

**sdmay23-15: Mobile Vehicle Cybersecurity with On-board Key Management**

Week 3 Report

October 10 - October 14

**Team Members**Baganesra Bhaskaran — *Git Administrator*Chau Wei Lim — *Strategist*Alexander Freiberg — *Client Liason*Michael Roling — *Documenter*Brian Goode — *Team Organizer*Aayush Chanda — *Advisor Liaison***Summary of Progress this Report**

- We have the virtual machine setup and deployed to every member
- The setup includes the CAN communication example and software that can emulate live CAN attack.
- The team is working on understanding the impact vector of unsecure CAN communication and starting to draw initial concepts for on-board key exchange
- We have worked on the design documentation for the senior design class.

**Pending Issues**

Nothing for now

**Plans for Upcoming Reporting Period**

- To meet up with the client to talk more and present about the ideas and concepts that the team as drawn out.
- Research more in-depth on implementation of on-board key management by now having a live simulated attack on CAN communication through the virtual machine.

**Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Baganesra Bhaskaran	Get the virtual machine .ova file up in GitHub. Work on some professional documentations for senior design class submission. Work with team on initiating the discussion on designing the key exchange by observing the simulated attack on the virtual machine as shown by the client in a meeting.	2.5	0
Chau Wei Lim	Create Gantt Chart for this semester and coming semester. Install the configured VM on my computer to get ready for upcoming implementation.	3.5	

Alexander Freiberg	Set up and configured a Ubuntu virtual machine to simulate a J1939 CAN bus with a virtual controller, instrument cluster, and packet sniffer	5	0
Michael Roling	Agile was decided to be the primary means for project management; configuring agile-supported software, set up sprints, and tentative deadlines for the project.	4	
Brian Goode	Contributing to team documents, researching J1939, working on Tasks and project management procedures sections of the Project Plan. Setting up ubuntu vm on my machine for CAN simulation.	3	0
Aayush Chanda	Researched more into the CAN Bus, edited some entries and formatting for our web page, and helped the rest of the team fill in Design Doc 3, Project Plan.	3	0

**Gitlab Activity Summary**Nothing to report.

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