VIRTA LABS™

Project Name

"What's on my network?" teaser

Overview

Design and prototype the front end of an analysis tool for anonymously submitted network traces. The tool will guide the user to capture traffic from their own network, then the user will upload the captured traffic (a "trace" file), wait a few moments, and see some interesting details extracted from their trace. The analysis results will gently guide them to learn more about our network analysis product.

Your "customer" on this project is an engineering-heavy organization that wants to reach more potential customers by letting them "play with" our software. Letting them upload a trace of their own traffic will show them what kinds of analysis we do and help them understand the value our tools could bring to their network. We appreciate good design and are serving a target market (healthcare) that typically has to deal with not-so-great UX and UI. At some customers, ours is the first product that at all resembles the modern web apps their employees use at home. Help us hammer this message home to people who haven't yet tried our software!

Requirements

The tool should offer two routes to the file upload: one for people who know how to capture a trace of network traffic, and one for people who need a little hand-holding. For the latter group, it should offer them some easy-to-follow instructions with GUI and command-line options.

- The tool will communicate with our backend tools via a well-defined API that we will provide. We will return JSON text that the front-end tool will render into text and charts.

- The UX should be friendly if the file upload or trace analysis take a long time (up to 30 secs).

- The tool should politely suggest collecting more data if there is not enough interesting information in the uploaded trace.

- The tool should fail gracefully if the trace is damaged or if the backend API call fails.

- The tool should be extensible by Virta Labs software engineers after the final project presentation.

Schedule

Weeks 2-4: Define the problem statement and generate first concepts

- Find good examples of UX and UI for tools that accept user-uploaded files. Figure out how to collect network traces in the ".pcap" format (we can help) and learn how to use a

tool like Wireshark to load and inspect them. Draft instructions on how you'd guide a user to collect a network trace. Draft wireframes for UX. Select a charting/plotting library that would be appropriate for bar charts and pie charts.

Week 5: Work Session 1 - Feedback

- Share wireframes and prototype a UI that displays dummy data (from hard-coded JSON we will provide).

- Don't forget to save early prototypes for your portfolio!

Week 6: Iterate on Feedback

- Perform a user study — what works and what doesn't? Are the instructions for networktrace capture easy to follow? Does the UX flow make sense?

- Connect the front end to our backend tools via the API we provide.

Week 7: Work Session 2 - Feedback

- Share all artifacts, wireframes, and prototypes along with the results of the user study.

Week 8: Final Presentation

- Present!

Specifics about deliverable for Work Session 1

Wireframe in PDF format, URL of a password-protected website showing any prototypes built.

Specifics about deliverable for Work Session 2

Refined wireframes annotated with notes on user study. Same URL as before, or new password protected URL.

Specifics about final deliverable

A slide deck in any format is great. Use a persona to guide us through the UX of the built prototype. A screen recording from QuickTime or similar would be a great substitute if you want to present with more polish.

Disclaimer

This project will likely be built in house at Virta Labs. Therefore, Virta Labs will own the Intellectual Property of all work generated by all participants for the event The Pixel Project. But the participants are free to showcase the work anywhere including resumes and portfolios.