sdmay23-14: Mobile Vehicle Cybersecurity Using a Secure Bridge

Week 8 Report

November 12 - November 18

Team Members

Ryan Campbell — Developer

Ryan Scehovic — Developer / Team Lead

Josue Torres — Developer

Riley Lawson — Developer

Cody Stricker — Developer

Drake Ridgeway — Developer

Levi Jansen — Developer

Summary of Progress this Report

This week we met with our advisor on 11/17 to go over our detailed design with how we will implement the encryption process for our data. We also revised our code a little bit to intake data from a whole CAN data file rather than a few lines.

Pending Issues

We are a little behind and unsure of how we are going to implement the incoming traffic from the ECUs on the CAN network.

Plans for Upcoming Reporting Period

We are working out on idea for how to implement the ECU's providing the CAN data on the CAN bus rather than reading in from a file, and then how to parse that data just like we did for the file, for encryption. We are also looking into stream ciphers as instructed by our advisor, and specifically more about the CAN / CAN FD frame / bitfields.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Ryan Campbell	Constructed questions for the meeting with our client. Conducted research for the project.	3	
Ryan Scehovic	Provided questions for our client and attended the meeting. Also touched up the source code for our project to read the whole file. Conducted research for the project.	5	
Josue Torres	Provided questions for our client and attended the meeting. Conducted research	4	

	for the project.		
Riley Lawson	Provided questions for our client and attended the meeting. Conducted research for the project.	4	
Cody Stricker	Provided questions for our client and attended the meeting. Conducted research for the project.	4	
Drake Ridgeway	Provided questions for our client and attended the meeting. Conducted research for the project.	4	
Levi Jansen	Provided questions for our client and attended the meeting. Conducted research for the project.	4	

Gitlab Activity Summary

Nothing to report.