Threat Models

Owner: G5 Reviewer: Contributors:

Date Generated: Wed Nov 06 2024

Executive Summary

High level system description

Not provided

Summary

Total Threats	5
Total Mitigated	0
Not Mitigated	5
Open / High Priority	0
Open / Medium Priority	5
Open / Low Priority	0
Open / Unknown Priority	0

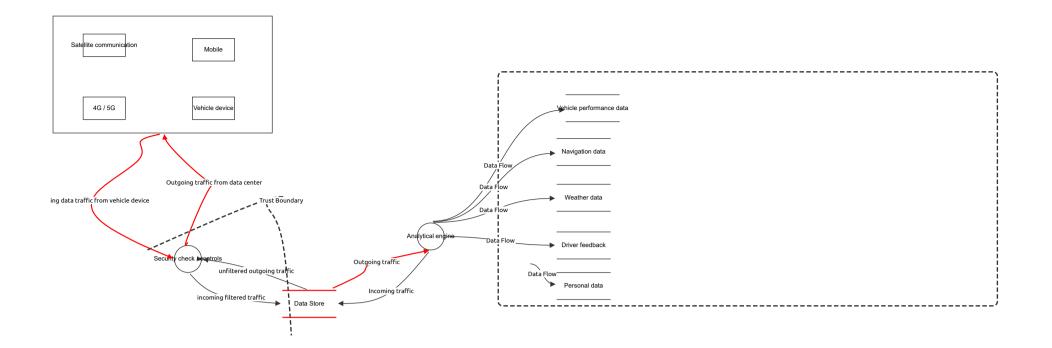
LuminaX

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Pitrix



Pitrix

Data Flow (Data Flow)

Description:

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	

Mobile (Actor)

Description: It is an application which interacts connection and get device information from the vehicle device and transfer it to data where information will be analyzed, processed, saved and transferred back to vehicle device

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	

4G / 5G (Actor)

Description: It is communication using local ISP - internet service providers in the located country

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	

Satellite communication (Actor)

Description: It is communication via satellite using starlink remote connection technology

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	
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Vehicle device (Actor)

Description: it is special device which is installed inside of the vehicle and provides information to precise navigation

Number	Title	Туре	Priority	Status	Score	Description	Mitigations

(Actor)

Description:

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	

Security check / controls (Process)

Description: It will include filtering data processes Firewalls Encryption modules Access Control

Number	Title	Туре	Priority	Status	Score	Description	Mitigations

Incoming data traffic from vehicle device (Data Flow)

Description: It is a data which includes informations like amount of fuel, current location of vehicle using network connection via satellite or 4g/5g communication and it is in process to be analyzed and security checked till reaching data centre

Number	Title	Туре	Priority	Status	Score	Description	Mitigations
4	Altered data	Information disclosure	Medium	Open	5	Information which is altered before reaching data store in most cases it is not filtered or in the process of filtering	Checking security signatures, user credentials and mac-address of vehicle device

incoming filtered traffic (Data Flow)

Description: it is filtered data, which should be secured using security tools like firewalls, access controls (user identification), encryption modules (checking security signatures)

Outgoing traffic from data center (Data Flow)

Description: data traffic which is processed and analyzed through Analytical engine process

Number	Title	Туре	Priority	Status	Score	Description	Mitigations
5	Stolen data	Information disclosure	Medium	Open	5	Data which stolen between server and client, most cases data can not reach end-point device	Optimizing network performance via increasing QoS - quality of service functions in networking devices

unfiltered outgoing traffic (Data Flow)

Description: it is data which is being transferred to security check before reaching the client, and it is also analyzed information or service which is needed to be used for vehicle navigation

Number	Title	Туре	Priority	Status	Score	Description	Mitigations

Incoming traffic (Data Flow)

Description: It is analyzed data coming from Analytical engine

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Number Title Type Priority Status Score Description Mitigations

Data Flow (Data Flow)

Description:

Number Title Type Priority Status Score Description Mitigations

Data Flow (Data Flow)

Description:

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	

Data Flow (Data Flow)

Description:

Number Title Type Priority Status Score Description Mitigations	
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Data Flow (Data Flow)

Description:

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	

Data Flow (Data Flow)

Description:

Number Title Type Priority Status Score Description Mitigations

Outgoing traffic (Data Flow)

Description: It is a data which is going to be processed in Analytical engine

Number	Title	Туре	Priority	Status	Score	Description	Mitigations
6	Unauthorized modification	Tampering	Medium	Open	6	Cyber threats attempting to modify or corrupt data in which cases an attacker could gain access to the information like vehicle performance, navigation, weather, personal data through tampering which could lead misleading diagnostics or corruption of the data	implement strict access control and have regular integrity checks on the data store and log all access attempts

Data Store (Store)

Description: Some data will be checked like time, amount of fuel, user experience and duplicate information will be send to Analytical engine to be checked, analyzed and given response or result for client

Number	Title	Туре	Priority	Status	Score	Description	Mitigations
1	Overload	Denial of service	Medium	Open		A DDoS attack could overwhelm the data center, disrupting critical services like real-time tracking and telemetry analysis	Deploy DDoS mitigation services and load balancers to distribute traffic across multiple servers
7	New STRIDE threat	Tampering	Medium	Open		Provide a description for this threat	Provide remediation for this threat or a reason if status is N/A

Analytical engine (Process)

Description: It is a process and analyzer which uses informations like navigation, vehicle performance, weather, driver feedback and personal data

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	

Vehicle performance data (Store)

Description: stores a handful of relevant information which is used by system to provide real-time information for the user

Number	Title	Туре	Priority	Status	Score	Description	Mitigations

Navigation data (Store)

Description: Provides routes and map data in order to to enhance the route planning and tracking systems

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	

Weather data (Store)

Description: stores real-time information of the weather which is useful for route planning and safety users

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	

Driver feedback (Store)

Description: contains feedback from drivers registered on the system which is then used to improve or fix any issues within of the mobile application

Number	Title	Туре	Priority	Status	Score	Description	Mitigations	
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Personal data (Store)

Description: It contains confidential information like user's health condition, age, home address, bank details and personal activities and interests

Number	Title	Туре	Priority	Status	Score	Description	Mitigations