FlowSensei

Computer Communication Based Software Development Workshop

High Level Architecture

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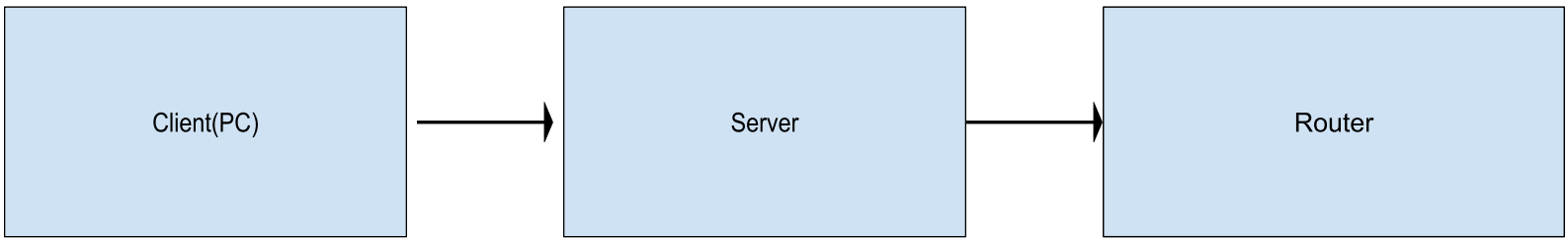
Github: FlowSensei

System Main Components



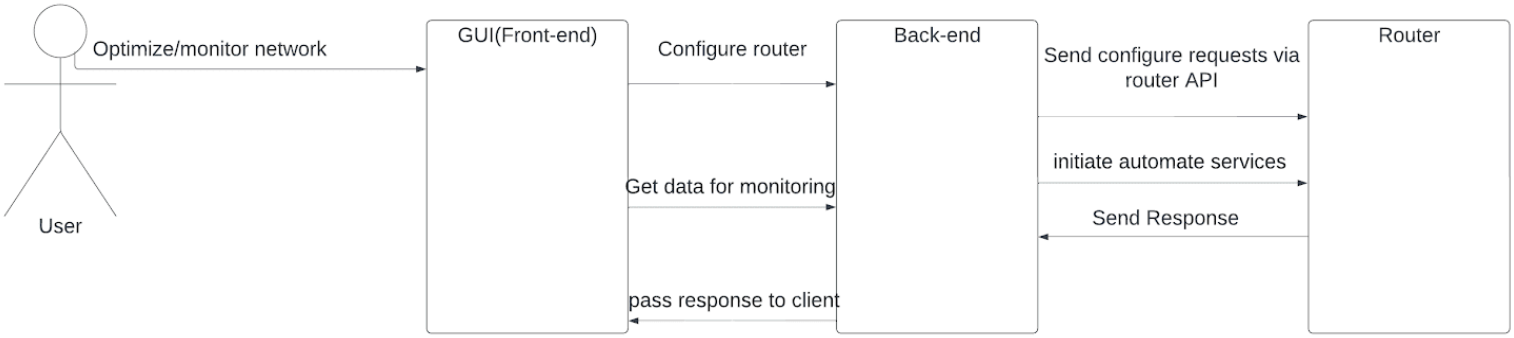
Backend Technology

Our backend Technology would be the following:
Express.js

Frontend Technology

Our frontend Technology would be the NextJS framework, if we decided on web GUI, or React-Native if we decided on mobile/desktop app.

Sequence Diagram



Potential use cases:

This is some of the overall use cases(the entire user cases and flows are detailed in the abstract idea document):

1. The administrator utilizes the real-time monitoring feature to identify periods of increased demand and adjust network resources accordingly to maintain service quality.

2. The user contacts their internet service provider (ISP) regarding the slow speeds. The ISP's network team uses real-time monitoring tools to identify congestion points and adjust bandwidth allocations to improve the user's streaming experience.

3. The IT manager configures adaptive algorithms and predefined policies within the tool to dynamically prioritize network tasks based on real-time conditions, ensuring critical departmental operations receive sufficient bandwidth during high-demand periods.

4. Network administrators use the tool's policy configuration capabilities to define and modify policies according to the organization's needs, ensuring that essential services receive appropriate prioritization under different network conditions.