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GENESYS™

WebRTC Call Debugger

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BEng (Hons) in Software & Electronic Engineering

2025

Why 🤔

Genesys Cloud, a leading call-centre product, relies heavily on WebRTC for Genesys Cloud's voice and video calls. Debugging these interactions is complex, involving analysis across signalling messages, network conditions, media codecs, and events logged by clients and servers. This diagnostic data is split between Sumo Logic (event logs) and New Relic (technical metrics).

Previously, Support Engineers had to manually query both systems separately. This process was inefficient, requiring knowledge of different query languages, separate access permissions, and manual correlation of data, significantly slowing down troubleshooting when call issues arose.

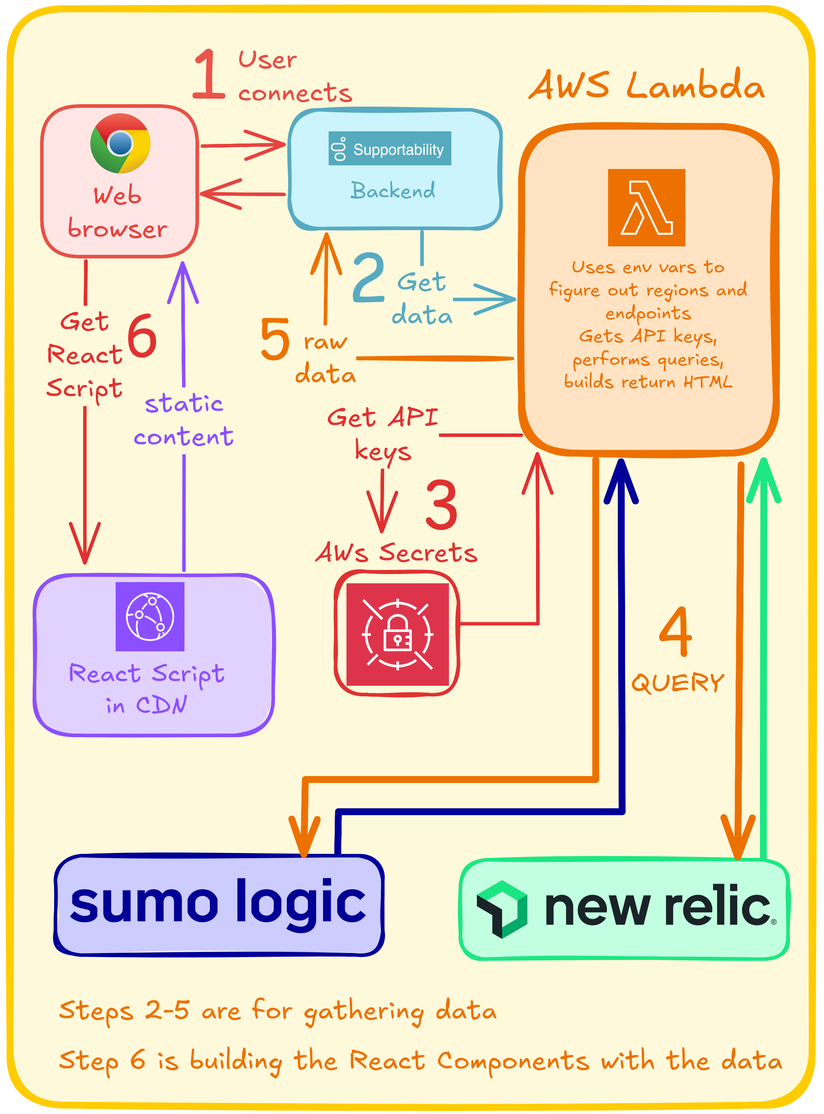
This project eliminates these bottlenecks by aggregating data and providing a unified, visual interface, enabling engineers to diagnose and resolve WebRTC-related problems faster.

What

This project enhances 'Supportability', an existing internal Genesys tool, to streamline WebRTC call troubleshooting. It integrates data by programmatically querying two separate backend systems: Sumo Logic for event logs and New Relic for technical metrics.

The retrieved data is then aggregated and presented together within a single web frontend. This interface uses clear visual aids, such as tables for sequential logs and charts to visualise time-series data like packet-loss from New Relic, creating a single, comprehensive view for easier debugging.

Architecture



Steps 2-5 are for gathering data

Step 6 is building the React Components with the data

AWS Lambda

AWS Lambda provides the backend for this tool. The backend code runs only when a request is made, without needing to manage servers. This approach saves resources and costs, making it ideal for an internal tool like 'Supportability' that handles on-demand debugging requests. Lambda manages the workflow for securely fetching credentials and retrieving data.

Tech Used

- AWS Lambda
- AWS Secrets
- AWS Content Delivery Network
- Jest
- Jenkins
- Parcel
- React
- sumo logic
- new relic
- Node.js
- TypeScript

Website