Research & Vehicle Technology
"Infotainment Systems Product Development"

Feature – MyKey Settings in the Centerstack (CGEA)

Subsystem Part Specific Specification (SPSS)

Version 1.4

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Revision History

Date	Version	Notes	
May 8, 2017	**1.0**	**Initial Release**	
January 25, 2019	**1.1**		
	MKv6-FUR-REQ-341987/A-Region Units Configuration Status – Regional Setting	ndecia: Clarification update to SpeedMinder Function, supporting requirement to replace individual tables with a single consolidated version	
	MKv6-FUR-REQ-341986/A-Region Units Configuration - Speed Minder Settings	ndecia: Clarification update to SpeedMinder Function, supporting requirement to replace individual tables with a single consolidated version	
	MKv6-FUR-REQ-341985/A-Region Units Configuration Request - Speed Minder Settings	ndecia: Clarification update to SpeedMinder Function, supporting requirement to replace individual tables with a single consolidated version	
	MKv6-FUR-REQ-341984/A-Region Units Configuration Status - Speed Minder Settings	ndecia: Clarification update to SpeedMinder Function, supporting requirement to replace individual tables with a single consolidated version	
	MKv6-FUR-REQ-341961/A-Mapping Tables - Speed Minder	ndecia: Clarification update to SpeedMinder Function, single consolidated table to replace individual tables	
February 13, 2019	**1.2**		
	MK-FRD-REQ-235933/B-MyKey Settings in the Centerstack Common Spec (CGEA)	ndecia: Updated structure as a result of PaaK MyKey integration	
	STR-467227/A-Overview	ndecia: Added reference to phone as a result of PaaK MyKey integration	
	STR-405672/B-Architectural Design	ndecia: added new keycontrol subsystem class description	
	MKv6-CLD-REQ-243449/B-MyKey Centerstack Settings Server+	Work in progress	
	MKv6-CLD-REQ-243449/C-MyKey Centerstack Settings Server	ndecia: clarified role of Settings Server	
	MKv6-CLD-REQ-243450/B-MyKey Centerstack Settings User Client+	Work in progress	
	MKv6-CLD-REQ-243450/C-MyKey Centerstack Settings User Client	ndecia: clarifed role of Settings User Client	
	MKv6-CLD-REQ-342895/A-MyKey Centerstack Settings KeyControl SubSystem	ndecia: New class description to indicate direct communication between this class and the Client for the PaaK MyKey creation process	
	STR-618750/A-Physical Mapping of Classes	ndecia: added table to clarify module deployment	
	MKv6-IIR-REQ-243447/C-Interface Requirement+	Work in progress	
	MKv6-IIR-REQ-243447/D-Interface Requirement	ndecia: added new interfaces for PaaK MyKey integration under this section	
	MD-REQ-238908/B-SystemKeyCount_St+	Work in progress	
	MD-REQ-238908/C-SystemKeyCount_St	ndecia: updated key count signals to use the total key count and mykey key count signals from the keycontrol subsystem which includes both conventional and PaaK key counts.	
	MD-REQ-335405/A-CreateNewPaaKMyKey_Rq	ndecia: added new signal interface to support assignment of a PaaK key as a MyKey	
	MD-REQ-335406/A-CreateNewPaaKMyKey_St	ndecia: added new signal interface to support assignment of a PaaK key as a MyKey	
	STR-405673/C-General Requirements	ndecia: Updated structure as a result of PaaK MyKey integration	
	MKv6-REQ-268517/A-Phone-As-A-Key MyKey+	Work in progress	
	MKv6-REQ-268517/B-Phone-As-A-Key MyKey	ndecia: general requirement describing ability for assignment of a PaaK key to a MyKey	
	STR-405675/C-Functional Definition+	Work in progress	
	STR-405675/D-Functional Definition	ndecia: Updated Function structure to add new requirements for PaaK MyKey integration	
	MKv6-REQ-235964/B-Creating a new MyKey+	Work in progress	
	MKv6-REQ-235964/C-Creating a new MyKey	ndecia: Updated requirement to reference phone in the case of a PaaK MyKey	
	STR-405888/B-Use Cases	ndecia: Updated structure as a result of PaaK MyKey integration	
	MKv6-UC-REQ-235959/B-Create a new MyKey key	ndecia: No content change	
	MKv6-UC-REQ-268536/A-Create a new PaaK MyKey+	Work in progress	
	MKv6-UC-REQ-268536/B-Create a new PaaK MyKey	ndecia: new use case for assignment of a PaaK key to a MyKey	
	STR-405890/B-WhiteBoxView - Create a new MyKey	ndecia: Updated Function structure to add new diagrams for PaaK MyKey integration	

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	MKv6-ACT-REQ-335397/A-Create a new PaaK MyKey	ndecia: new activity diagram for how a PaaK key is assigned as a MyKey
	MKv6-SD-REQ-335398/A-Create a new PaaK MyKey - successful	ndecia: new sequence diagram for how a PaaK key is assigned as a MyKey
	MKv6-SD-REQ-335399/A-Create a new PaaK MyKey - unsuccessful - PaaK Not Created	ndecia: new sequence diagram for a failure condition of attempting to assign a PaaK key as a MyKey
	MKv6-SD-REQ-335400/A-Create a new PaaK MyKey - unsuccessful - PaaK Not Found	ndecia: new sequence diagram for a failure condition of attempting to assign a PaaK key as a MyKey
	MKv6-SD-REQ-335401/A-Create a new PaaK MyKey - unsuccessful - Lock Button Timeout	ndecia: new sequence diagram for a failure condition of attempting to assign a PaaK key as a MyKey
	MKv6-SD-REQ-335402/A-Create a new PaaK MyKey - unsuccessful - Invalid PaaK	ndecia: new sequence diagram for a failure condition of attempting to assign a PaaK key as a MyKey
	MKv6-SD-REQ-335403/A-Create a new PaaK MyKey - unsuccessful - User Declines	ndecia: new sequence diagram for a failure condition of attempting to assign a PaaK key as a MyKey
	MKv6-SD-REQ-335404/A-Create a new PaaK MyKey - unsuccessful - General Failure	ndecia: new sequence diagram for a failure condition of attempting to assign a PaaK key as a MyKey
	MKv6-FUN-REQ-236040/B-Speed Minder Administration	ndecia: clarified SpeedMinder function requirements to align with format of SpeedLimiter function
	STR-406192/B-Requirements	ndecia: Updated structure to clarify SpeedMinder requirements to align with SpeedLimiter section
	MKv6-FUR-REQ-341987/A-Region Units Configuration Status – Regional Setting	ndecia: Clarification update to SpeedMinder Function, supporting requirement to replace individual tables with a single consolidated version
	MKv6-FUR-REQ-341986/A-Region Units Configuration - Speed Minder Settings	ndecia: Clarification update to SpeedMinder Function, supporting requirement to replace individual tables with a single consolidated version
	MKv6-FUR-REQ-341985/A-Region Units Configuration Request - Speed Minder Settings	ndecia: Clarification update to SpeedMinder Function, supporting requirement to replace individual tables with a single consolidated version
	MKv6-FUR-REQ-341984/A-Region Units Configuration Status - Speed Minder Settings	ndecia: Clarification update to SpeedMinder Function, supporting requirement to replace individual tables with a single consolidated version
	MKv6-FUR-REQ-341961/A-Mapping Tables - Speed Minder	ndecia: Clarification update to SpeedMinder Function, single consolidated table to replace individual tables
March 19, 2019	**1.3**	
	MD-REQ-335406/B-CreateNewPaaKMyKey_St	ndecia: Updated to correct typo in value 0x3 from InvalidPaakFound to MyKeyPaakFound
	MKv6-FUR-REQ-341961/B-Mapping Tables - Speed Minder	ndecia: Update to the note on the Speed Minder table that clarifies the max available selection when Speed Limiter is set to 100kph in Other Markets.
July 9, 2019	**1.4**	
	STR-405673/D-General Requirements	ndecia: Updated section to include new requirements (355033, 355032)
	MKv6-REQ-355033/A-General timeout to determine MyKey Server or KeyControl Subsystem are unresponsive	ndecia: New error handling requirement to determine an unresponsive fault by the MyKey Server or KeyControl Subsystem
	MKv6-TMR-REQ-355032/A-T_GeneralTimeout	ndecia: New timer value to determine an unresponsive fault by the MyKey Server or KeyControl Subsystem
	STR-405889/B-Requirements	ndecia: Updated section to include new requirements (355033, 355032)
	MKv6-REQ-355027/A-Timeout when confirming creation of a new PaaK MyKey	ndecia: New requirement to clarify determination of a PaaK MyKey creation success or failure based on assessing MyKey Key Count status
	MKv6-TMR-REQ-355031/A-T_NullDelay	ndecia: New timer value to clarify period of time to wait prior to assessing MyKey Key Count status

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1 Overview

The MyKey System utilizes the Ignition Key/Phone to identify the driver of the vehicle as either an Admin User or a MyKey User. The Administrative User is able to setup which key IDs will be treated as MyKeys, configure the optional functions, monitor system status and monitor total miles driven by all MyKey Users via the HMI. The MyKey User, identified by the key ID, set up by the Administrator, is restricted to MyKey functionality.

This specification covers the MyKey Infotainment Centerstack module (e.g. SYNC) Settings which are not covered in other SPSS specifications. For other MyKey SYNC related functions,
reference “MyKey APIM SPSS”. For other Settings in Centerstack functions, reference “Vehicle Settings – Settings in the Infotainment Centerstack Module (Global) SPSS”.

2 Architectural Design

2.1 MKv6-CLD-REQ-243449/C-MyKey Centerstack Settings Server

The MyKey Centerstack Settings Server is responsible for interfacing with the MyKey Centerstack Settings User Client based on Admin/MyKey user's operations.

2.2 MKv6-CLD-REQ-243450/C-MyKey Centerstack Settings User Client

The MyKey Centerstack Settings User Client is responsible for implementing applicable functions based on the HMI input from the User and interfaces from the MyKey Centerstack Settings Server and MyKey Centerstack Settings KeyControl SubSystem.

2.3 MKv6-CLD-REQ-342895/A-MyKey Centerstack Settings KeyControl SubSystem

The MyKey Centerstack Settings KeyControl SubSystem is responsible for coordinating with the MyKey Centerstack Settings Server to manage the assignment and creation of conventional MyKey and Admin keys.

For the creation of a Phone-As-A-Key MyKey, the KeyControl SubSystem shall perform some of the functions typically associated with the MyKey Centerstack Settings Server and interface directly with the MyKey Centerstack Settings User Client.

2.4 Physical Mapping of Classes

The table below shows an example of how the logical classes that make up the MyKey Centerstack Settings feature may be mapped into physical modules.

Logical Class	Physical Module (ECU)
MyKey Centerstack Settings Server	IPC
MyKey Centerstack Settings User Client	APIM
MyKey Centerstack Settings KeyControl SubSystem	BCM

2.5 MKv6-IIR-REQ-243447/D-Interface Requirement

2.5.1 MD-REQ-238455/A-IgnKeyType_D_Actl

Message Type: Status

This signal represents the MyKey system status and is provided to all affected system components to configure their local modes.

Name	Literals	Value	Description
IgnKeyType_D_Actl	-	-	Type of key that is in the ignition
	KeyReadInProgress	0x0	Key(s) will be read now
	KeyInIgnStandardKey	0x1	Admin (full) mode
	KeyInIgnMyKey	0x2	MyKey restricted mode
	Key_Not_Prgrm_Read_Failure	0x3	Key not programmed
	Unknown	0xE	Disable MyKey System mode
	Invalid	0xF	Initial value

2.5.2 MD-REQ-238908/C-SystemKeyCount_St

Message Type: Status

This status contains the system information of key counts, including both physical keys and PaaK keys

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Name	Literals	Value	Description
TotalCountOfMyKeys_St	-	-	Total count of MyKeys, including PaaK keys assigned as MyKeys
	-	0x0-0x7D	Number of MyKeys
	Unlimited	0x7E	Unlimited MyKeys
	NoDataExist	0x7F	Initial Value
TotalCountOfMyKeys_UB	-	-	Update Bit for the Total Count of MyKeys
	Unchanged_data	0x0	
	Fresh_data	0x1	

Name	Literals	Value	Description
TotalCountOfAdminKeys_St	-	-	Total count of Admin Keys, including PaaK keys assigned as Admin Keys
	-	0x0-0x7D	Number of Admin Keys
	Unlimited	0x7E	Unlimited Admin Keys
	NoDataExist	0x7F	Initial Value
TotalCountOfAdminKeys_UB	-	-	Update Bit for the Total Count of Admin Keys
	Unchanged_data	0x0	
	Fresh_data	0x1	

Below tables are used for legacy programs and will be replaced by above tables in order to have more physical range of key counts and to include PaaK keys.

Name	Literals	Value	Description
UserMyKeyCount	-	-	Number of User MyKeys.
	-	0x0-0xD	Number of User Keys
	Unlimited	0xE	Unlimited Number
	NoDataExist	0xF	Initial Value

Name	Literals	Value	Description
AdminKeyCount	-	-	Number of Admin Keys.
	-	0x0-0xD	Number of User Keys
	Unlimited	0xE	Unlimited Numbers
	NoDataExist	0xF	Initial Value

2.5.3 MD-REQ-238467/B-Request_New_MyKey_Rq

Message Type: Request

This mode (“CreateMyKey_Rq” is used in MKv3) requests a new MyKey.

Name	Literals	Value	Description
Mode	-	-	
	Inactive	0x0	
	Create	0x1	

2.5.4 MD-REQ-238457/B-Request_New_MyKey_Rsp

Message Type: Response

This reflects the result of MyKey creation request.

Name	Literals	Value	Description
Result	-	-	
	NoDataExist	0x0	No Data Exist
	KeyInSlotAlreadyMyKey	0x1	
	NoKeyInSlot	0x2	
	GenericFailure	0x3	
	Success	0x4	

2.5.5 MD-REQ-238472/A-Clear_All_MyKeys_Rq

Message Type: Request

This mode (“ResetAllUserKeys_Rq” is used in MKv3) requests resetting of all MyKeys.

Name	Literals	Value	Description
Mode	-	-	
	Inactive	0x0	
	ResetAllKeys	0x1	

2.5.6 MD-REQ-238909/A-MyKeySystemInfo_Rq

Message Type: Request

This mode requests information of MyKey System Status.

Name	Literals	Value	Description
DataRequest	-	-	
	Inactive	0x0	
	GetData	0x1	

2.5.7 MD-REQ-242972/A-MyKeySystemInfo_Rsp

Message Type: Response

This response contains the system information about the MyKey feature.

Name	Literals	Value	Description
UserMyKeyCount	-	-	Number of User MyKeys.
	-	0x0-0xD	Number of User Keys
	Unlimited	0xE	Unlimited Number
	NoDataExist	0xF	Initial Value

Name	Literals	Value	Description
AdminMyKeyCount	-	-	Number of Admin MyKeys.
	-	0x0-0xD	Number of User Keys
	Unlimited	0xE	Unlimited Numbers
	NoDataExist	0xF	Initial Value

Name	Literals	Value	Description
MyKeyDrivenKm	-	-	Count of km driven with User MyKey
	-	0x00000- 0xFFFFE	Distance driven (in km)
	NoDataExist	0xFFFFF	Initial Value

2.5.8 MD-REQ-238460/A-SpeedLimitConfig_St

Message Type: Status

This signal contains the status of MyKey speed limit restrictions configuration.

Name	Literals	Value	Description
MK_SpeedLimitConf_St	-	-	
	Off	0x00	Speed limit Off
	kmh70	0x01	Speed limit 70 km/h
	kmh75	0x02	Speed limit 75 km/h
	kmh80	0x03	Speed limit 80 km/h
	kmh85	0x04	Speed limit 85 km/h
	kmh90	0x05	Speed limit 90 km/h
	kmh95	0x06	Speed limit 95 km/h
	kmh100	0x07	Speed limit 100 km/h
	kmh105	0x08	Speed limit 105 km/h
	kmh110	0x09	Speed limit 110 km/h
	kmh115	0x0A	Speed limit 115 km/h
	kmh120	0x0B	Speed limit 120 km/h
	kmh125	0x0C	Speed limit 125 km/h
	kmh130	0x0D	Speed limit 130 km/h
	kmh135	0x0E	Speed limit 135 km/h
	kmh140	0x0F	Speed limit 140 km/h
	kmh145	0x10	Speed limit 145 km/h
	kmh150	0x11	Speed limit 150 km/h
	kmh155	0x12	Speed limit 155 km/h
	kmh160	0x13	Speed limit 160 km/h
	kmh165	0x14	Speed limit 165 km/h
	mph40	0x15	Speed limit 40 mph
	mph45	0x16	Speed limit 45 mph
	mph50	0x17	Speed limit 50 mph
	mph55	0x18	Speed limit 55 mph
	mph60	0x19	Speed limit 60 mph
	mph65	0x1A	Speed limit 65 mph
	mph70	0x1B	Speed limit 70 mph
	mph75	0x1C	Speed limit 75 mph
	mph80	0x1D	Speed limit 80 mph
	mph85	0x1E	Speed limit 85 mph
	mph90	0x1F	Speed limit 90 mph

2.5.9 MD-REQ-238473/A-SpeedSettingConfig_Rq

Message Type: Request

This mode requests a change of MyKey speed limit settings or speed minder settings.

Name	Literals	Value	Description

The information contained in this document is Proprietary to Ford Motor Company.

SpeedSetting			
	Inactive	0x0	
	SpeedLimit	0x1	Speed limiter shall be adjusted
	SpeedMinder	0x2	Speed minder shall be adjusted
SpeedValue	-	-	
	Off	0x0	Switch to Speed limit Off
	kmh70	0x01	Speed limit 70 km/h
	kmh75	0x02	Speed limit 75 km/h
	kmh80	0x03	Speed limit 80 km/h
	kmh85	0x04	Speed limit 85 km/h
	kmh90	0x05	Speed limit 90 km/h
	kmh95	0x06	Speed limit 95 km/h
	Kmh100	0x07	Speed limit 100 km/h
	Kmh105	0x08	Speed limit 105 km/h
	Kmh110	0x09	Speed limit 110 km/h
	Kmh115	0x0A	Speed limit 115 km/h
	Kmh120	0x0B	Speed limit 120 km/h
	Kmh125	0x0C	Speed limit 125 km/h
	Kmh130	0x0D	Speed limit 130 km/h
	Kmh135	0x0E	Speed limit 135 km/h
	Kmh140	0x0F	Speed limit 140 km/h
	Kmh145	0x10	Speed limit 145 km/h
	Kmh150	0x11	Speed limit 150 km/h
	Kmh155	0x12	Speed limit 155 km/h
	Kmh160	0x13	Speed limit 160 km/h
	Kmh165	0x14	Speed limit 165 km/h
	mph40	0x15	Speed limit 40 mph
	mph45	0x16	Speed limit 45 mph
	mph50	0x17	Speed limit 50 mph
	mph55	0x18	Speed limit 55 mph
	mph60	0x19	Speed limit 60 mph
	mph65	0x1A	Speed limit 65 mph
	mph70	0x1B	Speed limit 70 mph
	mph75	0x1C	Speed limit 75 mph
	mph80	0x1D	Speed limit 80 mph
	mph85	0x1E	Speed limit 85 mph
	mph90	0x1F	Speed limit 90 mph

2.5.10 MD-REQ-238461/A-SpeedMinderConfig_St

Message Type: Status

This signal contains the status of MyKey speed minder configuration.

Name	Literals	Value	Description
MK_SpeedMinderConf_St	-	-	
	Off	0x00	Speed minder is Off
	kmh70	0x01	Speed minder at 70 km/h
	kmh75	0x02	Speed minder at 75 km/h
	kmh80	0x03	Speed minder at 80 km/h
	kmh85	0x04	Speed minder at 85 km/h
	kmh90	0x05	Speed minder at 90 km/h
	kmh95	0x06	Speed minder at 95 km/h
	kmh100	0x07	Speed minder at 100 km/h
	kmh105	0x08	Speed minder at 105 km/h
	kmh110	0x09	Speed minder at 110 km/h

	kmh115	0x0A	Speed minder at 115 km/h
	kmh120	0x0B	Speed minder at 120 km/h
	kmh125	0x0C	Speed minder at 125 km/h
	kmh130	0x0D	Speed minder at 130 km/h
	kmh135	0x0E	Speed minder at 135 km/h
	kmh140	0x0F	Speed minder at 140 km/h
	kmh145	0x10	Speed minder at 145 km/h
	kmh150	0x11	Speed minder at 150 km/h
	kmh155	0x12	Speed minder at 155 km/h
	kmh160	0x13	Speed minder at 160 km/h
	kmh165	0x14	Speed minder at 165 km/h
	mph40	0x15	Speed minder at 40 mph
	mph45	0x16	Speed minder at 45 mph
	mph50	0x17	Speed minder at 50 mph
	mph55	0x18	Speed minder at 55 mph
	mph60	0x19	Speed minder at 60 mph
	mph65	0x1A	Speed minder at 65 mph
	mph70	0x1B	Speed minder at 70 mph
	mph75	0x1C	Speed minder at 75 mph
	mph80	0x1D	Speed minder at 80 mph
	mph85	0x1E	Speed minder at 85 mph
	mph90	0x1F	Speed minder at 90 mph

2.5.11 MD-REQ-238911/A-VolLimitConfig_Rq

Message Type: Request

This mode (“AudioLimitConfig_Rq” is used in MKv3) requests a change of MyKey volume limit settings.

Name	Literals	Value	Description
Mode	-	-	
	Inactive	0x0	
	Off	0x1	
	On	0x2	

2.5.12 MD-REQ-238465/A-VolLimitConfig_St

Message Type: Status

This signal (“AudioLimitConfig_St” is used in MKv3) contains the status of MyKey volume limit configuration.

Name	Literals	Value	Description
IPC_MyKeyVolLimit_St	-	-	
	NoDataExist	0x0	Initial value
	Off	0x1	Restriction NOT set
	On	0x2	Restriction set

2.5.13 MD-REQ-242986/A-ECallRestrictionConfig_Rq

Message Type: Request

This mode requests a change of MyKey eCall settings.

Name	Literals	Value	Description

Mode	-	-	
	Inactive	0x0	
	Off	0x1	
	On	0x2	

2.5.14 MD-REQ-238463/A-e911Override_St

Message Type: Status

This signal is from the MyKey Server to the MyKey Client. It is a status of e911 Override by MyKey Administrator. If the status = On, the Client shall override whatever the e911 setting is at the client and turn e911 Assist On if a MyKey is in ignition.

Name	Literals	Value	Description
MyKey_e911Override_St	-	-	Status of e911 override
	Null	0x0	Initial value
	Off	0x1	Overriding allowed
	On	0x2	Overriding refused

2.5.15 MD-REQ-238470/A-ESCRestrictionConfig_Rq

Message Type: Request

This signal requests a change of MyKey Electronic Stability Control Restrictions settings.

Name	Literals	Value	Description
Mode	-	-	
	Inactive	0x0	
	Off	0x1	
	On	0x2	

2.5.16 MD-REQ-238462/A-ESCRestrictionConfig_St

Message Type: Status

This signal contains the status of MyKey Electronic Stability Control restrictions configuration.

Name	Literals	Value	Description
Mode	-	-	
	NoDataExist	0x0	Initial value
	Off	0x1	Restriction NOT set
	On	0x2	Restriction set

2.5.17 MD-REQ-335405/A-CreateNewPaaKMyKey_Rq

Message Type: Request

This method transmitted by the MyKeyUserClient is used to initiate a request to assign a PaaK key as a new MyKey.

Name	Literals	Value	Description
CreateNewPaakMyKey_Rq	-	-	A request to create a new MyKey from a PaaK key

	Null	0x0	
	RequestNewPaakMyKey	0x1	
	ConfirmNewPaakMyKey	0x2	
	NotUsed	0x3	

2.5.18 MD-REQ-335406/B-CreateNewPaaKMyKey_St

Message Type: Status

This method transmitted by the KeyControlSubsytem provides the status of the current request to create a new MyKey from a PaaK key.

Name	Literals	Value	Description
CreateNewPaaKMyKey_St	-	-	Status of MyKey PaaK creation process
	Null	0x0	
	NoValidPaakFound	0x1	
	StandardPaakFound	0x2	
	MyKeyPaakFound	0x3	
	ConfirmHmi	0x4	
	PressLockButton	0x5	
	LockButtonTimeOut	0x6	
	PhoneErased	0x7	
CreateNewPaaKMyKey_UB	-	-	Update Bit for CreateNewPaaKMyKey status
	Unchanged_data	0x0	
	Fresh_data	0x1	

3 General Requirements

For Settings that are MyKey limited reference the Settings in the Centerstack SPSS.

3.1 MKv6-REQ-238475/A-Status signal initial value behavior

If value is the initial value (e.g. "Invalid", "Inactive", "NoDataExist" or "Null" or "not available" in HMI documents) then behavior shall be like deactivation of the related function (e.g. "Off", "NoMsg", "Unknown").

3.2 MKv6-REQ-238481/A-KeyReadInProgress behavior

While value is "KeyReadInProgress" the behavior shall be like in receiving the initial value.

3.3 MKv6-REQ-238476/A-Status signal never received at startup behavior

If modules detect that a CAN signal has not been received since bus wake-up the behavior shall be like receiving the initial value until the message is received.

3.4 MKv6-REQ-238477/A-Status signal missing message behavior

If modules detect that a CAN message is missing more than the time defined in other diagnostic specifications then behavior shall be like in receiving the initial value.

- Ex. APIM IDS (infotainment diagnostic specification) would define missing message time for the APIM periodic messages in Run

3.5 MKv6-REQ-238480/A-Status signal absent behavior

If modules detect that a CAN message is absent it shall keep the last received value of the related CAN signal until it will be received again or until it is determined to be a missing message as defined in the applicable diagnostic specifications.

- A status signal is absent if modules detect that a CAN status message has not been received after its periodic rate cycle time has elapsed but less than the missing message time defined in the applicable diagnostic specification (ex APIM Infotainment Diagnostic Specification)

3.6 MKv6-REQ-268517/B-Phone-As-A-Key MyKey

The association of a phone to MyKey Centerstack Settings shall be supported by use of the Phone-As-A-Key (PaaK) feature. The phone must be setup, authorized, and connected as a PaaK before it can be associated to a MyKey. Refer to the PaaK feature SPSS for detailed information.

PaaK acting as Admin user key, and PaaK MyKey acting as MyKey user key shall apply to requirements and use cases in this specification.

3.7 MKv6-REQ-355033/A-General timeout to determine MyKey Server or KeyControl Subsystem are unresponsive

Several functions in the MyKey Settings in Centerstack may feature specify a response from the MyKey Server or KeyControl Subsystem back to the MyKey User Client. In any of these functions, if a particular response or expected status update is not received prior to the expiration of T_GeneralTimeout, then the particular action/process can be considered as faulted, and the action/process flow can then be aborted after displaying any associated HMI indications to the user.

This T_GeneralTimeout value is the maximum time the MyKey User Client shall wait prior to determining a fault has occurred. This is intended to prevent any HMI indications or process flows to be indefinitely stuck waiting for a particular response.

Any associated HMI related to this type of fault condition can also be displayed to the user if the MyKey User Client has determined that any MyKey related periodic status message has not been sent by the MyKey Server or KeyControl Subsystem for a period of T_GeneralTimeout while the Ignition Status is set to RUN.

3.8 MKv6-TMR-REQ-355032/A-T_GeneralTimeout

Name	Description	Units	Range	Resolution	Default
T_GeneralTimeout	Maximum amount of time to wait before determining the MyKey Server or KeyControl Subsystem has become unresponsive. Note: Use the default value	sec	1-30	1	10

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4 Functional Definition

4.1 MKv6-FUN-REQ-236034/B-MyKey Information Menu

The MyKey information menu provides the status about configured keys and distance driven by MyKey user.

4.1.1 Requirements

4.1.1.1 MKv6-REQ-236036/A-MyKey Information Screen Data

The MyKey Information screen shall display three values:

The count of MyKeys
The count of Admin Keys
The mile/kilometer count driven with MyKeys (all MyKey users accumulated)

4.1.1.2 MKv6-REQ-236037/A-Prefetch of MyKey Information

The MyKey Settings Client has to prefetch the current MyKey Information in time to show them without perceivable delay.

4.1.2 Use Cases

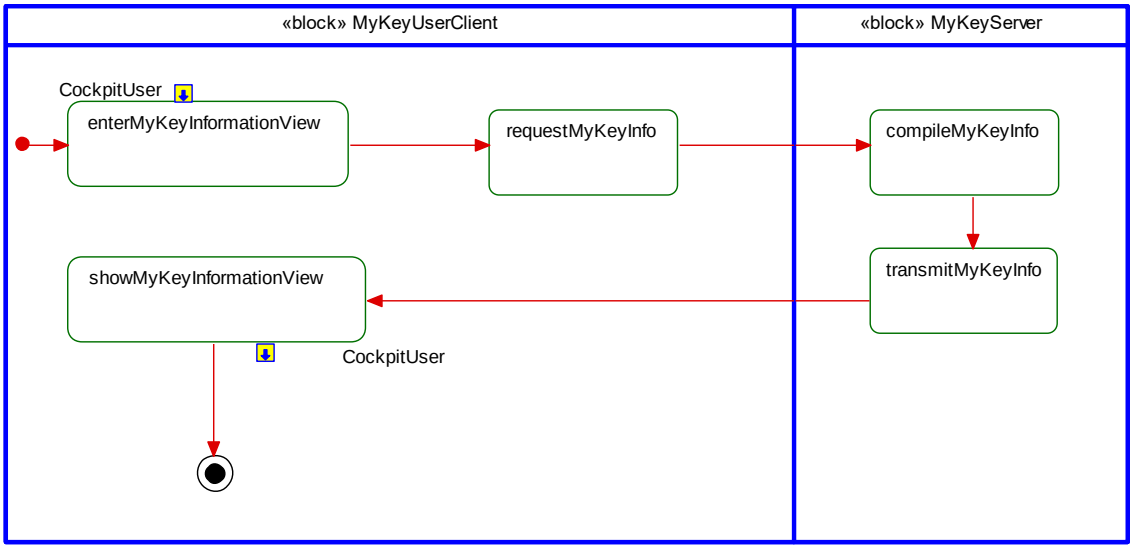
4.1.2.1 MKv6-UC-REQ-236035/A-User enters MyKey Information Menu

Actors	Admin or MyKey User
Pre-conditions	Ignition is in Run. MyKey feature is configured to on. MyKey mode is of no relevance.
Scenario Description	User enters MyKey Information Menu.
Post-conditions	MyKey Information is displayed to the User.
Notes	N/A
Interfaces	CBI, G-HMI, Vehicle System Interface

4.1.3 WhiteBoxView - User enters MyKey Information Menu

4.1.3.1 MKv6-ACT-REQ-236038/A-User enters MyKey Information Menu

Activity Diagram



4.1.3.2 MKv6-SD-REQ-236039/A-User enters MyKey Information Menu

Scenarios

Normal Usage

User enters MyKey information menu

Constraints

Pre-condition

Ignition is in Run.

Pre-condition

MyKey feature is configured to on.

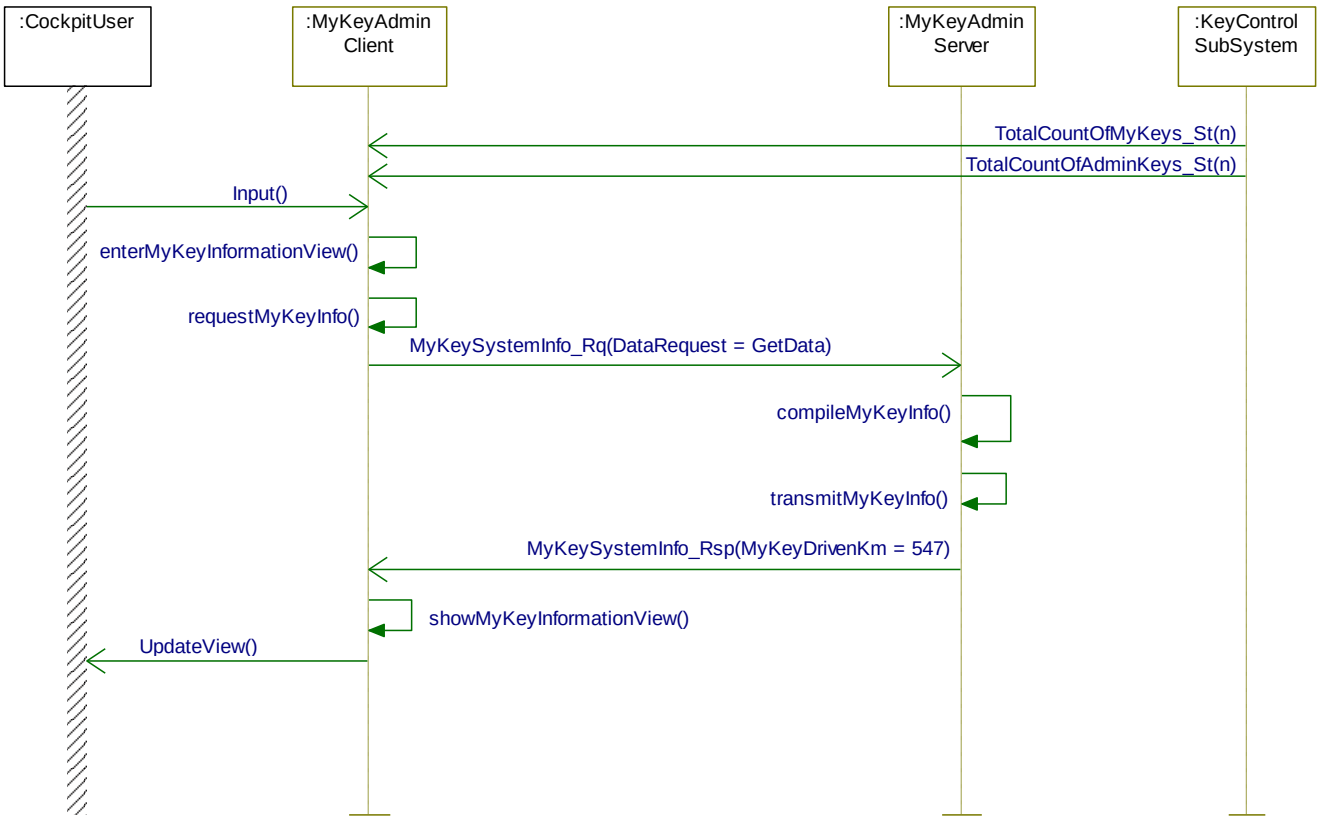
Pre-condition

MyKey mode is of no relevance.

Post-condition

MyKey Information is displayed to the User.

Sequence Diagram



4.2 MKv6-FUN-REQ-235958/A-Create A New MyKey

The MyKey subsystem offers admin user to configure a vehicle recognized key as MyKey. For this procedure a key has to be available in the backup slot or in the ignition switch.

4.2.1 Requirements

4.2.1.1 MKv6-REQ-235964/C-Creating a new MyKey

The key/phone to be classified as MyKey has to be located in the vehicle and in the case of a conventional key, placed in the backup position, in the ignition switch, or within a defined distance, and has to be a valid admin key. A Phone as a Key, has to have already been created using the Phone as a Key process.

4.2.1.2 MKv6-REQ-235965/A-MyKey startup behavior handling

Before enabling any MyKey restrictions or functions, the subsystem, server or client must wait for stable system conditions distributed over the network.

For example, if the key identification status is valid and the function is configurable, the system object need to wait until a valid function status / configuration exists.

4.2.1.3 MKv6-REQ-355027/A-Timeout when confirming creation of a new PaaK MyKey

At the beginning of the MyKey creation process for a PaaK device, the KeyControl Subsytem will report the total number of assigned MyKeys in the TotalCountOfMyKey_St signal. During the process, the user will be asked to confirm the assignment of that PaaK device as a MyKey. Upon confirmation from the user, the MyKey User Client shall send the signal CreateNewPaaKMyKey_Rq set to ConfirmNewPaakMyKey to the KeyControl Subsytem. Upon receiving a value of Null in the CreateNewPaaKMyKey_St signal, MyKey User Client shall start a timer T_NullDelay, and then upon expiration of that timer, re-assess the value of the TotalCountOfMyKey_St to confirm it has been successfully incremented. If so, the process can be deemed a success. If the value of the MyKey key count has not been incremented from the value reported at the beginning of the process, then a general failure has occurred within the KeyControl Subsystem.

4.2.1.4 MKv6-TMR-REQ-355031/A-T_NullDelay

Name	Description	Units	Range	Resolution	Default
T_NullDelay	Amount of time to wait prior to assessing Key Count Totals to determine if the PaaK MyKey creation process succeeded or failed. Note: Use the default value	msec	200 - 5000	100	3000

4.2.2 Use Cases

4.2.2.1 MKv6-UC-REQ-235959/B-Create a new MyKey key

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin key mode is active. Admin key count >1.
Scenario Description	Admin requests the key in ignition lock or backup slot to be configured as a MyKey user key. Setup process and status is shown via the display HMI.
Post-conditions	Admin count is decreased. Key is configured as MyKey user key. MyKey user key restriction function available with the next ignition cycle.
Notes	**E1-Unsuccessful – GeneralFailure:** The Admin requests the key in the backup slot/ignition lock to be configured as a MyKey user key and an error occurs. **Post-conditions:** Error message shown via the display HMI. MyKey user key shall be not configured and not available. Admin key count shall not be changed. **E2-Unsuccessful - AlreadyMyKey:** The Admin requests the key in the backup slot/ignition lock to be configured as a MyKey user key but it is already configured as MyKey. **Post-conditions:** Information message shown via the display HMI. MyKey user key setup and key count shall not be changed. Admin key count shall not be changed. **E3-Unsuccessful - NoKey** The Admin requests the key in the backup slot/ignition lock to be configured as a MyKey user key but no key is available. **Post-conditions:** Key-Error message shown via the display HMI. MyKey user key setup and key count shall not be changed.

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	Admin key count shall not be changed.
Interfaces	CBI, G-HMI, Vehicle System Interface

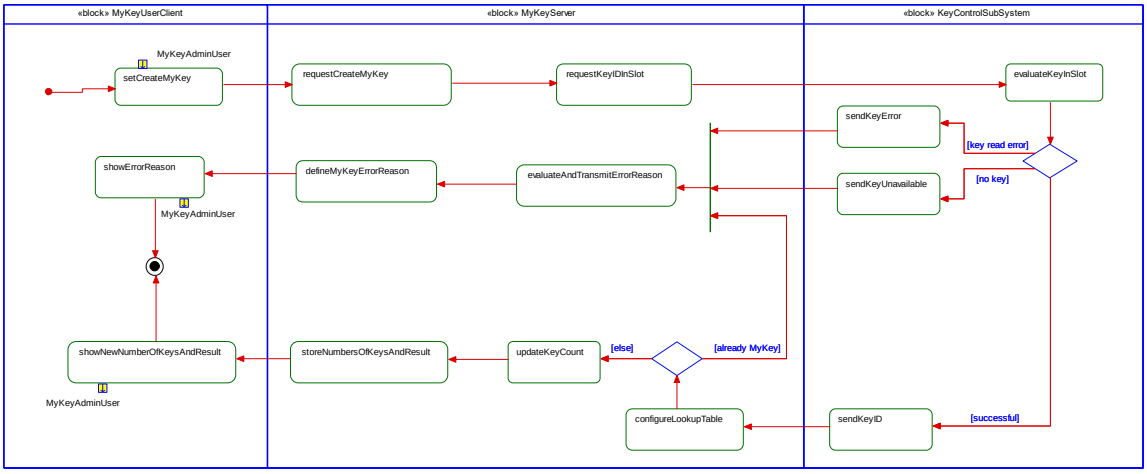
4.2.2.2 MKv6-UC-REQ-268536/B-Create a new PaaK MyKey

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin key mode is active. Admin key count >1. Phone and BLEM paired and connected.
Scenario Description	User attempts to create Phone as a Key MyKey, presses the Lock Button on the device HMI, and confirms the assignment of the PaaK device as a MyKey via the vehicle HMI.
Post-conditions	Admin count is decreased and MyKey count is increased. PaaK device is configured as MyKey. MyKey restriction function available with the next ignition cycle.
Notes	
Interfaces	CBI, G-HMI, Vehicle System Interface, Device HMI

4.2.3 WhiteBoxView - Create a new MyKey

4.2.3.1 MKv6-ACT-REQ-235966/A-Create a new MyKey

Activity Diagram



4.2.3.2 MKv6-SD-REQ-235967/A-Create a new MyKey - successful

Scenarios

Normal Usage

Admin requests the key in ignition or back up slot to be configured as a MyKey user key.
Setup process and status is shown via the display HMI.

Constraints

Pre-condition

Ignition is in Run.

Pre-condition

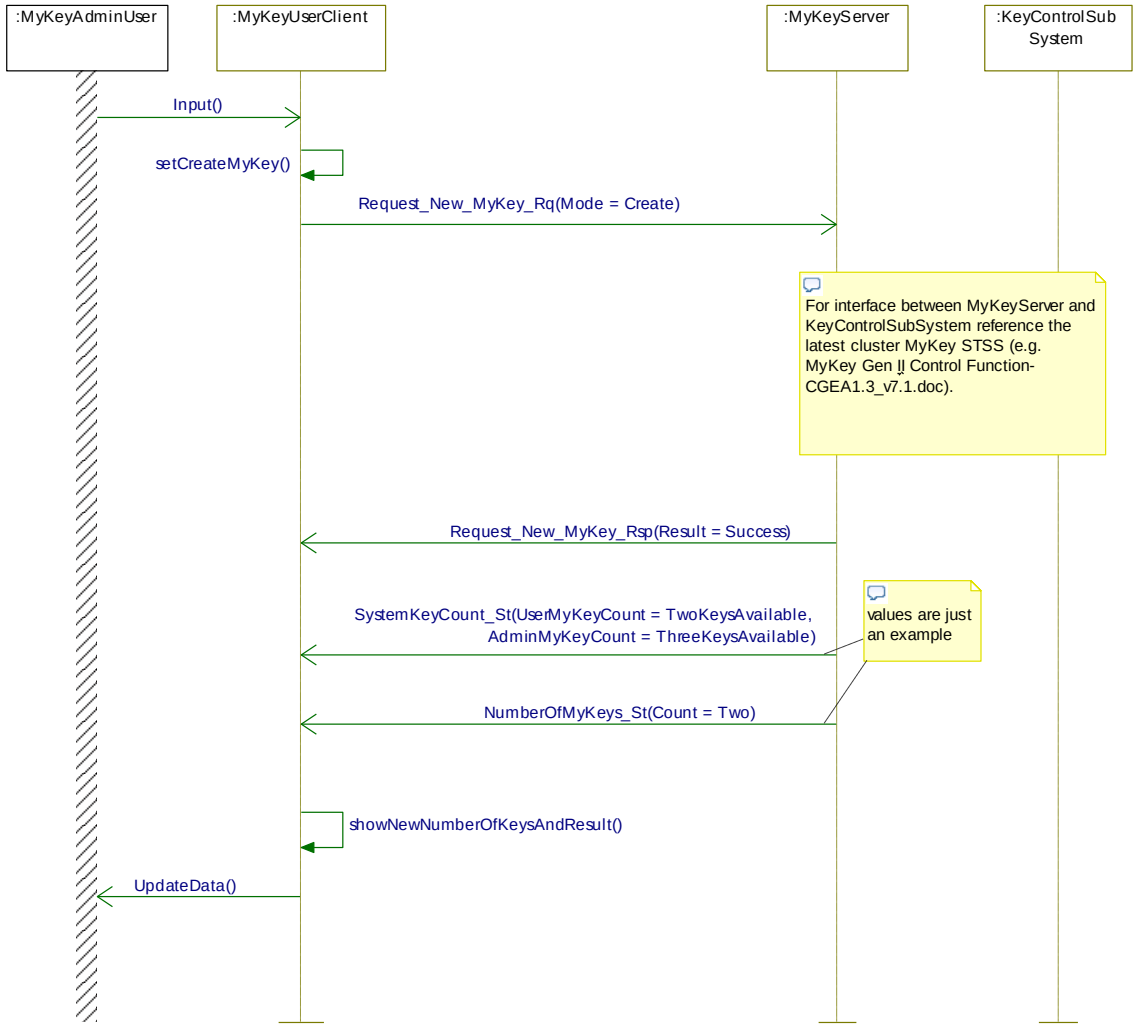
Admin Mode is active.

Pre-condition

Admin key count >1.

Post-condition
Admin count is decreased.
Post-condition
Key is configured as MyKey user key.
Post-condition
MyKey user key restriction function available with the next ignition cycle.

Sequence Diagram



4.2.3.3 MKv6-SD-REQ-235968/A-Create a new MyKey - unsuccessful - GeneralFailure

Scenarios

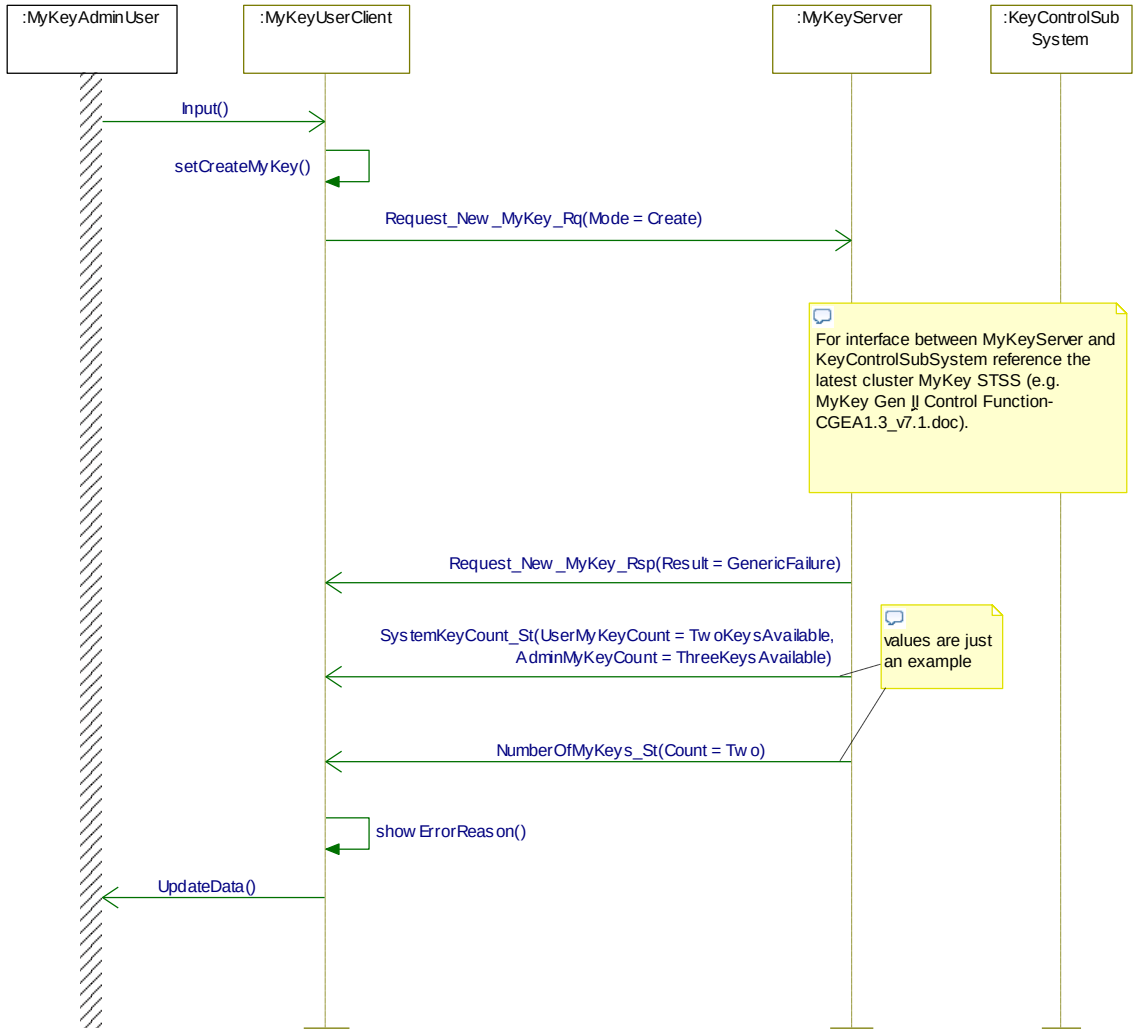
Normal Usage
The Admin requests the key in the Backup slot/Ignition to be configured as a MyKey user key and an error occurs.

Constraints

Pre-condition
Ignition is in Run.
Pre-condition
Admin Mode is active.
Pre-condition
Admin key count >1.
Post-condition
Error message shown via the display HMI.
Post-condition
MyKey user key shall be not configured and not available.

Post-condition
Admin key count shall not be changed.

Sequence Diagram



4.2.3.4 MKv6-SD-REQ-235969/B-Create a new MyKey - unsuccessful - AlreadyMyKey

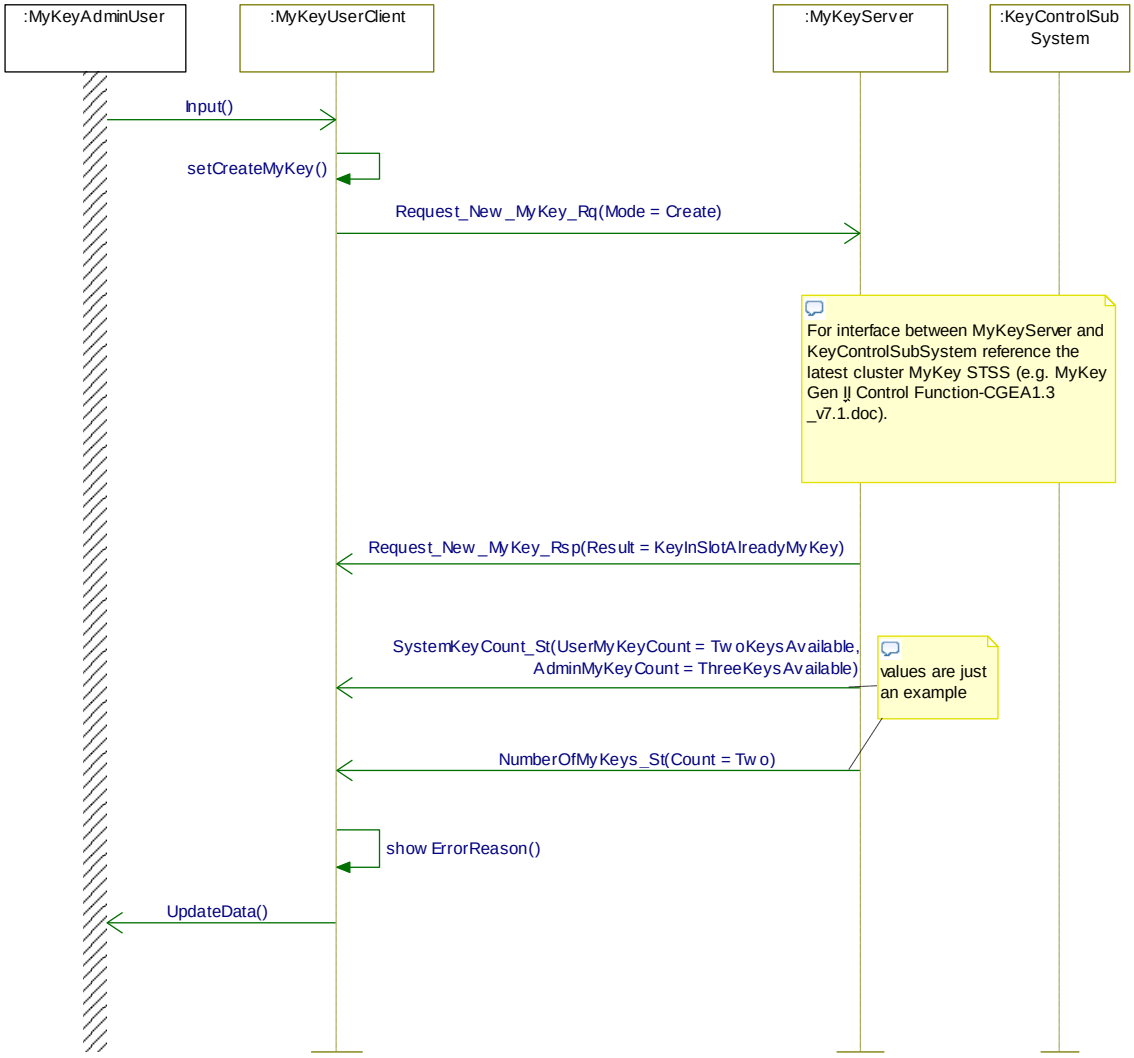
Scenarios

Normal Usage
The Admin requests the key in the Backup slot/Ignition to be configured as a MyKey user key but it is already configured as MyKey.

Constraints

Pre-condition
Ignition is in Run.
Pre-condition
Admin Mode is active.
Pre-condition
Admin key count >1.
Post-condition
Information message shown via the display HMI.
Post-condition
MyKey user key setup and key count shall not be changed.
Post-condition
Admin key count shall not be changed.

Sequence Diagram



4.2.3.5 MKv6-SD-REQ-235970/A-Create a new MyKey - unsuccessful - NoKey

Scenarios

Normal Usage

The Admin requests the key in the Backup slot/Ignition to be configured as a MyKey user key but no key is available.

Constraints

Pre-condition

Ignition is in Run.

Pre-condition

Admin Mode is active.

Pre-condition

Admin key count >1.

Post-condition

Key-Error message shown via the display HMI.

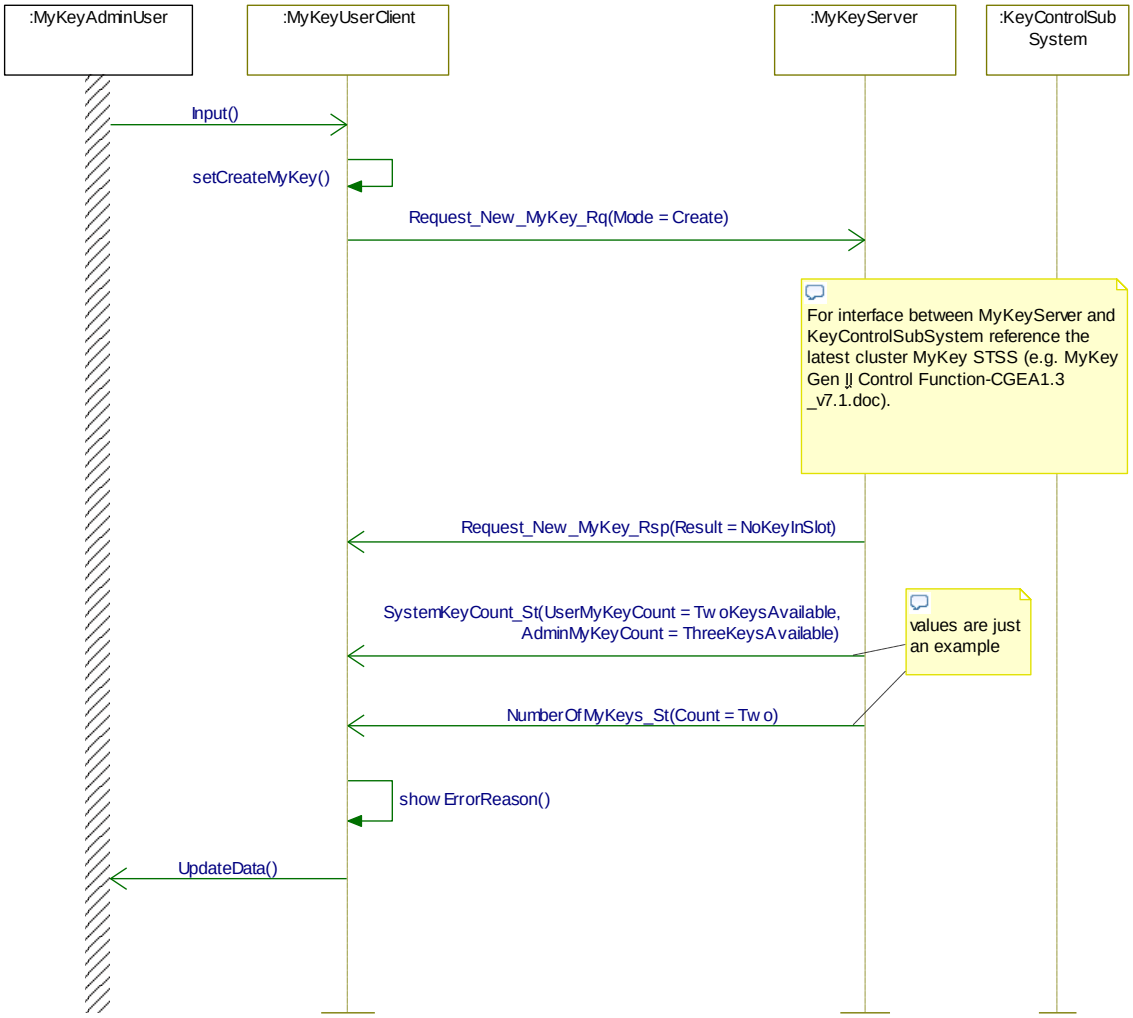
Post-condition

MyKey user key setup and key count shall not be changed.

Post-condition

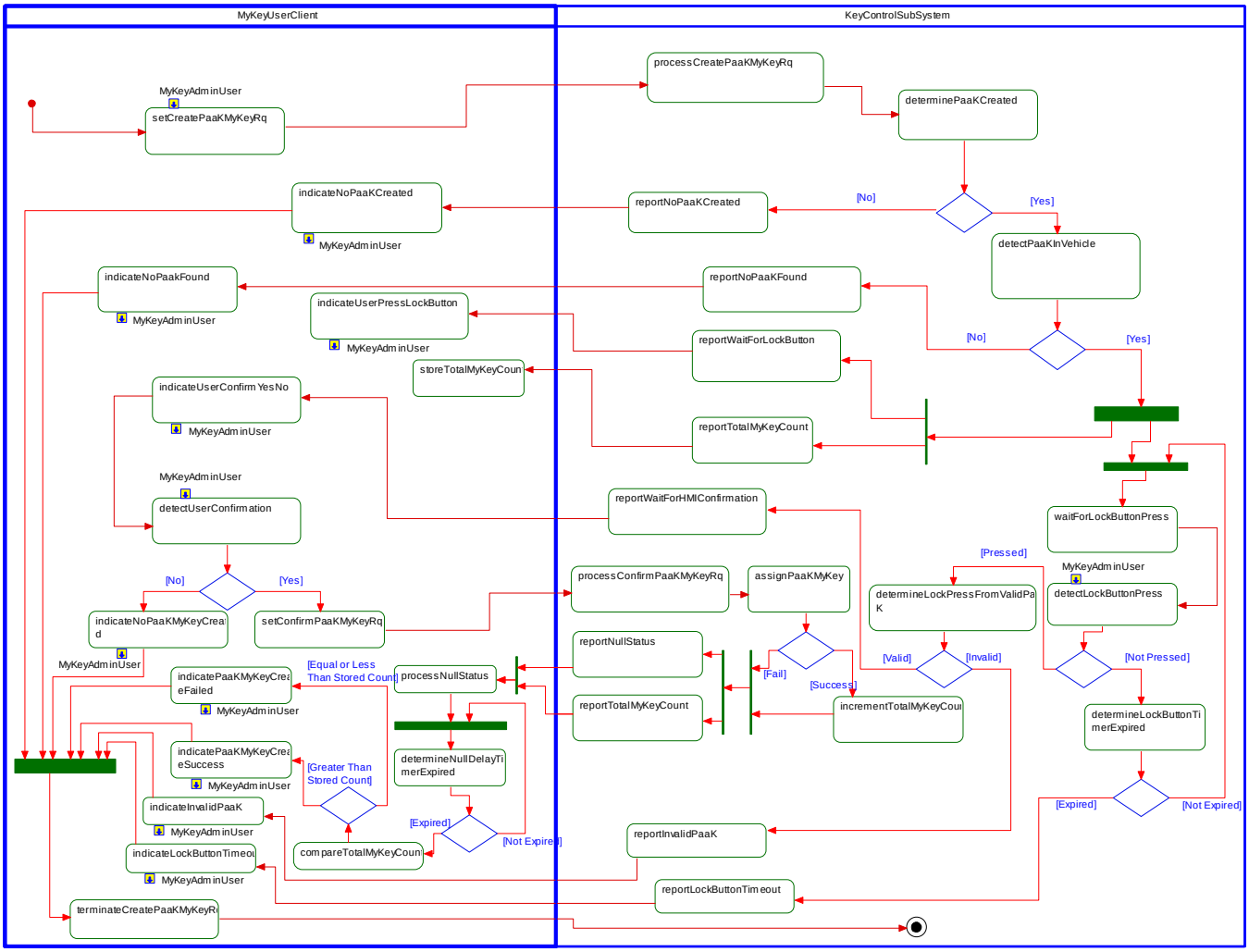
Admin key count shall not be changed.

Sequence Diagram



4.2.3.6 MKv6-ACT-REQ-335397/A-Create a new PaaK MyKey

Activity Diagram



4.2.3.7 MKv6-SD-REQ-335398/A-Create a new PaaK MyKey - successful

Scenarios

Normal Usage

The User attempts to create a PaaK MyKey and confirms to have it successfully assigned as a MyKey via the HMI.

Constraints

Pre-condition

Ignition is in Run.

Pre-condition

Admin Mode is active.

Pre-condition

Admin key count >1.

Post-condition

Admin key count is decreased and MyKey count is increased.

Post-condition

PaaK device is configured as MyKey user key.

Post-condition

MyKey user key restriction function available with the next ignition cycle.

Sequence Diagram

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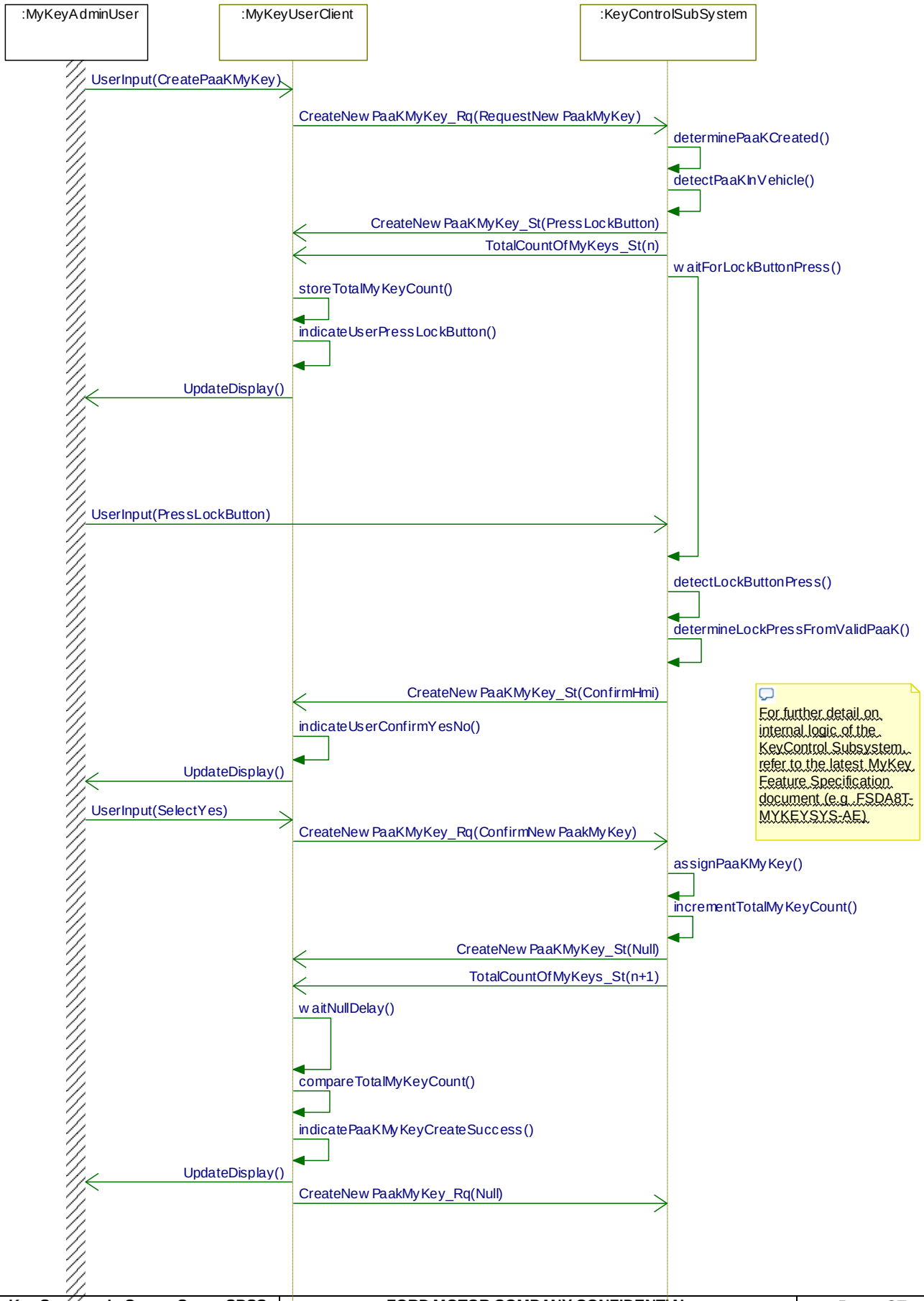

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4.2.3.8 MKv6-SD-REQ-335399/A-Create a new PaaK MyKey - unsuccessful - PaaK Not Created

Scenarios

Normal Usage

The User attempted to create a PaaK MyKey but a PaaK was never created for this vehicle.

Constraints

Pre-condition

Ignition is in Run.

Pre-condition

Admin Mode is active.

Pre-condition

Admin key count >=1.

Post-condition

Error message shown via the display HMI.

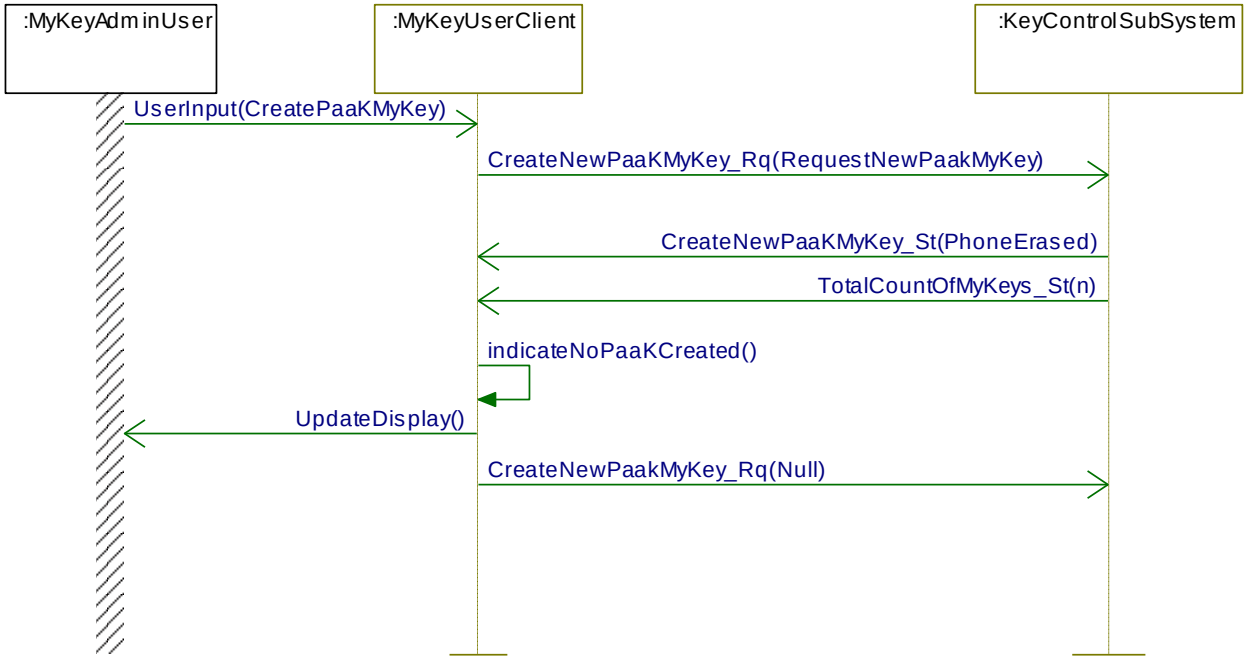
Post-condition

MyKey user key shall be not configured and not available.

Post-condition

Admin key count shall not be changed.

Sequence Diagram



4.2.3.9 MKv6-SD-REQ-335400/A-Create a new PaaK MyKey - unsuccessful - PaaK Not Found

Scenarios

Normal Usage

The User attempts to create a PaaK MyKey, but the presence of a PaaK is not detected inside the vehicle.

Constraints

Pre-condition

Ignition is in Run.

Pre-condition

Admin Mode is active.

Pre-condition

Admin key count >1.

Post-condition

Error message shown via the display HMI.

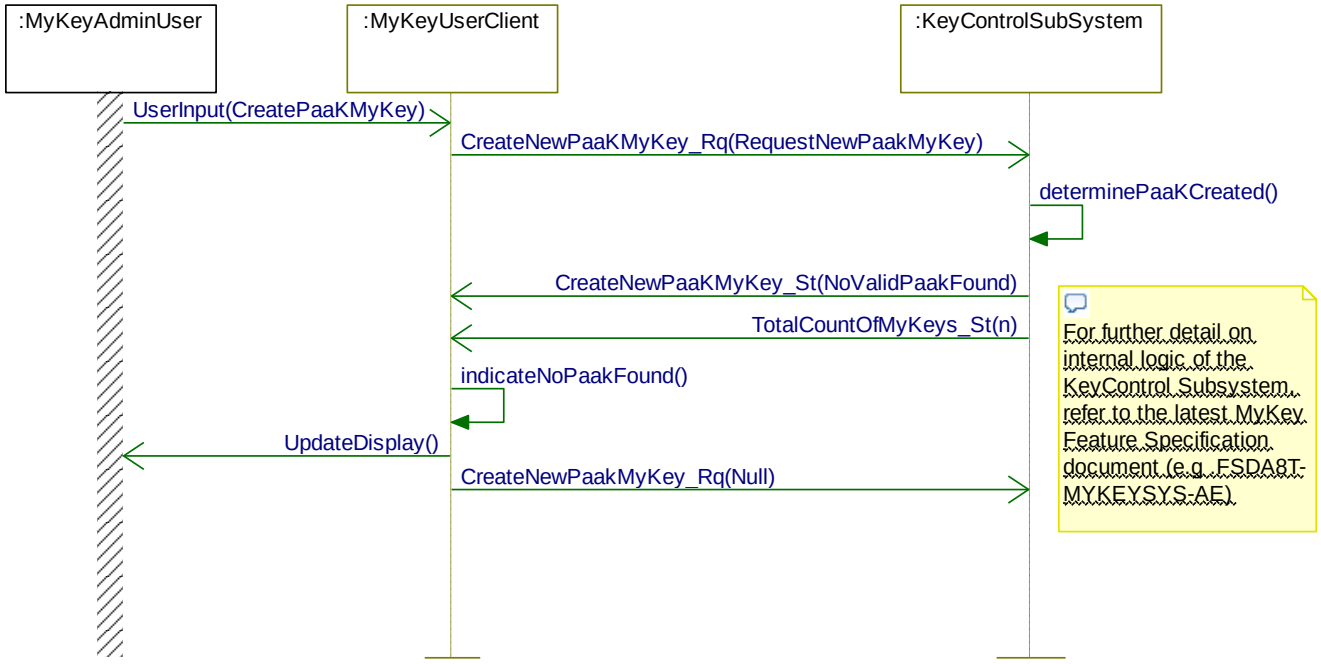
Post-condition

MyKey user key setup and key count shall not be changed.

Post-condition

Admin key count shall not be changed.

Sequence Diagram



4.2.3.10 MKv6-SD-REQ-335401/A-Create a new PaaK MyKey - unsuccessful - Lock Button Timeout

Scenarios

Normal Usage

The User attempted to create a PaaK MyKey but failed to press the Lock Button on a valid PaaK device before the timeout expired.

Constraints

Pre-condition

Ignition is in Run.

Pre-condition

Admin Mode is active.

Pre-condition

Admin key count >1.

Post-condition

Error message shown via the display HMI.

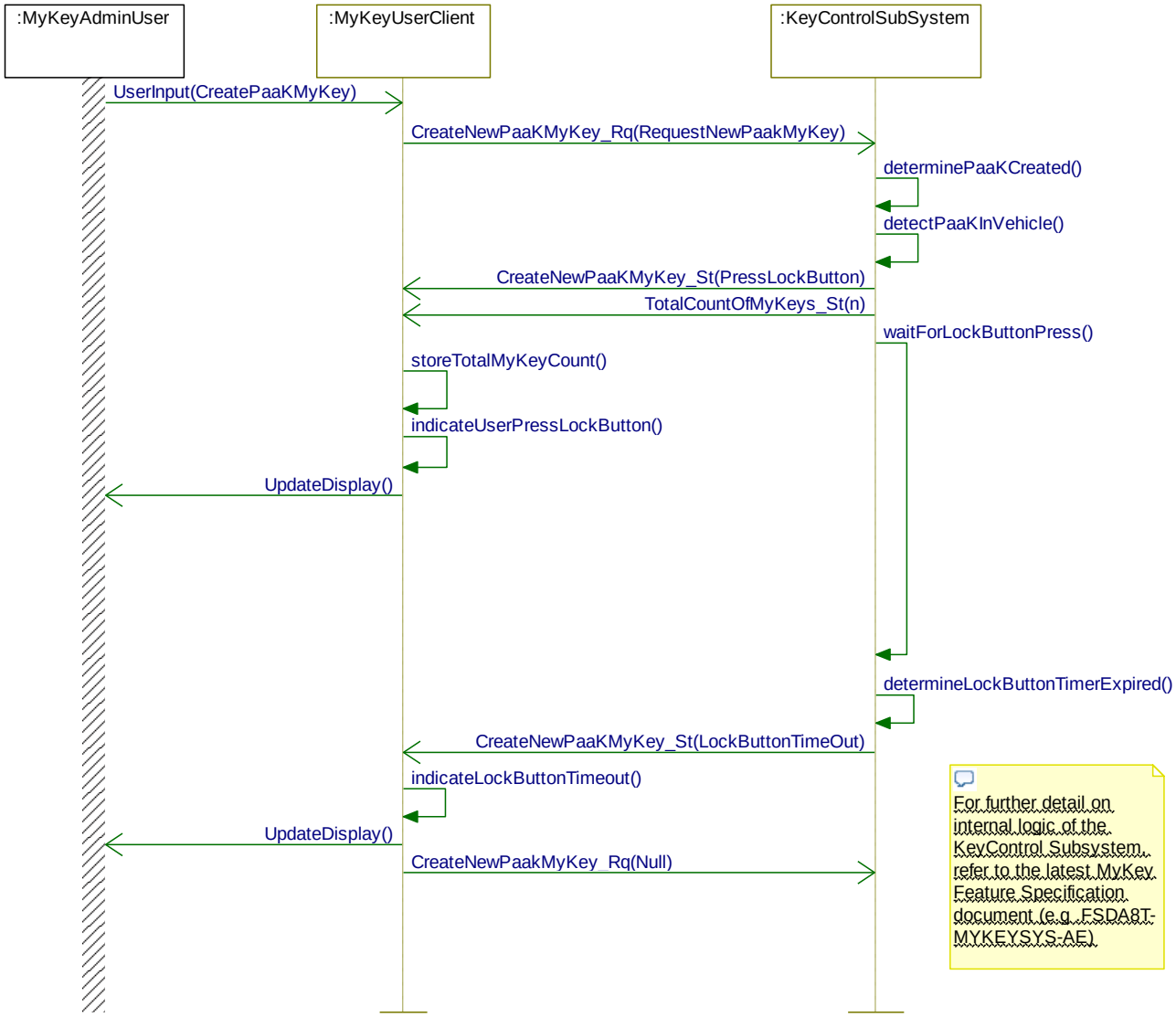
Post-condition

MyKey user key setup and key count shall not be changed.

Post-condition

Admin key count shall not be changed.

Sequence Diagram



4.2.3.11 MKv6-SD-REQ-335402/A-Create a new PaaK MyKey - unsuccessful - Invalid PaaK

Scenarios

Normal Usage

The User attempted to assign a PaaK as a MyKey but the PaaK being assigned was not valid to be assigned as a new MyKey.

Constraints

Pre-condition

Ignition is in Run.

Pre-condition

Admin Mode is active.

Pre-condition

Admin key count >1.

Post-condition

Error message shown via the display HMI.

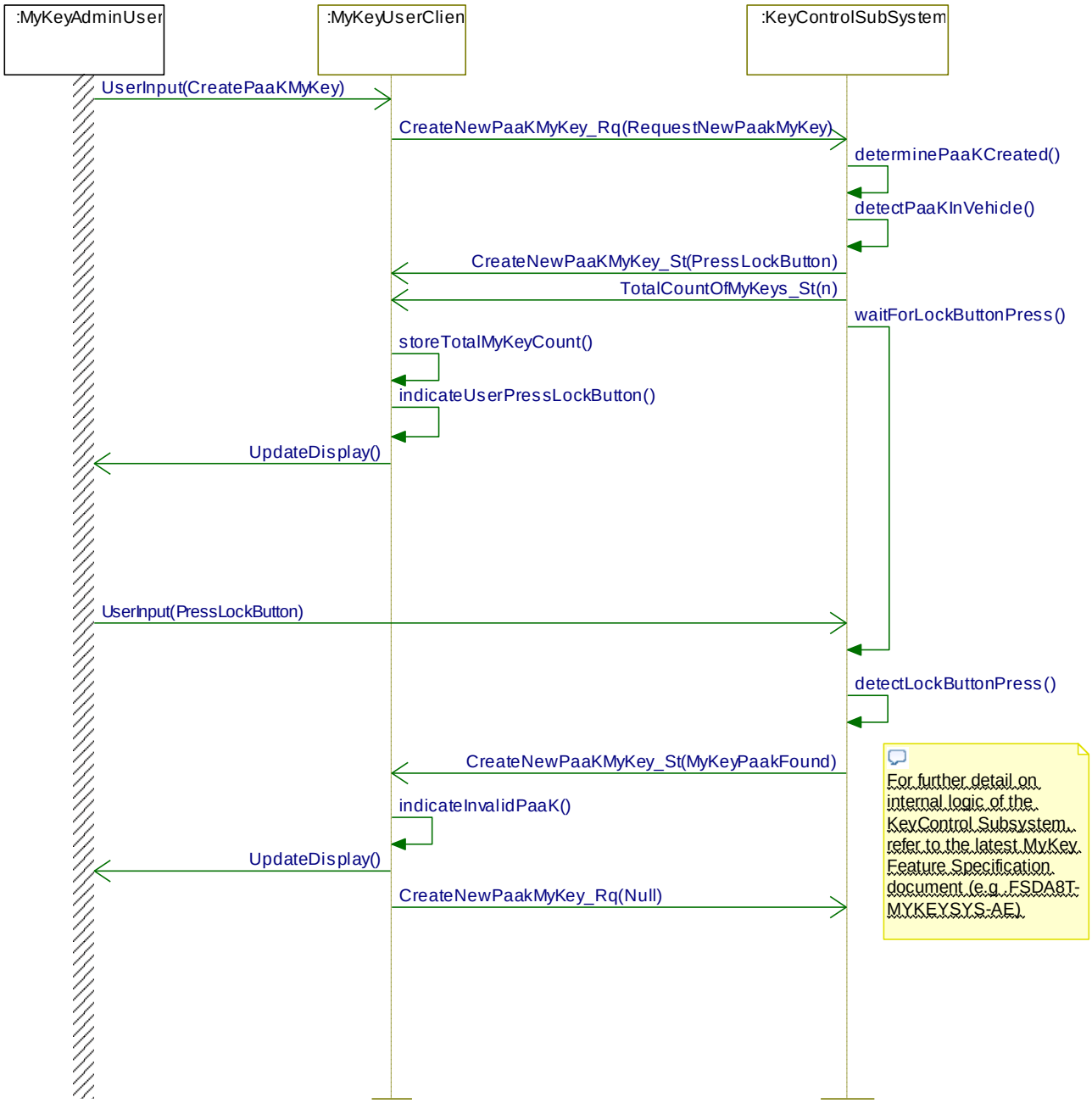
Post-condition

MyKey user key setup and key count shall not be changed.

Post-condition

Admin key count shall not be changed.

Sequence Diagram



4.2.3.12 MKv6-SD-REQ-335403/A-Create a new PaaK MyKey - unsuccessful - User Declines

Scenarios

Normal Usage

The User attempted to create a PaaK MyKey but declined to confirm the assignment of that PaaK as a MyKey via the HMI.

Constraints

Pre-condition

Ignition is in Run.

Pre-condition

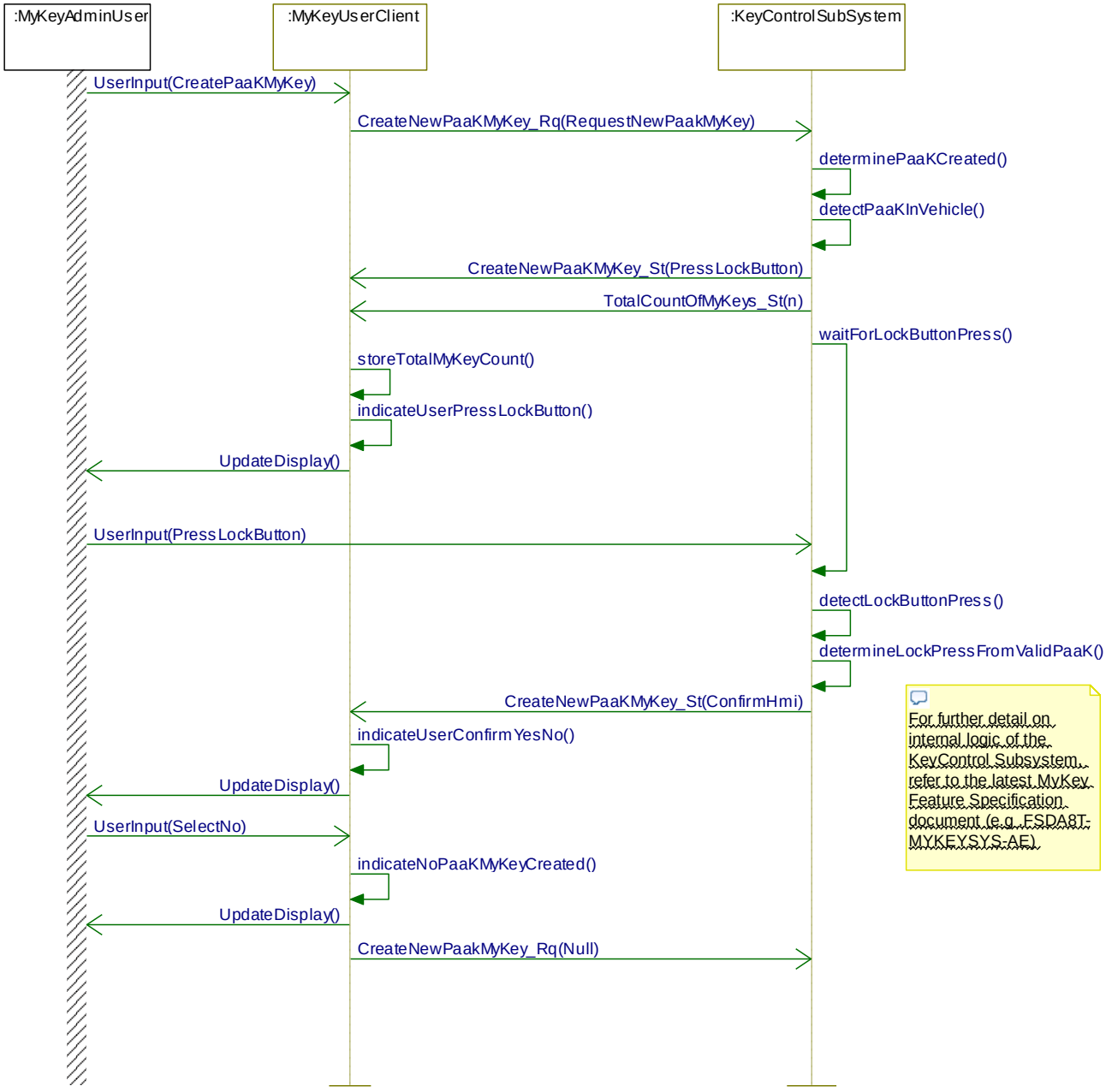
Admin Mode is active.

Pre-condition

Admin key count >1.

Post-condition
Error message shown via the display HMI.
Post-condition
MyKey user key setup and key count shall not be changed.
Post-condition
Admin key count shall not be changed.

Sequence Diagram



4.2.3.13 MKv6-SD-REQ-335404/A-Create a new PaaK MyKey - unsuccessful - General Failure

Scenarios

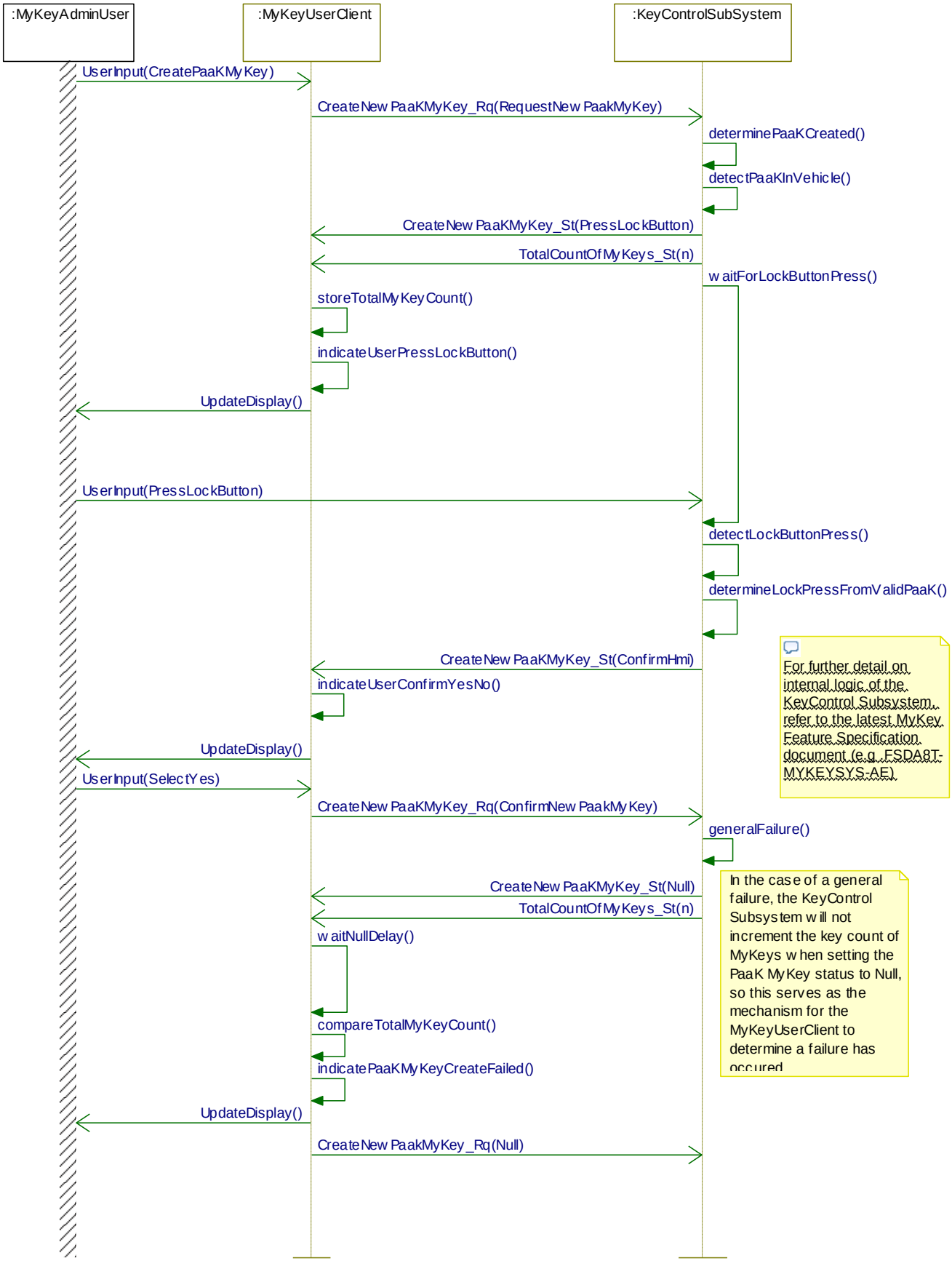
Normal Usage
The User attempted to assign a PaaK as a MyKey but a General Failure has occurred.

Constraints

Pre-condition
Ignition is in Run.

Pre-condition
Admin Mode is active.
Pre-condition
Admin key count >1.
Post-condition
Error message shown via the display HMI.
Post-condition
MyKey user key setup and key count shall not be changed.
Post-condition
Admin key count shall not be changed.

Sequence Diagram



4.3 MKv6-FUN-REQ-235982/A-Clear All MyKeys

The MyKey subsystem offers the admin user to clear all configured MyKey user keys. For this requirement at least one MyKey user key needs to be set up in the system.

4.3.1 Requirements

4.3.1.1 MKv6-REQ-235965/A-MyKey startup behavior handling

Before enabling any MyKey restrictions or functions, the subsystem, server or client must wait for stable system conditions distributed over the network.

For example, if the key identification status is valid and the function is configurable, the system object need to wait until a valid function status / configuration exists.

4.3.2 Use Cases

4.3.2.1 MKv6-UC-REQ-235983/A-Clear all MyKeys - successful

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin key mode is active.
Scenario Description	Admin User requests to clear all MyKeys.
Post-conditions	All Keys are configured as admin. MyKey count has been reset to zero. Driven miles/kilometers count has been reset to zero.
Notes	N/A
Interfaces	CBI, G-HMI, Vehicle System Interface

4.3.2.2 MKv6-UC-REQ-235984/A-Clear all MyKeys - unsuccessful

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin key mode is active.
Scenario Description	Admin User requests to clear all MyKeys. But due to any error the MyKeys are not cleared.
Post-conditions	Previous Key configuration is still valid.
Notes	N/A
Interfaces	CBI, G-HMI, Vehicle System Interface

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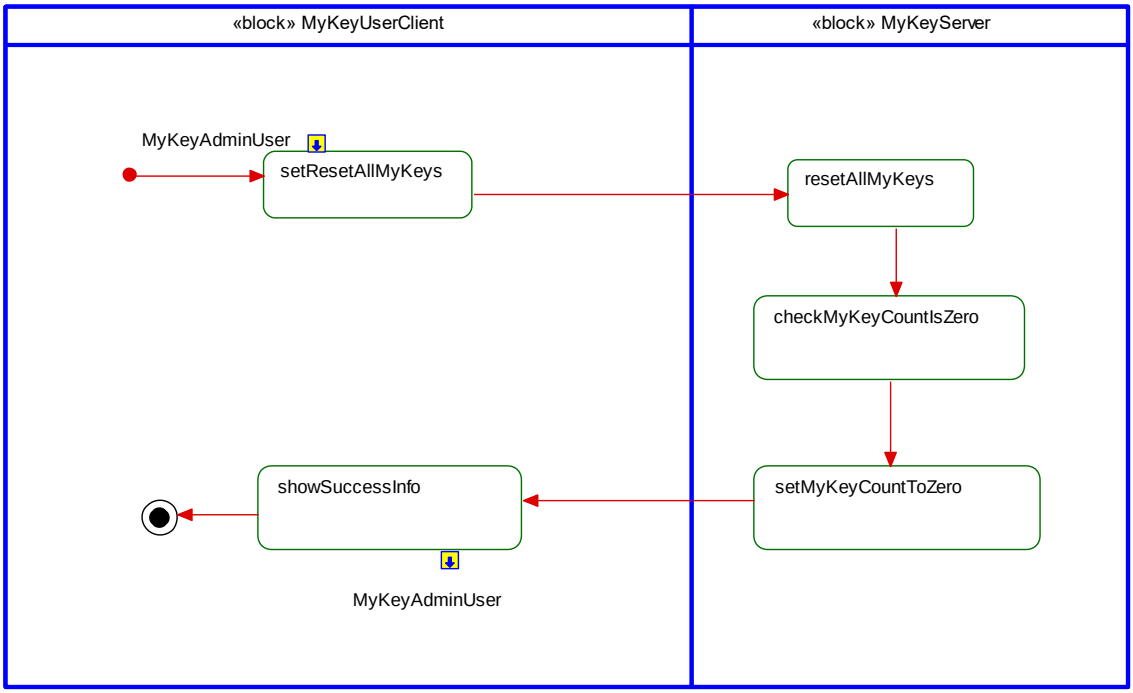
4.3.3 WhiteBoxView - Clear all MyKeys

4.3.3.1 MKv6-ACT-REQ-235986/A-Clear all MyKeys - successful

Activity Diagram



4.3.3.2 MKv6-SD-REQ-235987/A-Clear all MyKeys - successful

Scenarios

Normal Usage

User requests clearing of all MyKeys

Constraints

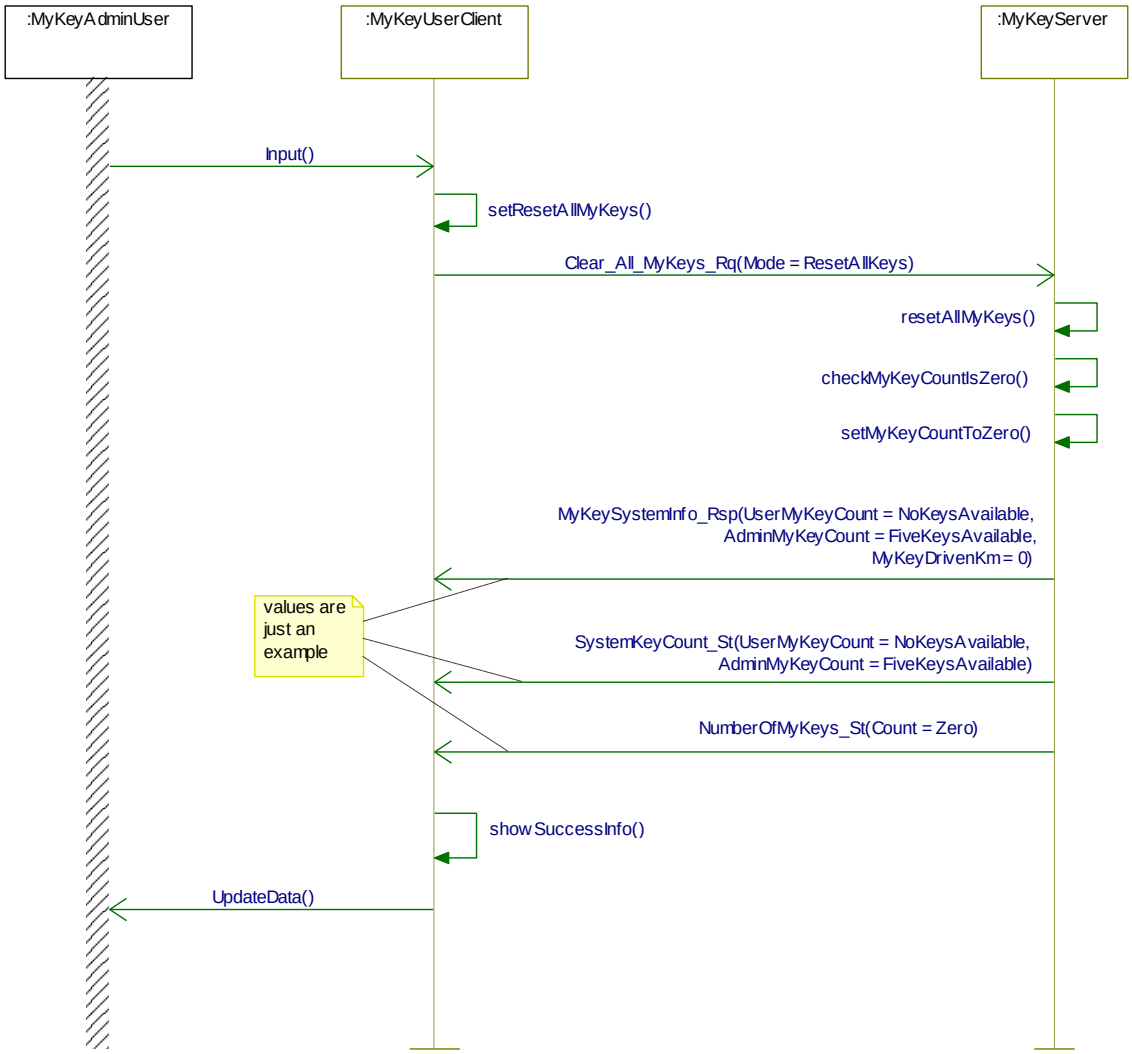
Pre-condition

Admin Key is present

Post-condition

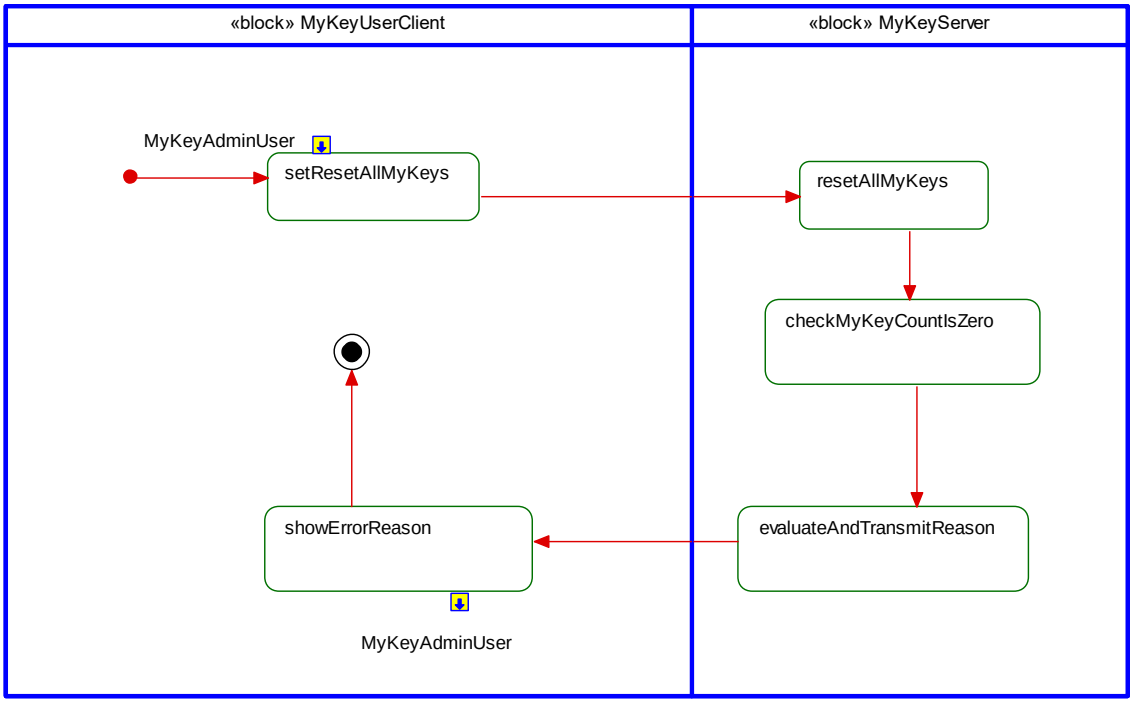
All keys are configured as admin

Sequence Diagram



4.3.3.3 MKv6-ACT-REQ-235988/A-Clear all MyKeys - unsuccessful

Activity Diagram



4.3.3.4 MKv6-SD-REQ-235989/A-Clear all MyKeys - unsuccessful

Scenarios

Normal Usage

User requests clearing of all MyKeys

Constraints

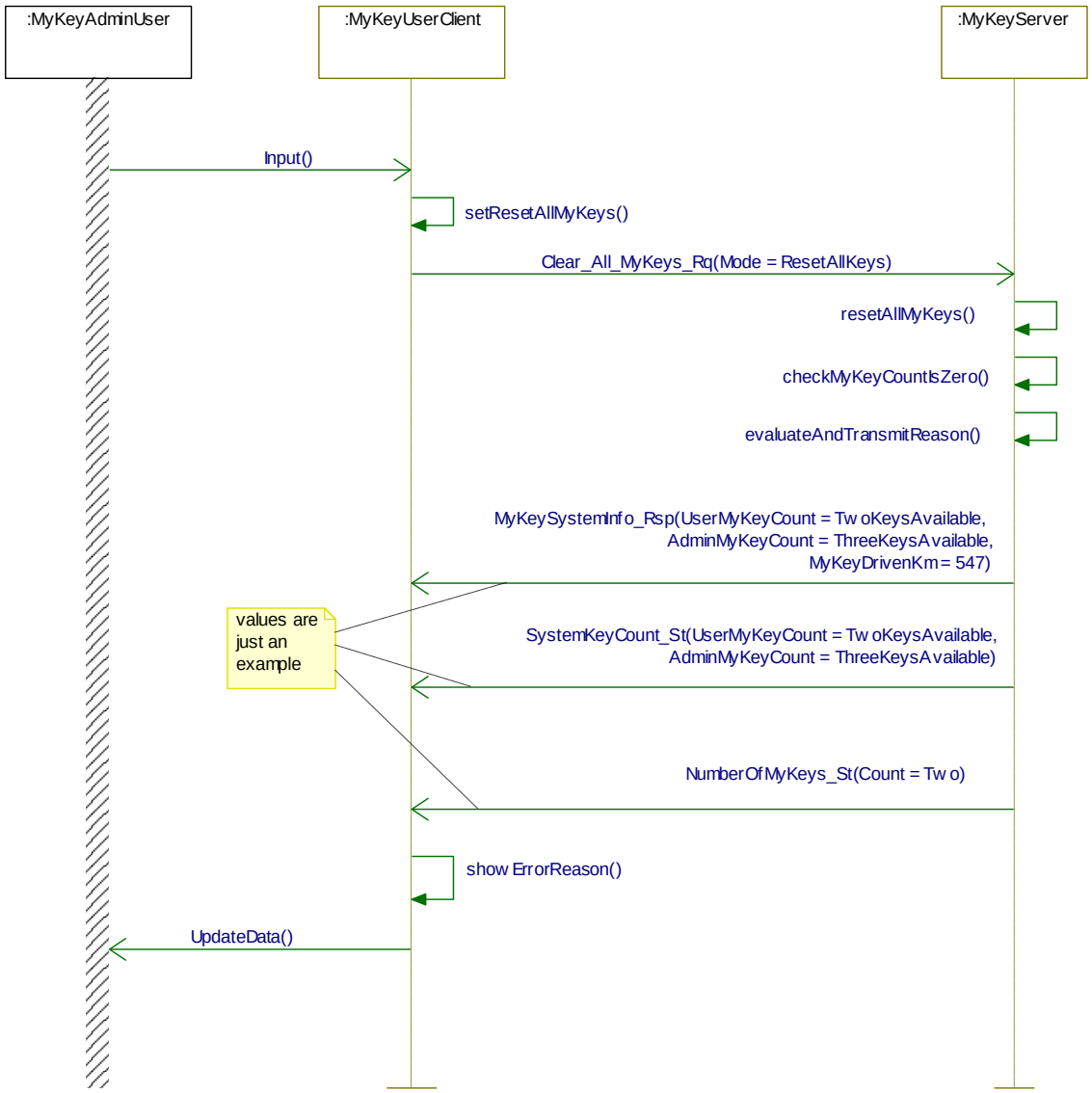
Pre-condition

Admin Key is present

Post-condition

All MyKeys are not cleared

Sequence Diagram



4.4 MKv6-FUN-REQ-236006/A-Speed Limiter Administration

The Administrative user will have the ability to enable or disable the MyKey Speed Limiter. The maximum speed options are available to the Administrative user depends on the major market.

4.4.1 Requirements

4.4.1.1 MKv6-FUR-REQ-236096/A-Region Units Configuration Status – Regional Setting

The APIM shall use the DE01 byte 1 and 2 (country code) to select the appropriate signal request units on the bus for that country, using the mapping table.

4.4.1.2 MKv6-FUR-REQ-236097/A-Region Units Configuration - Speed Limiter Settings

MyKey Speed limiter settings menu units must follow the vehicle distance unit status on the bus and the regional requirement in MyKey message center requirement as specified in the mapping table.

4.4.1.3 MKv6-FUR-REQ-236098/A-Region Units Configuration Request - Speed Limiter Settings

MyKey Speed limiter settings client should send the request in the one format miles/hour or kilometers/hour depending on the region and country configuration as specified in the mapping table.

4.4.1.4 MKv6-FUR-REQ-236099/A-Region Units Configuration Status - Speed Limiter Settings

MyKey Speed limiter settings client should convert the status of the Speed limiter settings from miles/hour or kilometers/hour depending on the region and country configuration as specified in the mapping table.

4.4.1.5 MKv6-FUR-REQ-236100/B-Mapping Tables - Speed Limiter

The APIM should use the following tables to map the conversion for different region.

Req. #	MyKey Function	Major Market	request and status Signal	APIM distance unites Display in miles	APIM distance unite Display in kilometers	Default Setting
MKFS-Req200.001	MyKey Speed Limiter • Limit speed to target set by the Admin	• United States	OFF			
			65 mph	65 mph	(105 km/h)	
			70 mph	70 mph	(113 km/h)	
			75 mph	75 mph	(121 km/h)	
			80 mph	**80 mph**	**(129 km/h)**	**X**
		• All others	OFF			
			100 km/h	(62 mph)	100 km/h	
			110 km/h	(68 mph)	110 km/h	
			120 km/h	(75 mph)	120 km/h	
			130 km/h	**(81 mph)**	**130 km/h**	**X**
		• United Kingdom	OFF			
			80 mph	**80 mph**	**(129 km/h)**	**X**
		• Europe (other than U.K.)	OFF			
			140 km/h	**(87 mph)**	**140 km/h**	**X**

4.4.2 Use Cases

4.4.2.1 MKv6-UC-REQ-236007/A-Admin sets Speed Limiter restrictions

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin key mode is active.
Scenario Description	Admin sets the MyKey Restriction for Speed Limiter.
Post-conditions	New speed limiter settings are stored.
Notes	N/A
Interfaces	CBI , G-HMI, Vehicle System Interface

4.4.2.2 MKv6-UC-REQ-236094/A-Unit Changes from Miles to Kilometers - Speed Limiter Settings

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin mode is active. The distance unit is in miles.
Scenario Description	Driver sets the distance unit to kilometers. The Speed limiter menu selection will be in kilometers. Driver sets the MyKey restriction for Speed Limiter.
Post-conditions	New Speed limiter settings are shown in kilometers in the APIM.

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	The APIM sent the request signal depending on the regional setting of the APIM and apply unit conversion if needed.
Notes	N/A
Interfaces	CBI, G-HMI, Vehicle System Interface

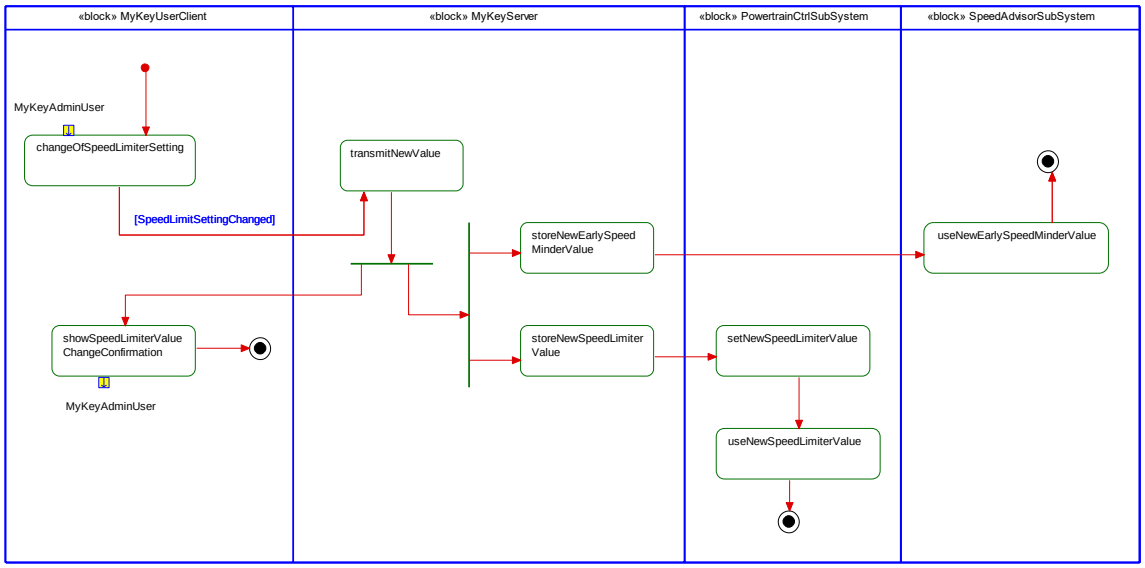
4.4.2.3 MKv6-UC-REQ-236095/A-Unit Changes from Kilometers to Miles - Speed Limiter Settings

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin mode is active. The distance unit is in kilometers.
Scenario Description	Driver sets the distance unit to miles. The Speed limiter menu selection will be in miles. Driver sets the MyKey restriction for Speed limiter.
Post-conditions	New Speed limiter settings are shown in miles in the APIM. The APIM sent the request signal depending on the regional setting of the APIM and apply unit conversion if needed.
Notes	N/A
Interfaces	CBI, G-HMI, Vehicle System Interface

4.4.3 WhiteBoxView - Admin sets Speed Limiter restrictions

4.4.3.1 MKv6-ACT-REQ-236018/A-Admin sets Speed Limiter restrictions

Activity Diagram



4.4.3.2 MKv6-SD-REQ-236019/A-Admin sets Speed Limiter restrictions

Scenarios

Normal Usage

Admin sets the MyKey restriction for speed limiter (here for example to 130 kilometers per hour)

Constraints

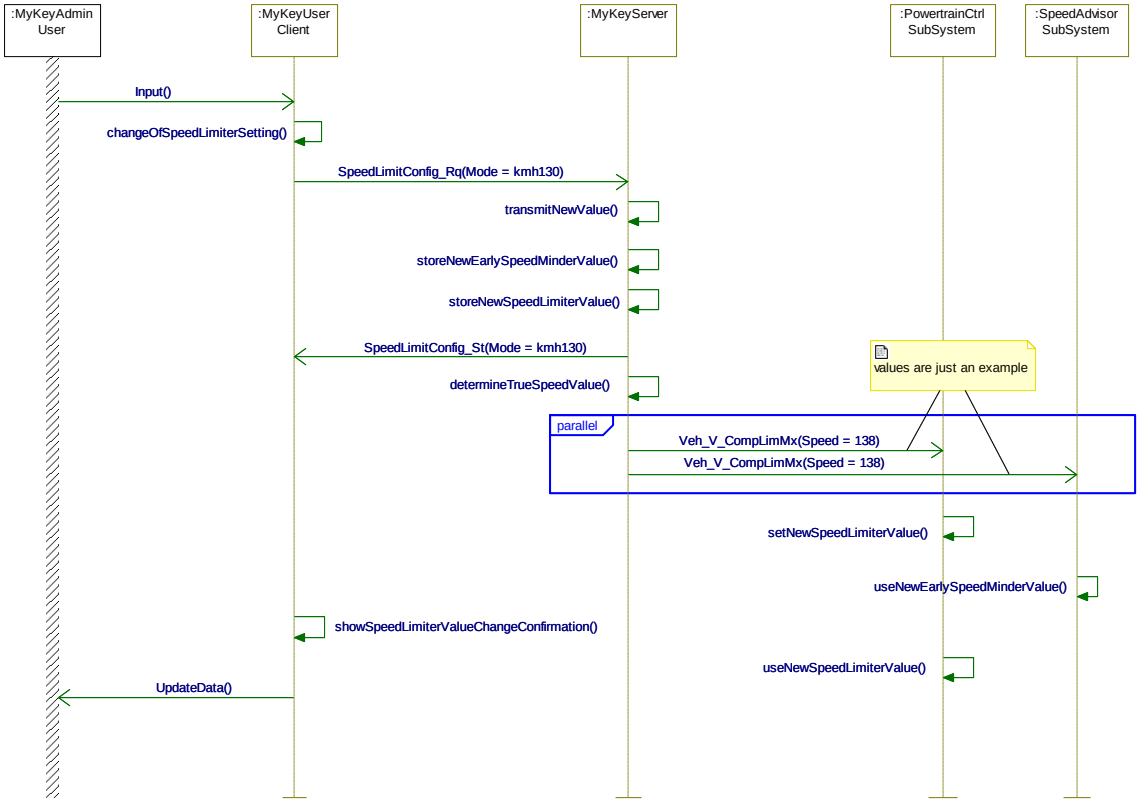
Pre-condition

Admin key is present

Post-condition

New speed limiter settings are stored

Sequence Diagram



4.5 MKv6-FUN-REQ-236040/B-Speed Minder Administration

The Admin user will have the ability to enable or disable the MyKey Speed Minder. The speed options are available to the Admin user depends on the major markets.

4.5.1 Requirements

4.5.1.1 MKv6-FUR-REQ-341987/A-Region Units Configuration Status – Regional Setting

The APIM shall use the DE01 byte 1 and 2 (country code) to select the appropriate signal request units on the bus for that country, using the mapping table.

4.5.1.2 MKv6-FUR-REQ-341986/A-Region Units Configuration - Speed Minder Settings

MyKey Speed Minder settings menu units must follow the vehicle distance unit status on the bus and the regional requirement in MyKey message center requirement as specified in the mapping table.

4.5.1.3 MKv6-FUR-REQ-341985/A-Region Units Configuration Request - Speed Minder Settings

MyKey Settings client should send the request in the one format miles/hour or kilometers/hour depending on the region and country configuration as specified in the mapping table.

4.5.1.4 MKv6-FUR-REQ-341984/A-Region Units Configuration Status - Speed Minder Settings

MyKey Settings client should convert the status of the Speed Minder settings from miles/hour or kilometers/hour depending on the region and country configuration as specified in the mapping table.

4.5.1.5 MKv6-FUR-REQ-341961/B-Mapping Tables - Speed Minder

The APIM should use the following tables to map the conversion for different regions.

Req. #	MyKey Function	Major Market	Request and Status Signal	APIM distance units Display in miles	APIM distance units Display in kilometers	Default Setting
MKFS-Req200.005	MyKey Speed Minder • Warn when target speed set by the Admin is reached	• United States	OFF			X
			45 mph	45 mph	(72 km/h)	
			55 mph	55 mph	(89 km/h)	
			65 mph*	65 mph	(105 km/h)	
		• All others	OFF			X
			75 km/h	(47 mph)	75 km/h	
			90 km/h	(56 mph)	90 km/h	
			100 km/h*	(62 mph)	100 km/h	
		• United Kingdom	OFF			X
			45 mph	45 mph	(72 km/h)	
			55 mph	55 mph	(89 km/h)	
			65 mph	65 mph	(105 km/h)	
		• Europe (other than U.K.)	OFF			X
			75 km/h	(47 mph)	75 km/h	
			90 km/h	(56 mph)	90 km/h	
			100 km/h	(62 mph)	100 km/h	

*NOTE: When set to units of mph, if the selected Speed Limit is 65 mph OR 70 mph, then the maximum speed minder selection, shall be 55mph (not 65mph). When set to units of km/h, if the selected Speed Limit is 100kph, then the maximum speed minder selection, shall be 75kph (not 90 or 100kph)

4.5.2 Use Cases

4.5.2.1 MKv6-UC-REQ-236041/A-Admin sets Speed Minder

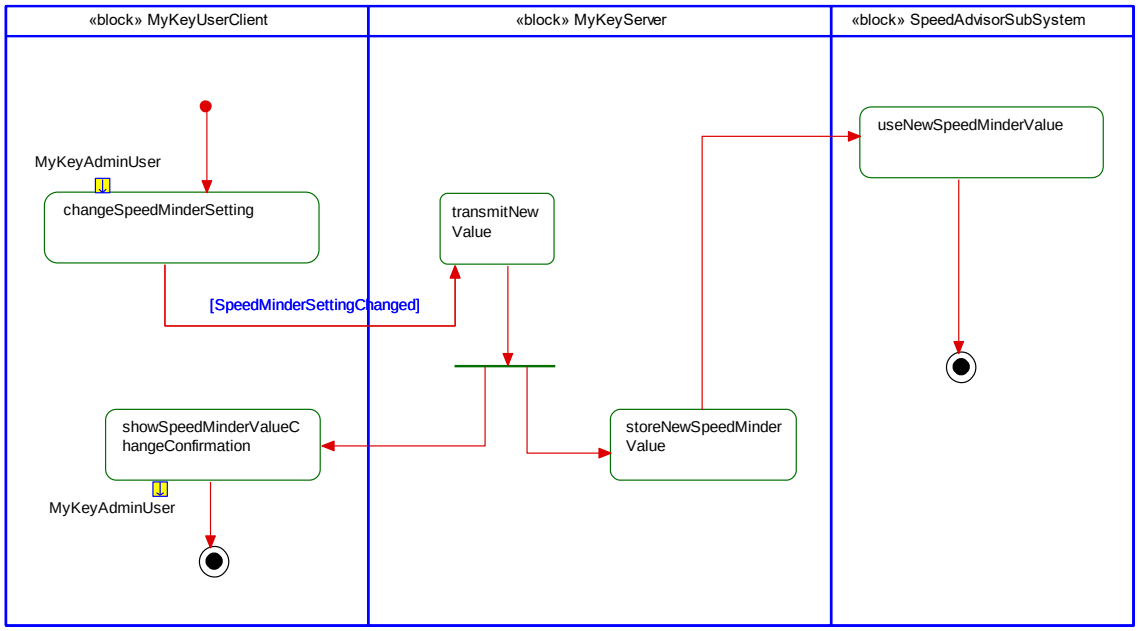
Actors	Admin User
Pre-conditions	Ignition is in Run. MyKey mode is active.
Scenario Description	Admin user sets the MyKey Restriction for Speed Minder
Post-conditions	New Speed Minder settings are stored.
Notes	N/A
Interfaces	CBI, G-HMI, Vehicle System Interface

The information contained in this document is Proprietary to Ford Motor Company.

4.5.3 WhiteBoxView - Admin sets Speed Minder

4.5.3.1 MKv6-ACT-REQ-236053/A-Admin sets Speed Minder

Activity Diagram



4.5.3.2 MKv6-SD-REQ-236054/A-Admin sets Speed Minder

Scenarios

Normal Usage

Admin sets the MyKey Restriction for Speed Minder

Constraints

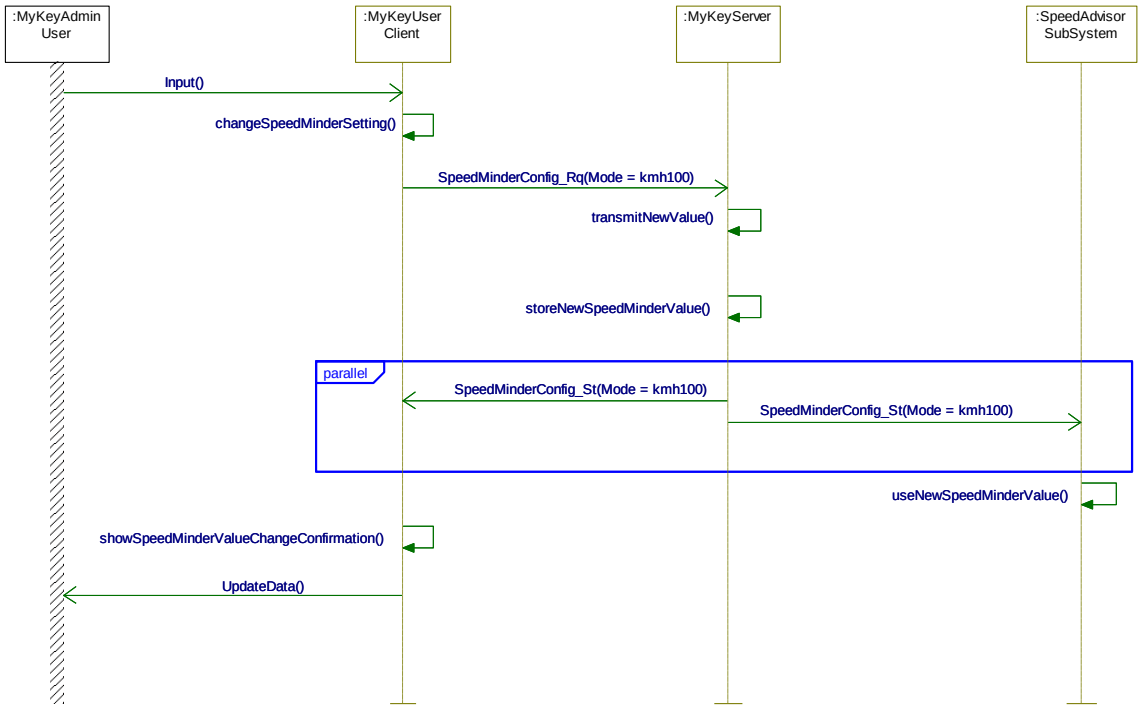
Pre-condition

Admin key is present

Post-condition

New speed minder settings are stored

Sequence Diagram



4.6 MKv6-FUN-REQ-236020/A-Audio Volume Limiter Administration

The Admin user will have the ability to enable or disable the MyKey Volume Limiter.

4.6.1 Requirements

4.6.1.1 MKv6-REQ-236022/A-Audio Volume Limiter Settings

Market	Available Audio Volume Limit - Settings	Default Setting
All	OFF	
	ON	X

4.6.2 Use Cases

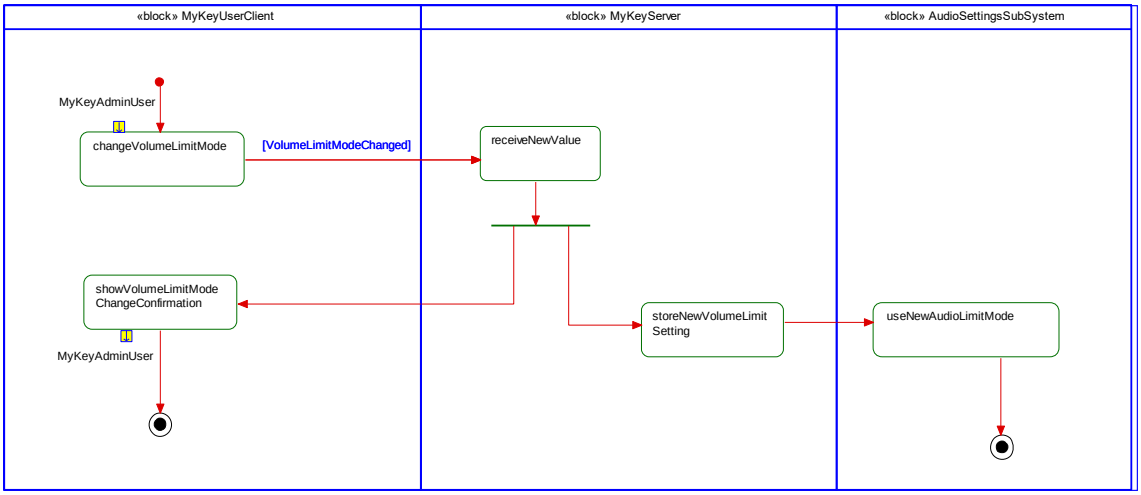
4.6.2.1 MKv6-UC-REQ-236021/A-Admin sets Audio Volume Limiter restrictions

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin key mode is active.
Scenario Description	Admin sets the audio volume limiter restrictions.
Post-conditions	New audio volume limiter setting for MyKey user is stored.
Notes	N/A
Interfaces	CBI, G-HMI, Audio Out

4.6.3 WhiteBoxView - Admin sets Audio Volume Limiter restrictions

4.6.3.1 MKv6-ACT-REQ-236023/A-Admin sets Audio Volume Limiter restrictions

Activity Diagram



4.6.3.2 MKv6-SD-REQ-236024/A-Admin sets Audio Volume Limiter restrictions - ON

Scenarios

Normal Usage

Admin sets the audio volume limiter restrictions to ON

Constraints

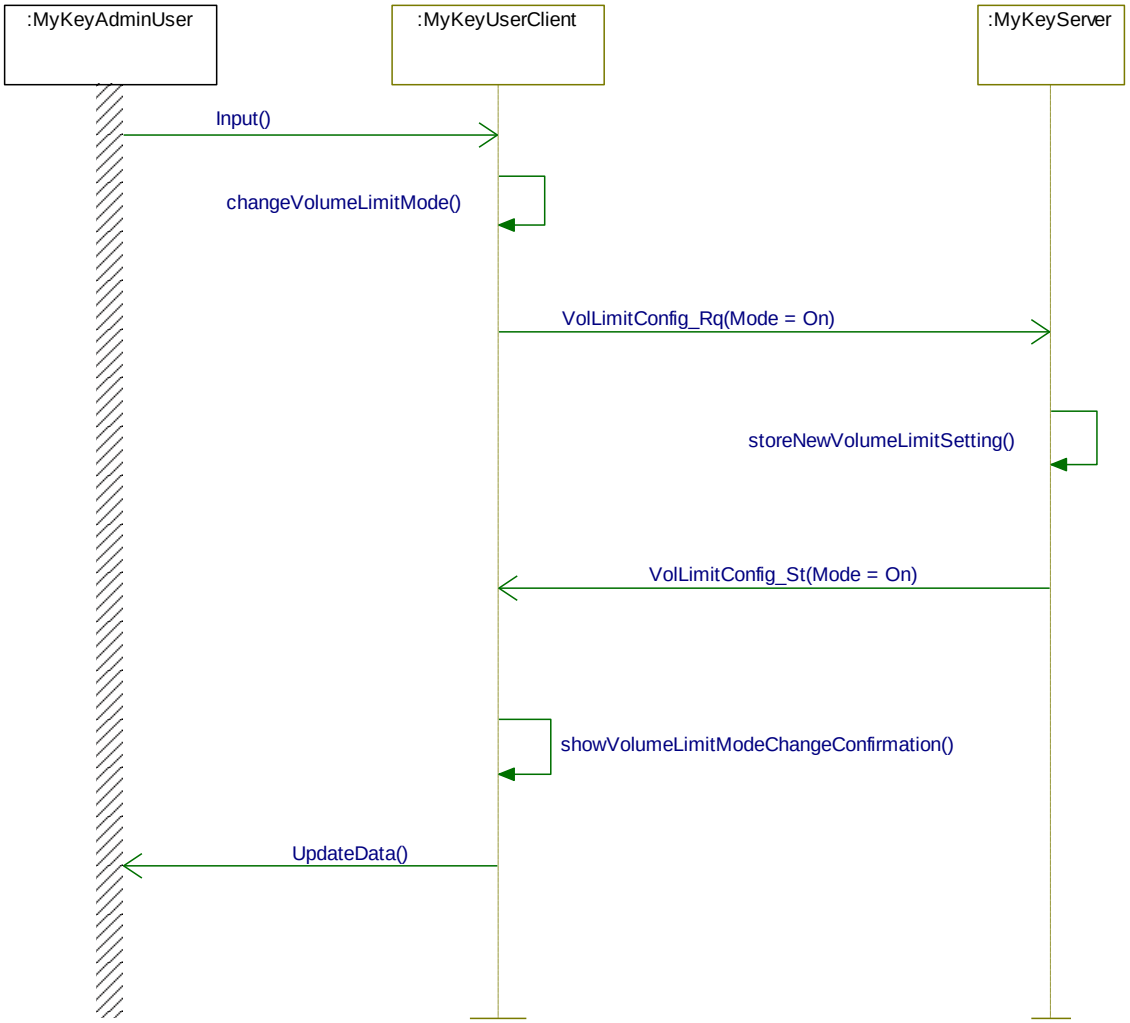
Pre-condition

Admin Key is present

Post-condition

New audio volume limiter setting for MyKey user is stored

Sequence Diagram



4.6.3.3 MKv6-SD-REQ-236025/A-Admin sets Audio Volume Limiter restrictions - OFF

Scenarios

Normal Usage

Admin sets the audio volume limiter restrictions to OFF

Constraints

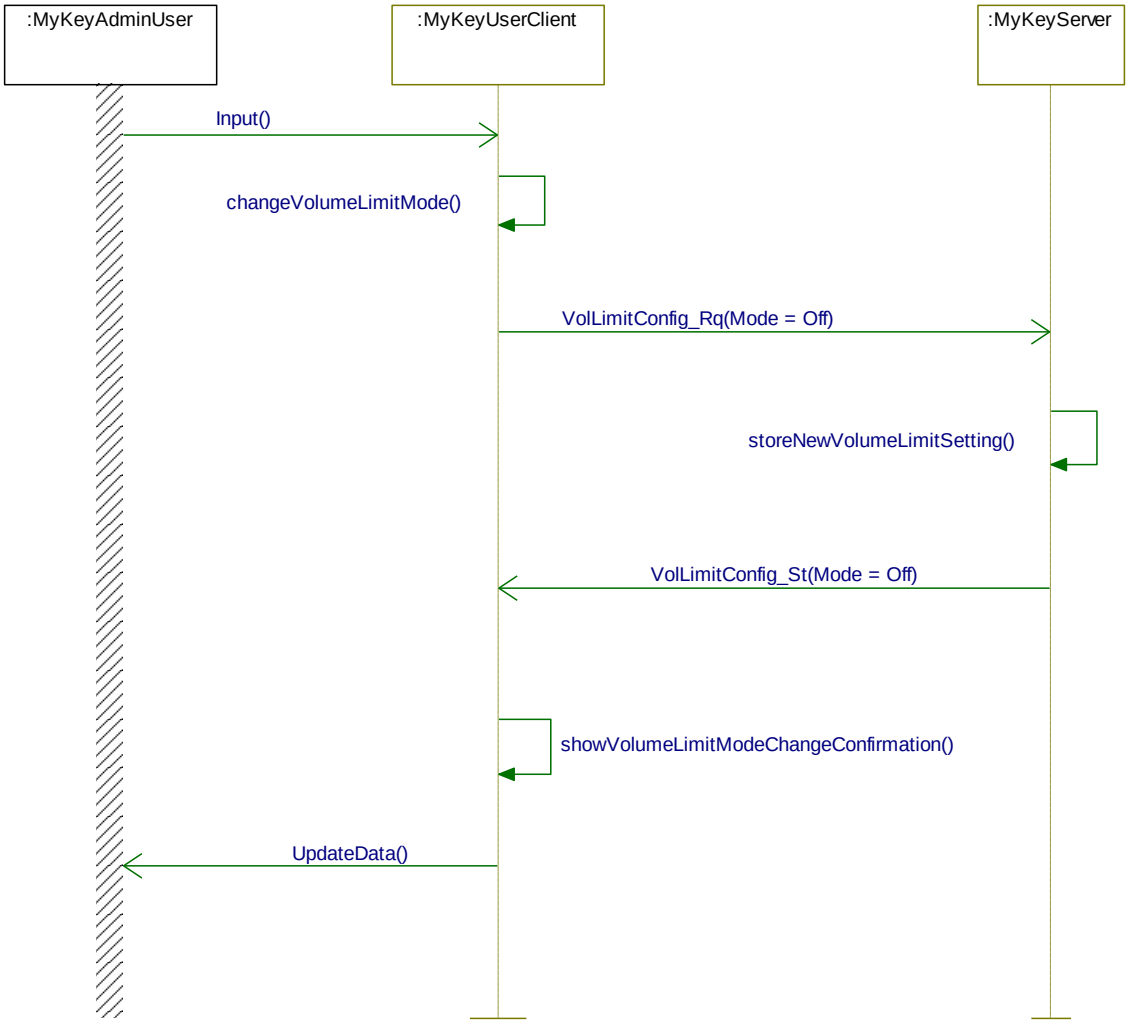
Pre-condition

Admin Key is present

Post-condition

New audio volume limiter setting for MyKey user is stored

Sequence Diagram



4.7 MKv6-FUN-REQ-236055/A-e911/eCall Setting Administration

The Admin user will have the ability to enable or disable the MyKey e911/eCall override restriction. The options are available to the Admin user depending on availability of the feature.

4.7.1 Requirements

4.7.1.1 MKv6-REQ-236058/A-e911/eCall Override Setting

Market	Available e911/eCall switch OFF restriction - Settings	Default Setting
All	OFF	X
	ON	

Hint: "ON" means restriction is set and it is not possible to switch off.

4.7.2 Use Cases

4.7.2.1 MKv6-UC-REQ-236056/A-Admin sets e911/eCall setting to ON

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin key mode is active.
Scenario Description	Admin sets e911/eCall restrictions setting to ON.
Post-conditions	New e911/eCall setting for MyKey user is stored. MyKey user cannot change the e911/eCall setting.
Notes	N/A
Interfaces	CBI, G-HMI, Vehicle System Interface

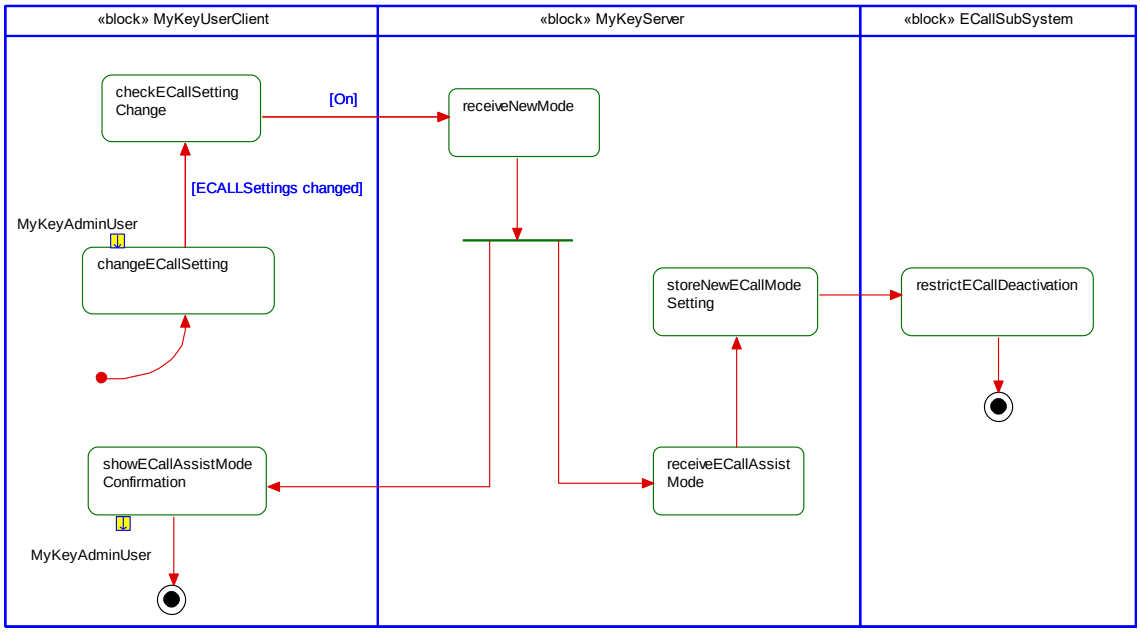
4.7.2.2 MKv6-UC-REQ-236057/A-Admin sets e911/eCall setting to OFF

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin key mode is active.
Scenario Description	Admin sets e911/eCall restrictions setting to OFF.
Post-conditions	New e911/eCall setting for MyKey user is stored. MyKey user can change the e911/eCall setting.
Notes	N/A
Interfaces	CBI, G-HMI, Vehicle System Interface

4.7.3 WhiteBoxView - Admin sets e911/eCall setting to ON

4.7.3.1 MKv6-ACT-REQ-236059/A-Admin sets e911/eCall setting to ON

Activity Diagram



4.7.3.2 MKv6-SD-REQ-236060/A-Admin sets e911/eCall setting to ON

Scenarios

Normal Usage

Admin sets eCall restrictions setting to ON

Constraints

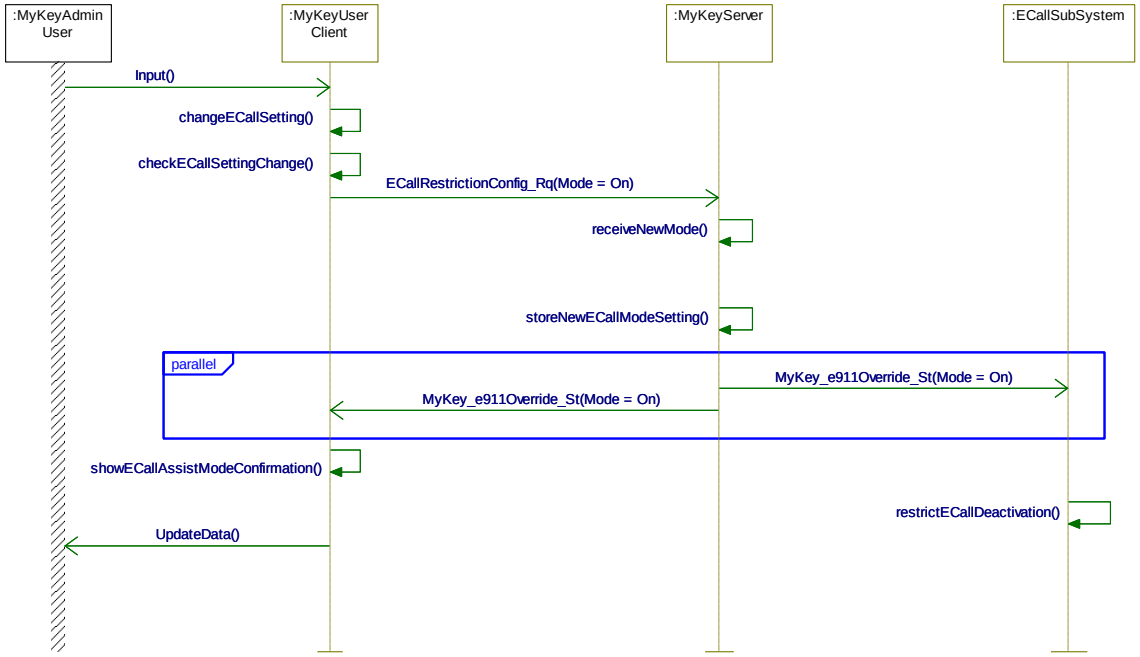
Pre-condition

Admin key is present

Post-condition

New e911/eCall setting for MyKey user is stored

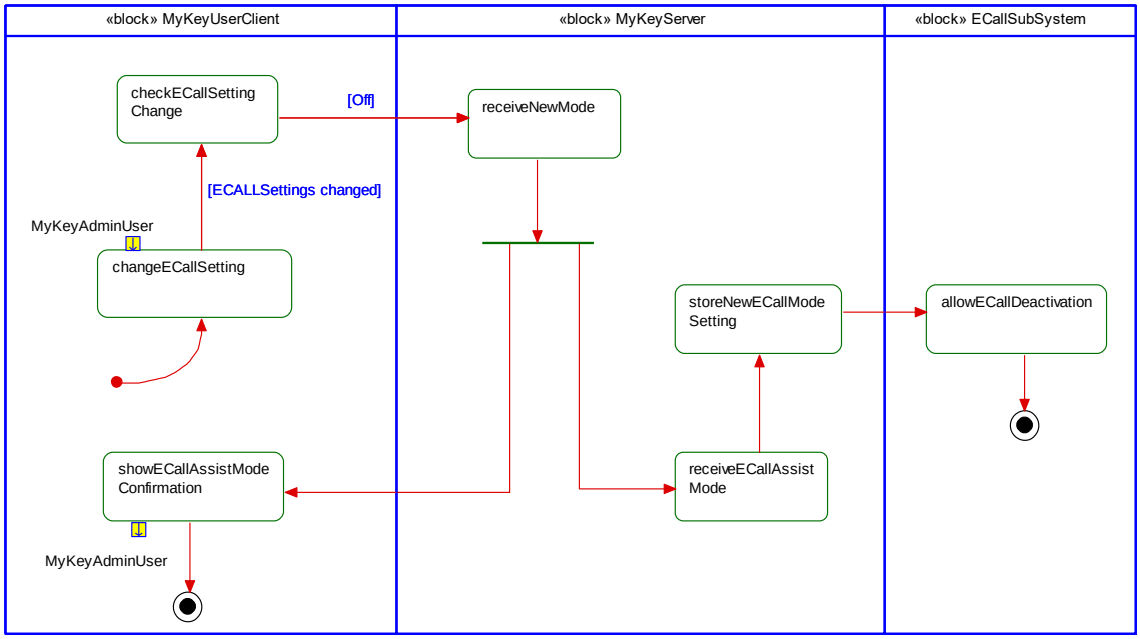
Sequence Diagram



4.7.4 WhiteBoxView - Admin sets e911/eCall setting to OFF

4.7.4.1 MKv6-ACT-REQ-236061/A-Admin sets e911/eCall setting to OFF

Activity Diagram



4.7.4.2 MKv6-SD-REQ-236062/A-Admin sets e911/eCall setting to OFF

Scenarios

Normal Usage

Admin sets e911/eCall restrictions setting to OFF.

Constraints

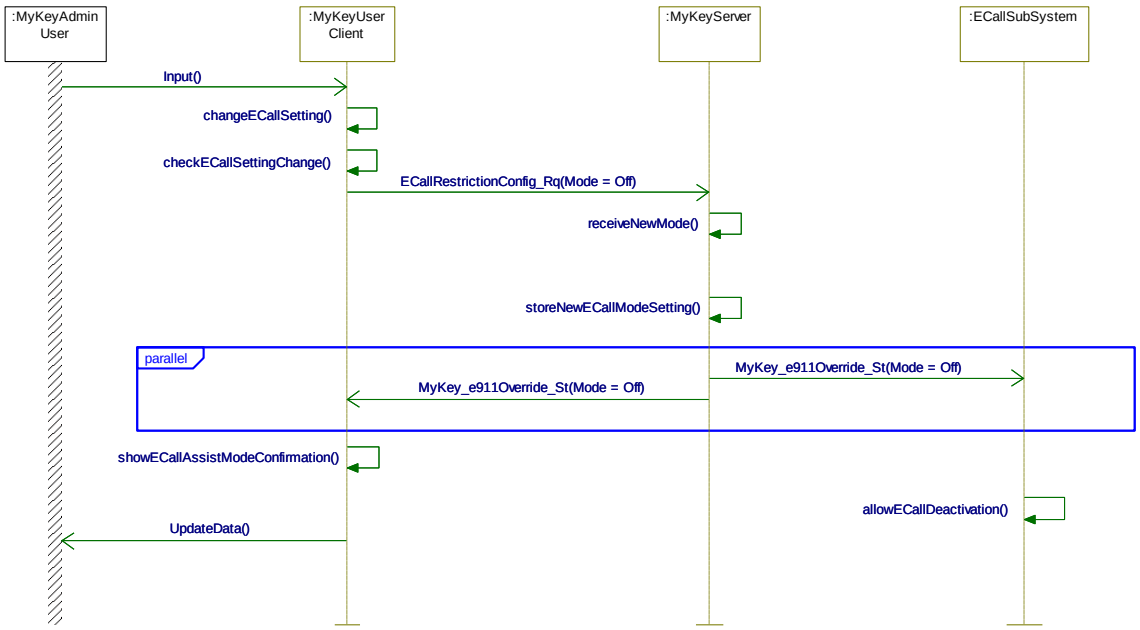
Pre-condition

Admin key is present

Post-condition

New e911/eCall setting for MyKey user is stored

Sequence Diagram



4.8 MKv6-FUN-REQ-257697/A-TC/ESC Off Inhibited Administration

The MyKey subsystem will allow admin user to prevent the restricted user from disabling the traction control (TC)/electronic stability control (ESC) system.
Therefore, the MyKey subsystem relies on the admin user to configure this feature.

4.8.1 Requirements

4.8.1.1 MKv6-REQ-257700/A-ESC Override Settings

Market	Available ESC switch OFF restriction - Settings	Default Setting
All	OFF	X
	ON	

Hint: "ON" means restriction is set and it is not possible to switch off.

4.8.2 Use Cases

4.8.2.1 MKv6-UC-REQ-257698/A-Admin sets TC/ESC Off inhibited setting to ON

Actors	Admin User
Pre-conditions	Ignition is in Run. Admin mode is active.
Scenario Description	Admin sets TC/ESC Off inhibited restrictions setting to ON.
Post-conditions	New TC/ESC Off inhibited setting for MyKey user is stored. MyKey user cannot change the TC/ESC setting and it is forced to "ON".
List of Exception Use Cases	N/A
Interfaces	CBI, G-HMI, Vehicle System Interface

4.8.2.2 MKv6-UC-REQ-257699/A-Admin sets TC/ESC Off inhibited setting to OFF

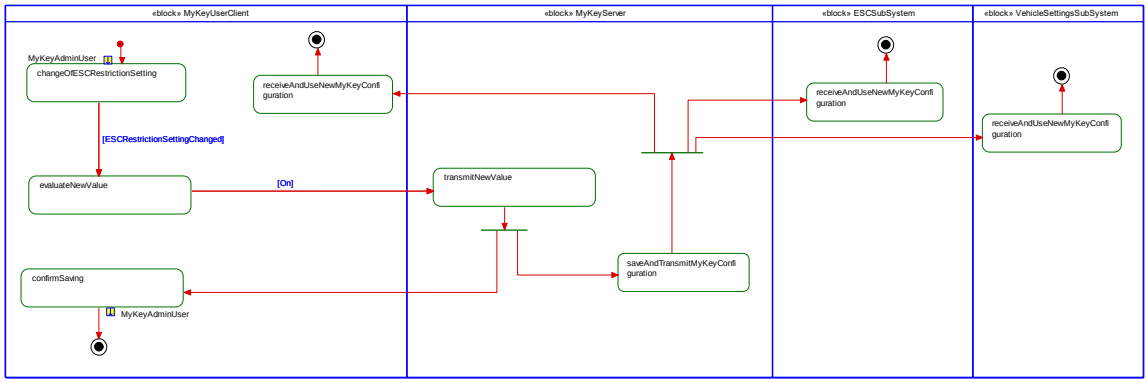
Actors	Admin User
Pre-conditions	Ignition is in Run. Admin mode is active.
Scenario Description	Admin sets TC/ESC Off inhibited restrictions setting to OFF.
Post-conditions	New TC/ESC Off inhibited setting for MyKey user is stored. MyKey user can change the TC/ESC setting.
List of Exception Use Cases	N/A
Interfaces	CBI, G-HMI, Vehicle System Interface

The information contained in this document is Proprietary to Ford Motor Company.

4.8.3 WhiteBoxView - Admin sets ESC Off inhibited setting to ON

4.8.3.1 MKv6-ACT-REQ-257701/A-Admin sets ESC Off inhibited setting to ON

Activity Diagram



4.8.3.2 MKv6-SD-REQ-257702/A-Admin sets ESC Off inhibited setting to ON

Scenarios

Normal Usage

Admin sets TC/ESC Off inhibited restrictions setting to ON.

Constraints

Pre-condition

Ignition is in Run.

Pre-condition

Admin mode is active.

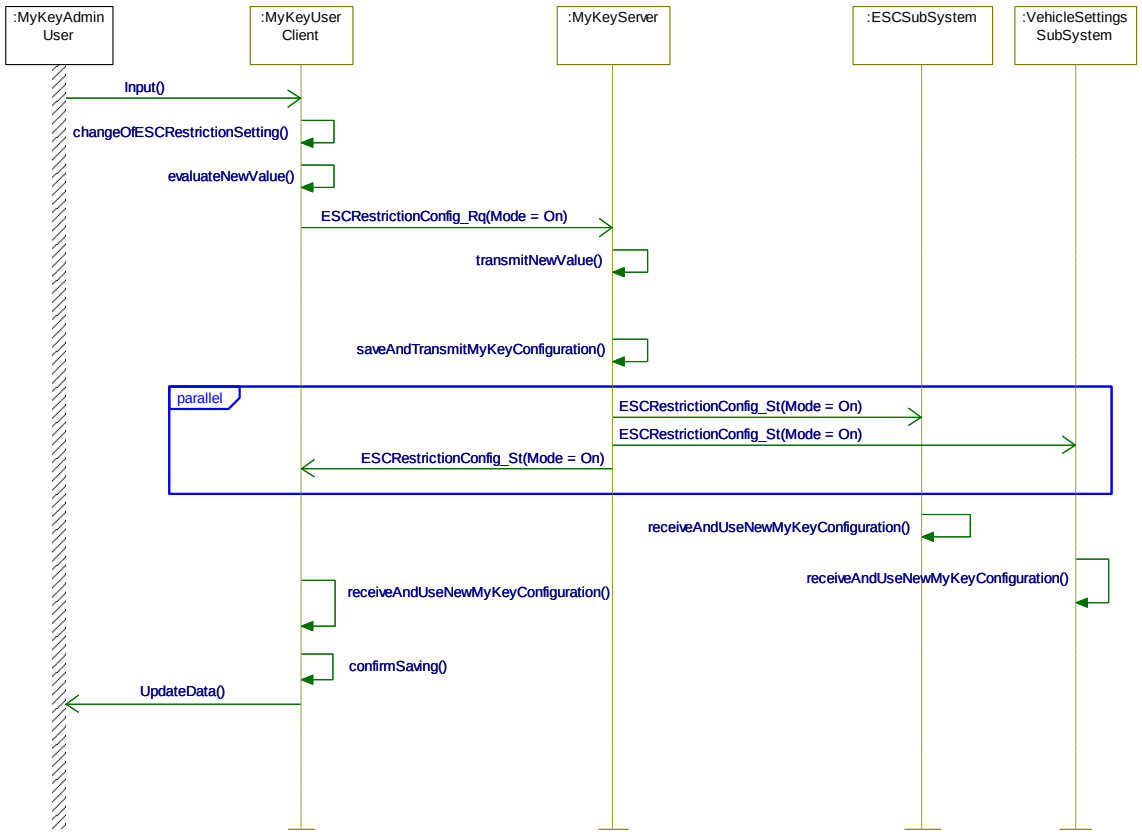
Post-condition

New TC/ESC Off inhibited setting for MyKey user is stored.

Post-condition

MyKey user cannot change the TC/ESC setting and it is forced to "ON".

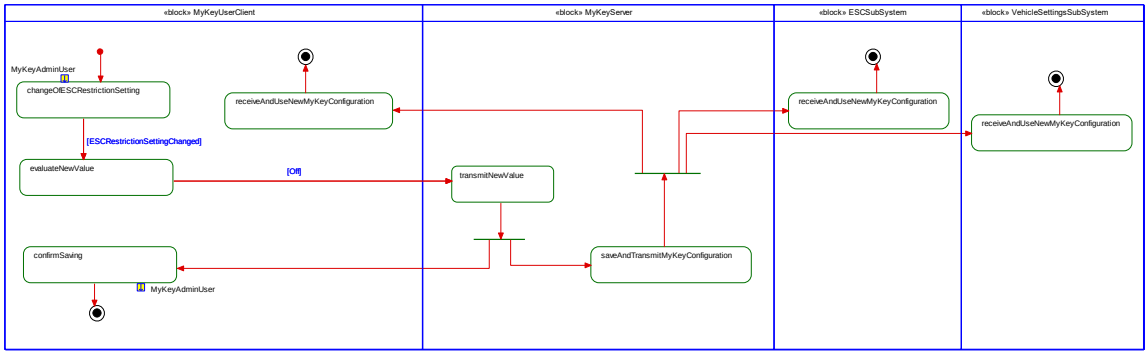
Sequence Diagram



4.8.4 WhiteBoxView - Admin sets ESC Off inhibited setting to OFF

4.8.4.1 MKv6-ACT-REQ-257703/A-Admin sets ESC Off inhibited setting to OFF

Activity Diagram



4.8.4.2 MKv6-SD-REQ-257704/A-Admin sets ESC Off inhibited setting to OFF

Scenarios

Normal Usage

Admin sets TC/ESC Off inhibited restrictions setting to OFF.

Constraints

Pre-condition

Ignition is in Run.

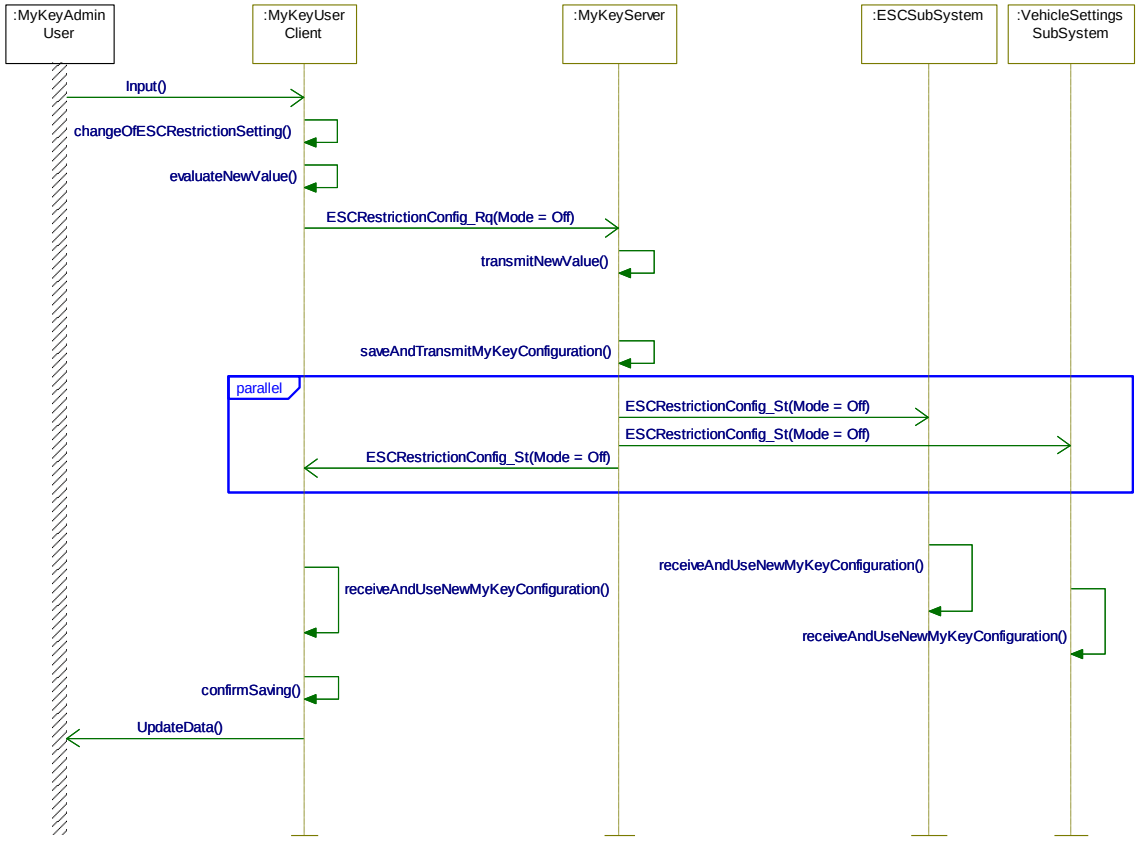
Pre-condition

Admin mode is active.

Post-condition
New TC/ESC Off inhibited setting for MyKey user is stored.

Post-condition
MyKey user can change the TC/ESC setting.

Sequence Diagram



4.9 MKv6-FUN-REQ-235938/A-HMI Restrictions - MyKey Driver Restrictions

4.9.1 Requirements

4.9.1.1 MKv6-REQ-235941/B-HMI Restriction Level - MyKey Driver Distraction

To reduce driving distraction, MyKey shall restrict certain functionalities while vehicle is moving per Infotainment Drive Restriction specifications for regions that do not have such restriction.

Driver Restriction specifications:

1. Driver Restrictions SPSS
2. H21j_SYNC_GEN3_Driving_Restrictions (for other modules (ex CHR, CTR) reference their equivalent specification)
3. H21_SYNC_3_GUI_Design_Standards (for other modules (ex CHR, CTR) reference their equivalent specification)
4. A73c_Driving_Restrictions_Market_Behavior_Table (for other modules (ex CHR, CTR) reference their equivalent specification)

5 Appendix: Reference Documents

Reference #	Document Title
1	MyKey SPSS (for non-settings features such as Volume Limit, Seatbelt Mute…)
2	Latest version of “FSDA8T-MYKEYSYS” MyKey functional specification
3	Driver Restrictions SPSS
4	H21j_SYNC_GEN3_Driving_Restrictions (for other modules (ex CHR, CTR) reference their equivalent specification)
5	H21_SYNC_3_GUI_Design_Standards (for other modules (ex CHR, CTR) reference their equivalent specification)
6	A73c_Driving_Restrictions_Market_Behavior_Table (for other modules (ex CHR, CTR) reference their equivalent specification)
7	Settings in the Centerstack SPSS