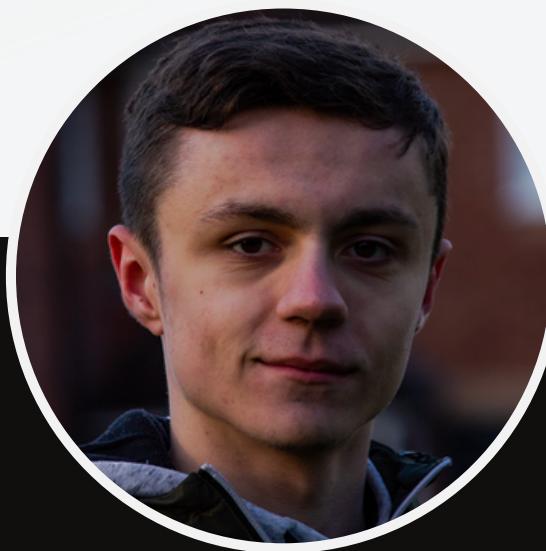


BLIP GROUP RELIABILITY

MAKERS FINAL PROJECT

BLIP TEAM



Toby
Walker



Sandra
Soinska

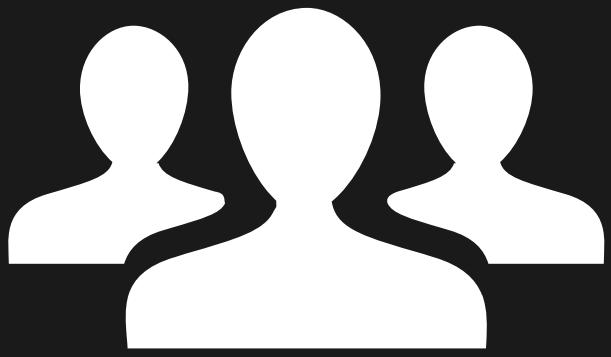


Senthooran
Vyravippillai



Shannon
Whitworth

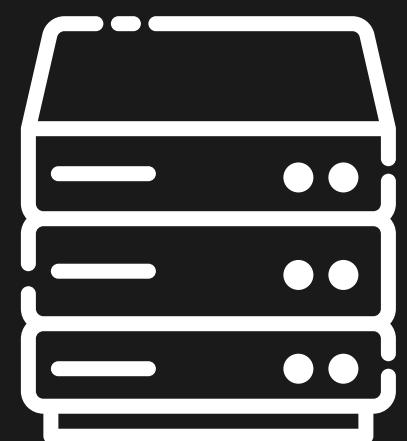
PROJECT BACKGROUND



Software Vendor



Unresponsive Developers



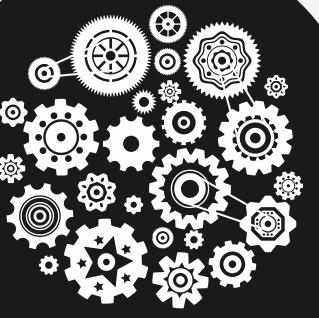
HOSP Server



Poor Performance

Poor Reliability

GOALS AND OBJECTIVES



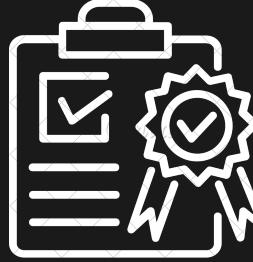
PRESERVING
FUNCTIONALITY

N°1



INCREASING
RELIABILITY
AND SECURITY

N°2



IMPLEMENT
IMPROVEMENT
TICKETS

N°3

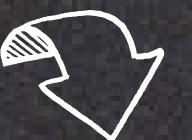
STRATEGY N°1



METHODS & STRATEGY

STEP 1

Gaining more visibility of the situation.



STEP 3

Discussing & deciding the best approach.



STEP 5

Implementing changes using version control.



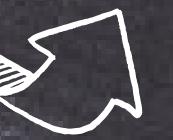
STEP 2

Researching the best solutions.



STEP 4

Starting to implement solutions in an agile way.



STEP 6

Reviewing logs and rolling back changes if necessary.

PROJECT MILESTONES

PROJECT SET-UP

Set up Github repo, Proxy app, Jenkins and Pipeline

SECURITY

Note **only** assigned to user creating one

SECURE DATA TRANSFER

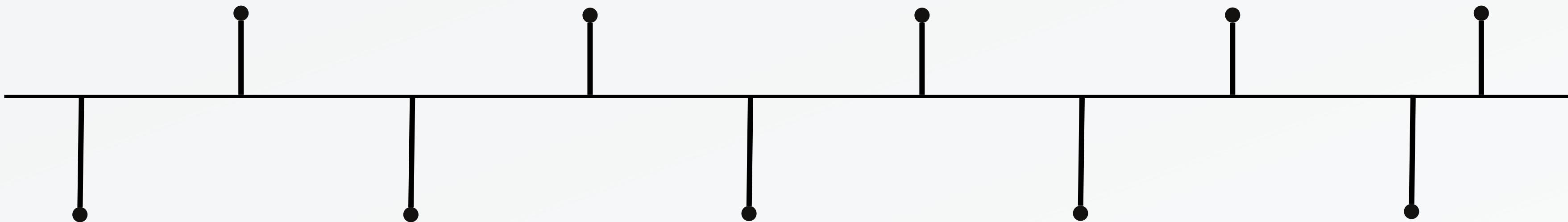
Set up HTTPS listener on load balancer

LOGGING

Audit trail feature

CACHING

Improve system response time



VISIBILITY

Gained visibility into loadbalancer by creating logs in S3 bucket

VALIDATION

Validating methods and requests

ERROR HANDLING

Resolved 500 errors

CLOUDFRONT

Set up CloudFront and only allowed HTTPS connections

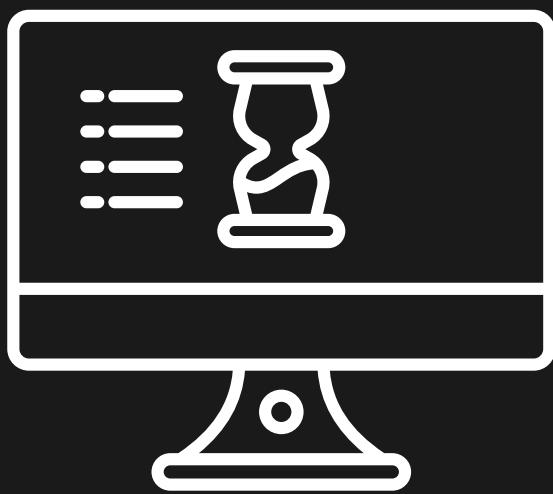
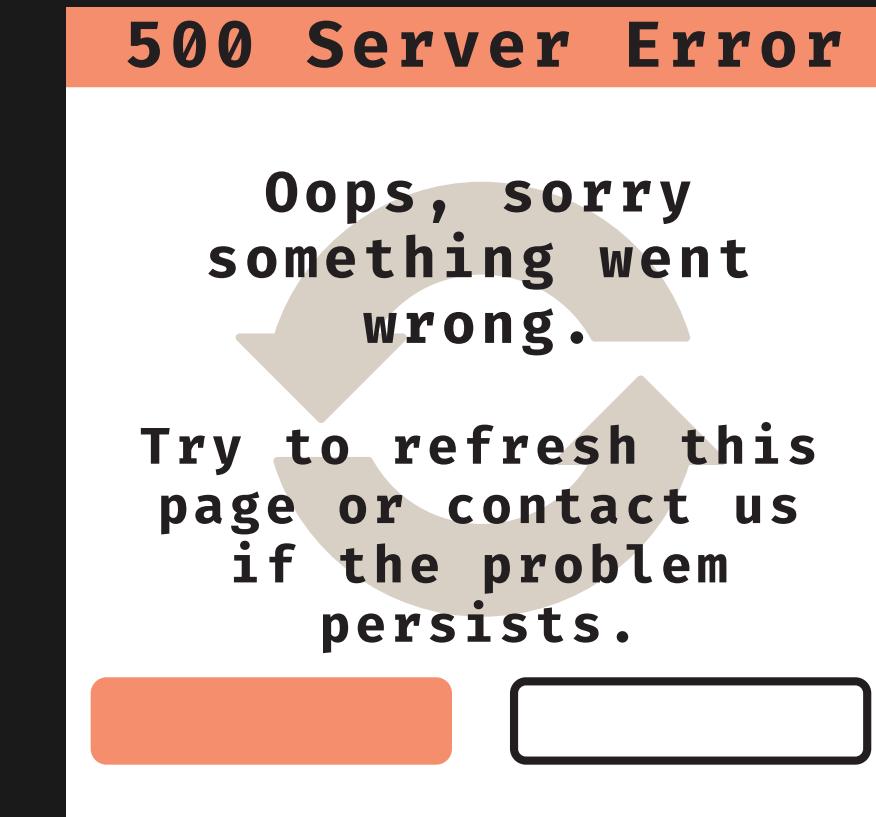
RESULTS STORAGE

Saved screening results

INTERNAL SERVER ERROR HANDLING

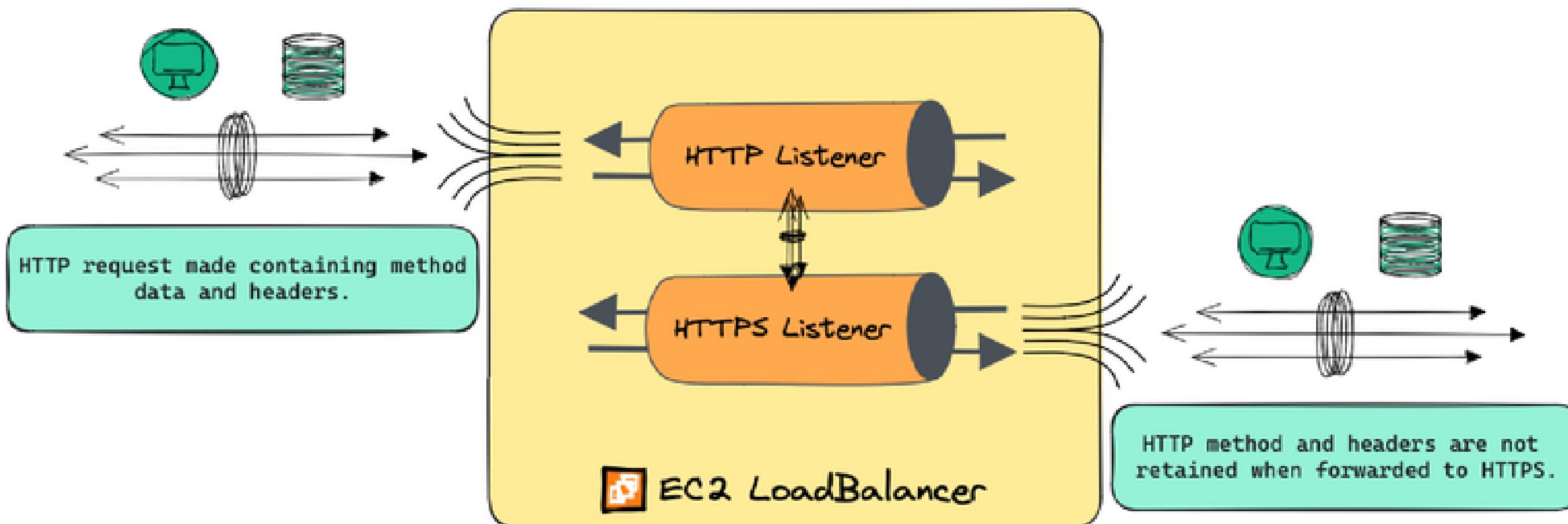


Internal server
errors.

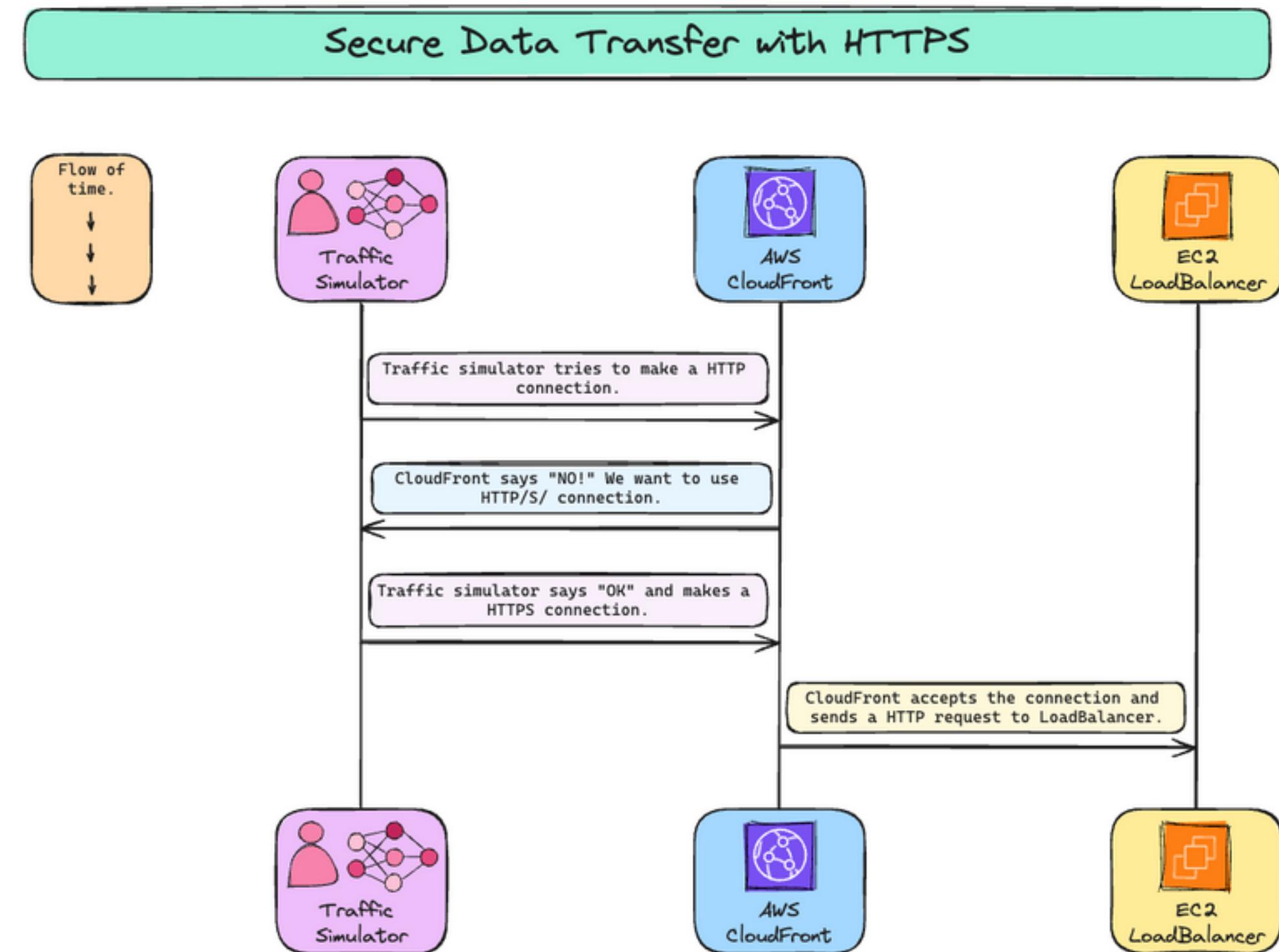


Retrying requests
automatically if any internal
server errors occur.

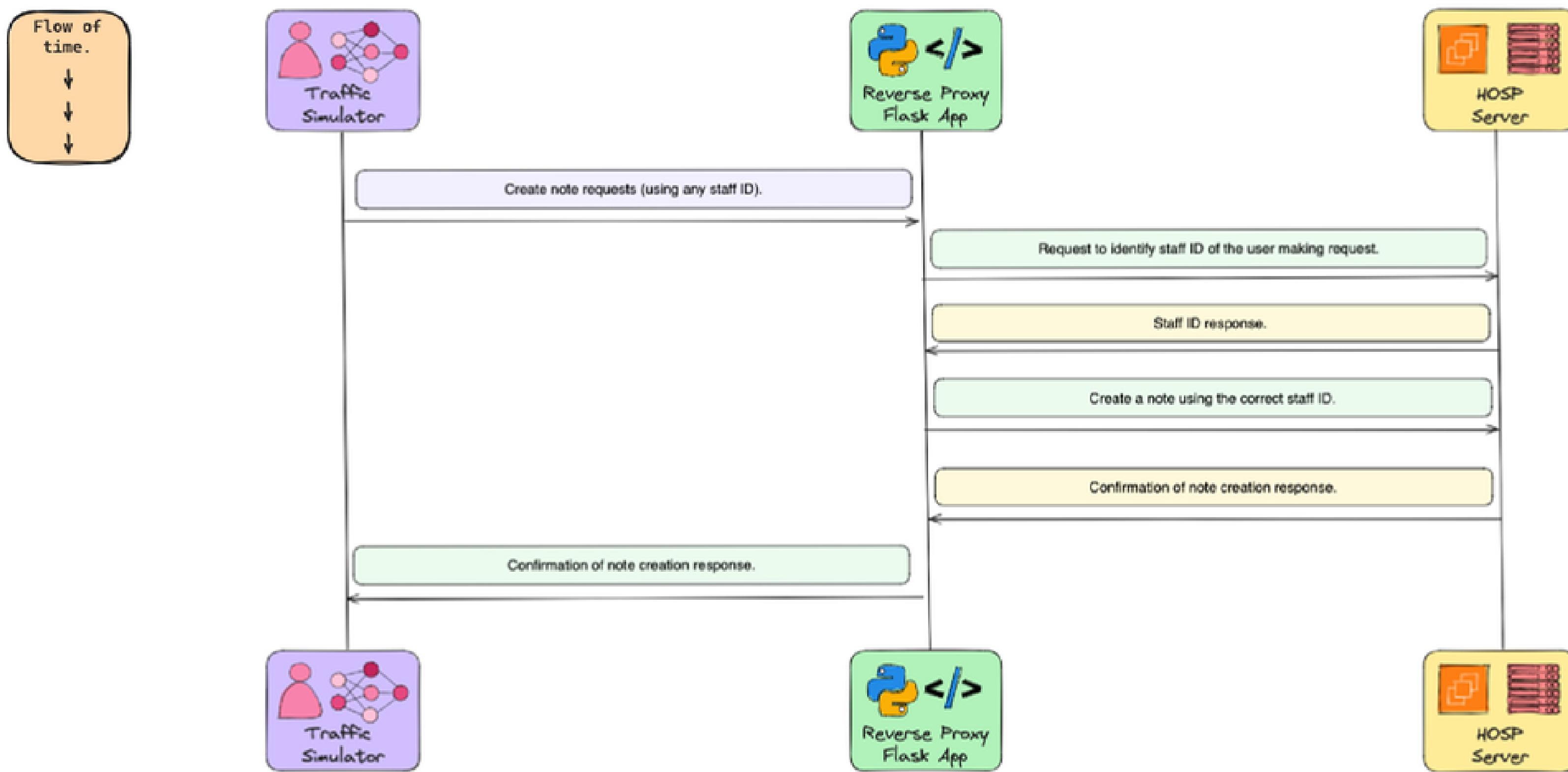
FIRST ATTEMPT AT HTTPS USING LOADBALANCER LISTENER



SECURE DATA TRANSFER WITH HTTPS USING CLOUDFRONT

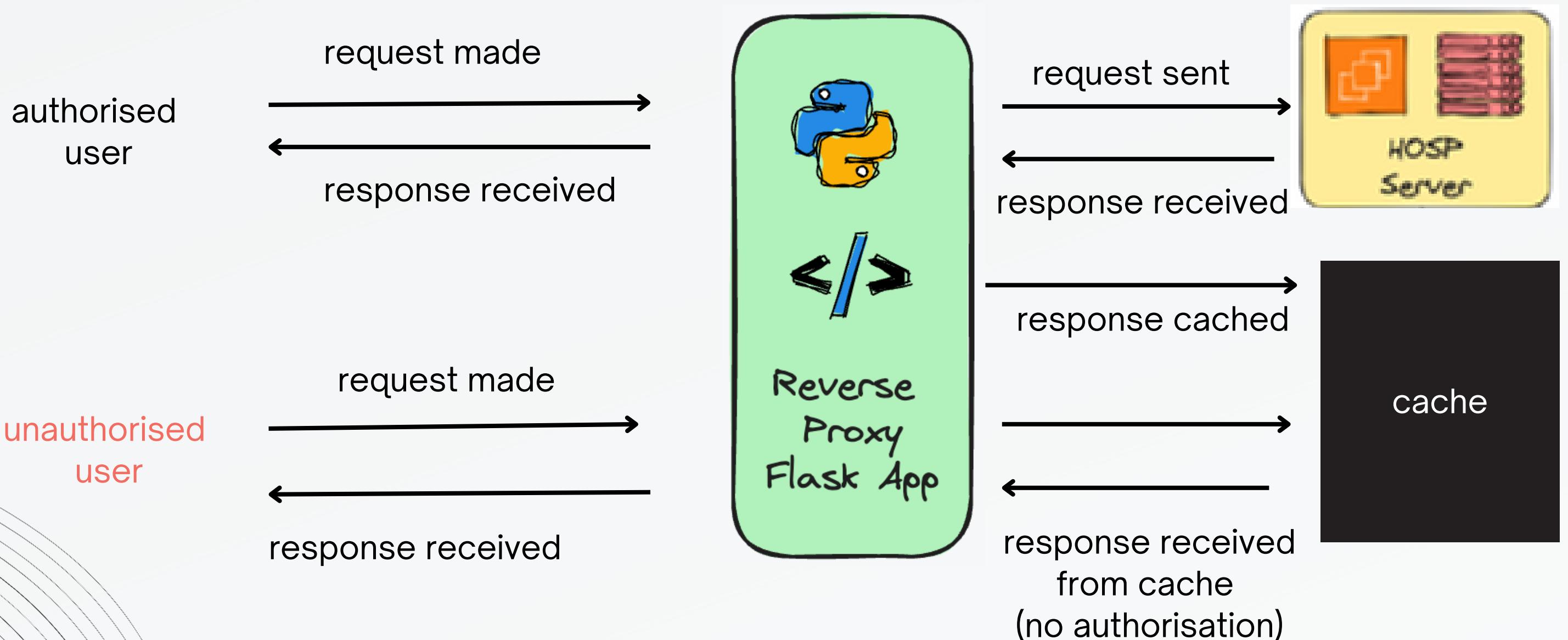


IMPROVING NOTE SECURITY

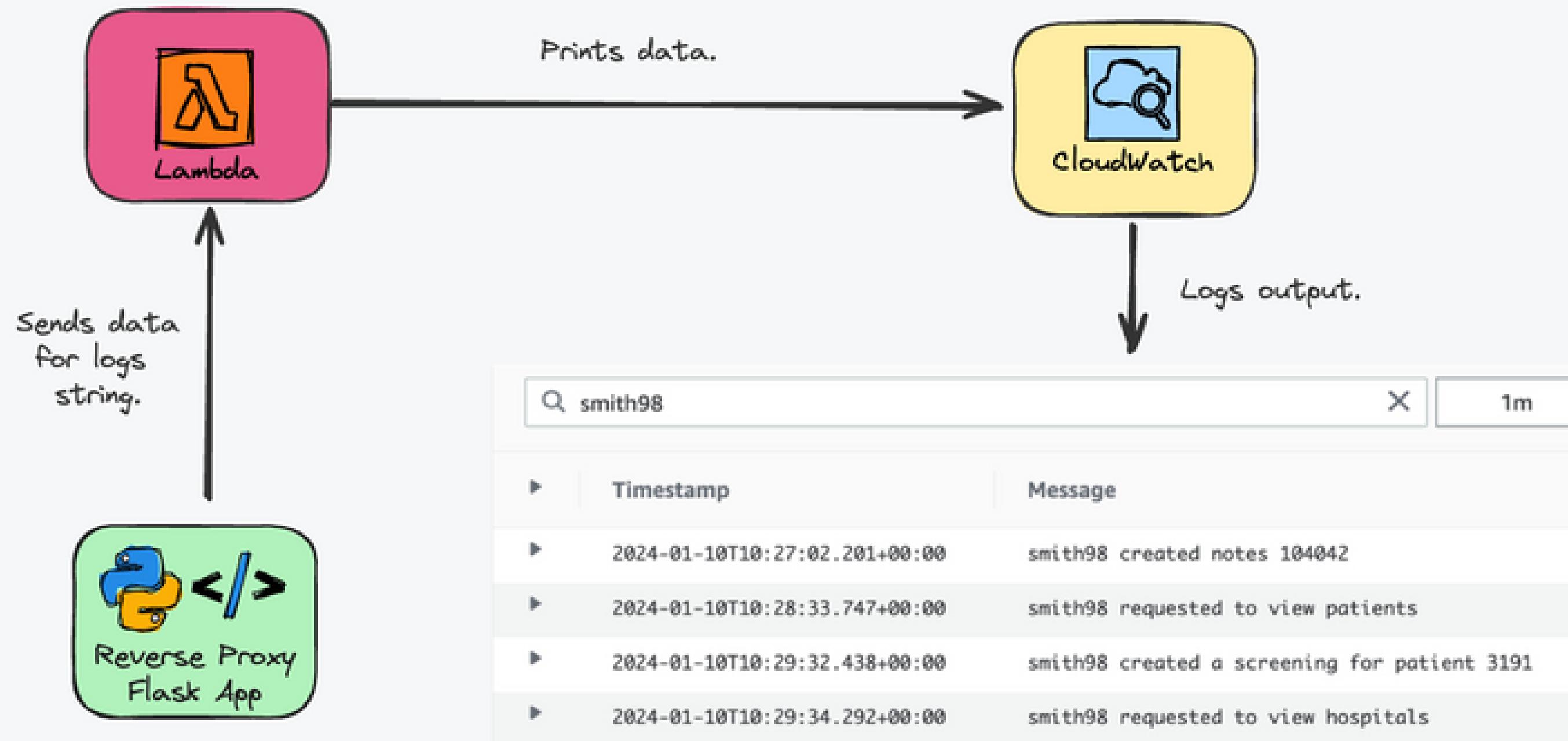




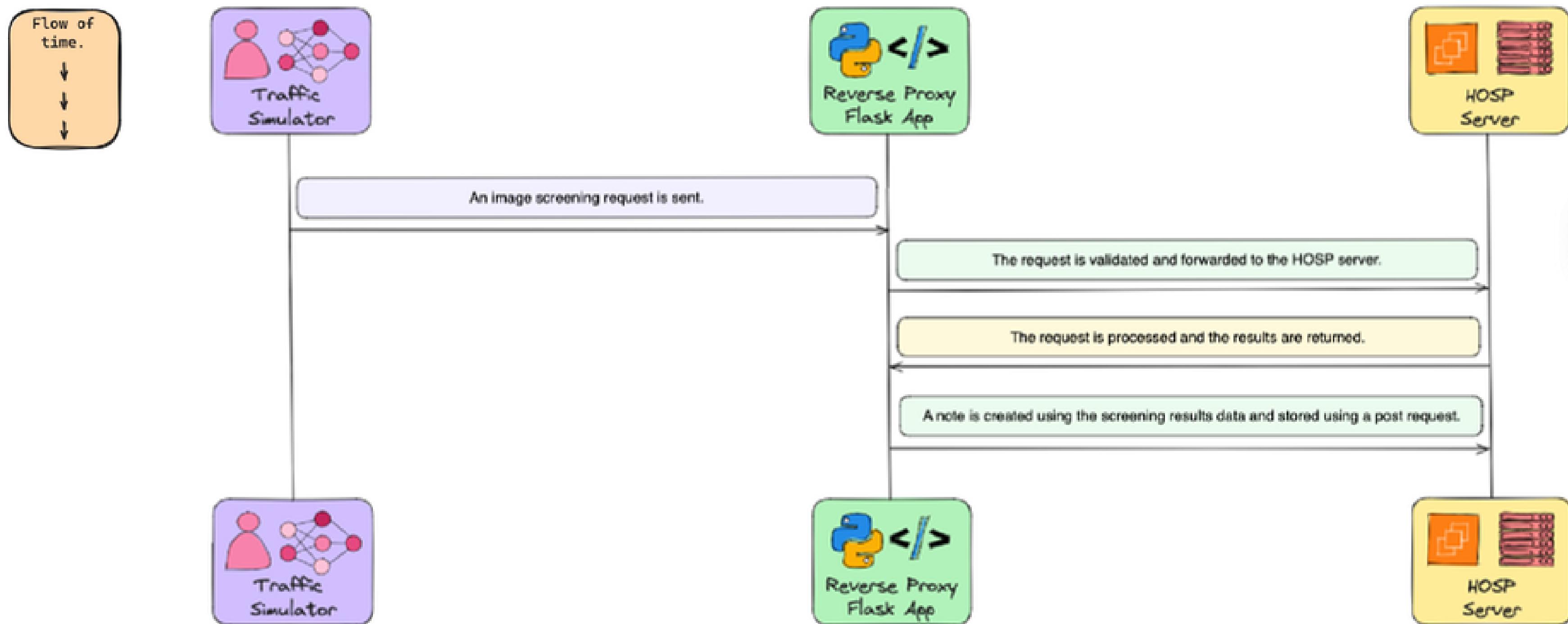
CACHE SECURITY



AUDIT LOGGING



STORING PATIENT IMAGE SCREENINGS



PROJECT REFLECTION

KEY LEARNING AND TAKEAWAYS

Project Goals:

- Reacting to changes in the system
- Gaining confidence in finding solutions to real-life situations



Key takeaways

Reflection on Challenges:

- Initial difficulty understanding service workings
- Struggles in problem identification and solution proposal

Brainstorming for Improvement:

- Ideas generated for enhancing service reliability
- Decision to create a custom proxy for optimal learning

PROJECT REFLECTION

KEY LEARNING AND TAKEAWAYS

Effective Team Collaboration:

- Coordinated roles: Traffic analysis, system changes
- Discussions on varied problem-solving approaches
- Group decision-making, e.g., nginx vs. custom proxy

Mobbing Approach:

- Collaborative problem-solving method
- Quick error identification and resolution
- Challenges and suggestions among team members

Transparent Communication:

- Keeping everyone in the loop
- Instant responses to questions
- Enhanced learning experience through active communication



Key takeaways

PROJECT REFLECTION

KEY LEARNING AND TAKEAWAYS

Infrastructure Improvements:

- Suggestion for experimenting with better initial infrastructure, e.g., Kubernetes
- Safer deployment of changes, automation, and a robust rollback plan

Rapid Reaction to Traffic Changes:

- Monitoring for changes in traffic
- Quick reaction to surges causing errors
- Collaborative problem identification and resolution within the team



Key takeaways

THANKS FOR WATCHING

Any questions?

