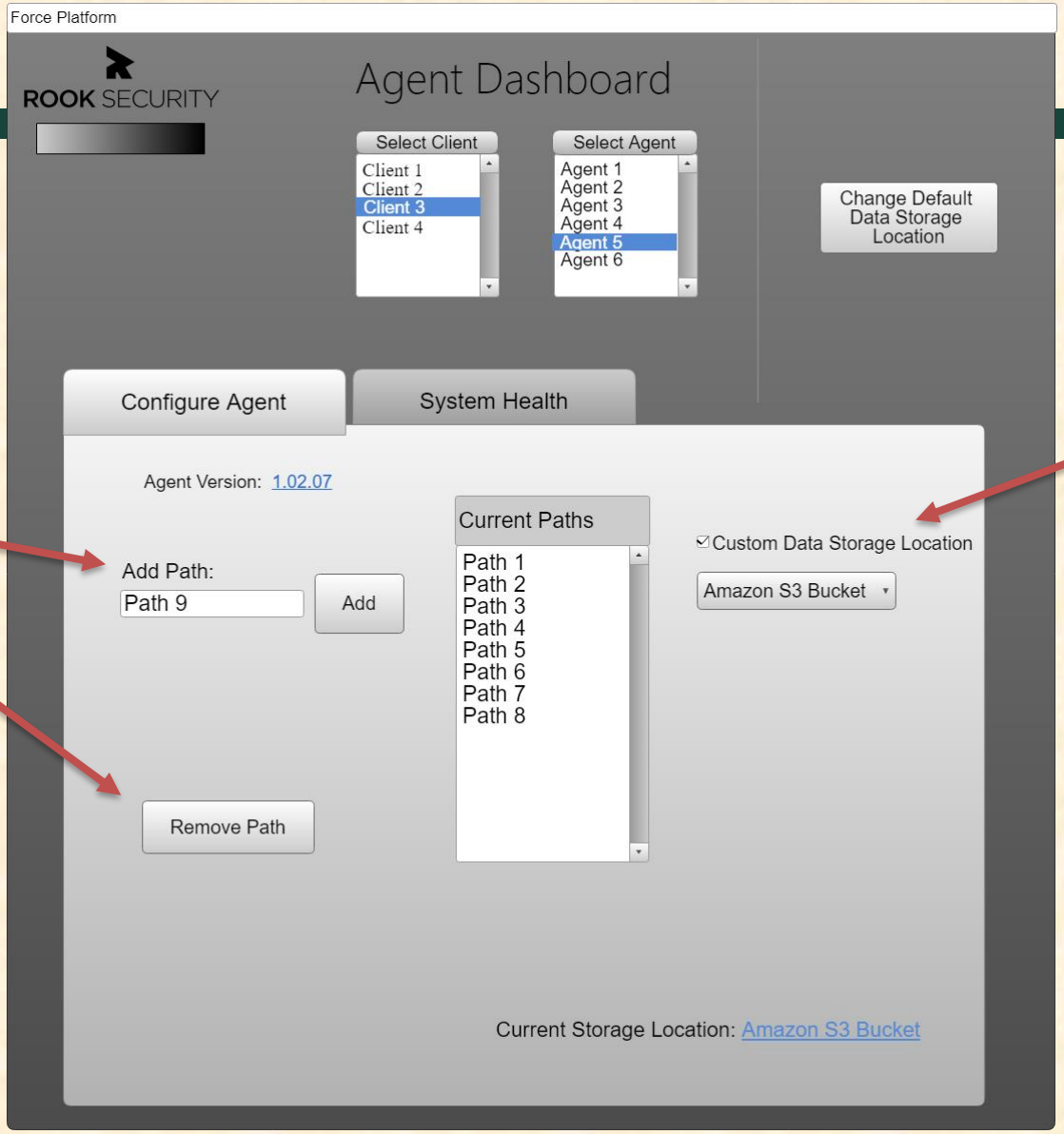
Select individual logs

System Health

Log Source Info

Alerts

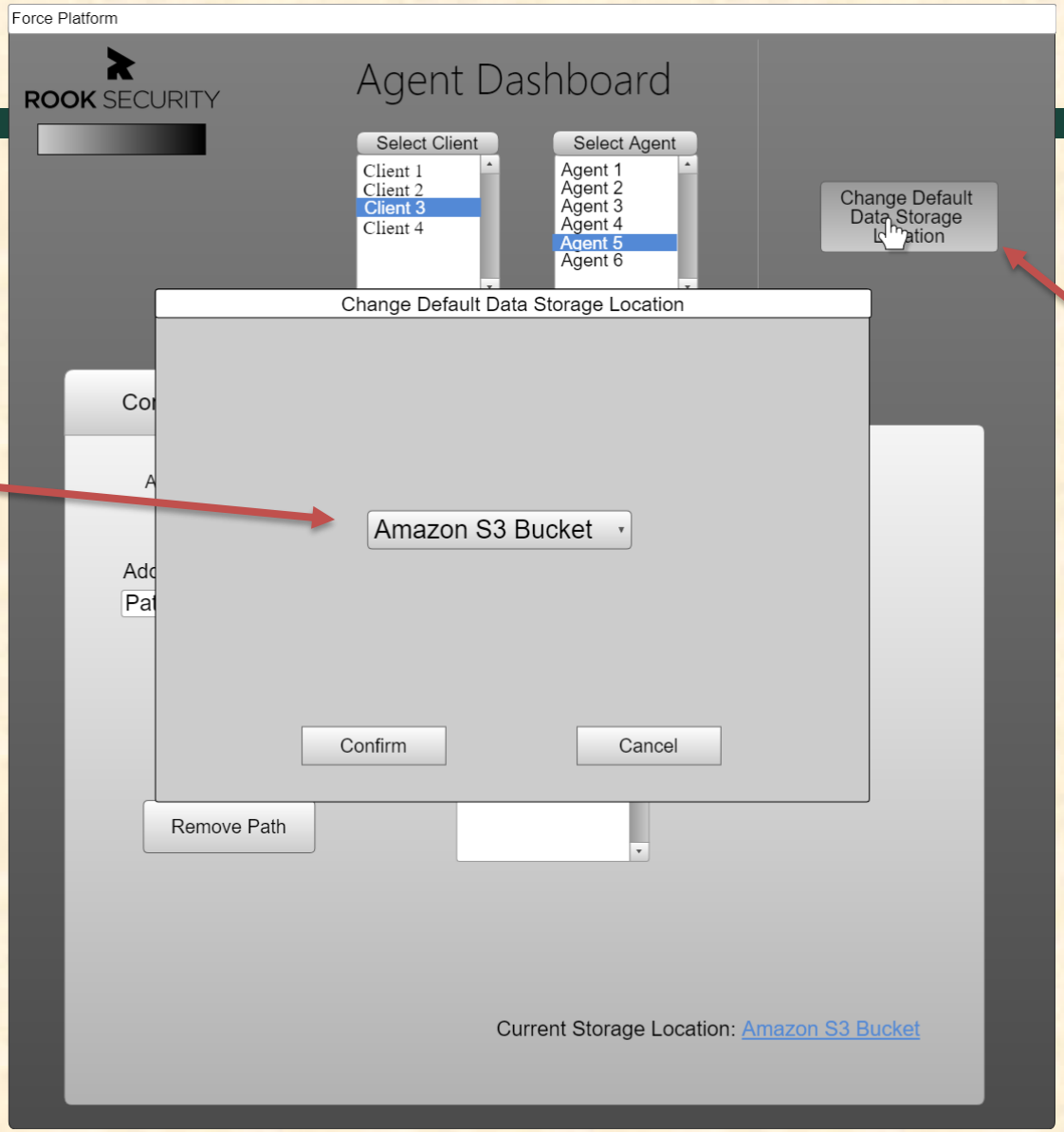
Screen Mockup: Configuration



Add/Remove Source Paths

Select New Storage Location

Screen Mockup: Storage Location



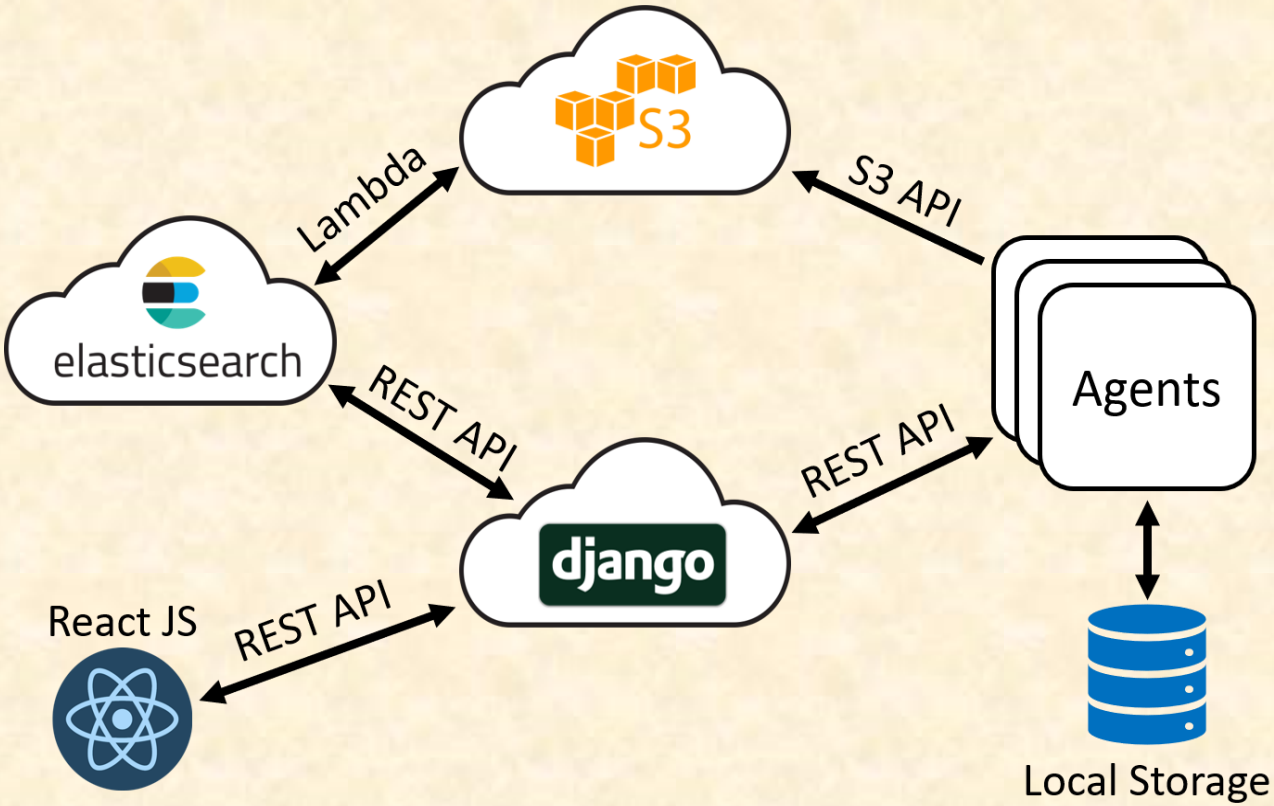
Change Default Storage Option

Button to bring up window

Technical Specifications

- Storage System
  - AWS S3, Django RESTful endpoint, Elastic Search
- Log Collection Agents using Go
  - Easy Cross Platform Design
  - Local storage capability
- Web Interface
  - ReactJS, Redux, HTML, CSS
  - Backend leverages Django

System Architecture



System Components

- Hardware Platforms
  - Ubuntu Django Server
  - AWS S3 Buckets
  - AWS Elastic Search
- Software Platforms / Technologies
  - GoLand IDE
  - Django REST Framework
  - OS Specific Log Collection Interaction
  - AWS API for Go

Risks

- Developing Cross Platform Software
  - Streamlining Log Collection Process for all OS
  - Collect in each OS and build overarching process
- Health Metrics
  - Making sure what is being analyzed is useful
  - Constant communication with Rook
- Integration of Current Platform
  - Cannot compromise integrity of existing platform
  - Iterative Process including Rook Analysts' Feedback
- Effective Testing
  - Replicate realistic traffic on agent and web application
  - Use mock data provided by rook and bench testing

Questions?