

MICHIGAN STATE
UNIVERSITY

Beta Presentation

Intelligent Network Security for High-Risk Traffic

The Capstone Experience

Team McKesson

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*From Students...
...to Professionals*

Fall 2025

Project Overview

- Firewall rules help the firewall decide how to control access to networks
- Difficult for a cybersecurity unit to analyze thousands of rules
- The Intelligent Network Security system automates risk analysis process to evaluate risk of firewall rules
- Web application designed to manage firewall rules and visualize insights, alerts, and attestations



Team Member's Technical Tasks

Technical Tasks Assigned

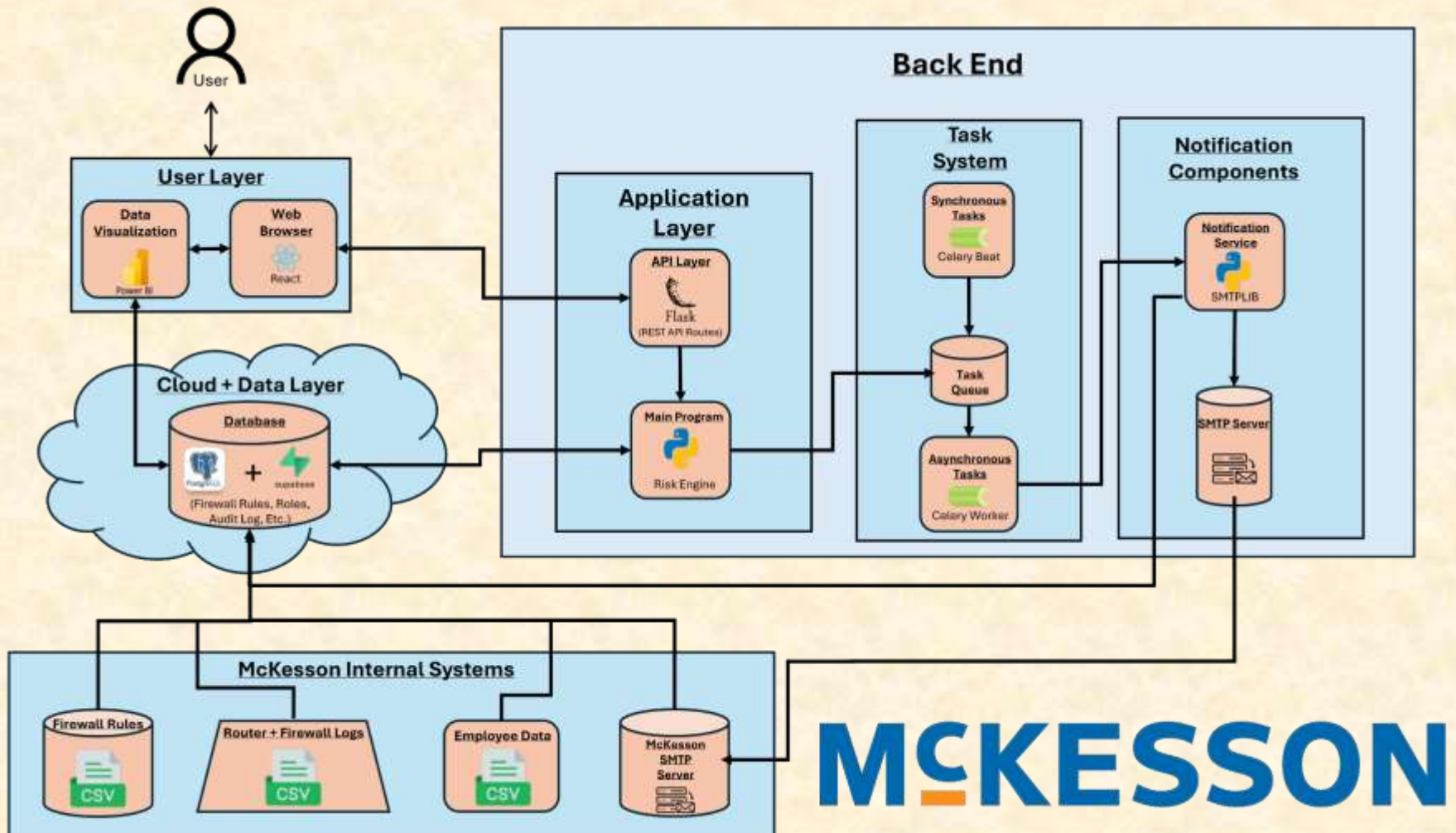
- Aneesh Kapole
 - Attestations page
 - Risk engine listener
 - Logs page
- Dev Khakhar
 - Filter functionality
 - Dark mode/Settings page
 - Login (front end)
- Karena Lam
 - Alerts and Home Page
 - Comments popup
 - Integrating risk engine into web app
- Aisha Latif
 - Assign rules button
 - Risk score popup
 - Risk engine: segmentation of sensitive data, expired rules
- Divya Nadella
 - Insights cards
 - Home page dashboard widget
 - Risk engine: geo restrictions, URL filtering
- Conner O'Sullivan
 - Email notification system
 - Power Bi dashboards
 - Login (back end)

Technical Tasks Completed

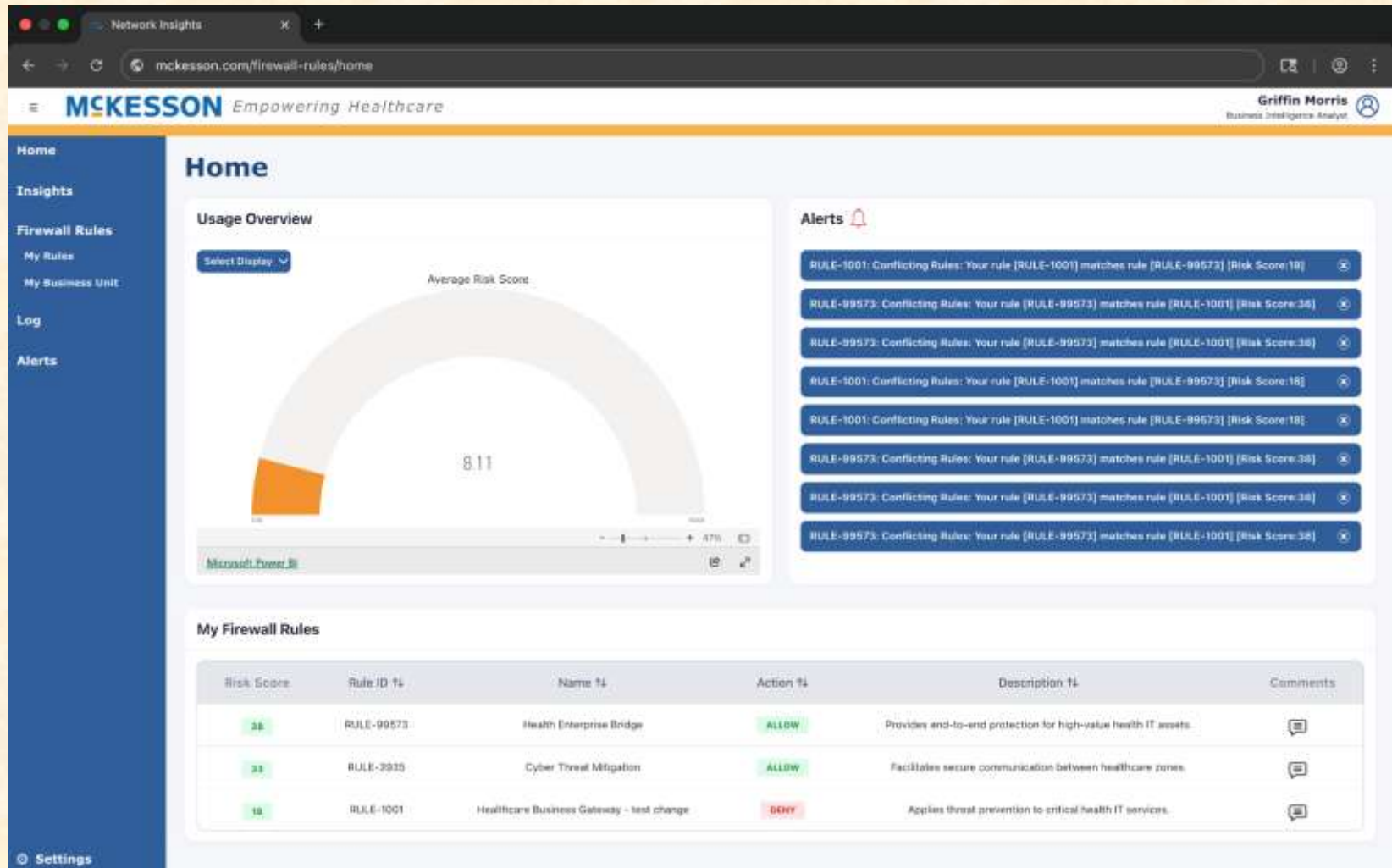
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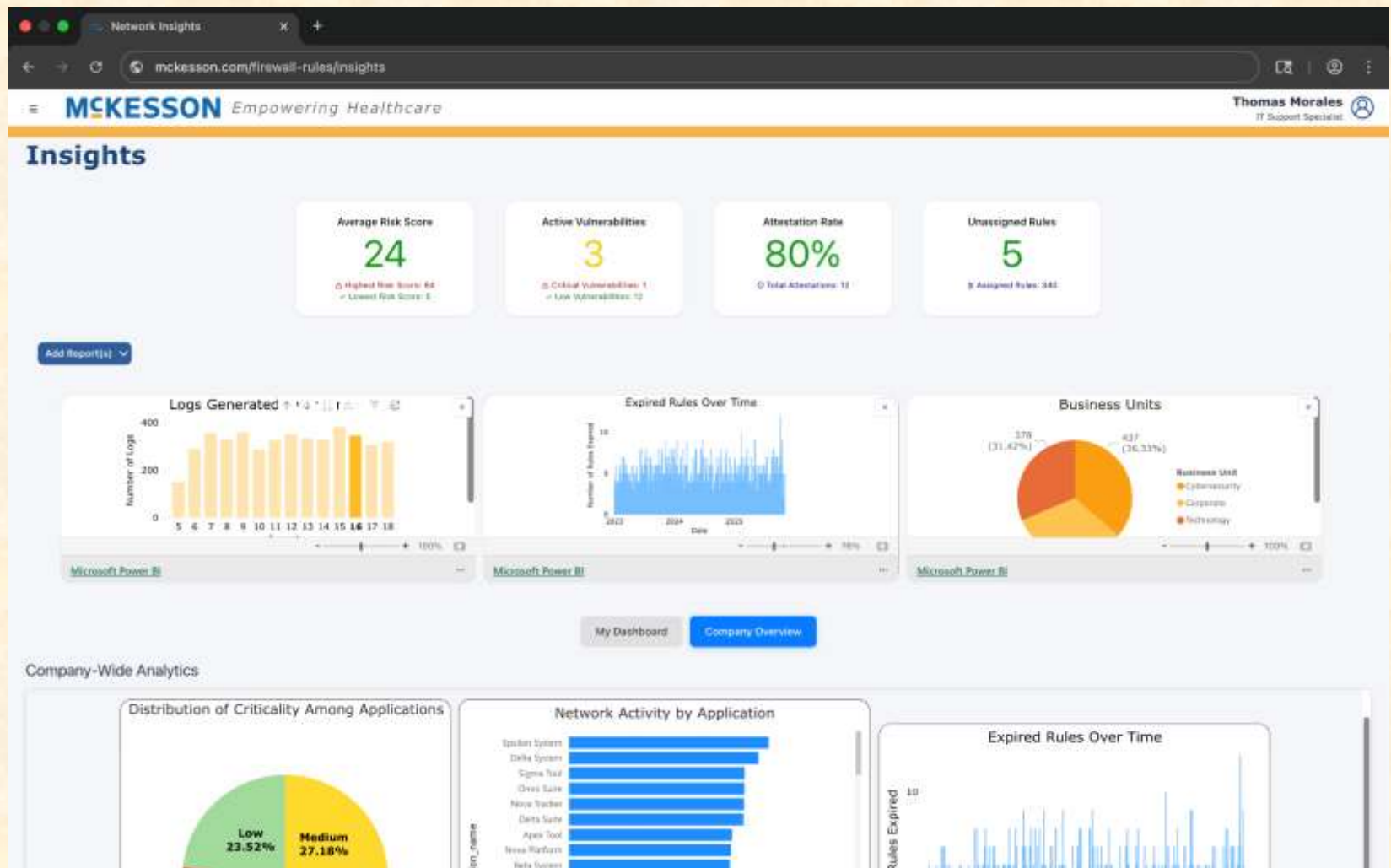
System Architecture



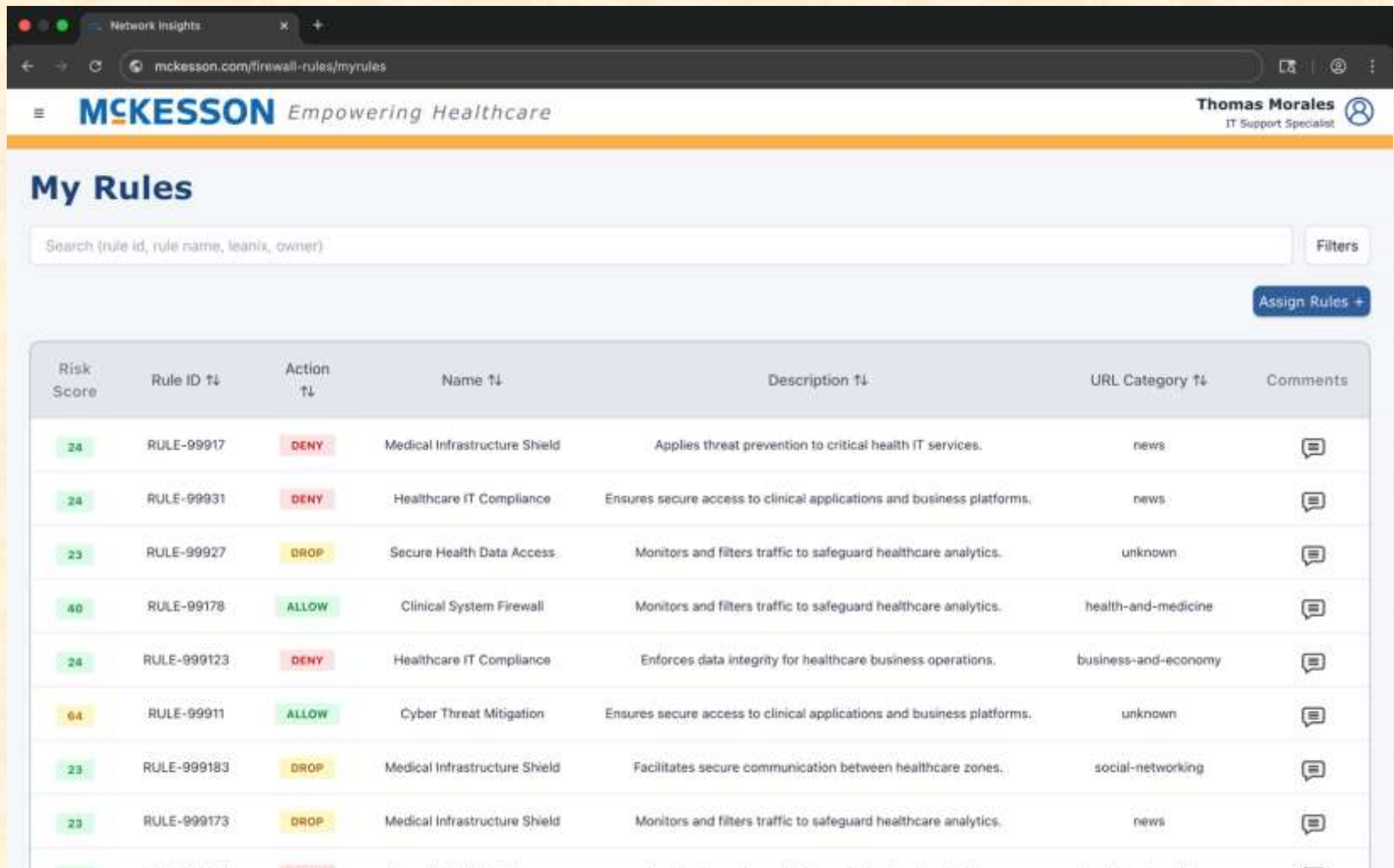
Home Page



Insights



My Rules



The screenshot displays the 'My Rules' page in the McKesson Network Insights application. The page features a search bar, a 'Filters' button, and an 'Assign Rules +' button. Below these is a table listing various firewall rules with their associated risk scores, actions, and descriptions.

Risk Score	Rule ID ↕	Action ↕	Name ↕	Description ↕	URL Category ↕	Comments
24	RULE-99917	DENY	Medical Infrastructure Shield	Applies threat prevention to critical health IT services.	news	
24	RULE-99931	DENY	Healthcare IT Compliance	Ensures secure access to clinical applications and business platforms.	news	
23	RULE-99927	DROP	Secure Health Data Access	Monitors and filters traffic to safeguard healthcare analytics.	unknown	
40	RULE-99178	ALLOW	Clinical System Firewall	Monitors and filters traffic to safeguard healthcare analytics.	health-and-medicine	
24	RULE-999123	DENY	Healthcare IT Compliance	Enforces data integrity for healthcare business operations.	business-and-economy	
64	RULE-99911	ALLOW	Cyber Threat Mitigation	Ensures secure access to clinical applications and business platforms.	unknown	
23	RULE-999183	DROP	Medical Infrastructure Shield	Facilitates secure communication between healthcare zones.	social-networking	
23	RULE-999173	DROP	Medical Infrastructure Shield	Monitors and filters traffic to safeguard healthcare analytics.	news	



Attestations

Network Insights

mckesson.com/firewall-rules/attestations

MCKESSON Empowering Healthcare

Thomas Morales
IT Support Specialist

Attestations

Expired!

RULE-3856: Health Analytics Security

Enforces data integrity for healthcare business operations.

attest before: 3/26/2023

Expired!

RULE-7559: Healthcare Business Gateway

Rule designed to protect sensitive patient data across healthcare systems.

attest before: 8/4/2023

Expired!

RULE-8777: Health Analytics Security

Provides layered security for medical network endpoints.

attest before: 6/15/2025

RULE-99917: Medical Infrastructure Shield

Applies threat prevention to critical health IT services.

attest before: 12/1/2025

RULE-99931: Healthcare IT Compliance

Ensures secure access to clinical applications and business platforms.

attest before: 12/1/2025

RULE-3856 - Health Analytics Security

Enforces data integrity for healthcare business operations.

Choose what you want to do with this rule.

Is this service still being used?
application-default

Is this application still valid?
ftp

Is this the correct source zone?
BU37784

Is this the correct destination zone?
BU78253



What's left to do?

- Features
- Stretch Goals
 - Generate summary emails
- Other Tasks
 - Filters and Search functionality for Email Logs page

Questions?

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