

No	Category	Category2	Who's requirements?	Requirement	Feasibility	Comment	Responsible module	Vehicle Spec	topic	Secur	How to treat	Use case No.		
9	API Get	---	Developer	Geo-location should be obtained.	?	Depend on sensor	Web runtime(Browser)	Yes		no		13, 37		
10	API Get	---	Developer	Weather around car should be obtained.	?	Depend on sensor	Web runtime(Browser)	Yes		no		19		
11	API Get	---	Developer	Camera image around car should be obtained.	?	Depend on sensor	Web runtime(Browser)	Yes		no		20, 22		
27	Publicness	---	?	Automaker should have responsibility to comply with governmental regulations.	O		Web runtime(Browser)	Yes		Yes		13, 30		
17	API Set	Set API	Automaker?	Only one application can use "Set API" simultaneously.	?	How about background application?	Web runtime(Browser)	More general		Yes?		49		
19	API Set	Set API	Developer	Sheet position, Window and lock can be "set".	X		Web runtime(Browser)	Yes		Yes		28, 34, 17, 25,		
20	API Set	Set API	Developer?	Safety critical functionality (e.g. airbug) can be "set".	X	Even in the future this might have to be prohibited.	Web runtime(Browser)	Yes		Yes		11, 43		
21	API Set	Set API	Automaker	Access to the drive-train must be prohibited in a clear way.	O		Web runtime(Browser)	Yes		Yes		2		
22	API Set	Set API	Automaker	"Set API" should be accessible only via an automaker's cloud server.	O	Even in the future this might have to be kept.	Cloud	Yes		Yes		31, 32		
6	API	API Accessibility	Developer, User	API should be available even if engine is off.	X	need architecture discussion	Car server?	Yes		Yes		47, 45, 28, 34, 17, 25		
1	API	API Accessibility	Automaker	Automakers expose a subset of Vehicle API to developer	?	Is not_supported_business_policy enough for this purpose?	Web runtime(Browser)	Yes		Yes		29		
2	API	API Accessibility	Automaker	Automakers expose API only for specific applications(website)	?	Is restriction based on whitelisted-hostname enough for this purpose?	Web runtime(Browser)	Yes		Yes		3		
3	API	API Accessibility	Automaker, Developer	There must be a way to verify application ID.	?	ssh seems to meet this purpose	SSH?	More general		Yes		9		
8	API Get	API Accessibility	Automaker	"Get API" can be accessible only via an automaker's cloud server.	O	if so vehicle API doesn't need	Cloud	Yes		Yes		31		
5	API	API Accessibility	User	Users should be possible to restrict API depending on application.	O		Web runtime(Browser), App?	More general		Yes		27, 44		
29	Trusted Comm	Communication	User	Users should be able to have access to his content which is stored in cloud servers.	O	Is current web service enough for this purpose?	App?	More general		Yes		53		
28	Trusted Comm	Communication	Developer	Application should be able to connect with external devices.	?	Is ssh enough for this purpose?	App?	More general		Yes		52, 54, 12, 14		
7	API	API Accessibility	Developer, User	API should be accessible remotely.	X	need architecture discussion	App?	Yes		Yes		17, 18, 25, 26, 28, 46, 47		
12	API Get	Communication	Developer	Obtained data cannot be tampered.	X		Hardware?, Web runtime(Browser)?	More general		Yes		4, 7, 10, 55		
16	API Log	User's rights for the User	User	Log is not recorded if DNT is turned to be ON.	O		Web runtime(Browser)	Yes		Yes		15		
24	Data Control	User's rights for the User	User	Application should respect DNT setting.	O		App	More general		Yes		5		
4	API	User's rights for the Automaker?	Automaker?	Any API restriction should be ignored if an emergency arise.	O		Web runtime(Browser)	Yes		Yes		5, 21, 40, 41, 43		
14	API Log	User's rights for the Automaker	Automaker	Log should be protected is an emergency arise.	O		Web runtime(Browser)	Yes		Yes		21		
13	API Log	API Accessibility	User	Log should be accessible only by application which obtained the log.	O		Web runtime(Browser)	Yes		Yes		24, 51		
34	Intrusion	Protection against	User	Intrusion detection	X		?	More general		Yes		48		
33	Payment	Multi Drivers/Passes	Developer	Responsible party is charged	O		App?	More general		Yes		38		
38	Data Get	Multi Drivers/Passes	User	Valuable information should be protected from hackers or rogue mechanics.	O		App/runtime(Browser)	More general		Yes		60		
18	API Set	Set API	Developer	HVAC can be "set".	X		Web runtime(Browser)	Yes		Yes		16, 18, 26, 42		
37	Data Control	User's rights for the User	User	Developer should offer ways for controlling user's data	O		Cloud	More general		Yes		58		
25	Data Control	User's rights for the User	User	Data destination should be able to control depending on application	O		App	More general		Yes		27, 39, 44		
23	Data Control	User's rights for the User	User	Users should be able to control data set and data granularity depending on application.	?		Web runtime(Browser), App?	More general		Yes		6, 8, 15, 19, 27, 39, 44, 55		
15	API Log	User's rights for the User	User	User can check log and remove it.	O		Web runtime(Browser)	Yes		Yes		23		
26	Data Control	User's rights for the User	User	Users can clear his data from the car.	O	Should be implemented in a general way, like browser reset.	Web runtime(Browser)	Yes		Yes		1		
30	User ID	Protection against	Developer?	No user can log into system during driving.	?	need architecture discussion	Web runtime(Browser), App?	More general?		Yes		50		
31	User ID	Multi Drivers/Passes	Developer	Each passenger must be identifiable.	X		App?	Yes		Yes		36, 35, 50		
32	User ID	Multi Drivers/Passes	Developer	It must be identifiable whom an obtained data belongs to.	X		App?	Yes		Yes		15, 34		
35	User ID	Multi Drivers/Passes	User	Apps should operate in a personal basis	O		App/runtime(Browser)	More general		Yes		56		
36	API Get	User's rights for the User	User	Sensitive location should not be known by apps	X		runtime	Yes?		Yes		57		

No	Category	Requirement	Feasibility	Comment	Responsible module	Vehicle Spec topic?	Security or Privacy requirement?	How to treat	Use case No.
1	API	Automakers expose a subset of Vehicle API to developer	?	Is not_supported_business_policy enough	Web runtime(Browser)	Yes	Yes	nothing to do	29
2	API	Automakers expose API only for specific applications(website)	?	Is restriction based on whitelisted-hostname	Web runtime(Browser)	Yes	Yes	nothing to do	3
3	API	There must be a way to verify application ID.	?	Is ssh enough for this purpose?	SSH?	More general	Yes	nothing to do	9
4	API	Any API restriction should be ignored if an emergency arise.	O		Web runtime(Browser)	Yes	Yes	note for impleme	5, 21, 40, 41, 43
5	API	Users should be possible to restrict API depending on application.	O		Web runtime(Browser), App?	More general	Yes	note for impleme	27, 44
6	API	API should be available even if engine is off.	X	need architecture discussion	Car server?	Yes	Yes	future spec	47, 45, 28, 34, 17, 25
7	API	API should be accessible remotely.	X	need architecture discussion	App?	Yes	Yes	future spec	17, 18, 25, 26, 28, 46, 47
8	API Get	"Get API" can be accessible only via an automaker's cloud server.	O	if so vehicle API doesn't need	Cloud	Yes	Yes	nothing to do	31
9	API Get	Geo-location should be obtained.	?	Depend on sensor	Web runtime(Browser)	Yes	no	?	13, 37
10	API Get	Weather around car should be obtained.	?	Depend on sensor	Web runtime(Browser)	Yes	no	?	19
11	API Get	Camera image around car should be obtained.	?	Depend on sensor	Web runtime(Browser)	Yes	Yes	?	20
12	API Get	Obtained data cannot be tampered.	X		Hardware?, Web runtime(Browser)?	More general	Yes	future spec	4, 7, 10, 55
13	API Log	Log should be accessible only by application which obtained the log.	O		Web runtime(Browser)	Yes	Yes	note for impleme	23
14	API Log	Log should be protected is an emergency arise.	O		Web runtime(Browser)	Yes	Yes	note for impleme	21
15	API Log	User can check log and remove it.	O		Web runtime(Browser)	Yes	Yes	note for impleme	23
16	API Log	Log is not recorded if DNT is turned to be ON.	O		Web runtime(Browser)	Yes	Yes	note for impleme	15
17	API Set	Only one application can use "Set API" simultaneously.	?	How about background application?	Web runtime(Browser)	More general	Yes?	future spec	49
18	API Set	HVAC can be "set".	X		Web runtime(Browser)	Yes	Yes	future spec	16, 18, 26, 42
19	API Set	Sheet position, Window and lock can be "set".	X		Web runtime(Browser)	Yes	Yes	future spec	28, 34, 17, 25,
20	API Set	Safety critical functionality (e.g. airbag) can be "set".	X	Even in the future this might have to be pri	Web runtime(Browser)	Yes	Yes	future spec	11, 43
21	API Set	Access to the drive-train must be prohibited in a clear way.	O		Web runtime(Browser)	Yes	Yes	note for impleme	2
22	API Set	"Set API" should be accessible only via an automaker's cloud server.	O	Even in the future this might have to be ke	Cloud	Yes	Yes	nothing	31, 32
23	Data Control	Users should be able to control data set and data granularity depending on application.	?		Web runtime(Browser), App?	More general	Yes	note for develop	6, 8, 15, 19, 27, 39, 44, 55
24	Data Control	Application should respect DNT setting.	O		App	More general	Yes	note for develop	5
25	Data Control	Data destination should be able to control depending on application	O		App	More general	Yes	note for develop	27, 39, 44
26	Data Control	Users can clear his data from the car.	O	Should be implemented in a general way.	Web runtime(Browser)	Yes	Yes	note for impleme	1
27	Publicness	Automaker should have responsibility to comply with governmental regulations.	O		Web runtime(Browser)	Yes	Yes	note for impleme	13, 30
28	Trusted Commun	Application should be able to connect with external devices.	?	Is ssh enough for this purpose?	App?	More general	Yes	nothing to do	52, 54
29	Trusted Commun	Users should be able to have access to his content which is stored in cloud servers.	O	Is current web service enough for this purp	App?	More general	Yes	nothing to do	53
30	User ID	No user cannot log into system during driving.	?	need architecture discussion	Web runtime(Browser), App?	More general?	Yes	?	50
31	User ID	Each passenger must be identifiable.	X		App?	Yes	Yes	future spec	36, 35, 50
32	User ID	It must be identifiable whom an obtained data belongs to.	X		App?	Yes	Yes	future spec	15, 34

No	Security/Privacy/Both/Other	Situation, Usecase of API	Name	Concern	Ref.	Reported by	Applies to Vehicle Info Spec	Remarks	Question	Examples	Reference	Sensitivity	Conclusive remarks
1	Privacy	Rent-a-car	Removal of private data	As a user, I'd like to remove any private data from the car when I leave.		Junichi	yes	Perhaps consider broader shared use vehicles or split that into a separate use case.		Rental vehicles may be used in order to synchronize contacts, read emails and browse the internet in the vehicle. In order to protect the user's personal information, including these contact details and browsing history, the user may wish to erase any unclassified data associated with themselves before returning the vehicle.			
2	Security	Driving	Vehicle remote control permissions	As a driver, I don't want any remote person to control my car (eg. speed, door lock etc)	25	Junichi	yes	Fundamental question as to whether API will be used remotely.		As a driver I don't want anyone to control the vehicle besides me or the vehicle with my consent.			
3	Security	Application certification	OEM permission for API usage	As an OEM, I don't permit any application to use vehicle API without my check.	29	Junichi		Suppress specific values is a sub-case (JH) I report this as a possible permission from OEMs, but not sure it is hoped and feasible.		Since data is inherently valuable, the data owner may not wish for data to be exposed to a third party without explicit permission. Original data owners could include the vehicle owner, a third party app developer, tier 1 supplier or an OEM. They may wish to block the data transmission to certain areas in order to protect exclusivity rights, vehicle attribute data, privacy or security.			
4	Security	Insurance	Data integrity for black box insurance	As an insurer, I need to be sure that probe data is not tampered.		Junichi		(JH) To be sure this, hardware support is required. I think this is out of scope for current spec.		Black box insurance (telematics car insurance) is an increasingly common method of actively monitoring a person's driving style in order to calculate tailored insurance premiums. This can be used to save drivers money and aid insurers' risk calculations. The integrity of the data is essential to ensure that the system gives an appropriate indicators of risk and therefore cost. This method of insurance provides another stakeholder who could actively take an interest in maliciously affecting vehicle data for monetary gain.			
5	Privacy	Do Not Track	"Do Not Track" except in emergency	I usually set "Do Not Track", but help me immediately after the accident.	15	Hira		(JH) DNT should be touched in the scope.	Should we have normal mode and emergency mode? Can WebApps handle emergency situations?			Further Discussion	
6	Privacy	Probe data	Traceability of crowd sourced data	I am willing to provide vehicle data for sourced data traffic, but I do not want a police officer to know my destination and the exact speed of my car		Hira		(JH) This seems as an application layer topic.	Granularity of data?	Data about my trip in aggregate may be given in consent, by specific driving behavior should not be held against me.			
7	Security	ADAS	Data integrity of on-board sensors	Advanced Driver Assistance System (ADAS) Controller accepts input from authorized onboard sensors		Kevin Gavigan		(JH) Is there a standard way for authorizing sensors? Otherwise this will be too heavy requirements for the spec implementers.		Monitoring of use of ADAS activation could be useful to insurance companies or others interested in monitoring driving behavior like V2X applications for municipalities.	https://www.wi1.org/2019/02/04/Security/Use_Cases/Use_Cases_Advanced_Driver_Assistance_System_20190204_02_Controller_accepts_input_from_authorized_onboard_sen		
8	Privacy	Data Sharing	Context dependent data granularity	As a user, I'd like to apply different data granularity depending on whom to send the data.		Junichi		This may also apply to requirements in specific places (based on laws in different countries) or differing restrictions across the OEMs. The general use case is the ability to control or set granularity of specific fields (e.g. timestamp, location, etc.)		The user may wish to dictate the extent to which data is distributed to third parties. An example of this would include traffic mapping services which may call upon data throughout the driver's commute in order to aggregate the data for traffic services. An application designed for personal tracking may wish to only provide data on request and after driver verification.			
9	Security	Application Certification	Identity mechanism for third parties	Ability to query registry of trusted 3rd parties, retrieve identification mechanisms		Ted Guild		(JH) In order to reject apps from untrusted developers? Can we utilize SSIH certificate or connection?					
10	Security	ADAS	Data integrity of on-board data sources	Advanced Driver Assistance System (ADAS) Controller accepts input from authorized external sources		Kevin Gavigan		(JH) Usually, this is done by signing on data. J2019 web taken and the signing mechanism could be a solution. (KG 4-Aug-19): In order for input to be authorized, identity of sender (at least) must be securely established.			https://www.wi1.org/2019/02/04/Security/Use_Cases/Use_Cases_Advanced_Driver_Assistance_System_20190204_02_Controller_accepts_input_from_authorized_external_sou		
11	Security	ADAS	Safety critical interfaces for ADAS	Advanced Driver Assistance System (ADAS) Controller sets safety critical controls when driving vehicle		Kevin Gavigan		(JH) Controlling the driving system from webapps is too challenging at this moment. (KG 4-Aug-19) Prototype apps are being created to control vehicles remotely, see e.g. http://www.lanovator.com/experiences/new/ij-remote-control-range-over-sport.html			https://www.wi1.org/2019/02/04/Security/Use_Cases/Use_Cases_Advanced_Driver_Assistance_System_20190204_02_Controller_accepts_input_from_authorized_external_sou		
12	Both	Sharing	Personal journey sharing privacy	Driver and/or passenger(s) in car want to share journey with virtual passenger (s) that are not in car		Kevin Gavigan		(JH) Application layer topic (KG 4-Aug-19): This has both security and privacy aspects. Need to mutually authenticate before bid-way communication can be authorized and need to strongly encrypt communication to ensure privacy. Also, the implementation needs avoid storing/collecting/logging data where a hacker could access it later.			https://www.wi1.org/2019/02/04/Security/Use_Cases/Use_Cases_Driver_and_Passenger_in_Car		
13	Privacy	Sharing	Regulated journey sharing privacy	Required/regulated data sharing with municipal, state, federal, government entities		Ted Guild		(JH) Should the data collector take this into account? If so, this is a services topic.				probe data.	
14	Privacy	Sharing	Personal/regulated journey sharing privacy	Vehicle owner/diver/passenger sharing with individual parties commercial or personal	6, 12	Ted Guild		(AC) How does this differ from 12 and 13?					
15	Privacy	Do Not Track	"Do Not Track" setting logs no data	When I turn DO NOT TRACK on, I expect any of my activities are not monitored nor recorded.		Junichi							
16	Security	HVAC Control	HVAC integration with IVI	IVI system checks the status of vehicle climate control equipments as GUI and lets a user control it via touch screen. (Even set API is not recommended)	42	Data Spec 12.1.6		(JH) For 'set' functionality, we have 2 options: (1) Forbid complexity. (2) Allow for HVAC or so. (2) seems very challenging at this moment and would say (1)					
17	Security	Remote Control	Remote checking and control of vehicle windows	A user uses his smart devices to remotely check whether side windows of his parked car are closed or not, and to send a request to the car for closing it if open.	46	Data Spec 12.1.6		(JH) Required features are (1) waking up car (2) contacting with app on the car and (3) closing the door. (1) is out of scope, (2) might be an application layer topic. Perhaps out of scope. (JH) See 17.					
18	Security	Remote Control	Remote starting and heating	A user uses his smart devices to start his car remotely, and turns heaters on to warm up the car inside before getting in the car.	26	Data Spec 12.1.6							
19	Privacy	Data Gathering	Crowd sourcing weather information	If users agree to provide vehicle information to the weather station, many cars can be used to get weather information (such as amount of rain and ambient temperature).		Data Spec 12.1.7		RainSense				Non-sensitive	
20	Other	ADAS Notification	Lane departure integration with IVI	IVI warns when the vehicle goes on another lane (Lane departure warning function)		Data Spec 12.1.7		LaneDepartureDetection					
21	Privacy	Emergency	Accident testimony recording	IVI records the scene before and after an accident (for insurance or testimony)		Data Spec 12.1.7				(JH) Perhaps, Application layer topic.			
22	Other	ADAS	IVI night vision	IVI improves vision in the dark		Data Spec 12.1.7				(JH) Is it feasible by the current spec?			
23	Privacy	Logging	Driving events log for personal use	Driver would like to see log of ADAS/driving events						(JH) Perhaps, Application layer topic.			
24	Privacy	Logging	Driving events log for third party use	3rd party would like to see log of driving events						(JH) Perhaps, Application layer topic.			
25	Security	Remote Control	Remote unlocking	Driver would like to remotely unlock/lock vehicle.	2 and 17					(JH) To be merged with 17		At a maintenance? In proximity?	
26	Security	Remote Control	Remote starting and heating	Driver would like to remotely start vehicle and turn on/off heat or air conditions	18					(JH) To be merged with 18			
27	Privacy	Owner's management	Subscription to remote vehicle health monitoring	Vehicle owner subscribes to 3rd party monitoring of vehicle data and trouble codes to ensure vehicle is running in good health						Issue: Do we need a sub-OS admin-ration?			No problem.
28	Security	Remote Control	Remote seat settings	Driver would like to configure seat settings remotely.	34								
29	Both	Data Access	Context dependent data availability	Automaker has access to all data elements including elements such as those relating to vehicle quality or operating data whereas application developer only has access to subset	3			(JH) How about providing different results for available or "I" method depending on the origin of app? (AC) Merge with 8?					User?
30	Security	Regulation	Third party vehicle interaction effect on regulations	Automaker has concerns around impact compliance with emissions regulations due to 3rd party access to interact with vehicle systems.				(JH) Depends on which 'set' functionalities we will expose to apps					
31	Security	IVI as a service?	Data sharing via off-board	Automaker would only like to allow API to access data from their remote servers not directly from car.				(JH) Does it mean they don't need client side APIs?					
32	Security	Remote Control	Remote settings through off-board only	Automaker only wants to allow remote settings via cloud not by direct connection				(JH) Perhaps, Application layer topic.					
33	Privacy	user recognition & retention limitation	Tailored data settings for multiple users	The car can have multiple users. Automaker needs to know which vehicle data belongs to whom to provide notice and choice to user's owner.	35, 36	Hira		(JH) Perhaps, Application layer topic. Is this feasible?					Passenger's privacy
34	Privacy	Driving	Preemptive driver recognition and settings	Ted a tail driver of the family car approaches the car and the seat adjusts to his settings	28	Ted							
35	Privacy	Identity	Driver recognition	Current driver is identified.	33			(JH) I think application is responsible and API doesn't need to support this. Could be used for group-oriented recommendation systems, individual screen showing movie preferences etc.					
36	Privacy	Identity	Passenger recognition	Family is travelling in vehicle and all passengers are identified.	33			(JH) I think application is responsible and API doesn't need to support this.					
37	Other	Location Based	Location based settings	Vehicle travels from one country (e.g. US) to another (e.g. Canada), settings change to metric.		Paul		(JH) Perhaps, Application layer topic.					
38	Security	Payment	Automated toll payment	Drivers across toll bridge the responsible party is identified and payment from their account is made. Could apply to any 3rd party vendor.				(JH) Perhaps, Application layer topic.					
39	Other	Notification Location Based	Contextual user recommendations	Customer is alerted to low tire pressure, nearby locations are recommended.				(JH) Perhaps, Application layer topic.					
40	Privacy	Emergency	Driver medical records in emergency	Emergency responder is called to the car and can report if there are existing medical conditions				(JH) Checking medical condition seems very hard.					PSAPP? (Euro?)
41	Privacy	Emergency	Airbag reporting in emergency	Emergency responder is called to accident, vehicle reports where airbags are in car.									
42	Security	with IVI	HVAC integration with IVI	Customer has the ability to set HVAC controls.	16	Paul							
43	Security	Emergency	Airbag deployment recording	Airbag has deployed the event is captured.				(JH) It is critical and should be isolated from subscription or other apps.					

No	Category	situation, usecase of API	Concern	Ref.	Rported by	Applies to Vehicle Info Spec	Remarks	Question	Scope ?	Examples	Reference
1	Privacy	Rent-a-car	As a user, I'd like to remove any private data from the car when I leave.		Junichi	yes	Perhaps consider broader shared use vehicles or split that into a separate use case			See concern	
2	Security	Driving	As a driver, I don't want any remote person to control my car (eg. speed, door lock etc.)	25	Junichi	yes	Fundamental question as to whether API will be used remotely.			As a driver I don't want anyone to control the vehicle besides me or the vehicle with my consent.	
3	Security	Application manage	As an OEM, I don't permit any application to use Automotive API without my check.		Junichi		Suppress specific values is a sub-case				
4	Security	Insurance	As an insurers, I need to be sure that probe data is not tampered.		Junichi						
5	Privacy	Do Not Track	I usually set "Do Not Track", but help me immediately after the accident.		Hira						
6	Privacy	Probe data	I am willing to provide vehicle data for traffic monitoring, but does not want a police officer to know my destination and the exact speed of my car.	8	Hira			Granularity of data?		Data about my trip in aggregate may be given in consent, by my specific driving behavior should not be held against me.	
7	Security	ADAS	Advanced Driver Assistance System (ADAS) Controller accepts input from authorized onboard sensors		Kevin Gavigan					Monitoring of use of ADAS activation could be useful to insurance companies or others interested in monitoring driving behavior like V2X applications for municipalities	https://www.w3.org/auto/security/wiki/Use_Cases#Use_Case:_Advanced_Driver_Assistance_System_28ADAS_29_Controller_accepts_input_from_authorized_onboard_sensors
8	Privacy	Data Sharing	As a user, I'd like to apply different data granularity depending on whom to send the data.	6	Junichi		This may also apply to requirements in specific places (based on laws in different countries) or differing restrictions across the OEMs. The general use case is the ability to control or set granularity of specific fields (e.g. timestamp, lat/lon, etc.)				
9	Security		Ability to query registry of trusted 3rd parties, retrieve identification mechanisms		Ted Guild						
10	Security	ADAS	Advanced Driver Assistance System (ADAS) Controller accepts input from authorized external source(s)		Kevin Gavigan						https://www.w3.org/auto/security/wiki/Use_Cases#Use_Case:_Advanced_Driver_Assistance_System_28ADAS_29_Controller_accepts_input_from_authorized_external_source_28s_29
11	Security	ADAS	Advanced Driver Assistance System (ADAS) Controller sets safety critical controls when driving vehicle		Kevin Gavigan						https://www.w3.org/auto/security/wiki/Use_Cases#Use_Case:_Advanced_Driver_Assistance_System_28ADAS_29_Controller_sets_safety_critical_controls_when_driving_vehicle
12	Privacy	Sharing	Driver and/or passenger(s) in car want to share journey with virtual passenger(s) that are not in car		Kevin Gavigan						https://www.w3.org/auto/security/wiki/Use_Cases#Use_Case:_Driver_and_2For_passenger_28s_29_in_car_want_to_share_journey_with_virtual_passenger_28s_29_that_are_not_in_car
13	Privacy	Sharing	Required/regulated data sharing with municipal, state, federal, government entities		Ted Guild						
14	Privacy	Sharing	Vehicle owner/driver/passenger sharing with individual parties commercial or personal		Ted Guild						
15	Fill me!	Fill me!	Fill me!	Fill me!	Fill me!		Fill me!				
16	High Level Functionality		IVI system shows the status of various climate control equipments as GUI and lets a user control it via touch screen.		Data Spec 12.1.6						
17	Security	Remote Control	A user uses his smart devices to remotely check whether side windows of his parked car are closed or not, and to send a request to the car for closing it if opened.		Data Spec 12.1.6						
18	Security	Remote Control	A user uses his smart devices to start his car remotely, and turns heaters on to warm up the car inside before getting in the car.		Data Spec 12.1.6						
19	Privacy?	Sharing	If users agree to provide vehicle information to the weather station, many cars can be used to get weather information such as amounts of rain and ambient temperatures.		Data Spec 12.1.6						
20	High Level Functionality	ADAS?	IVI? warns when the vehicle goes on another lane (Lane departure warning function)		Data Spec 12.1.7						
21		ADAS?	IVI? records the scene before and after an accident (for insurance or testimony)		Data Spec 12.1.7						
22	High Level Functionality	ADAS?	IVI? improves vision in the dark		Data Spec 12.1.7						
23	Privacy	ADAS	Driver would like to see log of ADAS/driving events								
24	Privacy	Logging	3rd party would like to see log of driving events					At a maintenance?			
25	Remote Control	Remote Control	Driver would like to remotely lock/unlock vehicle.	2				In proximity?			
26	Remote Control	Remote Control	Driver would like to remotely start vehicle and turn on/set heat or air conditioner								
27	Privacy	Owner's management	Vehicle owner subscribes to 3rd party monitoring of vehicle data and trouble codes to ensure vehicle is running in good health					e.g., from his home?			
28	Remote Control	Remote Control	Driver would like to configure seat settings remotely.					really?			
29	Privacy		Automaker has access to all data elements including elements such as those relating to vehicle quality or operating data whereas application developer only has access to subset.								
30	Security		Automaker has concerns around impact compliance with emissions regulations due to 3rd party access to interact with vehicle systems.								
31	Security?		Automaker would only like to allow API to access data from their remote servers not directly from car.								
32	Security?		Automaker only wants to allow remote settings via cloud not by direct connection.								
33	Privacy	user reognition & retention limitation	The car can have multiple users/owners. Automaker needs to know which vehicle data belongs to whom to provide notice and choice to users/owners		Hira						
34	Personalization	Driving	Ted a tall driver of the family car approaches the car and the seat adjusts to his settings		Ted						
35	Identity	Identity	Current driver is identified.						Is his name required?		
36	Identity	Identity	Family is travelling in vehicle and all passengers are identified.				Could be used for group oriented recommendation systems, individual screen showing movie preferences etc.				
37		Location Based	Vehicle travels from one country (e.g. US) to another (e.g. Canada), settings change to metric.		Paul						

Category	Security Privacy Remote Access High Level Functionality Identification	