

















equipment and hardware of the bus are still in good condition after the trip.

#### IV. CONCLUSION

The focus of the research is to design and produce prototypes of cloud-based analysis and monitoring systems. Then we analyze the raw data included in the cloud environment. The case of road accidents involving express buses is increasing. Various factors can be attributed to road accidents involving express buses such as bus management, bus drivers, bus health, road conditions, and service quality. What needs to be improved is safety and comfort in every express bus trip. Based on the research issues discussed, cloud-based express bus analysis and monitoring systems are proposed to help solve this problem. The main contribution of this study is to assist the express bus management to develop the future Cloud-Based Express Analysis and Monitoring System in Malaysia based on the results of the analysis and design of the proposed system.

Research constraints of this study is, analysis of the development of analytical and monitoring systems conducted in this study is limited to UML sequence diagram, applied case diagram and data flow diagram. However, the analysis and monitoring system architecture has been successfully designed. In addition, only a static analysis and monitoring system dashboard was created because of the very limited time and lack of knowledge regarding the programming language used. Finally, constraint in terms of software, the use of free cloud services has some shortcomings such as small cloud storage sizes, CPU usage limits within a day, and limited use of consoles. Overall, this research has succeeded in generating analytics to build an analysis and monitoring system and the design of this analysis and monitoring system can be used in the actual phase of the system development. The findings of this study can also be used as a guide during the actual construction of the system.

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