Research & Vehicle Technology
"Infotainment Systems Product Development"

Feature – Embedded Modem Reset InterfaceClient v2

Infotainment Subsystem Part Specific Specification (SPSS)

Version 1.11

UNCONTROLLED COPY IF PRINTED

Version Date: February 16, 2022

FORD CONFIDENTIAL

Revision History

Date	Ver	Notes	
December 14, 2017	**1.0**	**Initial Release**	
March 15, 2018	**1.1**		
	EMRv2-CLD-REQ-275640/B-Embedded Modem Reset Server	MBORREL4: Updated content to clarify Server role	
	EMRv2-CLD-REQ-275641/B-Embedded Modem Reset Key Server	MBORREL4: Updated content to clarify Server role to Client	
	EMR-CLD-REQ-275695/B-Embedded Modem Reset EV Server	MBORREL4: Updated content to clarify Server role to Client	
	EMR-DOC-457437/B-Physical Mapping of Classes	MBORREL4: Removed Sub-SYNC	
	EMR-REQ-275645/B-Embedded Modem Master Reset - Server Request	MBORREL4: Removed 2nd bullet point, the reset request is initiated by Interface Client and gatewayed via the Server	
	EMR-REQ-281278/B-Embedded Modem Master Reset - OnBoardClient Response	MBORREL4: Changed errorCode to ErrorCode	
	EMR-REQ-275652/B-Embedded Modem Master Reset - FTCP Alert	MBORREL4: Updated to include VSTAT Authorized detail	
	EMR-ACT-REQ-275659/B-Embedded Modem Master Reset	MBORREL4: Updated as reset request is initiated by Interface Client and gatewayed via the Server	
	EMR-SD-REQ-275660/B-Embedded Modem Master Reset	MBORREL4: Updated as reset request is initiated by Interface Client and gatewayed via the Server	
	EMR-REQ-275663/B-VIN Removal - Clear User Settings Command/Response	MBORREL4: Updated to include VSTAT detail	
	EMR-REQ-275665/B-VIN Removal - Remove CAK Command/Response	MBORREL4: Updated Command per FTCP implementation	
	EMR-REQ-281490/B-Wifi Hotspot Embedded Modem Reset - OnBoardClient Response	MBORREL4: Changed errorCode to ErrorCode	
	EMR-REQ-275680/B-PaaK Embedded Modem Reset - InterfaceClient Request	MBORREL4: Updated content as reset request goes to KeyServer, not Server	
	EMR-REQ-281570/B-PaaK Embedded Modem Reset - Server Request	MBORREL4: Removed bullet#1 as reset request is sent from InterfaceClient, not Server	
	EMR-REQ-275688/B-PaaK Embedded Modem Reset - FTCP Alert	MBORREL4: Updated alert to CAKStatusAlert and added detail	
	EMR-ACT-REQ-275690/B-PaaK Embedded Modem Reset	MBORREL4: Updated as reset request is initiated by Interface Client and gatewayed via the Server	
	EMR-SD-REQ-275691/B-PaaK Embedded Modem Reset	MBORREL4: Updated as reset request is initiated by Interface Client and gatewayed via the Server	
	EMR-REQ-290255/B-Brand Connect Embedded Modem Reset - InterfaceClient Request	MBORREL4: Updated to include KeyServer and EVServer	
	EMR-REQ-290272/B-Brand Connect Embedded Modem Reset - Server Request	MBORREL4: Removed bullet #1 as reset request is sent from InterfaceClient, not Server	

	EMR-REQ-281278/B-Embedded Modem Master Reset - OnBoardClient Response	MBORREL4: Changed errorCode to ErrorCode
	EMR-ACT-REQ-290266/B-Brand Connect Embedded Modem Reset	MBORREL4: Updated as reset request is initiated by Interface Client and gatewayed via the Server
	EMR-SD-REQ-290267/B-Brand Connect Embedded Modem Reset	MBORREL4: Updated as reset request is initiated by Interface Client and gatewayed via the Server
September 28, 2018	**1.2**	
	MD-REQ-241972/E-PaakESN_St	rpaquet2 - Updated BLEMSyncP definition and removed hardware number and Software part number as they are part of the SyncP package
	STR-457441/B-Requirements	MBORREL4: Removed REQ-275648
	EMR-REQ-275645/C-Embedded Modem Master Reset - Server Request	MBORREL4: Updated API per platform team implementation, added more detail (Clarification only)
	EMR-REQ-281278/C-Embedded Modem Master Reset - OnBoardClient Response	MBORREL4: Updated API response per platform team implementation
	EMR-REQ-275647/B-Master & Embedded Modem Reset - Request Handling	MBORREL4: Renamed req. and updated content to remove timer and detail new handling of reset requests
	EMR-REQ-275650/B-Embedded Modem Master Reset - Cleared Data	MBORREL4: Added more detail (Clarification only)
	EMR-ACT-REQ-275659/C-Embedded Modem Master Reset	MBORREL4: Updated diagram to reference Plug and Charge SPSS
	EMR-SD-REQ-275660/C-Embedded Modem Master Reset	MBORREL4: Updated diagram to convey API call as implemented by platform team. Updated diagram to reference Plug and Charge SPSS
	EMR-REQ-275663/C-VIN Removal - Clear User Settings Command/Response	MBORREL4: Updated API per platform team implementation, added more detail (Clarification only)
	EMR-REQ-275650/B-Embedded Modem Master Reset - Cleared Data	MBORREL4: Added more detail (Clarification only)
	EMR-ACT-REQ-275667/B-Removal Of VIN From Account	MBORREL4: Updated diagram to reference Plug and Charge SPSS
	EMR-SD-REQ-275668/B-Removal Of VIN From Account	MBORREL4: Updated diagram to convey API call as implemented by platform team. Updated diagram to reference Plug and Charge SPSS
	STR-457467/B-Requirements	MBORREL4: Removed REQ-275648
	EMR-REQ-281489/B-Wifi Hotspot Embedded Modem Reset - Server Request	MBORREL4: Update API per platform team implementation
	EMR-REQ-281490/C-Wifi Hotspot Embedded Modem Reset - OnBoardClient Response	MBORREL4: Update API and API response per platform team implementation
	EMR-REQ-275647/B-Master & Embedded Modem Reset - Request Handling	MBORREL4: Renamed req. and updated content to remove timer and detail new handling of reset requests
	EMR-SD-REQ-275678/B-Wifi Hotspot Embedded Modem Reset	MBORREL4: Updated diagram to convey API call as implemented by platform team
	STR-457477/B-Requirements	MBORREL4: Removed REQ-275648
	EMR-REQ-275647/B-Master & Embedded Modem Reset - Request Handling	MBORREL4: Renamed req. and updated content to remove timer and detail new handling of reset requests
	STR-489922/B-Requirements	MBORREL4: Removed REQ-275648
	EMR-REQ-290272/C-Brand Connect Embedded Modem Reset - Server Request	MBORREL4: Updated API per platform team implementation, added more detail (Clarification only)

	EMR-REQ-281278/C-Embedded Modem Master Reset - OnBoardClient Response	MBORREL4: Updated API response per platform team implementation
	EMR-REQ-275647/B-Master & Embedded Modem Reset - Request Handling	MBORREL4: Renamed req. and updated content to remove timer and detail new handling of reset requests
	EMR-REQ-290258/B-Brand Connect Embedded Modem Reset - Cleared Data	MBORREL4: Added more detail (Clarification only)
	EMR-HMI-REQ-290260/B-Brand Connect Embedded Modem Reset - User Input Enable/Disable	MBORREL4: Removed TCU config precondition (not required as Brand Connect is always available when Reset submenu is shown)
	EMR-ACT-REQ-290266/C-Brand Connect Embedded Modem Reset	MBORREL4: Updated diagram to reference Plug and Charge SPSS
	EMR-SD-REQ-290267/C-Brand Connect Embedded Modem Reset	MBORREL4: Updated diagram to convey API call as implemented by platform team. Updated diagram to reference Plug and Charge SPSS
	STR-457488/B-Appendix: Reference Documents	MBORREL4: Updated References
October 10, 2018	**1.3**	
	STR-457434/B-Overview	MBORREL4: Removed the note mentioning potential CCS changes
	MD-REQ-241972/F-PaakESN_St	rpaquet2 - Updated the description to clarify operations
	EMR-REQ-275649/B-Embedded Modem Master Reset - Server Operational States	MBORREL4: Updated state to Provisioned per CCS update
	EMR-REQ-275650/C-Embedded Modem Master Reset - Cleared Data	MBORREL4: Added InterfaceClient (per CCS update)
	EMR-REQ-275652/C-Embedded Modem Master Reset - FTCP Alert	MBORREL4: Updated per change in Authorization (per CCS update)
	UCD-REQ-275657/B-Reset Feature	MBORREL4: Updated diagram per CCS changes
	EMR-ACT-REQ-275659/D-Embedded Modem Master Reset	MBORREL4: Updated diagram per CCS update
	EMR-SD-REQ-275660/D-Embedded Modem Master Reset	MBORREL4: Updated diagram per CCS update
	STR-457455/B-Requirements	MBORREL4: Removed REQ-275664 (now handled by CCS)
	EMR-REQ-275662/B-VIN Removal - Multiple vs Last User	MBORREL4: Added CCS reference
	EMR-REQ-275663/D-VIN Removal - Clear User Settings Command/Response	MBORREL4: Updated Authorized state per CCS changes
	EMR-REQ-275650/C-Embedded Modem Master Reset - Cleared Data	MBORREL4: Added InterfaceClient (per CCS update)
	EMR-UC-REQ-275666/B-Removal Of VIN From Account	MBORREL4: Changed precondition per CCS
	EMR-ACT-REQ-275667/C-Removal Of VIN From Account	MBORREL4: Updated diagram per CCS update
	EMR-SD-REQ-275668/C-Removal Of VIN From Account	MBORREL4: Updated precondition and diagram per CCS update
	EMR-REQ-275684/B-PaaK Embedded Modem Reset - Operational States	MBORREL4: Updated Provisioned status per CCS changes

	EMR-REQ-275688/C-PaaK Embedded Modem Reset - FTCP Alert	MBORREL4: Updated to include VSTAT info only when authorized (per CCS changes)
	EMR-REQ-290257/B-Brand Connect Embedded Modem Reset - Server Operational States	MBORREL4: Updated Provisioned state per CCS change
	EMR-REQ-290258/C-Brand Connect Embedded Modem Reset - Cleared Data	MBORREL4: Updated to include InterfaceClient per CCS change
	EMR-REQ-290262/B-Brand Connect Embedded Modem Reset - FTCP Alert	MBORREL4: Updated per change in Authorization (per CCS update)
	EMR-ACT-REQ-290266/D-Brand Connect Embedded Modem Reset	MBORREL4: Updated diagram per CCS update
	EMR-SD-REQ-290267/D-Brand Connect Embedded Modem Reset	MBORREL4: Updated diagram per CCS update
May 9, 2019	**1.4**	
	MD-REQ-241972/G-PaakESN_St	rpaquet2 - Update description per feature owner
	STR-457441/C-Requirements	MBORREL4: Added REQ-338692, REQ-348156-158
	EMR-REQ-275652/D-Embedded Modem Master Reset - FTCP Alert	MBORREL4: Updated per CCS redesign change
	EMR-REQ-275653/B-Embedded Modem Master Reset - FTCP Alert Queing	MBORREL4: Updated per module reboot/debug token change
	EMRv2-REQ-338692/A-Embedded Modem Master Reset - Reset Submenu Configuration	MBORREL4: New req.
	EMR-REQ-348156/A-Embedded Modem Master Reset - Debug Tokens on EmbeddedModemResetServer	MBORREL4: New req. for module reboot/debug token change
	EMR-REQ-348157/A-Embedded Modem Master Reset - Debug Tokens on EmbeddedModemResetOnBoardClient	MBORREL4: New req. for module reboot/debug token change
	EMR-REQ-348158/A-Embedded Modem Master Reset - EmbeddedModemResetServer Module Reboot	MBORREL4: New req. for module reboot/debug token change
	STR-457442/B-Use Cases	MBORREL4: Added REQ-348159
	EMR-UC-REQ-348159/A-Embedded Modem Master Reset with Debug Tokens Present	MBORREL4: New req. for module reboot/debug token change
	EMR-REQ-275663/E-VIN Removal - Clear User Settings Command/Response	MBORREL4: Updated per CCS redesign change
	EMR-REQ-275688/D-PaaK Embedded Modem Reset - FTCP Alert	MBORREL4: Updated per CCS redesign change
	EMR-REQ-290262/C-Brand Connect Embedded Modem Reset - FTCP Alert	MBORREL4: Updated per CCS redesign change
February 21, 2020	**1.5**	
	IIR-REQ-275697/B-EmbeddedModemResetInterfaceClientInterface_Tx	MBORREL4: Added REQ-374137, REQ-374138, REQ-374140

MD-REQ-374137/A-setResetControl	MBORREL4: New req.
MD-REQ-374138/A-getResetControlStatus	MBORREL4: New req.
MD-REQ-374140/A-setRCUserSelection	MBORREL4: New req.
IIR-REQ-275698/B-EmbeddedModemResetInterfaceClientInterface_Rx	MBORREL4: Added REQ-238455, REQ-374137, REQ-374138
MD-REQ-241972/H-PaakESN_St	rpaquet2 - Clarified description
MD-REQ-374137/A-setResetControl	MBORREL4: New req.
MD-REQ-374138/A-getResetControlStatus	MBORREL4: New req.
STR-490802/B-General Requirements	MBORREL4: Added REQ-374132, REQ-381350
EMR-REQ-374132/A-Master & Embedded Modem Reset - MyKey Restriction	MBORREL4: New req.
EMR-REQ-381350/A-Non-Connected Market Operation - EmbeddedModemResetServer	MBORREL4: New req. for Non-Connected Market
STR-457440/B-Functional Definition	MBORREL4: Added FUN-REQ-375815
EMRv2-REQ-338692/B-Embedded Modem Master Reset - Reset Submenu Configuration	MBORREL4: Added IEPAA
EMR-HMI-REQ-290260/C-Brand Connect Embedded Modem Reset - User Input Enable/Disable	MBORREL4: Updated req
EMR-FUN-REQ-375815/A-Reset Control	MBORREL4: New req.
STR-718666/A-Use Cases	MBORREL4: New STR
EMR-UC-REQ-375817/A-Reset Control Activation	MBORREL4: New req.
EMR-UC-REQ-375818/A-Reset Control Deactivation	MBORREL4: New req.
EMR-UC-REQ-375819/A-Reset Control Disabled	MBORREL4: New req.
EMR-UC-REQ-375820/A-User performs Master Reset while Reset Control Enabled	MBORREL4: New req.
EMR-UC-REQ-375821/A-User requests to disable Reset Control	MBORREL4: New req.
EMR-UC-REQ-375822/A-User performs Master Reset while Reset Control Disabled	MBORREL4: New req.
EMR-UC-REQ-375823/A-Reset Control Timer expires	MBORREL4: New req.
EMR-UC-REQ-375824/A-User requests to enable Reset Control	MBORREL4: New req.
STR-718667/A-Requirements	MBORREL4: New STR
EMR-REQ-375825/A-Reset Control Feature Internal Config. Parameter	MBORREL4: New req.
EMR-REQ-375826/A-Reset Control Status Internal Config. Parameter	MBORREL4: New req.
EMR-REQ-375827/A-Reset Control Timer Internal Config. Parameter T_ResetControl	MBORREL4: New req.
EMR-REQ-375828/A-Reset Control Status Alert	MBORREL4: New req.

EMR-REQ-375829/A-Reading Reset Control Config. Parameters	MBORREL4: New req.
EMR-REQ-375830/A-Reset Control Feature Config. Parameter = DISABLED	MBORREL4: New req.
EMR-REQ-375831/A-Reset Control Feature Config. Parameter = OFF	MBORREL4: New req.
EMR-REQ-375832/A-Reset Control Feature Config. Parameter = ON	MBORREL4: New req.
EMR-REQ-375833/A-Reset Control Status Config. Parameter Default	MBORREL4: New req.
EMR-REQ-375834/A-Reset Control Status Config. Parameter = DEACTIVATERESET	MBORREL4: New req.
EMR-REQ-375835/A-Reset Control Status Config. Parameter due to Reset	MBORREL4: New req.
EMR-REQ-375836/A-Reset Control Status Config. Parameter due to re-Authorization	MBORREL4: New req.
EMR-REQ-375837/A-Reset Control Status Config. Parameter = ACTIVATERESET	MBORREL4: New req.
EMR-REQ-375838/A-Reset Control while ActivateReset - EmbeddedModemResetInterfaceClient	MBORREL4: New req.
EMR-REQ-375839/A-Reset Control while DeactivateReset - EmbeddedModemResetInterfaceClient	MBORREL4: New req.
EMR-REQ-375840/A-Reset Request while in DeactivateReset	MBORREL4: New req.
EMR-REQ-375841/A-Reset Request while ActivateReset	MBORREL4: New req.
EMR-REQ-375842/A-UpdateResetControlSettingsCommand – Feature Disable	MBORREL4: New req.
EMR-REQ-375843/A-UpdateResetControlSettingsCommand – Enable/Disable	MBORREL4: New req.
EMR-REQ-375844/A-UpdateResetControlSettingsCommand – Timer Value	MBORREL4: New req.
EMR-REQ-375845/A-Reset Control Timer Start/Stop	MBORREL4: New req.
EMR-REQ-375846/A-Reset Control Timer	MBORREL4: New req.
EMR-TMR-REQ-375851/A-T_ResetControl	MBORREL4: New req.
EMR-REQ-375848/A-UpdateResetControlSettingsCommandResponse to Cloud	MBORREL4: New req.
EMR-REQ-375849/A-Loss of Communication	MBORREL4: New req.
STR-718668/A-White Box View	MBORREL4: New STR
EMR-ACT-REQ-375895/A-User Enables Reset Control	MBORREL4: New req.
EMR-ACT-REQ-376524/A-User Disables Reset Control	MBORREL4: New req.

	EMR-SD-REQ-375897/A-User Enables Reset Control	MBORREL4: New req.
	EMR-SD-REQ-376595/A-User Disables Reset Control	MBORREL4: New req.
August 4, 2020	**1.6**	
	STR-459454/B-Architectural Design	MBORREL4: Added REQ-392647
	EMR-CLD-REQ-392647/A-Embedded Modem Reset PnC Server	MBORREL4: New Class
	EMR-DOC-457437/C-Physical Mapping of Classes	MBORREL4: Updated table
	IIR-REQ-275697/C-EmbeddedModemResetInterfaceClientInterface_Tx	MBORREL4: Added REQ-392660
	MD-REQ-392660/A-setSyncReset	MBORREL4: New req.
	IIR-REQ-275698/C-EmbeddedModemResetInterfaceClientInterface_Rx	MBORREL4: Added REQ-392660
	STR-490802/C-General Requirements	MBORREL4: Added REQ-396102
	EMR-REQ-381350/B-Non-Connected Market Operation - EmbeddedModemResetServer	MBORREL4: Updated req.
	EMR-REQ-396102/A-eCall Only Market Operation - EmbeddedModemResetServer	MBORREL4: New req. for eCall Only market
	STR-457440/C-Functional Definition	MBORREL4: Added FUN-REQ-392682
	EMR-REQ-275650/D-Cleared Data	MBORREL4: Updated title and req.
	EMR-REQ-275656/B-Buffered AVD Data	MBORREL4: Updated title and req.
	EMR-FUN-REQ-392682/A-Remote Reset initiated from EmbeddedModemResetOffBoardClient	MBORREL4: New function
	STR-773578/A-Requirements	MBORREL4: New STR/section
	EMR-REQ-392683/A-Remote Reset & Master Reset – Priority	MBORREL4: New req.
	EMR-REQ-392684/A-Remote Reset – Preconditions	MBORREL4: New req.
	EMR-REQ-392685/A-Remote Reset – FactoryReset_Rq	MBORREL4: New req.
	EMR-REQ-392686/A-Remote Reset – SMS Wakeup	MBORREL4: New req.
	EMR-REQ-392687/A-Remote Reset – Client/Server Applicability Check	MBORREL4: New req.
	EMR-REQ-392688/A-Remote Reset - RemoteResetCommand/Response	MBORREL4: New req.
	EMR-REQ-392689/A-Remote Master Reset - Preconditions Met	MBORREL4: New req.
	EMR-REQ-392690/A-Remote Brand Connect Reset - Preconditions Met	MBORREL4: New req.
	EMR-REQ-392691/A-Remote SYNC Reset - Preconditions Met	MBORREL4: New req.
	EMR-REQ-392692/A-Remote Reset - Preconditions Not Met	MBORREL4: New req.

	EMR-REQ-392693/A-Remote Reset - RemoteResetAlert	MBORREL4: New req.
	EMR-REQ-392694/A-Remote Reset – EmbeddedModemResetServer Reset Status	MBORREL4: New req.
	EMR-REQ-392695/A-Remote Reset – EmbeddedModemResetInterfaceClient Reset Status	MBORREL4: New req.
	EMR-REQ-392696/A-Remote Reset – EmbeddedModemResetOnBoardClient Reset Status	MBORREL4: New req.
	EMR-REQ-392699/A-Remote Reset – EmbeddedModemResetPnCServer Reset Status	MBORREL4: New req.
	EMR-REQ-392700/A-Remote Reset – RemoteResetAlert Queuing	MBORREL4: New req.
	EMR-REQ-392701/A-Remote Reset – InterfaceClient Response	MBORREL4: New req.
	EMR-REQ-392702/A-Remote Master Reset - Completion Time	MBORREL4: New req.
	STR-773577/A-Use Cases	MBORREL4: New STR/section
	EMR-UC-REQ-392703/A-Remote Master Reset is requested	MBORREL4: New req.
	EMR-UC-REQ-392704/A-Remote Brand Connect Reset is requested	MBORREL4: New req.
	EMR-UC-REQ-392705/A-Remote SYNC Reset is requested	MBORREL4: New req.
	STR-773579/A-White Box View	MBORREL4: New STR/section
	EMR-ACT-REQ-393389/A-Remote Reset Requested	MBORREL4: New req.
	EMR-SD-REQ-393390/A-Remote Reset Requested	MBORREL4: New req.
December 19, 2020	**1.7**	
	MD-REQ-241972/I-PaakESN_St	rpaquet2 - Updated DID value
	EMR-REQ-375834/B-Reset Control Status Config. Parameter = DEACTIVATERESET	MBORREL4: Clarification - mentioned Authorization state as a condition
	EMR-REQ-375835/B-Reset Control Status Config. Parameter due to Reset	MBORREL4: Clarification - corrected SVS subscription dependency
	EMR-REQ-375842/B-UpdateResetControlSettingsCommand – Feature Disable	MBORREL4: Clarification - updated per implementation
	EMR-REQ-375843/B-UpdateResetControlSettingsCommand – Enable/Disable	MBORREL4: Clarification - updated per implementation
	EMR-REQ-375846/B-Reset Control Timer	MBORREL4: Corrected error in last line, ActivateReset instead of DeactivateReset. Removed 'battery resets'
	EMR-REQ-375849/B-Loss of Communication	MBORREL4: Clarification - updated per implementation
April 30, 2021	**1.8**	
	STR-459454/C-Architectural Design	MBORREL4: Added REQ-413948

EMR-CLD-REQ-413948/A-Embedded Modem Reset ADAS Server	MBORREL4: New Class
EMR-DOC-457437/D-Physical Mapping of Classes	MBORREL4: Corrected spelling, added ADAS
MD-REQ-241972/J-PaakESN_St+	rpaquet2 - fixed spelling
MD-REQ-241972/K-PaakESN_St	rpaquet2 - Updated description for the Unprovisioned value per Periheral Prov Feature Owner
EMR-REQ-275645/D-Embedded Modem Master Reset - Server Request	MBORREL4: Added ADAS Reset API Call
EMR-REQ-275646/B-Embedded Modem Master Reset - Server Response	MBORREL4: Added ADAS Reset response, reordered req. for clarity
EMR-REQ-275650/E-Cleared Data	MBORREL4: Added additional impacted features to list. Added EmbeddedModemResetAdasServer
EMR-REQ-348156/B-Embedded Modem Master Reset - Security Tokens on EmbeddedModemResetServer	MBORREL4: Updated title. Clarified that the req. is for security tokens, not just debug (to match implementation).
EMR-REQ-348157/B-Embedded Modem Master Reset - Security Tokens on EmbeddedModemResetOnBoardClient	MBORREL4: Updated title. Clarified that the req. is for security tokens, not just debug (to match implementation).
EMR-REQ-348158/B-Embedded Modem Master Reset - EmbeddedModemResetServer Module Reboot	MBORREL4: Clarified that the req. is for security tokens, not just debug (to match implementation). Added exception for when tokens are not removed.
EMR-ACT-REQ-275659/E-Embedded Modem Master Reset	MBORREL4: Updated diagram for ADAS
EMR-SD-REQ-275660/E-Embedded Modem Master Reset	MBORREL4: Updated diagram for ADAS
STR-773578/B-Requirements	MBORREL4: Added REQ-410562, REQ-413950-953
EMR-REQ-392684/B-Remote Reset – Preconditions	MBORREL4: Added ADAS Reset content
EMR-REQ-392686/B-Remote Reset – SMS Wakeup	MBORREL4: Corrected spelling
EMR-REQ-392687/B-Remote Reset – Client/Server Applicability Check	MBORREL4: Removed "Not Applicable" as no status shall be given for not-present ecus. Added ADAS Reset bullet
EMR-REQ-392688/B-Remote Reset - RemoteResetCommand/Response	MBORREL4: Added Remote ADAS Reset
EMR-REQ-392689/B-Remote Master Reset - Preconditions Met	MBORREL4: Added the API call for ADAS Reset
EMR-REQ-413950/A-Remote ADAS Reset - Preconditions Met	MBORREL4: New req.
EMR-REQ-392693/B-Remote Reset - RemoteResetAlert Success/Fail Status	MBORREL4: Updated to clarify ECU success/fail status. Updated title. Added ADAS Reset
EMR-REQ-410562/A-Remote Reset - ECU ID	MBORREL4: New req.
EMR-REQ-413951/A-Remote Reset – EmbeddedModemResetAdas Server Reset Status	MBORREL4: New req.
EMR-REQ-413952/A-Remote Reset – EmbeddedModemResetAdas Server Response	MBORREL4: New req.

	EMR-REQ-275650/E-Cleared Data	MBORREL4: Added additional impacted features to list. Added EmbeddedModemResetAdasServer
	EMR-REQ-392702/B-Remote Master Reset - Completion Time	MBORREL4: Added EmbeddedModemResetAdasServer
	EMR-REQ-413953/A-EmbeddedModemResetAdas Server – Publish Settings	MBORREL4: New req.
	STR-773577/B-Use Cases	MBORREL4: Added REQ-413956
	EMR-UC-REQ-392703/B-Remote Master Reset is requested	MBORREL4: Corrected typo
	EMR-UC-REQ-392705/B-Remote SYNC Reset is requested	MBORREL4: Corrected typo
	EMR-UC-REQ-413956/A-Remote ADAS Reset is requested	MBORREL4: New req.
	EMR-ACT-REQ-393389/B-Remote Reset Requested	MBORREL4: Updated diagram for ADAS
	EMR-SD-REQ-393390/B-Remote Reset Requested	MBORREL4: Updated diagram for ADAS
	EMR-REQ-275650/E-Cleared Data	MBORREL4: Added additional impacted features to list. Added EmbeddedModemResetAdasServer
September 1, 2021	**1.9**	
	STR-459454/D-Architectural Design	MBORREL4: Added REQ-429817
	EMR-CLD-REQ-429817/A-Embedded Modem Reset NFC Server	MBORREL4: New Class
	EMR-DOC-457437/E-Physical Mapping of Classes	MBORREL4: Added NFAM
	EMRv2-FUN-REQ-275644/B-Master Reset initiated from EmbeddedModemResetInterfaceClient	MBORREL4: Corrected title name
	STR-457441/D-Requirements	MBORREL4: Added REQ-429821, REQ-429822, REQ-429823
	EMR-REQ-429821/A-Master Reset - Client/Server Applicability Check	MBORREL4: New req. for NFC
	EMR-REQ-275645/E-Embedded Modem Master Reset - Server Request	MBORREL4: Added NFC content
	EMR-REQ-275646/C-Embedded Modem Master Reset - Server Response	MBORREL4: Added NFC content
	EMR-REQ-281278/D-Embedded Modem Reset - OnBoardClient Response	MBORREL4: Corrected typo (no req. change), updated title
	EMR-REQ-429822/A-Embedded Modem Reset - EmbeddedModemResetNFCServer Response	MBORREL4: New req. for NFC
	EMR-REQ-429823/A-Embedded Modem Reset - NFCServer Operational States	MBORREL4: New req. for NFC
	EMR-REQ-275650/F-Cleared Data	MBORREL4: Added NFC
	EMR-ACT-REQ-275659/F-Embedded Modem Master Reset	MBORREL4: Updated for NFC
	EMR-SD-REQ-275660/F-Embedded Modem Master Reset	MBORREL4: Updated for NFC
	STR-773578/C-Requirements	MBORREL4: Added REQ-429921

	EMR-REQ-392687/C-Remote Reset – Client/Server Applicability Check	MBORREL4: Added NFC content
	EMR-REQ-392689/C-Remote Master Reset - Preconditions Met	MBORREL4: Added NFC content
	EMR-REQ-392690/B-Remote Brand Connect Reset - Preconditions Met	MBORREL4: Added NFC content
	EMR-REQ-392693/C-Remote Reset - RemoteResetAlert Success/Fail Status	MBORREL4: Added NFC content
	EMR-REQ-410562/B-Remote Reset - ECU ID	MBORREL4: Added NFC content
	EMR-REQ-429921/A-Remote Reset - EmbeddedModemResetNFCServer Reset Status	MBORREL4: New req. for NFC
	EMR-REQ-275650/F-Cleared Data	MBORREL4: Added NFC
	EMR-ACT-REQ-393389/C-Remote Reset Requested	MBORREL4: Updated for NFC
	EMR-SD-REQ-393390/C-Remote Reset Requested	MBORREL4: Updated for NFC
	EMR-REQ-275662/C-VIN Removal - Multiple vs Last User	MBORREL4: Added NFC content
	EMR-REQ-275663/F-VIN Removal - Clear User Settings Command/Response	MBORREL4: Added NFC content
	EMR-REQ-275650/F-Cleared Data	MBORREL4: Added NFC
	EMR-ACT-REQ-275667/D-Removal Of VIN From Account	MBORREL4: Updated for NFC
	EMR-SD-REQ-275668/D-Removal Of VIN From Account	MBORREL4: Updated for NFC
	STR-489922/C-Requirements	MBORREL4: Added REQ-429822, REQ-429823
	EMR-REQ-290272/D-Brand Connect Embedded Modem Reset - Server Request	MBORREL4: Updated for NFC
	EMR-REQ-281278/D-Embedded Modem Reset - OnBoardClient Response	MBORREL4: Corrected typo (no req. change), updated title
	EMR-REQ-429822/A-Embedded Modem Reset - EmbeddedModemResetNFCServer Response	MBORREL4: New req. for NFC
	EMR-REQ-429823/A-Embedded Modem Reset - NFCServer Operational States	MBORREL4: New req. for NFC
	EMR-ACT-REQ-290266/E-Brand Connect Embedded Modem Reset	MBORREL4: Updated for NFC
	EMR-SD-REQ-290267/E-Brand Connect Embedded Modem Reset	MBORREL4: Updated for NFC
September 20, 2021	**1.10**	
	EMR-DOC-457437/F-Physical Mapping of Classes	MBORREL4: Added PDC
	EMRv2-FUN-REQ-275644/C-Master Reset / Factory Reset initiated from EmbeddedModemResetInterfaceClient	MBORREL4: Updated to include Factory Reset (new for PDC)
	STR-457441/E-Requirements	MBORREL4: Added 'Factory Reset' section and supporting requirements
	STR-957990/A-Factory Reset	MBORREL4: New section for PDC

	EMR-REQ-443177/A-Factory Reset - User Input	MBORREL4: New req. for PDC
	EMR-REQ-443178/A-Factory Reset - User Input Enable/Disable	MBORREL4: New req. for PDC
	EMR-REQ-443179/A-Factory Reset - InterfaceClient Request	MBORREL4: New req. for PDC
	EMR-REQ-443180/A-Factory Reset - InterfaceClient Actions	MBORREL4: New req. for PDC
	STR-773578/D-Requirements	MBORREL4: Added REQ-443197
	EMR-REQ-443197/A-Remote Reset - InterfaceClient Performing a Reset	MBORREL4: New req. clarifying SYNC/PDC action for Remote Reset (clarification)
	STR-718666/B-Use Cases	MBORREL4: Added REQ-443217, REQ-443218
	EMR-UC-REQ-375819/B-Reset Control Disabled	MBORREL4: Added Factory Reset (new for PDC)
	EMR-UC-REQ-443217/A-User performs Factory Reset while Reset Control Enabled	MBORREL4: New req. for PDC
	EMR-UC-REQ-443218/A-User performs Factory Reset while Reset Control Disabled	MBORREL4: New req. for PDC
	STR-718667/B-Requirements	MBORREL4: Added REQ-443223-226
	EMR-REQ-375833/B-Reset Control Status Config. Parameter Default	MBORREL4: Added Factory Reset (new for PDC)
	EMR-REQ-375834/C-Reset Control Status Config. Parameter = DEACTIVATERESET	MBORREL4: Added Factory Reset (new for PDC)
	EMR-REQ-375835/C-Reset Control Status Config. Parameter due to Reset	MBORREL4: Added Factory Reset (new for PDC)
	EMR-REQ-375837/B-Reset Control Status Config. Parameter = ACTIVATERESET	MBORREL4: Added Factory Reset (new for PDC)
	EMRv2-REQ-443223/A-Reset Control while DeactivateReset - EmbeddedModemResetInterfaceClient (v2)	MBORREL4: New variant req. for PDC
	EMR-REQ-375840/B-Reset Request while in DeactivateReset	MBORREL4: Added Factory Reset (new for PDC)
	EMR-REQ-375841/B-Reset Request while ActivateReset	MBORREL4: Added Factory Reset (new for PDC)
	EMRv2-REQ-443226/A-Loss of Communication (v2)	MBORREL4: New variant req. for PDC
February 16, 2022	**1.11**	
	STR-459454/C-Architectural Design+	MBORREL4: Added REQ-413948
	STR-459454/D-Architectural Design	MBORREL4: Added REQ-429817
	EMR-CLD-REQ-413948/A-Embedded Modem Reset ADAS Server	MBORREL4: New Class
	EMR-CLD-REQ-429817/A-Embedded Modem Reset NFC Server	MBORREL4: New Class
	EMR-DOC-457437/D-Physical Mapping of Classes+	MBORREL4: Corrected spelling, added ADAS
	EMR-DOC-457437/E-Physical Mapping of Classes+	MBORREL4: Added NFAM
	EMR-DOC-457437/F-Physical Mapping of Classes	MBORREL4: Added PDC

EMR-IIR-REQ-275697/D-EmbeddedModemResetInterfaceClientInterface_Tx	MBORREL4: Removed REQ-392660. Added REQ-479639, REQ-479657, REQ-479658, REQ-482638
MD-REQ-479639/A-setSyncResetConfirm	MBORREL4: New req.
MD-REQ-479657/A-resetRequestBroadcast	MBORREL4: New req.
MD-REQ-479658/A-getResetAvailability	MBORREL4: New req.
MD-REQ-482638/A-setEcuReadyState	MBORREL4: Req. to match implementation
EMR-IIR-REQ-275698/D-EmbeddedModemResetInterfaceClientInterface_Rx	MBORREL4: Added REQ-479637, REQ-479638, , REQ-482637
MD-REQ-222036/C-FactoryReset.St	jmyslin2: added clarfication to the signal MD
MD-REQ-241972/K-PaakESN_St+	rpaquet2 - Updated description for the Unprovisioned value per Periheral Prov Feature Owner
MD-REQ-241972/L-PaakESN_St	rpaquet2 - updated Unprovisioning and BLEMProvAlertAck descriptions per feature owner
MD-REQ-392660/B-setSyncReset	MBORREL4: Updated API
MD-REQ-479637/A-resetProgressBroadcast	MBORREL4: New req.
MD-REQ-479638/A-resetAvailabilityBroadcast	MBORREL4: New req.
MD-REQ-482637/A-ecuReadyStateBroadcast	MBORREL4: Req. to match implementation
STR-490802/D-General Requirements	MBORREL4: Added REQ-479677, REQ-479678, REQ-480137
EMR-REQ-479677/A-Primary Display Device Determination	MBORREL4: New req.
EMR-REQ-479678/A-Reset Availability Broadcast on Request	MBORREL4: New req.
EMR-REQ-480137/A-Reset Availability Request	MBORREL4: New req. for PDC
EMRv2-FUN-REQ-275644/B-Master Reset initiated from EmbeddedModemResetInterfaceClient+	MBORREL4: Corrected title name
EMRv2-FUN-REQ-275644/C-Master Reset / Factory Reset initiated from EmbeddedModemResetInterfaceClient	MBORREL4: Updated to include Factory Reset (new for PDC)
STR-457441/D-Requirements+	MBORREL4: Added REQ-429821, REQ-429822, REQ-429823
STR-457441/E-Requirements+	MBORREL4: Added 'Factory Reset' section and supporting requirements
STR-457441/F-Requirements	MBORREL4: Added REQ-479698, REQ-479699, REQ-479700, REQ-479701, REQ-480157-159. REQ-480177, REQ-481517-522
EMR-REQ-429821/A-Master Reset - Client/Server Applicability Check+	MBORREL4: New req. for NFC
EMR-REQ-429821/B-Client/Server Applicability Check	MBORREL4: Update title and req.
EMR-REQ-479698/A-Super Reset - Preconditions	MBORREL4: New req.
EMR-REQ-480157/A-Super Reset - User Input Enable/Disable	MBORREL4: New req. for PDC
EMR-REQ-480158/A-Super Reset - InterfaceClient notifying EmbeddedModemResetServer	MBORREL4: New req. for PDC

EMR-REQ-275645/D-Embedded Modem Master Reset - Server Request+	MBORREL4: Added ADAS Reset API Call
EMR-REQ-275645/E-Embedded Modem Master Reset - Server Request+	MBORREL4: Added NFC content
EMR-REQ-275645/F-Embedded Modem Master Reset - Server Request	MBORREL4: Updated req.
EMRv2-REQ-479699/A-Embedded Modem Master Reset - Server Request v2	MBORREL4: New req.
EMR-REQ-275646/B-Embedded Modem Master Reset - Server Response+	MBORREL4: Added ADAS Reset response, reordered req. for clarity
EMR-REQ-275646/C-Embedded Modem Master Reset - Server Response+	MBORREL4: Added NFC content
EMR-REQ-275646/D-Embedded Modem Master Reset - Server Response	MBORREL4: Updated req.
EMR-REQ-479700/A-Super Reset - Reset Progress Broadcast	MBORREL4: New req.
EMR-REQ-480177/A-Super Reset - InterfaceClient Performing a Reset	MBORREL4: New req. for PDC
EMR-REQ-480159/A-Super Reset - InterfaceClient Reset Response	MBORREL4: New req. for PDC
EMR-REQ-281278/D-Embedded Modem Reset - OnBoardClient Response	MBORREL4: Corrected typo (no req. change), updated title
EMR-REQ-429822/A-Embedded Modem Reset - EmbeddedModemResetNFCServer Response	MBORREL4: New req. for NFC
EMR-REQ-481517/A-Embedded Modem Reset - EmbeddedModemResetServer Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-481518/A-Embedded Modem Reset - EmbeddedModemResetInterfaceClient Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-481519/A-Embedded Modem Reset - EmbeddedModemResetOnBoardClient Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-481520/A-Embedded Modem Reset - EmbeddedModemResetPnCServer Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-481521/A-Embedded Modem Reset - EmbeddedModemResetAdasServer Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-481522/A-Embedded Modem Reset - EmbeddedModemResetNFCServer Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-275647/C-Master & Embedded Modem Reset - Request Handling	MBORREL4: Updated req.
EMR-REQ-429823/A-Embedded Modem Reset - NFCServer Operational States	MBORREL4: New req. for NFC
EMR-REQ-275650/E-Cleared Data+	MBORREL4: Added additional impacted features to list. Added EmbeddedModemResetAdasServer
EMR-REQ-275650/F-Cleared Data+	MBORREL4: Added NFC

EMR-REQ-275650/G-Cleared Data	MBORREL4: Updated req. reference
EMR-REQ-275654/B-Master & Embedded Modem Reset - Completion Time	MBORREL4: Updated req.
EMRv2-REQ-479701/A-Master & Embedded Modem Reset - Completion Time v2	MBORREL4: New req.
EMR-REQ-275656/C-Buffered AVD Data	MBORREL4: Updated req. reference
EMR-REQ-348156/B-Embedded Modem Master Reset - Security Tokens on EmbeddedModemResetServer	MBORREL4: Updated title. Clarified that the req. is for security tokens, not just debug (to match implementation).
EMR-REQ-348157/B-Embedded Modem Master Reset - Security Tokens on EmbeddedModemResetOnBoardClient	MBORREL4: Updated title. Clarified that the req. is for security tokens, not just debug (to match implementation).
EMR-REQ-348158/B-Embedded Modem Master Reset - EmbeddedModemResetServer Module Reboot	MBORREL4: Clarified that the req. is for security tokens, not just debug (to match implementation). Added exception for when tokens are not removed.
STR-957990/A-Factory Reset	MBORREL4: New section for PDC
EMR-REQ-443177/A-Factory Reset - User Input	MBORREL4: New req. for PDC
EMR-REQ-443178/A-Factory Reset - User Input Enable/Disable	MBORREL4: New req. for PDC
EMR-REQ-443179/A-Factory Reset - InterfaceClient Request	MBORREL4: New req. for PDC
EMR-REQ-443180/A-Factory Reset - InterfaceClient Actions	MBORREL4: New req. for PDC
STR-457446/B-White Box View	MBORREL4: Added REQ-480538, REQ-480539
EMR-ACT-REQ-275659/E-Embedded Modem Master Reset+	MBORREL4: Updated diagram for ADAS
EMR-ACT-REQ-275659/F-Embedded Modem Master Reset	MBORREL4: Updated for NFC
EMRv2-ACT-REQ-480538/A-Embedded Modem Master Reset v2	MBORREL4: New diagram for ECG Centric change
EMR-SD-REQ-275660/E-Embedded Modem Master Reset+	MBORREL4: Updated diagram for ADAS
EMR-SD-REQ-275660/F-Embedded Modem Master Reset	MBORREL4: Updated for NFC
EMRv2-SD-REQ-480539/A-Embedded Modem Master Reset v2	MBORREL4: New diagram for ECG Centric change
STR-773578/B-Requirements+	MBORREL4: Added REQ-410562, REQ-413950-953
STR-773578/C-Requirements+	MBORREL4: Added REQ-429921
STR-773578/D-Requirements+	MBORREL4: Added REQ-443197
STR-773578/E-Requirements	MBORREL4: Added REQ-480237, REQ-482677-679
EMR-REQ-392684/B-Remote Reset – Preconditions+	MBORREL4: Added ADAS Reset content
EMR-REQ-392684/C-Remote Reset – Preconditions	MBORREL4: Updated to include ECU Ready Check
EMR-REQ-482677/A-Remote Reset - Ready State Check	MBORREL4: Req. to match implementation

EMR-REQ-482678/A-Remote Reset - InterfaceClient Send Ready State	MBORREL4: Req. to match implementation
EMR-REQ-482679/A-Remote Reset - OnBoardClient Send Ready State	MBORREL4: Req. to match implementation
EMR-REQ-392685/B-Remote Reset – FactoryReset_Rq	MBORREL4: Updated req.
EMR-REQ-392686/B-Remote Reset – SMS Wakeup	MBORREL4: Corrected spelling
EMR-REQ-392687/B-Remote Reset – Client/Server Applicability Check+	MBORREL4: Removed "Not Applicable" as no status shall be given for not-present ecus. Added ADAS Reset bullet
EMR-REQ-392687/C-Remote Reset – Client/Server Applicability Check+	MBORREL4: Added NFC content
EMR-REQ-392687/D-Remote Reset – Client/Server Applicability Check	MBORREL4: Updated req.
EMR-REQ-392688/B-Remote Reset - RemoteResetCommand/Response	MBORREL4: Added Remote ADAS Reset
EMR-REQ-392689/B-Remote Master Reset - Preconditions Met+	MBORREL4: Added the API call for ADAS Reset
EMR-REQ-392689/C-Remote Master Reset - Preconditions Met+	MBORREL4: Added NFC content
EMR-REQ-392689/D-Remote Master Reset - Preconditions Met	MBORREL4: Updated req.
EMR-REQ-392690/B-Remote Brand Connect Reset - Preconditions Met	MBORREL4: Added NFC content
EMR-REQ-413950/A-Remote ADAS Reset - Preconditions Met	MBORREL4: New req.
EMR-REQ-392693/B-Remote Reset - RemoteResetAlert Success/Fail Status+	MBORREL4: Updated to clarify ECU success/fail status. Updated title. Added ADAS Reset
EMR-REQ-392693/C-Remote Reset - RemoteResetAlert Success/Fail Status	MBORREL4: Added NFC content
EMR-REQ-410562/A-Remote Reset - ECU ID+	MBORREL4: New req.
EMR-REQ-410562/B-Remote Reset - ECU ID	MBORREL4: Added NFC content
EMR-REQ-392695/B-Remote Reset – EmbeddedModemResetInterfaceClient Reset Status	MBORREL4: Update API to match implementation
EMR-REQ-413951/A-Remote Reset – EmbeddedModemResetAdasServer Reset Status	MBORREL4: New req.
EMR-REQ-429921/A-Remote Reset - EmbeddedModemResetNFCServer Reset Status	MBORREL4: New req. for NFC
EMR-REQ-392701/B-Remote Reset – InterfaceClient Response	MBORREL4: Update API to match implementation
EMR-REQ-443197/A-Remote Reset - InterfaceClient Performing a Reset+	MBORREL4: New req. clarifying SYNC/PDC action for Remote Reset (clarification)
EMR-REQ-443197/B-Remote Reset – InterfaceClient Performing a SYNC Only Reset	MBORREL4: Updated title and req.

EMR-REQ-480237/A-Remote Reset - InterfaceClient Performing a Master Reset	MBORREL4: New req.
EMR-REQ-413952/A-Remote Reset – EmbeddedModemResetAdas Server Response	MBORREL4: New req.
EMR-REQ-275650/E-Cleared Data+	MBORREL4: Added additional impacted features to list. Added EmbeddedModemResetAdasServer
EMR-REQ-275650/F-Cleared Data+	MBORREL4: Added NFC
EMR-REQ-275650/G-Cleared Data	MBORREL4: Updated req. reference
EMR-REQ-392702/B-Remote Master Reset - Completion Time	MBORREL4: Added EmbeddedModemResetAdasServer
EMR-REQ-275656/C-Buffered AVD Data	MBORREL4: Updated req. reference
EMR-REQ-413953/A-EmbeddedModemResetAdas Server – Publish Settings	MBORREL4: New req.
STR-773577/B-Use Cases	MBORREL4: Added REQ-413956
EMR-UC-REQ-392703/B-Remote Master Reset is requested	MBORREL4: Corrected typo
EMR-UC-REQ-392705/B-Remote SYNC Reset is requested	MBORREL4: Corrected typo
EMR-UC-REQ-413956/A-Remote ADAS Reset is requested	MBORREL4: New req.
EMR-ACT-REQ-393389/B-Remote Reset Requested+	MBORREL4: Updated diagram for ADAS
EMR-ACT-REQ-393389/C-Remote Reset Requested	MBORREL4: Updated for NFC
EMR-SD-REQ-393390/B-Remote Reset Requested+	MBORREL4: Updated diagram for ADAS
EMR-SD-REQ-393390/C-Remote Reset Requested+	MBORREL4: Updated for NFC
EMR-SD-REQ-393390/D-Remote Reset Requested	MBORREL4: Updated setSyncResetConfirm API
EMR-REQ-275662/C-VIN Removal - Multiple vs Last User	MBORREL4: Added NFC content
EMR-REQ-275663/F-VIN Removal - Clear User Settings Command/Response	MBORREL4: Added NFC content
EMR-REQ-275650/E-Cleared Data+	MBORREL4: Added additional impacted features to list. Added EmbeddedModemResetAdasServer
EMR-REQ-275650/F-Cleared Data+	MBORREL4: Added NFC
EMR-REQ-275650/G-Cleared Data	MBORREL4: Updated req. reference
EMR-REQ-275656/C-Buffered AVD Data	MBORREL4: Updated req. reference
EMR-ACT-REQ-275667/D-Removal Of VIN From Account	MBORREL4: Updated for NFC
EMR-SD-REQ-275668/D-Removal Of VIN From Account	MBORREL4: Updated for NFC
STR-457467/C-Requirements	MBORREL4: Added REQ-480077, REQ-480078, REQ-480079, REQ-479701, REQ-480317, REQ-480318, REQ-480319
EMR-REQ-480077/A-Wifi Hotspot Embedded Modem Reset - Preconditions	MBORREL4: New req.
EMR-REQ-480318/A-Wifi Hotspot Embedded Modem Reset - InterfaceClient notifying	MBORREL4: New req. for PDC

EmbeddedModemResetServer	
EMR-REQ-281489/C-Wifi Hotspot Embedded Modem Reset - Server Request	MBORREL4: Updated req.
EMRv2-REQ-480078/A-Wifi Hotspot Embedded Modem Reset - Server Request v2	MBORREL4: New req.
EMR-REQ-275671/B-Wifi Hotspot Embedded Modem Reset - Server Response	MBORREL4: Updated req.
EMR-REQ-480079/A-Wifi Hotspot Embedded Modem Reset - Reset Progress Broadcast	MBORREL4: New req.
EMR-REQ-275647/C-Master & Embedded Modem Reset - Request Handling	MBORREL4: Updated req.
EMRv2-HMI-REQ-480317/A-Wifi Hotspot Embedded Modem Reset - User Input Enable/Disable v2	MBORREL4: New req. for PDC
EMR-REQ-480319/A-Wifi Hotspot Embedded Modem Reset - Progress Indication	MBORREL4: New req. for PDC
EMR-REQ-275654/B-Master & Embedded Modem Reset - Completion Time	MBORREL4: Updated req.
EMRv2-REQ-479701/A-Master & Embedded Modem Reset - Completion Time v2	MBORREL4: New req.
STR-457469/B-White Box View	MBORREL4: Added REQ-480557, REQ-480558
EMRv2-ACT-REQ-480557/A-Wifi Hotspot Embedded Modem Reset v2	MBORREL4: New diagram for ECG centric change
EMRv2-SD-REQ-480558/A-Wifi Hotspot Embedded Modem Reset v2	MBORREL4: New diagram for ECG centric change
STR-457477/C-Requirements	MBORREL4: Added REQ-480097, REQ-480098, REQ-480099, REQ-480337, REQ-480338, REQ-480339, REQ-480340, REQ-480341
EMR-REQ-480097/A-PaaK Embedded Modem Reset - Preconditions	MBORREL4: New req.
EMR-REQ-480338/A-PaaK Embedded Modem Reset - InterfaceClient notifying EmbeddedModemResetServer	MBORREL4: New req. for PDC
EMR-REQ-281570/C-PaaK Embedded Modem Reset - Server Request	MBORREL4: Updated req.
EMRv2-REQ-480098/A-PaaK Embedded Modem Reset - Server Request v2	MBORREL4: New req.
EMR-REQ-480339/A-PaaK Embedded Modem Reset - InterfaceClient Issuing Reset Request	MBORREL4: New req. for PDC
EMR-REQ-480340/A-PaaK Embedded Modem Reset - InterfaceClient Reset Response	MBORREL4: New req. for PDC
EMR-REQ-275681/B-PaaK Embedded Modem Reset - Server Response	MBORREL4: Updated req.
EMR-REQ-480099/A-PaaK Embedded Modem Reset - Reset Progress Broadcast	MBORREL4: New req.

EMR-REQ-275647/C-Master & Embedded Modem Reset - Request Handling	MBORREL4: Updated req.
EMR-REQ-275682/B-PaaK Embedded Modem Reset - Determine Reset Fail/Success	MBORREL4: Updated req.
EMRv2-HMI-REQ-480337/A-PaaK Embedded Modem Reset - User Input Enable/Disable v2	MBORREL4: New req. for PDC
EMR-REQ-480341/A-PaaK Embedded Modem Reset - Progress Indication	MBORREL4: New req. for PDC
STR-457479/B-White Box View	MBORREL4: Added REQ-480559, REQ-480560
EMRv2-ACT-REQ-480559/A-PaaK Embedded Modem Reset v2	MBORREL4: New diagram for ECG centric change
EMRv2-SD-REQ-480560/A-PaaK Embedded Modem Reset v2	MBORREL4: New diagram for ECG centric change
STR-489922/C-Requirements+	MBORREL4: Added REQ-429822, REQ-429823
STR-489922/D-Requirements	MBORREL4: Added REQ-479701, REQ-480117-122, REQ-480357-363, REQ-481657-661
EMR-REQ-480117/A-Brand Connect Embedded Modem Reset1 - Preconditions	MBORREL4: New req.
EMR-REQ-480118/A-Brand Connect Embedded Modem Reset2 - Preconditions	MBORREL4: New req.
EMR-REQ-480359/A-Brand Connect Embedded Modem Reset1 - InterfaceClient notifying EmbeddedModemResetServer	MBORREL4: New req. for PDC
EMR-REQ-480360/A-Brand Connect Embedded Modem Reset2 - InterfaceClient notifying EmbeddedModemResetServer	MBORREL4: New req. for PDC
EMR-REQ-290272/D-Brand Connect Embedded Modem Reset - Server Request+	MBORREL4: Updated for NFC
EMR-REQ-290272/E-Brand Connect Embedded Modem Reset - Server Request	MBORREL4: Updated req.
EMRv2-REQ-480119/A-Brand Connect Embedded Modem Reset1 - Server Request v2	MBORREL4: New req.
EMRv2-REQ-480120/A-Brand Connect Embedded Modem Reset2 - Server Request v2	MBORREL4: New req.
EMRv2-REQ-480361/A-Brand Connect Embedded Modem Reset - InterfaceClient Request v2	MBORREL4: New req. for PDC
EMR-REQ-480121/A-Brand Connect Embedded Modem Reset1 - Reset Progress Broadcast	MBORREL4: New req.
EMR-REQ-480122/A-Brand Connect Embedded Modem Reset2 - Reset Progress Broadcast	MBORREL4: New req.
EMR-REQ-480362/A-Brand Connect Embedded Modem Reset1 - Progress Indication	MBORREL4: New req. for PDC

EMR-REQ-480363/A-Brand Connect Embedded Modem Reset2 - Progress Indication	MBORREL4: New req. for PDC
EMR-REQ-290256/B-Brand Connect Embedded Modem Reset - Response	MBORREL4: Updated req.
EMR-REQ-281278/D-Embedded Modem Reset - OnBoardClient Response	MBORREL4: Corrected typo (no req. change), updated title
EMR-REQ-429822/A-Embedded Modem Reset - EmbeddedModemResetNFCServer Response	MBORREL4: New req. for NFC
EMR-REQ-481657/A-Brand Connect Embedded Modem Reset - EmbeddedModemResetServer Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-481658/A-Brand Connect Embedded Modem Reset - EmbeddedModemResetInterfaceClient Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-481659/A-Brand Connect Embedded Modem Reset - EmbeddedModemResetOnBoardClient Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-481660/A-Brand Connect Embedded Modem Reset - EmbeddedModemResetPnCServer Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-481661/A-Brand Connect Embedded Modem Reset - EmbeddedModemResetNFCServer Reset Status	MBORREL4: Req. to capture existing implementation
EMR-REQ-275647/C-Master & Embedded Modem Reset - Request Handling	MBORREL4: Updated req.
EMR-REQ-429823/A-Embedded Modem Reset - NFCServer Operational States	MBORREL4: New req. for NFC
EMR-REQ-290258/D-Brand Connect Embedded Modem Reset - Cleared Data	MBORREL4: Updated req. references and removed classes
EMR-HMI-REQ-290260/D-Brand Connect Embedded Modem Reset - User Input Enable/Disable	MBORREL4: Updated first line to remove HMI actions/examples
EMR-REQ-480357/A-Brand Connect Embedded Modem Reset1 - User Input Availability	MBORREL4: New req. for PDC
EMR-REQ-480358/A-Brand Connect Embedded Modem Reset2- User Input Availability	MBORREL4: New req. for PDC
EMR-REQ-275654/B-Master & Embedded Modem Reset - Completion Time	MBORREL4: Updated req.
EMRv2-REQ-479701/A-Master & Embedded Modem Reset - Completion Time v2	MBORREL4: New req.
EMR-REQ-275656/C-Buffered AVD Data	MBORREL4: Updated req. reference
EMR-UC-REQ-290264/B-Brand Connect Embedded Modem Reset & Clear EV Settings	MBORREL4: Updated description

STR-489924/B-White Box View	MBORREL4: Added REQ-480577, REQ-480578
EMR-ACT-REQ-290266/E-Brand Connect Embedded Modem Reset	MBORREL4: Updated for NFC
EMRv2-ACT-REQ-480577/A-Brand Connect Embedded Modem Reset v2	MBORREL4: New diagram for ECG centric change
EMR-SD-REQ-290267/E-Brand Connect Embedded Modem Reset	MBORREL4: Updated for NFC
EMRv2-SD-REQ-480578/A-Brand Connect Embedded Modem Reset v2	MBORREL4: New diagram for ECG centric change
STR-718666/B-Use Cases	MBORREL4: Added REQ-443217, REQ-443218
EMR-UC-REQ-375819/B-Reset Control Disabled	MBORREL4: Added Factory Reset (new for PDC)
EMR-UC-REQ-443217/A-User performs Factory Reset while Reset Control Enabled	MBORREL4: New req. for PDC
EMR-UC-REQ-443218/A-User performs Factory Reset while Reset Control Disabled	MBORREL4: New req. for PDC
STR-718667/B-Requirements	MBORREL4: Added REQ-443223-226
EMR-REQ-375833/B-Reset Control Status Config. Parameter Default	MBORREL4: Added Factory Reset (new for PDC)
EMR-REQ-375834/C-Reset Control Status Config. Parameter = DEACTIVATERESET	MBORREL4: Added Factory Reset (new for PDC)
EMR-REQ-375835/C-Reset Control Status Config. Parameter due to Reset	MBORREL4: Added Factory Reset (new for PDC)
EMR-REQ-375837/B-Reset Control Status Config. Parameter = ACTIVATERESET	MBORREL4: Added Factory Reset (new for PDC)
EMRv2-REQ-443223/A-Reset Control while DeactivateReset - EmbeddedModemResetInterfaceClient (v2)	MBORREL4: New variant req. for PDC
EMR-REQ-375840/B-Reset Request while in DeactivateReset	MBORREL4: Added Factory Reset (new for PDC)
EMR-REQ-375841/B-Reset Request while ActivateReset	MBORREL4: Added Factory Reset (new for PDC)
EMRv2-REQ-443226/A-Loss of Communication (v2)	MBORREL4: New variant req. for PDC

Table of Contents

1 Overview

This specification captures all existing Master Reset functionality as it pertains to the Embedded Modem and its features for the FNV2 architecture. It includes additional requirements, usecases, and diagrams to completely detail the expected behavior when a Master Reset is performed by either the HMI system or the NGSDN.

This specification also provides new functionality that allows a user to perform a reset for a select number of Embedded Modem features.

2 Architectural Design

2.1 EMRv2-CLD-REQ-275640/B-Embedded Modem Reset Server

The Embedded Modem Reset Server is responsible for the tasks listed below:

- Receive reset requests from Embedded Modem Reset InterfaceClient
- Receive FTCP commands from Embedded Modem Reset OffBoardClient
- Perform Embedded Modem Reset feature functionality to eliminate all applicable user data and/or restore factory defaults.
- Call all Master Reset and Embedded Modem Reset APIs from all applicable Clients/Servers.
- Transmit Embedded Modem Reset response/status back to the Embedded Modem Reset InterfaceClient
- Transmit Embedded Modem Reset FTCP command responses back to the Embedded Modem Reset OffBoardClient.

Please review the implementation guide/ block diagram to locate the Embedded Modem Reset Server class

2.2 EMR-CLD-REQ-275702/A-Embedded Modem Reset InterfaceClient

The Embedded Modem Reset InterfaceClient is responsible for the tasks listed below.

- Receiving user input and confirmation of a Master Reset request
- Receiving user input and confirmation of an Embedded Modem Reset request
- Transmit Master Reset request to the Embedded Modem Reset Server, as well as any Infotainment Master Reset Servers/Clients requiring it
- Transmit Embedded Modem Reset request to the Embedded Modem Reset Server
- Displaying information regarding reset success, failure, and ongoing status.

Please review the implementation guide/ block diagram to locate the Embedded Modem Reset InterfaceClient class

2.3 EMRv2-CLD-REQ-275696/A-Embedded Modem Reset OnBoardClient

The Embedded Modem Reset OnBoardClient is responsible for the tasks listed below:

- Receive reset request API from Embedded Modem Reset Server
- Receive FTCP commands from Embedded Modem Reset Server
- Perform Embedded Modem Reset feature functionality to eliminate all applicable user data and/or restore factory defaults.
- Transmit Embedded Modem Reset response API back to the Embedded Modem Reset Server.

Please review the implementation guide/ block diagram to locate the Embedded Modem Reset OnBoardClient class

2.4 EMR-CLD-REQ-246272/A-Embedded Modem Reset OffBoardClient

The Embedded Modem Reset OffBoardClient is responsible for the tasks listed below.

- Transmit FTCP commands to Embedded Modem Reset Server
- Perform Embedded Modem Reset feature functionality to eliminate all applicable user data and/or restore factory defaults.
- Receive Embedded Modem Reset FTCP command responses from the Embedded Modem Reset Server.

Please review the implementation guide/ block diagram to locate the Embedded Modem Reset OffBoardClient class

2.5 EMRv2-CLD-REQ-275641/B-Embedded Modem Reset Key Server

The Embedded Modem Reset Key Server is responsible for the tasks listed below:

- Receive reset request from Embedded Modem Reset Interface Client
- Perform Embedded Modem Reset feature functionality to revoke all created keys, eliminate all applicable user data, and/or restore factory defaults.
- Transmit Revoked Key status back to the Embedded Modem Reset Server.

Please review the implementation guide/ block diagram to locate the Embedded Modem Reset Key Server class

2.6 EMR-CLD-REQ-275695/B-Embedded Modem Reset EV Server

The Embedded Modem Reset EVServer is responsible for the tasks listed below:

- Receive reset request from Embedded Modem Reset Interface Client
- Perform Embedded Modem Reset feature functionality to eliminate all applicable user data and/or restore factory defaults.

Please review the implementation guide/ block diagram to locate the Embedded Modem Reset EVServer class.

2.7 EMR-CLD-REQ-392647/A-Embedded Modem Reset PnC Server

The Embedded Modem Reset PnC Server is responsible for the tasks listed below:

- Receive reset request from Embedded Modem Reset Server
- Perform Embedded Modem Reset feature functionality to eliminate all applicable user data and/or restore factory defaults.

Please review the implementation guide/ block diagram to locate the Embedded Modem Reset PnC Server class.

2.8 EMR-CLD-REQ-413948/A-Embedded Modem Reset ADAS Server

The Embedded Modem Reset ADAS Server is responsible for the tasks listed below:

- Receive reset request from Embedded Modem Reset Server
- Perform Embedded Modem Reset feature functionality to eliminate all applicable user data and/or restore factory defaults.

Please review the implementation guide/ block diagram to locate the Embedded Modem Reset ADAS Server class.

2.9 EMR-CLD-REQ-429817/A-Embedded Modem Reset NFC Server

The Embedded Modem Reset NFC Server is responsible for the tasks listed below:

- Receive reset request from Embedded Modem Reset Server
- Perform Embedded Modem Reset feature functionality to eliminate all applicable user data and/or restore factory defaults.

Please review the implementation guide/ block diagram to locate the Embedded Modem Reset NFC Server class.

2.10 Physical Mapping of Classes

The table below shows an example of how the logical classes that make up the Embedded Modem Reset feature can be mapped into physical modules. This mapping is an FNV2 example only and does not necessarily carryover to other carlines or vehicle architectures.

Logical Class	Physical Module (ECU)
EmbeddedModemResetServer	ECG
EmbeddedModemResetInterfaceClient	SYNC, PDC
EmbeddedModemResetOnBoardClient	TCU
EmbeddedModemResetOffBoardClient	NGSDN
EmbeddedModemResetKeyServer	BLEM
EmbeddedModemResetEVServer	HPCM
EmbeddedModemResetPnCServer	OBCC
EmbeddedModemResetAdasServer	ADAS
EmbeddedModemResetNFCServer	NFAM

2.11 EmbeddedModemResetInterfaceClient Interface

2.11.1 EMR-IIR-REQ-275697/D-EmbeddedModemResetInterfaceClientInterface_Tx

The EmbeddedModemResetInterfaceClientInterface_Tx represents all the Embedded Modem Reset feature related signals sent by the EmbeddedModemResetInterfaceClient object. The below table represents the mapping of the logical signal names (as described in this specification) to the global GSDB signal names.

Logical Signal Name	Parameter Name	GSDB Signal Name
FactoryReset_Rq	Type	FactoryReset_Rq
EmbeddedModemReset_Rq	Type	ModemReset_D_Rq

Note: GSDB signal names are reference only. The Global Signal Database (GSDB) is the master for all signals. If there is a conflict, bring to the module D&R's attention.

2.11.1.1 MD-REQ-213361/C-FactoryReset_Rq

Message Type: Request

Signal sent by the Master Reset Client to initiate a Master Reset

Logical Signal Name	Literals	Value	Description
FactoryReset_Rq	Inactive	0x0	
	ResetFactoryDefaults	0x1	

2.11.1.2 MD-REQ-246273/C-EmbeddedModemReset_Rq

Message Type: Request

This signal is used to perform a factory reset for the specified Embedded Modem feature.

Name	Literals	Value	Description
Type	-	-	Embedded Modem feature to be reset to factory defaults.
	Null	0x0	
	WifiHotspot_Reset	0x1	
	PaaK_Reset	0x2	
	OnlineTraffic_Reset	0x3	
	CCS_Reset	0x4	
	BrandConnect_Reset1	0x5	
	BrandConnect_Reset2	0x6	
	Reserved	0x7 – 0xF	

2.11.1.3 MD-REQ-374137/A-setResetControl

This API is used to request a change of the Reset Control on the EmbeddedModemResetInterfaceClient. The EmbeddedModemResetInterfaceClient also uses this API for its response.

Method Type	One-Shot (Synch)
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description

Request					
R	ResetControlStatus	Enum	-	-	
			ActivateReset	0x00	Reset buttons are activated (operate per normal use)
			DeactivateReset	0x01	Reset buttons are deactivated
Response					
R	ResetControlResponse	Enum	-	-	
			Activated	0x00	
			Deactivated	0x01	

2.11.1.4 MD-REQ-374138/A-getResetControlStatus

This API is used to request the Reset Control status from the EmbeddedModemResetServer.

Method Type	One-Shot (Synch)
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
-	-	-	-	-	N/A
Response					
R	ResetControlStatus	Enum	-	-	
			ActivateReset	0x00	Reset buttons are activated (operate per normal use)
			DeactivateReset	0x01	Reset buttons are deactivated

2.11.1.5 MD-REQ-374140/A-setRCUserSelection

This API is used to notify EmbeddedModemResetServer that the user has selected/requested a reset while Reset Control was deactivated on the EmbeddedModemResetInterfaceClient. No response is sent from the EmbeddedModemResetServer.

Method Type	Fire-and-forget
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
R	UserSelection	Enum	-	-	N/A
			MasterReset	0x0	User requested a Master Reset while Reset is deactivated
			BrandConnectReset	0x1	User requested a Brand Connect Reset while Reset is deactivated

2.11.1.6 MD-REQ-479639/A-setSyncResetConfirm

This API is used to confirm the reset request from EmbeddedModemResetServer.

Method Type	One-Shot (A-Synch)
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
-	-	-	-	-	N/A
Response					
R	ConfirmStatus	Enum	-	-	Used to indicate the success or failure of the reset
			Success	0x0	
			Fail	0x1	
R	DebugTokenStatus	Enum	-	-	Debug token status
			No_Debug_Token_Present	0x0	
			Debug_Token_Removed	0x1	
			Debug_Token_Not_Removed	0x2	

2.11.1.7 MD-REQ-479657/A-resetRequestBroadcast

This API is used to notify the EmbeddedModemResetServer of a reset request.

Method Type	Fire&Forget
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
-	-	-	-	-	N/A
Response					
R	ResetRequest	Enum	-	-	Used to indicate the type of reset request
			Super Reset	0x0	
			Brand Connect Reset1	0x1	
			Brand Connect Reset2	0x2	
			Factory Reset	0x3	
			Wifi Hotspot Reset	0x4	
			PaaK Reset	0x5	
			Cluster Reset	0x6	
			SYNC Reset	0x7	
			NotUsed	0x8	
			NotUsed	0x9	

2.11.1.8 MD-REQ-479658/A-getResetAvailability

This API is used to request the EmbeddedModemResetServer to publish resetAvailabilityBroadcast.

Method Type	Fire&Forget
QoS Level	Default

Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
-	-	-	-	-	N/A
Response					
-	-	-	-	-	N/A

2.11.1.9 MD-REQ-482638/A-setEcuReadyState

This API is used to communicate an ECU's ready state to the EmbeddedModemResetServer.

Method Type	One-Shot (A-Synch)
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
-	-	-	-	-	N/A
Response					
R	ecuType	Enum	-	-	Used to indicate the module
			TCU	0x0	
			SYNC	0x1	
			ADAS	0x2	
R	ecuReady	Bool	-	0/1	Used to indicate ready status 0-NotReady 1-Ready

2.11.2 EMR-IIR-REQ-275698/D-EmbeddedModemResetInterfaceClientInterface_Rx

The EmbeddedModemResetInterfaceClientInterface_Rx represents all the Embedded Modem Reset feature related signals received by the EmbeddedModemResetInterfaceClient object. The below table represents the mapping of the logical signal names (as described in this specification) to the global GSDB signal names.

Logical Signal Name	Parameter Name	GSDB Signal Name
FactoryReset_St	Type	FactoryReset_ St
EmbeddedModemReset_ St	Type	ModemReset_D_Stat
TCUAvailability_St	Type	WifiEnbl_D_Stat
PaakESN_St	ProvDID	See TP SPSS
IgnKeyType_D_Actl	-	IgnKeyType_D_Actl

Note: GSDB signal names are reference only. The Global Signal Database (GSDB) is the master for all signals. If there is a conflict, bring to the module D&R's attention.

2.11.2.1 MD-REQ-222036/C-FactoryReset.St

Message Type: Status

Signal sent by the Master Reset components (ex AHU) indicating that the master reset default settings were restored for a master reset event

Logical Signal Name	Literals	Value	Description
FactoryReset.St	Inactive	0x0	
	FactoryDefaultsRestored	0x1	

	Reserved	0x2	
	Reserved	0x3	

2.11.2.2 MD-REQ-246274/B-EmbeddedModemReset_St

Message Type: Status

This signal is used to indicate the status of the factory reset performed for the specified Embedded Modem feature.

Name	Literals	Value	Description
Type	-	-	Embedded Modem feature factory reset status.
	Null	0x0	
	Reset_NotComplete	0x1	
	PaaKReset_Complete	0x2	
	OnlineTrafficReset_Complete	0x3	
	CCSReset_Complete	0x4	
	WifiHotspotReset_Complete	0x5	
	Reserved	0x6-0xF	

2.11.2.3 MD-REQ-179305/B-TCUAvailability_St

Message Type: Status

This signal is used to inform the WifiHotSpotOnBoardClient the current state of the Wi-Fi Hotspot feature

Name	Literals	Value	Description
Type	-	-	Wi-Fi feature readiness status
	Null	0x0	
	Disable	0x1	
	Enable	0x2	

2.11.2.4 MD-REQ-241972/L-PaakESN_St

Message Type: Status

“PaakESN_St” is a TP CAN signal used to indicate the provisioning state, ESN and BPEK (One way hashed) “PasKESN_St” contains the BLEMProvDID (Actual name in GMRDB “Bluetooth Low Energy Module (BLEM) Provisioning Status”) and ProvOnBoardClient4’s metadata. It shall include: “TP header” + “SyncP Header” + Payload as shown on requirement PMPR-REQ-331617.

PaakESN_St” is a periodic TP message that will be transmitted through CAN from ProvOnBoardClient4 to ProvServer.

The table below denotes the data that is required in the PaakESN_St TP message for the ProvOnBoardClient4.

Peripheral ECU	Transport Protocol Message	FTCP Logic
BLEM	PaakESN_ST	BLEMProvisioningAlert

BLEMProvDID (aka BLEM Provisioning Status) represents the Provisioning State of ProvOnBoardClient4 within itself and stored in ECU memory (DID 0xA01C). Please refer to requirement PMPR-REQ-354871 for further details.

Name	Literals	Value	Description
BLEMProvDID	-	-	Describes the current state Provisioning
	FactoryMode	0x50	BLEM is not Configured
	Unprovisioned	0x51	BLEM Configured, but either Self-Test, Target ID and/or CAN node notification is not complete – refer to BLEM and/or BUN SPSS for details
	BLEMProvAlertACK	0x52	Once target ID and self-test is completed, BLEM is waiting for Provisioning Alert Ack from PaakOnBoardClient
	ReadyForKeyDelivery	0x53	BLEM is Provisioned and ready for Key Delivery
	KeyDelivered	0x54	Key(s) are delivered to BLEM
BLEMSyncPPacket	-	-	BLEM SyncP Signed (BLEM ESN). BLEM ESN will be in the header of SyncP Signed message. SyncP Payload information found in PaaK-REQ-281398-Provisioning SyncP Payload. Max. 1000 bytes.

2.11.2.5 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

2.11.2.6 MD-REQ-374137/A-setResetControl

This API is used to request a change of the Reset Control on the EmbeddedModemResetInterfaceClient. The EmbeddedModemResetInterfaceClient also uses this API for its response.

Method Type	One-Shot (Synch)
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
R	ResetControlStatus	Enum	-	-	
			ActivateReset	0x00	Reset buttons are activated (operate per normal use)

			DeactivateReset	0x01	Reset buttons are deactivated
Response					
R	ResetControlResponse	Enum	-	-	
			Activated	0x00	
			Deactivated	0x01	

2.11.2.7 MD-REQ-374138/A-getResetControlStatus

This API is used to request the Reset Control status from the EmbeddedModemResetServer.

Method Type	One-Shot (Synch)
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
-	-	-	-	-	N/A
Response					
R	ResetControlStatus	Enum	-	-	
			ActivateReset	0x00	Reset buttons are activated (operate per normal use)
			DeactivateReset	0x01	Reset buttons are deactivated

2.11.2.8 MD-REQ-392660/B-setSyncReset

This API is used to request a Reset of the EmbeddedModemResetInterfaceClient.

Method Type	One-Shot (A-Synch)
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
R	ResetService	Enum	-	-	Used to indicate the reset request type
			Master Reset	0x0	
			SYNC Reset	0x1	
			Brand Connect Reset1	0x2	
			Brand Connect Reset2	0x3	
			WifiHotspot Reset	0x4	
			PaaK Reset	0x5	
			Factory Reset	0x6	
			NotUsed	0x7	
			NotUsed	0x8	
			NotUsed	0x9	
Response					
-	-	-	-	-	N/A

2.11.2.9 MD-REQ-479637/A-resetProgressBroadcast

This API is used to broadcast the status of the indicated reset.

Method Type	Fire&Forget
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
-	-	-	-	-	N/A
Response					
R	ResetType	Enum	-	-	Used to indicate the type of reset being performed
			Super Reset	0x0	
			Brand Connect Reset1	0x1	
			Brand Connect Reset2	0x2	
			Factory Reset	0x3	
			Wifi Hotspot Reset	0x4	
			PaaK Reset	0x5	
			Cluster Reset	0x6	
			SYNC Reset	0x7	
			NotUsed	0x8	
			NotUsed	0x9	
R	ResetStatus	Enum	-	-	Progress of indicated reset
			None	0x0	
			In Progress	0x1	
			Complete - Fail	0x2	
			Complete - Success	0x3	

2.11.2.10 MD-REQ-479638/A-resetAvailabilityBroadcast

This API is used to broadcast the availability status of the different reset options.

Method Type	Fire & Forget
QoS Level	Default
Retained	No

R/O	Name		Type	Literals	Value	Description
Request						
-	-		-	-	-	N/A
Response						
Rep	ResetAvailabilityState		resetAvailState	-	-	Repeated Setting data for each Reset Type
R	resetAvailState	ResetType	Enum	-	-	Used to indicate the type of Reset being communicated
				SuperReset	0x0	
				BrandConnectReset1	0x1	
				BrandConnectReset2	0x2	

				FactoryReset	0x3	
				WifiHotSpotReset	0x4	
				PaaKReset	0x5	
				ClusterReset	0x6	
				SYNCReset	0x7	
		EnableState	Enum	-	-	Used to indicate the availability of the Reset
				Not_Available	0x0	
				Disable	0x1	
				Enable	0x2	
		NotAvailReason	Enum	-	-	Used to indicate reason why the Reset is disabled
				Not in Park	0x0	
				Not in Run	0x1	
				Speed Exceeded	0x2	
				User Key Started Vehicle	0x3	
				MyKey Started Vehicle	0x4	
				Modem not available	0x5	
				No PaaK Created	0x6	

2.11.2.11 MD-REQ-482637/A-ecuReadyStateBroadcast

This API is used to request the ready state of various ECU's.

Method Type	Fire&Forget
QoS Level	Default
Retained	No

R/O	Name	Type	Literals	Value	Description
Request					
-	-	-	-	-	N/A
Response					
-	-	-	-	-	N/A

3 General Requirements

3.1 EMR-REQ-275655/A-Master & Embedded Modem Reset - Inactive/Null

The request and status signals used for Embedded Modem Reset shall revert to their respective “Inactive” or “Null” encodings 1 second after being sent (refer to all sequence diagrams).

Note: The receiving server or client shall act on the initial request/status signal, and not the subsequent “Inactive” or “Null” encodings.

3.2 EMR-REQ-290481/A-FTCP Specification References

The following FTCP specifications define the FTCP alerts/commands mentioned in this SPSS, as well as the protocol used to transmit them via the EmbeddedModemResetServer:

- Ford Telematics Communication Protocol Specification
- FNV2-FCI Protocol SPSS

3.3 EMR-REQ-374132/A-Master & Embedded Modem Reset - MyKey Restriction

The Embedded Modem Feature Reset user interfaces (button/graphic) and submenu shall be MyKey restricted based on the following:

- When IgnKeyType_D_Actl = “(0x2) Key_In_Ign_MyKey” the above shall be restricted
    - If a feature reset is pressed, the EmbeddedModemResetInterfaceClient shall not send EmbeddedModemReset_Rq, but shall instead show a popup indicating the MyKey Restriction.
    - If the submenu is open/visible at the time this condition is made true, the EmbeddedModemResetInterfaceClient shall take the user to the previous menu (or parent menu)

- When IgnKeyType_D_Actl != “(0x2) Key_In_Ign_MyKey” the above shall not be restricted

If IgnKeyType_D_Actl is not on the bus when ignition does not equal Run (ex Acc, Delay Acc, extended play), the EmbeddedModemResetInterfaceClient shall assume the last signal state received.

MyKey shall take precedence over Reset Control in regards to restrictions and HMI prompts.

3.4 EMR-REQ-381350/B-Non-Connected Market Operation - EmbeddedModemResetServer

The EmbeddedModemResetServer shall use the TCU_Presence DID and Vehicle_Market_Config DID to determine whether the vehicle is in a Non-Connected Market, and therefore apply the requirements below.

- The vehicle is in a Non-Connected Market when:
    - TCU_Presence = “0x0 - Not Presented” AND
    - Vehicle_Market_Config = “0x1 – Non-connected Market”
- The vehicle is in a Connected Market when:
    - TCU_Presence = “0x1 - Presented and to be provisioned” AND
    - Vehicle_Market_Config = “0x0 – Connected Market”

When in a Non-Connected Market, the EmbeddedModemResetServer shall ignore any feature reset request from the EmbeddedModemInterfaceClient.

When in a Non-Connected Market, and a Master Reset is requested/performed, the EmbeddedModemResetServer shall:

- Perform the Embedded Modem Master Reset for any applicable internal features/functions (see REQ-275650)
    - This means internally notifying other applications/services in the EmbeddedModemResetServer that a reset is to be performed. Each application/service is responsible for clearing their own data
    - Note: All connected features/applications will be disabled, and therefore shall not register with the EmbeddedModemResetServer.
- Not transmit any alerts as required in this SPSS
- Not receive or act on any commands as required in this SPSS
- Not perform the SVS Reset Control Function as required in this SPSS

- Not call the API, setModemMasterReset(MasterResetService = 0x0 - ResetAll), from the EmbeddedModemResetOnBoardClient
- Shall not consider the setModemMasterReset API response before sending FactoryReset.St = “(0x1) FactoryDefaultsRestored” to the EmbeddedModemResetInterfaceClient
- Shall perform the above in any provisioning state (not required to be Provisioned)

3.5 EMR-REQ-396102/A-eCall Only Market Operation - EmbeddedModemResetServer

The EmbeddedModemResetServer shall use the TCU_Presence DID and Vehicle_Market_Config DID to determine whether the vehicle is in an eCall Only Market, and therefore apply the requirements below.

- The vehicle is in an eCall Only Market when:
  - TCU_Presence = “0x1 - Presented and to be provisioned” AND
  - Vehicle_Market_Config = “0x1 – Non-connected Market”

When in an eCall Only Market, the EmbeddedModemResetServer shall ignore any feature reset request from the EmbeddedModemInterfaceClient.

When in an eCall Only Market, and a Master Reset is requested/performed, the EmbeddedModemResetServer shall:

- Perform the Embedded Modem Master Reset for any applicable internal features/functions (see REQ-275650)
  - This means internally notifying other applications/services in the EmbeddedModemResetServer that a reset is to be performed. Each application/service is responsible for clearing their own data
  - Note: All connected features/applications will be disabled, and therefore shall not register with the EmbeddedModemResetServer.
- Not transmit any alerts as required in this SPSS
- Not receive or act on any commands as required in this SPSS
- Not perform the SVS Reset Control Function as required in this SPSS
- Call the API, setModemMasterReset(MasterResetService = 0x0 - ResetAll), from the EmbeddedModemResetOnBoardClient
- Shall consider the setModemMasterReset API response before sending FactoryReset.St = “(0x1) FactoryDefaultsRestored” to the EmbeddedModemResetInterfaceClient
- Shall perform the above in any provisioning state (not required to be Provisioned)

3.6 EMR-REQ-479677/A-Primary Display Device Determination

The EmbeddedModemResetServer shall use the Primary_Display_Device DID to determine what device is present on the vehicle and thus what requirements to perform.

3.7 EMR-REQ-479678/A-Reset Availability Broadcast on Request

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall publish resetAvailabilityBroadcast for all Reset Types upon reception of getResetAvailability.

3.8 EMR-REQ-480137/A-Reset Availability Request

The EmbeddedModemResetInterfaceClient shall request the EmbeddedModemResetServer to publish resetAvailabilityBroadcast for all Reset Types by calling getResetAvailability. The EmbeddedModemResetInterfaceClient shall do so:

- Upon start up (Ignition_Status transitions from Off to Run)
- Upon an internal Reset, Super Reset, Factory Reset, etc.
- Upon a module Reboot
- Any time the reset availability status becomes lost/unknown

4 Functional Definition

4.1 EMRv2-FUN-REQ-275644/C-Master Reset / Factory Reset initiated from EmbeddedModemResetInterfaceClient

4.1.1 Requirements

4.1.1.1 EMR-REQ-429821/B-Client/Server Applicability Check

The EmbeddedModemResetServer shall check which clients/servers are present and applicable per the configurations listed below. If the configurations indicate that a given client/server is not present, that relative reset request shall not be sent:

- EmbeddedModemResetServer shall always be applicable
- EmbeddedModemResetOnBoardClient shall be applicable if in a Connected Market (see REQ-381350)
- EmbeddedModemResetAdasServer shall be applicable if ADAS_Presence DID = 1, else it shall not be applicable.
- EmbeddedModemResetNFCServer shall be applicable if NFAM_Presence DID = 1, else it shall not be applicable.
- EmbeddedModemResetEVServer shall be applicable if:
    - HPCM_Presence DID = 1, AND
    - Engine Type DID = Electric Only (BEV) OR Gas/Plug in Electric Vehicle (PHEV), else it shall not be applicable.
- EmbeddedModemResetPnCServer shall be applicable if OBCC_Presence DID = 1, else it shall not be applicable.
- EmbeddedModemResetInterfaceClient shall be applicable as per REQ-479677

4.1.1.2 EMR-REQ-479698/A-Super Reset - Preconditions

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall monitor the below conditions to determine whether Super Reset shall be made available to the user (enabled/disabled). The corresponding NotAvailReason shall be set via resetAvailabilityBroadcast if the listed precondition is not met:

Precondition	NotAvailReason if condition not met
IgnitionStatus_St = Run	Not in Run
GearLeverPosition_St = Park	Not in Park
VehicleSpeed_St is less than 5mph (Driving Restrictions threshold)	Speed Exceeded
VehicleStartKeyType_St = Factory, AND VehicleStartKeySource_St != Digital_Key	User Key Started Vehicle
IgnKeyType_D_Actl != “(0x2) Key_In_Ign_MyKey”	MyKey Started Vehicle

- If IgnKeyType_D_Actl is not on the bus when ignition does not equal Run (ex Acc, Delay Acc, extended play), the EmbeddedModemResetServer shall assume the last signal state received
- If VehicleStartKeyType_St or VehicleStartKeySource become missing their values cannot be determined, the EmbeddedModemResetServer shall omit this precondition (do not consider for disabling the reset).

If all of the above preconditions have been met, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = SuperReset, EnableState = Enabled).

If at least one of the above conditions has not been met, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = SuperReset, EnableState = Disabled, NotAvailReason).

If any of the above conditions are not available or cannot be determined, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = SuperReset, EnableState = Not_Available).

4.1.1.3 EMR-REQ-480157/A-Super Reset - User Input Enable/Disable

The EmbeddedModemResetInterfaceClient shall enable/disable the Super Reset user interface (button/graphic) based on resetAvailabilityBroadcast received from the EmbeddedModemResetServer:

- If resetAvailabilityBroadcast(ResetType = SuperReset, EnableState = Enabled), the Super Reset user interface shall be enabled
- If resetAvailabilityBroadcast(ResetType = SuperReset, EnableState = Disabled, NotAvailReason), the Super Reset user interface shall be disabled
- If resetAvailabilityBroadcast(ResetType = SuperReset, EnableState = Not_Available), the Super Reset user interface shall be made unavailable (ex. spinning wheel)

If resetAvailabilityBroadcast(ResetType = SuperReset, EnableState = Disabled, NotAvailReason) while the user selects the user interface (button/graphic), the EmbeddedModemResetInterfaceClient shall display a notification to the user corresponding to the reason provided via NotAvailReason.

4.1.1.4 EMR-REQ-480158/A-Super Reset - InterfaceClient notifying EmbeddedModemResetServer

The EmbeddedModemResetInterfaceClient shall send resetRequestBroadcast(ResetRequest = Super Reset) to the EmbeddedModemResetServer when a Super Reset is requested by the user.

4.1.1.5 EMR-REQ-275645/F-Embedded Modem Master Reset - Server Request

When Primary_Display_Device = FORD_APIM, upon receiving FactoryReset.Rq = “(0x1) ResetFactoryDefaults” from the EmbeddedModemResetInterfaceClient, the EmbeddedModemResetServer shall:

- Perform the Embedded Modem Master Reset for any applicable internal features/functions (see REQ-275650)
  - This means internally notifying other applications/services in the EmbeddedModemResetServer that a reset is to be performed. Each application/service is responsible for clearing their own data
  - Note: The same application/service data is cleared for the Embedded Modem Master Reset, Brand Connect Reset, and VIN Removal
- Call the API, setModemMasterReset(MasterResetService = 0x0 - ResetAll), from the EmbeddedModemResetOnBoardClient (if in a Connected Market, see REQ-381350)
- Call the API, setAdasReset(ResetService = 0x0 - ResetADAS), from the EmbeddedModemResetAdasServer (see REQ-429821)
- Send DigitalKeyReset_Rq = “(0x1) ResetAll” to the EmbeddedModemResetNFCServer (see REQ-429821)

4.1.1.6 EMRv2-REQ-479699/A-Embedded Modem Master Reset - Server Request v2

When Primary_Display_Device = PHOENIX, upon receiving resetRequestBroadcast(ResetRequest = Super Reset) from the EmbeddedModemResetInterfaceClient, the EmbeddedModemResetServer shall:

- Perform the Embedded Modem Master Reset for any applicable internal features/functions (see REQ-275650)
  - This means internally notifying other applications/services in the EmbeddedModemResetServer that a reset is to be performed. Each application/service is responsible for clearing their own data
  - Note: The same application/service data is cleared for the Embedded Modem Master Reset, Brand Connect Reset, and VIN Removal
- Call the API, setModemMasterReset(MasterResetService = 0x0 - ResetAll), from the EmbeddedModemResetOnBoardClient (if in a Connected Market, see REQ-381350)
- Call the API, setAdasReset(ResetService = 0x0 - ResetADAS), from the EmbeddedModemResetAdasServer (see REQ-429821)
- Send OffboardChargeClearAll_Rq = “(0x1) Request” to EmbeddedModemResetEVServer
  - See EVCS-FUN-REQ-309463-Master Reset
- Send DgtlCommPnc_Rq = “(0x1) Reset” to EmbeddedModemResetPnCServer
  - See PNC-FUN-REQ-326625-Master Reset
- Send DigitalKeyReset_Rq = “(0x1) ResetAll” to the EmbeddedModemResetNFCServer (see REQ-429821)
- Call the API, setSyncReset(ResetService = Master Reset), from the EmbeddedModemResetInterfaceClient

4.1.1.7 EMR-REQ-275646/D-Embedded Modem Master Reset - Server Response

When Primary_Display_Device = FORD_APIM, the EmbeddedModemResetServer shall send FactoryReset.St = “(0x1) FactoryDefaultsRestored” to the EmbeddedModemResetInterfaceClient upon:

- completion of the Embedded Modem Master Reset, AND
- reception of a successful setModemMasterReset API response (if in a Connected Market, see REQ-381350), AND
- reception of a successful setAdasReset API response (see REQ-429821)
- reception of DigitalKeyReset_St (either Success or Fail) (see REQ-429821)

4.1.1.8 EMR-REQ-479700/A-Super Reset - Reset Progress Broadcast

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall publish resetProgressBroadcast() per the below:

- resetProgressBroadcast(ResetType = SuperReset, ResetStatus = None) when
  - no reset is actively being processed
  - this value shall be sent 1 second after having sent a 'Complete' status
- resetProgressBroadcast(ResetType = SuperReset, ResetStatus = In Progress) when
  - the EmbeddedModemResetServer begins issuing reset requests, until a 'Complete' status has been determined
- resetProgressBroadcast(ResetType = SuperReset, ResetStatus = Complete - Success) upon:
  - completion of the Embedded Modem Master Reset, AND
  - reception of a successful setModemMasterReset API response (if in a Connected Market, see REQ-381350), AND
  - reception of a successful setAdasReset API response (see REQ-429821), AND
  - reception of a successful DigitalKeyReset_St (see REQ-429821), AND
  - reception of a successful setSyncResetConfirm API response (see REQ-429821)
- resetProgressBroadcast(ResetType = SuperReset, ResetStatus = Complete - Fail) when:
  - any of the conditions listed for 'Complete - Success' above has failed
  - the max time allowed for reset has elapsed (See REQ-479701)

4.1.1.9 EMR-REQ-480177/A-Super Reset - InterfaceClient Performing a Reset

Upon receiving setSyncReset(ResetService = 0x0 - Master Reset), the EmbeddedModemResetInterfaceClient shall clear the same data and perform the same actions as it does upon a user initiated Master Reset (see Vehicle Settings SPSS).

4.1.1.10 EMR-REQ-480159/A-Super Reset - InterfaceClient Reset Response

Upon completion of the Super Reset, the EmbeddedModemResetInterfaceClient shall send setSyncResetConfirm(ConfirmStatus) to the EmbeddedModemResetServer indicating:

- ConfirmStatus = 0x0 Success, if the reset succeeded
- ConfirmStatus = 0x1 Fail, if the reset failed

Note: Due to limitations of the Android OS, the EmbeddedModemResetInterfaceClient shall send the ConfirmStatus prior to the actual reset, as an acknowledgement rather than a 'reset complete' status.

4.1.1.11 EMR-REQ-281278/D-Embedded Modem Reset - OnBoardClient Response

Upon completion of the Embedded Modem Reset, the EmbeddedModemResetOnBoardClient shall send the setModemMasterReset API response to the EmbeddedModemResetServer indicating:

- ResponseStatus = 0x00 Success, if the reset succeeded
- ResponseStatus = 0x01 – 0x10 Fail, if the reset failed
  - ErrorCode shall be set to any valid code in the event of a failure

4.1.1.12 EMR-REQ-429822/A-Embedded Modem Reset - EmbeddedModemResetNFCServer Response

Upon completion of the Embedded Modem Master Reset, the EmbeddedModemResetNFCServer shall send DigitalKeyReset_St to the EmbeddedModemResetServer indicating:

- (0x2) Success, if the reset succeeded
- (0x1) Fail, if the reset failed
  - The EmbeddedModemResetServer shall log the failure

4.1.1.13 EMR-REQ-481517/A-Embedded Modem Reset - EmbeddedModemResetServer Reset Status

The EmbeddedModemResetServer shall provide/determine its success/failure status internally and log the status.

4.1.1.14 EMR-REQ-481518/A-Embedded Modem Reset - EmbeddedModemResetInterfaceClient Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetInterfaceClient via setSyncResetConfirm(ConfirmStatus) and log the status.

4.1.1.15 EMR-REQ-481519/A-Embedded Modem Reset - EmbeddedModemResetOnBoardClient Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetOnBoardClient via setModemMasterReset(ResponseStatus) and log the status.

4.1.1.16 EMR-REQ-481520/A-Embedded Modem Reset - EmbeddedModemResetPnCServer Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetPnCServer via PnCStat_St and log the status:

- If PnCStat_St = 0x1 – No Contracts Installed, the reset shall be determined a success
- If PnCStat_St != 0x1 – No Contracts Installed, the reset shall be determined a failure
    - See PNC-FUN-REQ-326625-Master Reset

4.1.1.17 EMR-REQ-481521/A-Embedded Modem Reset - EmbeddedModemResetAdasServer Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetAdasServer via setAdasReset(ResponseStatus) and log the status.

4.1.1.18 EMR-REQ-481522/A-Embedded Modem Reset - EmbeddedModemResetNFCServer Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetNFCServer via DigitalKeyReset_St and log the status:

- If DigitalKeyReset_St = (0x2) Success, the reset shall be determined a success
- If DigitalKeyReset_St = (0x1) Fail, the reset shall be determined a failure

4.1.1.19 EMR-REQ-275647/C-Master & Embedded Modem Reset - Request Handling

Upon receiving a Master Reset or Feature Reset request (via either FactoryReset.Rq or EmbeddedModemReset_Rq or resetRequestBroadcast), the EmbeddedModemResetServer shall:

- Process the request if one is not already in process
- Execute only one reset at any given time
- Ignore the request if an EmbeddedModemInterfaceClient initiated reset request is already being processed
- Queue the request if an EmbeddedModemOffBoardClient initiated reset request is already being processed. The EmbeddedModemResetServer shall process the request only after the ongoing reset has completed.

Upon receiving a ClearUserSettingsCommand (per VIN Removal), the EmbeddedModemResetServer shall:

- Process the request if one is not already in process
- Queue the request if an existing reset request is already in process. The EmbeddedModemResetServer shall process the request only after the ongoing reset has completed.

The EmbeddedModemResetServer shall persist all queued reset requests through module restarts, power on/off, ignition cycles, etc.

4.1.1.20 EMR-REQ-275649/B-Embedded Modem Master Reset - Server Operational States

The Embedded Modem Master Reset shall only be performed by the EmbeddedModemResetServer if the EmbeddedModemResetServer is in any of the following states:

- “Provisioned”

4.1.1.21 EMR-REQ-276995/A-Embedded Modem Master Reset - OnBoardClient Operational States

The Embedded Modem Master Reset shall only be performed by the EmbeddedModemResetOnBoardClient if the EmbeddedModemResetOnBoardClient is in any of the following states:

- “Provisioned”

4.1.1.22 EMR-REQ-429823/A-Embedded Modem Reset - NFCServer Operational States

The Embedded Modem Master Reset shall only be performed by the EmbeddedModemResetNFCServer if the EmbeddedModemResetNFCServer is in any of the following states:

- “Provisioned”

4.1.1.23 EMR-REQ-275650/G-Cleared Data

The feature data to be cleared by the EmbeddedModemResetServer, EmbeddedModemResetInterfaceClient, EmbeddedModemResetOnBoardClient, EmbeddedModemResetKeyServer, EmbeddedModemResetEVServer, EmbeddedModemResetPnCServer, EmbeddedModemResetAdasServer and EmbeddedModemResetNFCServer upon an Embedded Modem Master Reset (per REQ-275645, REQ-479699), VIN Removal (per REQ-275663, REQ-275664, REQ-275665), or a Remote Reset (per REQ-392689, REQ-392690, REQ-392691) may contain settings pertaining to:

- ECG Common Functions
- Embedded Modem Common Functions
- Control My Car
- Vehicle Health Report
- Wifi Hotspot
- In Vehicle Software Update
- Online Traffic
- Connectivity Customer Settings
- PaaK
- NFC Entry & Start
- EV Charge Programming
- DVD
- Plug and Charge
- Driver Assist Settings (ADAS)
- BT/BLE pairing and connection data
- etc.

****Note**: Please refer to each relevant feature SPSS for details/requirements regarding the specific content/data to be cleared upon a reset.

4.1.1.24 EMR-REQ-275651/A-Embedded Modem Master Reset - Software Retention

The feature data to be cleared shall operate only the Method-2, Method-3, and GMRDB based configurations. There shall not be any changes to the EmbeddedModemResetServer or EmbeddedModemResetOnBoardClient software.

4.1.1.25 EMR-REQ-275652/D-Embedded Modem Master Reset - FTCP Alert

Upon completing the Embedded Modem Master Reset, the EmbeddedModemResetServer shall send a MasterResetAlert to the EmbeddedModemResetOffBoardClient indicating that a “Master Reset” was performed.

This alert shall be sent by the EmbeddedModemResetServer whether the vehicle is authorized or not (See CCS SPSS for authorization information).

This alert shall include VSTAT information only when the vehicle is authorized (See CCS SPSS for authorization information).

4.1.1.26 EMR-REQ-275653/B-Embedded Modem Master Reset - FTCP Alert Queing

The EmbeddedModemResetServer shall queue the MasterResetAlert (to be sent per REQ-275652) in case of a connectivity issue with the EmbeddedModemResetOffBoardClient, or in case the EmbeddedModemResetOnBoardClient is undergoing a module reboot. The EmbeddedModemResetServer shall queue the MasterResetAlert through ignition cycles.

4.1.1.27 EMR-REQ-275654/B-Master & Embedded Modem Reset - Completion Time

When Primary_Display_Device = FORD_APIM, the EmbeddedModemResetServer and EmbeddedModemResetOnBoardClient shall remove all PII and application specific data within 45 seconds.

If this process fails to complete within the above time for any of the Embedded Modem Feature Resets, the EmbeddedModemResetServer shall respond to the EmbeddedModemResetInterfaceClient with EmbeddedModemReset_St = “(0x1) Reset_NotComplete”.

4.1.1.28 EMRv2-REQ-479701/A-Master & Embedded Modem Reset - Completion Time v2

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer and EmbeddedModemResetOnBoardClient shall remove all PII and application specific data within 45 seconds.

If this process fails to complete within the above time for any of the Embedded Modem Feature Resets, the EmbeddedModemResetServer shall send resetProgressBroadcast(ResetType, ResetStatus = Complete - Fail) to the EmbeddedModemResetInterfaceClient for the requested ResetType.

4.1.1.29 EMR-REQ-275656/C-Buffered AVD Data

The EmbeddedModemResetServer shall remove any buffered AVD data upon an Embedded Modem Master Reset (per REQ-275645, REQ-479699), a VIN Removal (per REQ-275663, REQ-275664, REQ-275665) or a Remote Reset (per REQ-392689, REQ-392690, REQ-392691). Please refer to DVD SPSS for more details on buffered data.

4.1.1.30 EMRv2-REQ-338692/B-Embedded Modem Master Reset - Reset Submenu Configuration

The EmbeddedModemResetInterfaceClient shall have a configurable DID to determine whether the Embedded Modem Reset Submenu shall be displayed. The Submenu shall only be shown for Bundle 4 EmbeddedModemResetServer's and onward.

TCU Reset DID:

- When the MFAL code is set to IEPAL, IEPAC, IEPAL or IEPAA the TCU Reset DID shall be set to Disabled / Inactive / etc. and the Submenu shall not be shown
- When the MFAL code is set to IEPAN or IEPAM, the TCU Reset DID shall be set to Enabled / Active / etc. and the Submenu shall be shown

4.1.1.31 EMR-REQ-348156/B-Embedded Modem Master Reset - Security Tokens on EmbeddedModemResetServer

The EmbeddedModemResetServer shall delete/remove all Security tokens upon an Embedded Modem Master Reset initiated from the EmbeddedModemResetInterfaceClient.

When Security tokens are present, the EmbeddedModemResetServer module shall perform a reboot according to REQ-348158 after having completed the Embedded Modem Master Reset.

4.1.1.32 EMR-REQ-348157/B-Embedded Modem Master Reset - Security Tokens on EmbeddedModemResetOnBoardClient

The EmbeddedModemResetOnBoardClient shall delete/remove all Security tokens upon an Embedded Modem Master Reset initiated from the EmbeddedModemResetInterfaceClient.

When Security tokens are present, the EmbeddedModemResetOnBoardClient module shall immediately perform a reboot after having completed the Embedded Modem Master Reset.

4.1.1.33 EMR-REQ-348158/B-Embedded Modem Master Reset - EmbeddedModemResetServer Module Reboot

The EmbeddedModemResetServer shall maintain a flag to indicate when a module reboot is required. When an Embedded Modem Master Reset is initiated from the EmbeddedModemResetInterfaceClient, the flag shall be set accordingly:

- If Security tokens are present and were cleared successfully, set flag "true"
- If Security tokens are not present OR the Security tokens failed to clear, set flag "false"
    - If this determination cannot be made within the completion time specified in REQ-275654, set flag "false"

When the flag is set to "true" the EmbeddedModemResetServer shall perform a module reboot the next time the IgnitionStatus = Off (i.e. the next time the user turns off the vehicle).

When the flag is set to "false" the EmbeddedModemResetServer shall not perform a module reboot, but shall continue with the Master Reset process as specified in this SPSS.

After the module reboot is complete, the flag shall be set to "false."

Note: If Production Secure h/w is running Developer signed s/w, security tokens will not be removed:

- AP_DevSigned
- AP_DevUnsigned
- CP_Debug

4.1.1.34 Factory Reset

4.1.1.34.1 EMR-REQ-443177/A-Factory Reset - User Input

The EmbeddedModemResetInterfaceClient shall provide a user interface (button/graphic) to perform a Factory Reset.

4.1.1.34.2 EMR-REQ-443178/A-Factory Reset - User Input Enable/Disable

The EmbeddedModemResetInterfaceClient shall enable/disable (show/hide, grey-out, etc.) the Factory Reset user interface (button/graphic) using the same conditions as the Master Reset button.

- Please see the HMI spec (H31L) for conditions
- Please see Vehicle Settings SPSS for conditions
    - Note: This includes restrictions based on NFC Key, MyKey, Driver Restrictions, etc.

4.1.1.34.3 EMR-REQ-443179/A-Factory Reset - InterfaceClient Request

The EmbeddedModemResetInterfaceClient shall send FactoryReset.Rq = “(0x1) ResetFactoryDefaults” to the EmbeddedModemResetServer when a ‘Factory Reset’ is requested by the user.

Note: ‘Factory Reset’ is not a ‘Master Reset.’ This is a separate reset button/offering, in addition to ‘Master Reset.’

4.1.1.34.4 EMR-REQ-443180/A-Factory Reset - InterfaceClient Actions

When requested to perform a Factory Reset, the EmbeddedModemResetInterfaceClient shall clear the same data and perform the same actions as it does upon a user initiated Master Reset, as well as:

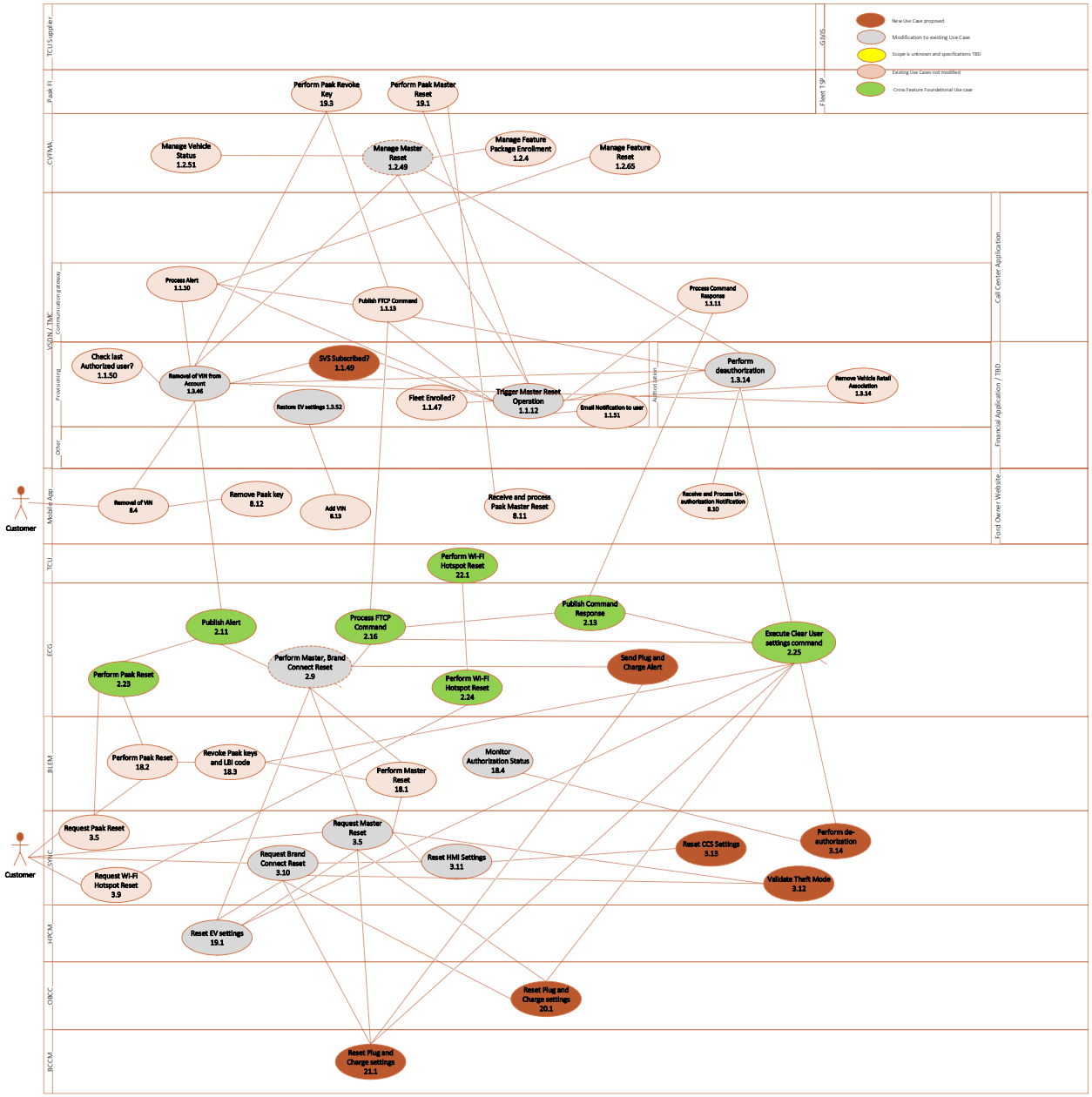
- Perform ‘Erase all data’
    - This is an AOS native reset type. This option will permanently delete all user data, customized settings and installed applications, all the internal storage including:
        - Google Account
        - System and app data settings
        - Downloaded apps
        - Music
        - Photos
        - Other user data

4.1.2 Use Cases

4.1.2.1 UCD-REQ-275657/B-Reset Feature

Use Case Diagram

Master Reset, Brand Connect Reset, Feature Feature



4.1.2.2 EMR-UC-REQ-275658/A-Embedded Modem Master Reset

Actors	Vehicle occupant
Pre-conditions	HMI display is ON
Scenario Description	The user selects <Master Reset> via HMI.
Post-conditions	All applicable settings are restored to the factory defaults (refer to a particular feature SPSS for the applicable settings/default values and/or feature specific requirements).
List of Exception Use Cases	N/A
Interfaces	G-HMI

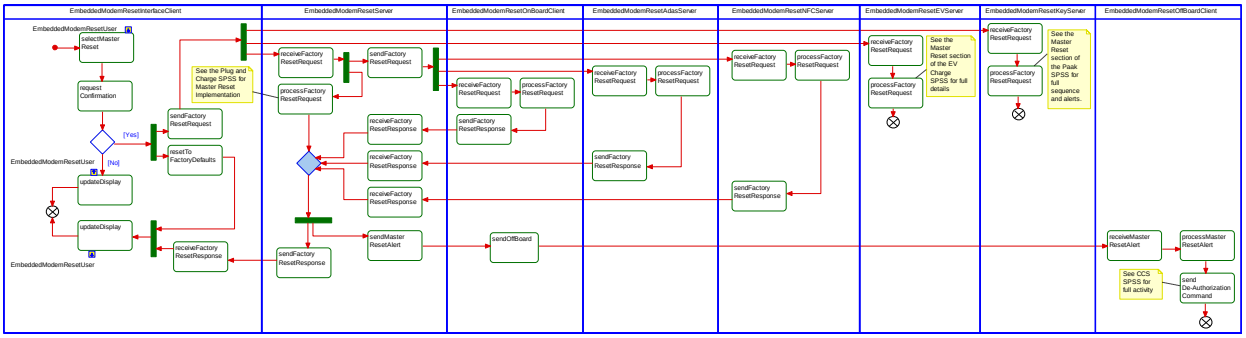
4.1.2.3 EMR-UC-REQ-348159/A-Embedded Modem Master Reset with Debug Tokens Present

Actors	Vehicle occupant
Pre-conditions	HMI display is ON Debug Tokens are present on EmbeddedModemResetServer and EmbeddedModemResetOnBoardClient
Scenario Description	The user selects <Master Reset> via HMI.
Post-conditions	• All applicable settings are restored to the factory defaults (refer to a particular feature SPSS for the applicable settings/default values and/or feature specific requirements). • EmbeddedModemResetOnBoardClient completes reset and performs a module reboot • EmbeddedModemResetServer completes reset and sets flag “true” in order to perform a module reboot at the next key-off
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.1.3 White Box View

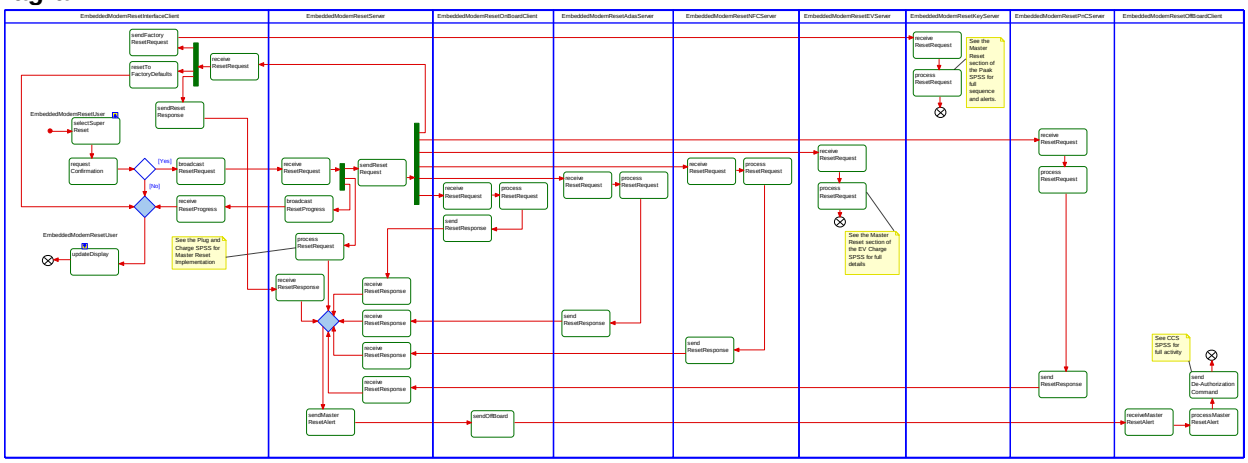
4.1.3.1 EMR-ACT-REQ-275659/F-Embedded Modem Master Reset

Activity Diagram



4.1.3.2 EMRv2-ACT-REQ-480538/A-Embedded Modem Master Reset v2

Activity Diagram



4.1.3.3 EMR-SD-REQ-275660/F-Embedded Modem Master Reset

Constraints

Pre-Condition

HMI display is ON

Scenarios

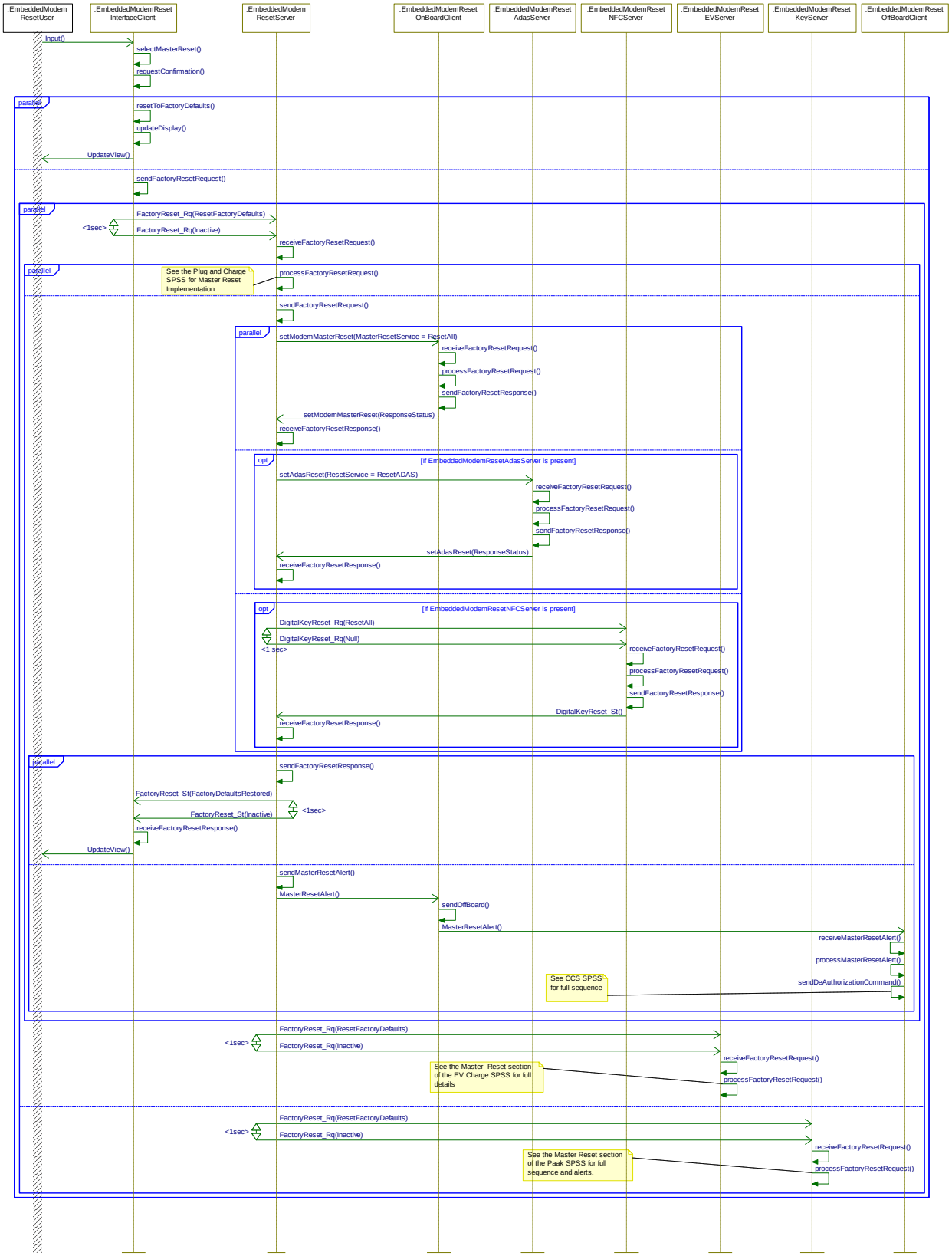
Normal Usage

The user selects <Master Reset> via HMI

Post-Condition

All applicable settings are restored to the factory defaults

Sequence Diagram



4.1.3.4 EMRv2-SD-REQ-480539/A-Embedded Modem Master Reset v2

Constraints

Pre-Condition

HMI display is ON

Scenarios

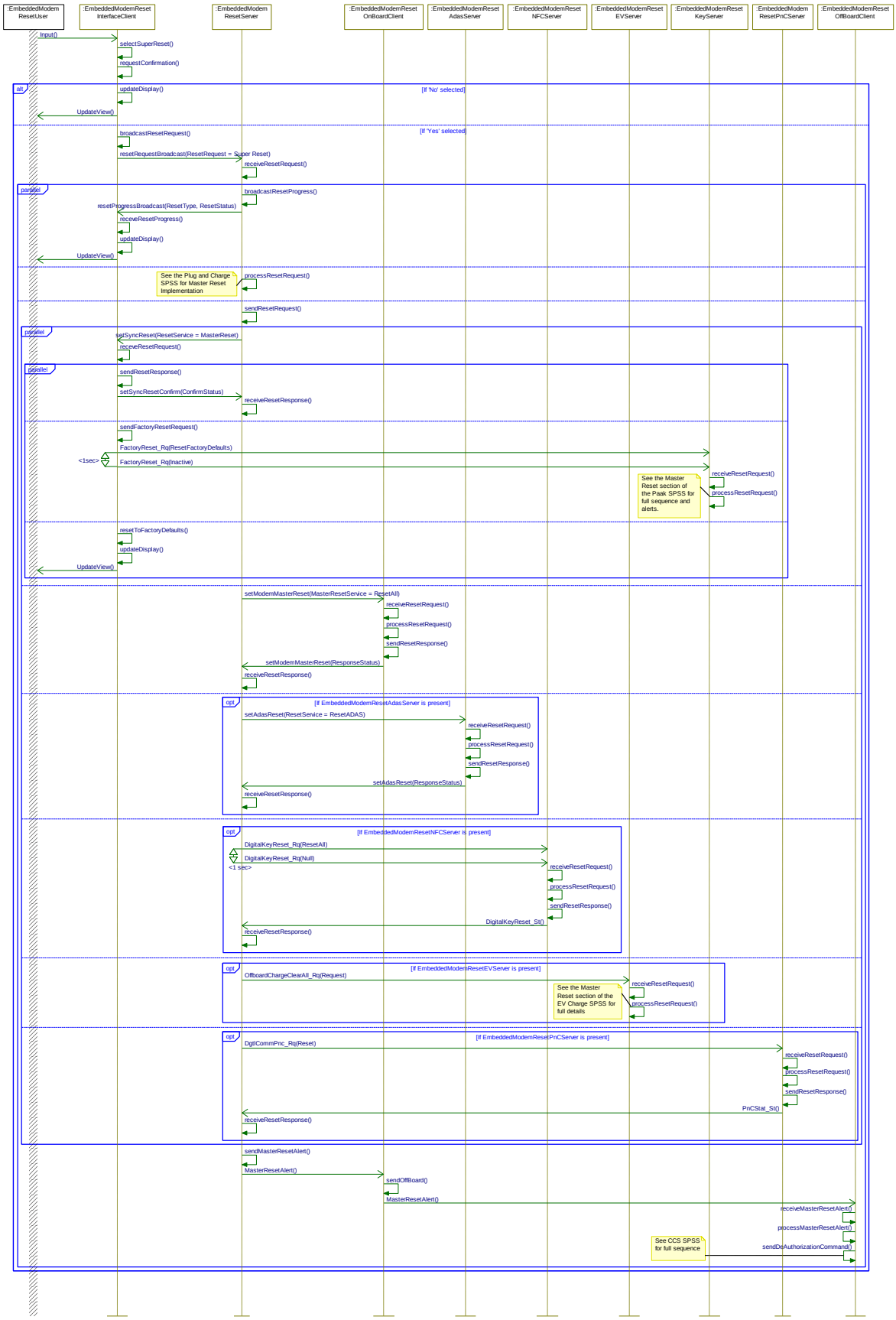
Normal Usage

The user selects <Super Reset> via HMI

Post-Condition

All applicable settings are restored to the factory defaults

Sequence Diagram



4.2 EMR-FUN-REQ-392682/A-Remote Reset initiated from EmbeddedModemResetOffBoardClient

4.2.1 Requirements

4.2.1.1 EMR-REQ-392683/A-Remote Reset & Master Reset – Priority

If the EmbeddedModemResetServer receives a Remote Master Reset from the EmbeddedModemResetOffBoardClient and a Master Reset or Feature Reset request from the EmbeddedModemResetInterfaceClient (or if already performing reset), the EmbeddedModemResetServer shall give the EmbeddedModemResetInterfaceClient initiated reset first priority.

In this event, the EmbeddedModemResetServer shall queue the request indefinitely until the ongoing reset has completed and the preconditions in REQ-392684 have been met.

4.2.1.2 EMR-REQ-392684/C-Remote Reset – Preconditions

The EmbeddedModemResetServer shall evaluate the below preconditions before requesting a Remote Reset from all participating modules:

- IgnitionStatus_St = Run, AND
- VehicleSpeed_St is less than Driving Restrictions threshold (see REQ-025157 of the Driver Restrictions SPSS), AND
- Ready State Check is complete as per REQ-482677

When the Remote Reset being performed includes the EmbeddedModemResetAdasServer, the EmbeddedModemResetServer shall wait 6 seconds after the transition of Off to Run (for the IgnitionStatus_St condition above) before sending all reset requests (if all other conditions are also satisfied). The EmbeddedModemResetAdasServer requires sufficient startup time before accepting reset requests.

Note: the 6s timer above shall be implemented as a configurable internal timer, defaulted to 6s.

4.2.1.3 EMR-REQ-482677/A-Remote Reset - Ready State Check

When IgnitionStatus_St transitions from Off to Run, the EmbeddedModemResetServer shall request for modules to communicate their ready state by sending ecuReadyStateBroadcast. The EmbeddedModemResetServer shall then collect the responses from the below modules:

- EmbeddedModemResetInterfaceClient via setEcuReadyState(ecuType = SYNC, ecuReady)
- EmbeddedModemResetOnBoardClient via setEcuReadyState(ecuType = TCU, ecuReady) OR setMasterResetReady(master_reset_ready)

In order to allow modules enough time to bootup before requesting any pending reset requests, the EmbeddedModemResetServer shall wait a maximum of 70s after broadcasting the request before automatically considering the Ready State Check complete (which will allow pending reset requests to be initiated). If all modules respond with ecuReady = 1 prior to the 70s elapsing, the EmbeddedModemResetServer shall consider the Ready State Check complete at that time.

Note: The Ready State Check being considered complete as a result of the 70s elapsing may result in some modules not successfully receiving and acting upon the requested reset, thus preventing all user/system data from being successfully cleared.
Note: The Ready State Check only applies to Remote Resets, as indicated in REQ-392684. It does not apply to resets initiated in-vehicle or VIN Removals (i.e. ClearUserSettingsCommand).

4.2.1.4 EMR-REQ-482678/A-Remote Reset - InterfaceClient Send Ready State

The EmbeddedModemResetInterfaceClient shall provide a Ready Status to the EmbeddedModemResetServer to indicate its ability to receive and process a reset request. Upon reception of ecuReadyStateBroadcast, or whenever the Ready State changes, the EmbeddedModemResetInterfaceClient shall send setEcuReadyState(ecuType = SYNC, ecuReady), where:

- ecuReady = 0 for NotReady
- ecuReady = 1 for Ready

4.2.1.5 EMR-REQ-482679/A-Remote Reset - OnBoardClient Send Ready State

The EmbeddedModemResetOnBoardClient shall provide a Ready Status to the EmbeddedModemResetServer to indicate its ability to receive and process a reset request.

- Upon reception of ecuReadyStateBroadcast, the EmbeddedModemResetOnBoardClient shall send setEcuReadyState(ecuType = TCU, ecuReady), where:
  - ecuReady = 0 for NotReady
  - ecuReady = 1 for Ready

- Anytime the EmbeddedModemResetOnBoardClient Ready State changes, the EmbeddedModemResetOnBoardClient shall send setMasterResetReady(master_reset_ready), where:
  - master_reset_ready = 0 for NotReady
  - master_reset_ready = 1 for Ready

Note: The use of two separate API's in this usecase is a result of the preexisting EmbeddedModemResetOnBoardClient implementation.

4.2.1.6 EMR-REQ-392685/B-Remote Reset – FactoryReset_Rq

The EmbeddedModemResetInterfaceClient shall not send FactoryReset_Rq = "(0x1) ResetFactoryDefaults" when a SYNC Reset is triggered by a Remote Reset request (via setSyncReset(ResetService = 0x1 – Sync Reset)).

4.2.1.7 EMR-REQ-392686/B-Remote Reset – SMS Wakeup

Upon a Remote Reset initiated by the EmbeddedModemResetOffBoardClient, the EmbeddedModemResetOffBoardClient shall send a Type1 SMS Wakeup to the EmbeddedModemResetOnBoardClient, which shall then wakeup the EmbeddedModemResetServer. The EmbeddedModemResetServer shall queue the request indefinitely until the preconditions in REQ-392684 are met.

4.2.1.8 EMR-REQ-392687/D-Remote Reset – Client/Server Applicability Check

The EmbeddedModemResetServer shall check which clients/servers are present and applicable per the configurations listed below. If the configurations indicate that a given client/server is not present, that relative reset request shall not be sent, and the RemoteResetAlert shall not include a reset status for that client/server:

- EmbeddedModemResetServer shall always be applicable
- EmbeddedModemResetInterfaceClient shall be applicable as per REQ-479677
- EmbeddedModemResetOnBoardClient shall always be applicable
- EmbeddedModemResetEVServer shall be applicable if:
  - HPCM_Presence DID = 1, AND
  - Engine Type DID = Electric Only (BEV) OR Gas/Plug in Electric Vehicle (PHEV), else it shall not be applicable.
- EmbeddedModemResetPnCServer shall be applicable if OBCC_Presence DID = 1, else it shall not be applicable.
- EmbeddedModemResetAdasServer shall be applicable if ADAS_Presence DID = 1, else it shall not be applicable.
- EmbeddedModemResetNFCServer shall be applicable if NFAM_Presence DID = 1, else it shall not be applicable.

4.2.1.9 EMR-REQ-392688/B-Remote Reset - RemoteResetCommand/Response

Upon a Remote Reset initiated by the EmbeddedModemResetOffBoardClient, the EmbeddedModemResetServer shall receive a RemoteResetCommand. When the RemoteResetCommand indicates a Remote Master Reset, Remote Brand Connect Reset, Remote SYNC Reset, or Remote ADAS Reset the EmbeddedModemResetServer shall:

- Send a RemoteResetCommandResponse to the EmbeddedModemResetOffBoardClient indicating successful reception of the Command.
  - This response shall include VSTAT information only when the vehicle is authorized (See CCS SPSS for authorization information).

4.2.1.10 EMR-REQ-392689/D-Remote Master Reset - Preconditions Met

After sending the RemoteResetCommandResponse for the requested Remote Master Reset, the EmbeddedModemResetServer shall check the preconditions (per REQ-392684). If the preconditions are met, the EmbeddedModemResetServer shall:

- Clear all internal user settings
    - This means internally notifying other applications/services in the EmbeddedModemResetServer that a reset is to be performed. Each application/service is responsible for clearing their own data
    - The EmbeddedModemResetServer shall collect the status of each application's reset and provide an overall reset status for itself in the RemoteResetAlert.
    - Note: The same application/service data is cleared for the VIN Removal, Embedded Modem Master Reset, and Brand Connect Reset
- Call the API, setModemMasterReset(MasterResetService = 0x0 - ResetAll) from the EmbeddedModemResetOnBoardClient
- Call the API, setSyncReset(ResetService = 0x1 – SYNC Reset) from the EmbeddedModemResetInterfaceClient
    - Note: requesting a SYNC reset ensures that FactoryReset_Rq is not sent as per REQ-392685
- Send OffboardChargeClearAll_Rq = "(0x1) Request" to EmbeddedModemResetEVServer
    - See EVCS-FUN-REQ-309463-Master Reset
- Send DgtlCommPnc_Rq = "(0x1) Reset" to EmbeddedModemResetPnCServer
    - See PNC-FUN-REQ-326625/A-Master Reset
- Call the API, setAdasReset(ResetService = 0x0 - ResetADAS), from the EmbeddedModemResetAdasServer
- Send DigitalKeyReset_Rq = "(0x1) ResetAll" to the EmbeddedModemResetNFCServer
- Collect reset statuses (see REQ-392694 - REQ-392699) and send RemoteResetAlert per REQ-392693

4.2.1.11 EMR-REQ-392690/B-Remote Brand Connect Reset - Preconditions Met

After sending the RemoteResetCommandResponse for the requested Remote Brand Connect Reset, the EmbeddedModemResetServer shall check the preconditions (per REQ-392684). If the preconditions are met, the EmbeddedModemResetServer shall:

- Clear all internal user settings
    - This means internally notifying other applications/services in the EmbeddedModemResetServer that a reset is to be performed. Each application/service is responsible for clearing their own data
    - The EmbeddedModemResetServer shall collect the status of each application's reset and provide an overall reset status for itself in the RemoteResetAlert.
    - Note: The same application/service data is cleared for the VIN Removal, Embedded Modem Master Reset, and Brand Connect Reset
- Call the API, setModemMasterReset(MasterResetService = 0x0 - ResetAll) from the EmbeddedModemResetOnBoardClient
- Send OffboardChargeClearAll_Rq = "(0x1) Request" to EmbeddedModemResetEVServer
    - See EVCS-FUN-REQ-309463-Master Reset
- Send DgtlCommPnc_Rq = "(0x1) Reset" to EmbeddedModemResetPnCServer
    - See PNC-FUN-REQ-326625-Master Reset
- Send DigitalKeyReset_Rq = "(0x1) ResetAll" to the EmbeddedModemResetNFCServer
- Collect reset statuses (see REQ-392694, REQ-392696 - REQ-392699) and send RemoteResetAlert per REQ-392693

4.2.1.12 EMR-REQ-392691/A-Remote SYNC Reset - Preconditions Met

After sending the RemoteResetCommandResponse for the requested Remote SYNC Reset, the EmbeddedModemResetServer shall check the preconditions (per REQ-392684). If the preconditions are met, the EmbeddedModemResetServer shall:

- Call the API, setSyncReset(ResetService = 0x1 – SYNC Reset) from the EmbeddedModemResetInterfaceClient
- Collect reset status (see REQ-392701) and send RemoteResetAlert per REQ-392693

4.2.1.13 EMR-REQ-413950/A-Remote ADAS Reset - Preconditions Met

After sending the RemoteResetCommandResponse for the requested Remote ADAS Reset, the EmbeddedModemResetServer shall check the preconditions (per REQ-392684). If the preconditions are met, the EmbeddedModemResetServer shall:

- Call the API, setAdasReset(ResetService = 0x0 - ResetADAS), from the EmbeddedModemResetAdasServer
- Collect reset status (see REQ-413952) and send RemoteResetAlert per REQ-392693

4.2.1.14 EMR-REQ-392692/A-Remote Reset - Preconditions Not Met

After sending the RemoteResetCommandResponse, the EmbeddedModemResetServer shall check the preconditions (per REQ-392684). If the preconditions are not met, the EmbeddedModemResetServer shall queue the request indefinitely until the preconditions have been met.

4.2.1.15 EMR-REQ-392693/C-Remote Reset - RemoteResetAlert Success/Fail Status

After the request has been determined a Success or Failure (not during the queue period), the EmbeddedModemResetServer shall send a RemoteResetAlert to the EmbeddedModemResetOffBoardClient indicating the reset status of the clients/servers per the table below:

Client/Server	**Remote Reset Type**			
	Remote Master Reset	Remote Brand Connect	Remote SYNC Reset	Remote ADAS Reset
EmbeddedModemResetServer	Included	Included	Not Included	Not Included
EmbeddedModemResetInterfaceClient	Included	Not Included	Included	Not Included
EmbeddedModemResetOnBoardClient	Included	Included	Not Included	Not Included
EmbeddedModemResetEVServer	Not Included*	Not Included*	Not Included	Not Included
EmbeddedModemResetPnCServer	Included	Included	Not Included	Not Included
EmbeddedModemResetAdasServer	Included	Not Included	Not Included	Included
EmbeddedModemResetNFCServer	Included	Included	Not Included	Not Included

The EmbeddedModemResetServer shall include in the RemoteResetAlert only the clients/servers listed as “Included” above for the corresponding Remote Reset. The “Not Included” clients/servers shall not be included in the RemoteResetAlert. The EmbeddedModemResetServer shall identify the clients/servers in the RemoteResetAlert by their ECU ID (see REQ-410562).

The RemoteResetAlert shall include an Overall Reset status, determined from the statuses of other clients/servers.

- If any one of the client/servers report a failure, the Overall Status shall be set to Failed.
- If all of the client/servers report a success, the Overall Status shall be set to Success.

***Note**: The EmbeddedModemResetEVServer reset status shall be omitted from the Alert until further notice (requires new signal).
****Note:** Please refer to REQ-392687 for Client/Server Applicability as well when applying this table/logic.

4.2.1.16 EMR-REQ-410562/B-Remote Reset - ECU ID

When indicating the reset status of the clients/servers in the RemoteResetAlert, the EmbeddedModemResetServer shall use the ECU ID as per the below table:

Clients/Servers	**ECU ID**
EmbeddedModemResetServer	0x716
EmbeddedModemResetOnBoardClient	0x754
EmbeddedModemResetInterfaceClient	0x7D0
EmbeddedModemResetPnCServer	0x6F5
EmbeddedModemResetEVServer	0x7E6
EmbeddedModemResetADASServer	0x706
EmbeddedModemResetNFCServer	0x6C6

4.2.1.17 EMR-REQ-392694/A-Remote Reset – EmbeddedModemResetServer Reset Status

The EmbeddedModemResetServer shall provide/determine its success/failure status internally for use in the RemoteResetAlert.

4.2.1.18 EMR-REQ-392695/B-Remote Reset – EmbeddedModemResetInterfaceClient Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetInterfaceClient via setSyncResetConfirm(ConfirmStatus).

4.2.1.19 EMR-REQ-392696/A-Remote Reset – EmbeddedModemResetOnBoardClient Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetOnBoardClient via setModemMasterReset(ResponseStatus).

4.2.1.20 EMR-REQ-392699/A-Remote Reset – EmbeddedModemResetPnCServer Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetPnCServer via PnCStat_St:

- If PnCStat_St = 0x1 – No Contracts Installed, the reset shall be determined a success
- If PnCStat_St != 0x1 – No Contracts Installed, the reset shall be determined a failure
    - See PNC-FUN-REQ-326625/A-Master Reset

4.2.1.21 EMR-REQ-413951/A-Remote Reset – EmbeddedModemResetAdasServer Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetAdasServer via setAdasReset(ResponseStatus).

4.2.1.22 EMR-REQ-429921/A-Remote Reset - EmbeddedModemResetNFCServer Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetNFCServer via DigitalKeyReset_St:

- If DigitalKeyReset_St = (0x2) Success, the reset shall be determined a success
- If DigitalKeyReset_St = (0x1) Fail, the reset shall be determined a failure

4.2.1.23 EMR-REQ-392700/A-Remote Reset – RemoteResetAlert Queuing

If for some reason the RemoteResetAlert cannot be sent immediately after the determination of success/failure (lost connectivity, etc.), the EmbeddedModemResetServer shall queue the RemoteResetAlert for a maximum of 14 days.

4.2.1.24 EMR-REQ-392701/B-Remote Reset – InterfaceClient Response

Upon completion of the Remote Reset, the EmbeddedModemResetInterfaceClient shall send setSyncResetConfirm(ConfirmStatus) to the EmbeddedModemResetServer indicating:

- ConfirmStatus = 0x0 Success, if the reset succeeded
- ConfirmStatus = 0x1 Fail, if the reset failed

Note: Due to limitations of the Android OS, the EmbeddedModemResetInterfaceClient shall send the ConfirmStatus prior to the actual reset, as an acknowledgement rather than a ‘reset complete’ status.

4.2.1.25 EMR-REQ-443197/B-Remote Reset – InterfaceClient Performing a SYNC Only Reset

Upon receiving setSyncReset(ResetService = 0x1 – SYNC Reset) the EmbeddedModemResetInterfaceClient shall clear the same data and perform the same actions as it does upon a user initiated Master Reset (see REQ-392685 for one exception).

4.2.1.26 EMR-REQ-480237/A-Remote Reset - InterfaceClient Performing a Master Reset

Upon receiving setSyncReset(ResetService = 0x0 – Master Reset) EmbeddedModemResetInterfaceClient shall clear the same data and perform the same actions as it does upon a user initiated Master Reset (see Vehicle Settings SPSS).

4.2.1.27 EMR-REQ-413952/A-Remote Reset – EmbeddedModemResetAdasServer Response

Upon completion of the Remote Reset, the EmbeddedModemResetAdasServer shall send setAdasReset(ResponseStatus) to the EmbeddedModemResetServer indicating:

- ResponseStatus = 0x0 Success, if the reset succeeded
- ResponseStatus = 0x2 Fail, if the reset failed

Note: The EmbeddedModemResetAdasServer may send ResponseStatus = 0x1 Wait, as a temporary/intermediary state if unable to send a final success/fail immediately. This state shall be ignored by the EmbeddedModemResetServer.

4.2.1.28 EMR-REQ-275650/G-Cleared Data

The feature data to be cleared by the EmbeddedModemResetServer, EmbeddedModemResetInterfaceClient, EmbeddedModemResetOnBoardClient, EmbeddedModemResetKeyServer, EmbeddedModemResetEVServer,

EmbeddedModemResetPnCServer, EmbeddedModemResetAdasServer and EmbeddedModemResetNFCServer upon an Embedded Modem Master Reset (per REQ-275645, REQ-479699), VIN Removal (per REQ-275663, REQ-275664, REQ-275665), or a Remote Reset (per REQ-392689, REQ-392690, REQ-392691) may contain settings pertaining to:

- ECG Common Functions
- Embedded Modem Common Functions
- Control My Car
- Vehicle Health Report
- Wifi Hotspot
- In Vehicle Software Update
- Online Traffic
- Connectivity Customer Settings
- PaaK
- NFC Entry & Start
- EV Charge Programming
- DVD
- Plug and Charge
- Driver Assist Settings (ADAS)
- BT/BLE pairing and connection data
- etc.

****Note**: Please refer to each relevant feature SPSS for details/requirements regarding the specific content/data to be cleared upon a reset.

4.2.1.29 EMR-REQ-392702/B-Remote Master Reset - Completion Time

The EmbeddedModemResetServer, EmbeddedModemResetOnBoardClient and EmbeddedModemResetAdasServer shall remove all PII and application specific data within 45 seconds.

If the EmbeddedModemResetServer, EmbeddedModemResetOnBoardClient or EmbeddedModemResetAdasServer fails to complete the reset within the above time, the reset status for that client/server shall be considered a failure in the RemoteResetAlert.

4.2.1.30 EMR-REQ-275656/C-Buffered AVD Data

The EmbeddedModemResetServer shall remove any buffered AVD data upon an Embedded Modem Master Reset (per REQ-275645, REQ-479699), a VIN Removal (per REQ-275663, REQ-275664, REQ-275665) or a Remote Reset (per REQ-392689, REQ-392690, REQ-392691). Please refer to DVD SPSS for more details on buffered data.

4.2.1.31 EMR-REQ-413953/A-EmbeddedModemResetAdasServer – Publish Settings

After completing an ADAS Reset or Master Reset, the EmbeddedModemResetAdasServer shall update/send all settings to the EmbeddedModemResetInterfaceClient.

- If the ADAS Setting(s) being reset is one using Feature Based Message Protocol, then the EmbeddedModemResetAdasServer shall send the respective Feature Number for each ADAS setting sequentially to the EmbeddedModemResetInterfaceClient, with a minimum separation time of 50 msec.
- If the ADAS Setting(s) being reset is one *not* using Feature Based Message Protocol (using standard CAN statuses), then the EmbeddedModemResetAdasServer shall update and send the respective settings status to the EmbeddedModemResetInterfaceClient.

**Please refer to the applicable SPSS for the settings interface. For ADAS settings using Feature Based Message Protocol reference the “Settings to the Infotainment Centerstack SPSS”. For ADAS settings using standard CAN signals reference the “Vehicle Settings SPSS” or applicable feature spec.

4.2.2 Use Cases

4.2.2.1 EMR-UC-REQ-392703/B-Remote Master Reset is requested

Actors	User/Fleet manager/Backend operator

Pre-conditions	Vehicle is in Run Speed is less than Driving Restrictions threshold EmbeddedModemResetServer is Provisioned
Scenario Description	The user/fleet manager/backend operator requests a Remote Master Reset.
Post-conditions	CVFMA receives request to trigger Master Reset operation. Reset of customer settings, connectivity settings, feature specific settings, feature/subscription unenrollment (if applicable), EmbeddedModemResetServer de-authorization (if applicable), and EmbeddedModemResetInterfaceClient settings**.**
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.2.2.2 EMR-UC-REQ-392704/A-Remote Brand Connect Reset is requested

Actors	User/Fleet manager/Backend operator
Pre-conditions	Vehicle is in Run Speed is less than Driving Restrictions threshold EmbeddedModemResetServer is Provisioned
Scenario Description	The user/fleet manager/backend operator requests a Remote Brand Connect Reset.
Post-conditions	CVFMA receives request to trigger Master Reset operation. Reset of customer settings, connectivity settings, feature specific settings, feature/subscription unenrollment (if applicable), EmbeddedModemResetServer de-authorization (if applicable).
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.2.2.3 EMR-UC-REQ-392705/B-Remote SYNC Reset is requested

Actors	User/Fleet manager/Backend operator
Pre-conditions	Vehicle is in Run Speed is less than Driving Restrictions threshold EmbeddedModemResetServer is Provisioned
Scenario Description	The user/fleet manager/backend operator requests a Remote SYNC Reset.
Post-conditions	The EmbeddedModemResetInterfaceClient clears the same data it would clear upon a Master Reset.
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.2.2.4 EMR-UC-REQ-413956/A-Remote ADAS Reset is requested

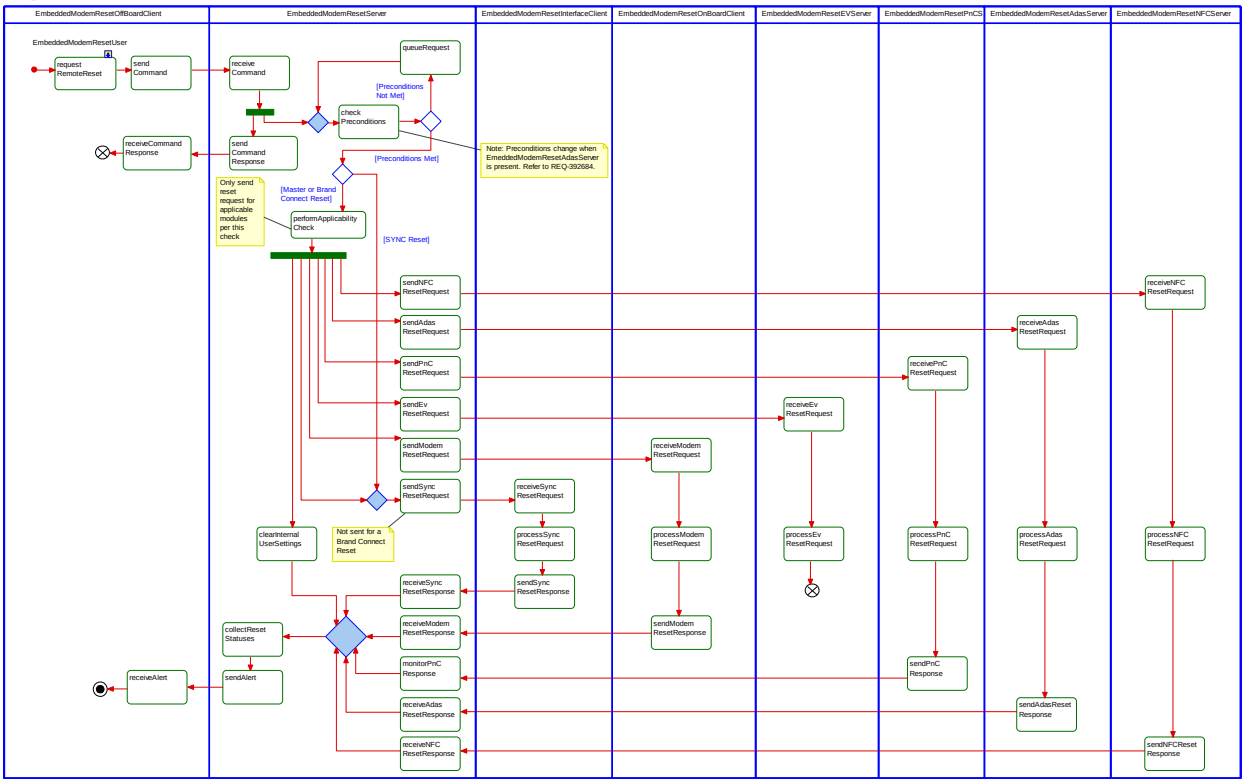
Actors	User/Fleet manager/Backend operator
Pre-conditions	Vehicle is in Run Speed is less than Driving Restrictions threshold EmbeddedModemResetServer is Provisioned
Scenario Description	The user/fleet manager/backend operator requests a Remote ADAS Reset.

Post-conditions	The EmbeddedModemResetAdasServer clears the same data it would clear upon a Master Reset.
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.2.3 White Box View

4.2.3.1 EMR-ACT-REQ-393389/C-Remote Reset Requested

Activity Diagram



4.2.3.2 EMR-SD-REQ-393390/D-Remote Reset Requested

Constraints

Pre-Condition

Vehicle is in Run
Speed is less than Driving Restrictions threshold
EmbeddedModemResetServer is Provisioned

Scenarios

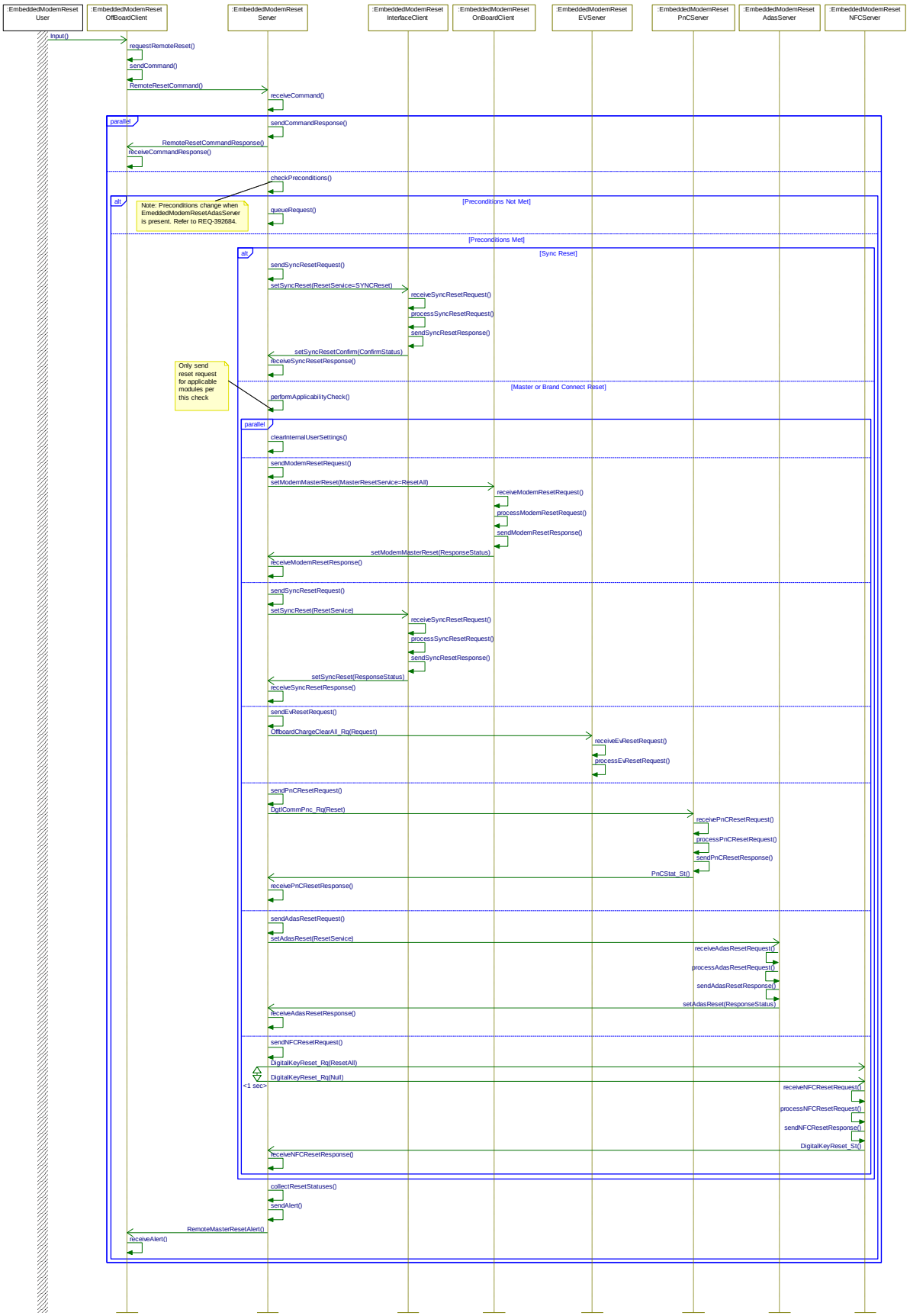
Normal Usage

The user/fleet manager/backend operator requests a Remote Reset.

Post-Condition

CVFMA receives request to trigger Remote Reset operation.
Reset of customer settings, connectivity settings, feature specific settings, feature/subscription unenrollment (if applicable), EmbeddedModemResetServer de-authorization (if applicable), and EmbeddedModemResetInterfaceClient settings (if applicable)

Sequence Diagram



4.3 EMRv2-FUN-REQ-275661/A-VIN Removal from EmbeddedModemOffBoardClient

4.3.1 Requirements

4.3.1.1 EMR-REQ-275662/C-VIN Removal - Multiple vs Last User

When a VIN removal is performed, different actions shall be taken depending on whether the VIN removed is also registered on other user accounts, or is no longer on any user account:

1. **Multiple Users:** When the VIN removed is still registered to other user accounts, the following shall occur:
    a. PaaK Revoke process (see REQ-275665)

2. **Last User:** When the VIN removed is no longer registered to any user accounts, the following shall occur::
    a. ClearUserSettingsCommand (see REQ-275663)
        i. Including NFC Master Reset (when present)
    b. AuthorizationStatusChangeCommand (see CCS SPSS)
    c. PaaK Revoke process (based on de-auth state change, see BLEM PaaK SPSS)

*Please refer to sequence diagram REQ-275668.

4.3.1.2 EMR-REQ-275663/F-VIN Removal - Clear User Settings Command/Response

Upon a VIN Removal, the EmbeddedModemResetServer shall receive a ClearUserSettingsCommand from the EmbeddedModemResetOffBoardClient.

When received, the EmbeddedModemResetServer shall:

- Clear all internal user settings
    - This means internally notifying other applications/services in the EmbeddedModemResetServer that a reset is to be performed. Each application/service is responsible for clearing their own data
    - Note: The same application/service data is cleared for the VIN Removal, Embedded Modem Master Reset, and Brand Connect Reset
- Call the API, setModemMasterReset(MasterResetService = 0x0 - ResetAll) from the EmbeddedModemResetOnBoardClient
- Send DigitalKeyReset_Rq = "(0x1) ResetAll" to the EmbeddedModemResetNFCServer (see REQ-429821)
- Send a ClearUserSettingsCommandResponse to the EmbeddedModemResetOffBoardClient upon completion with a status update
    - The EmbeddedModemResetServer shall wait 60s for all requested modules to respond before issuing the ClearUserSettingsCommandResponse. If no response received, 'failed' shall be sent in the CommandResponse.
    - This response shall include VSTAT information only when the vehicle is authorized (See CCS SPSS for authorization information).

4.3.1.3 EMR-REQ-275665/B-VIN Removal - Remove CAK Command/Response

Upon a VIN Removal, the EmbeddedModemResetServer shall receive a RemoveCAKCommand from the EmbeddedModemResetOffBoardClient.

When received, the EmbeddedModemResetServer shall begin the "Revoke Key" process (see PaaK SPSS) and send a RemoveCAKCommandResponse to the EmbeddedModemResetOffBoardClient upon completion with a status update.

4.3.1.4 EMR-REQ-275650/G-Cleared Data

The feature data to be cleared by the EmbeddedModemResetServer, EmbeddedModemResetInterfaceClient, EmbeddedModemResetOnBoardClient, EmbeddedModemResetKeyServer, EmbeddedModemResetEVServer, EmbeddedModemResetPnCServer, EmbeddedModemResetAdasServer and EmbeddedModemResetNFCServer upon an Embedded Modem Master Reset (per REQ-275645, REQ-479699), VIN Removal (per REQ-275663, REQ-275664, REQ-275665), or a Remote Reset (per REQ-392689, REQ-392690, REQ-392691) may contain settings pertaining to:

- ECG Common Functions
- Embedded Modem Common Functions
- Control My Car
- Vehicle Health Report
- Wifi Hotspot
- In Vehicle Software Update
- Online Traffic
- Connectivity Customer Settings
- PaaK
- NFC Entry & Start
- EV Charge Programming
- DVD
- Plug and Charge
- Driver Assist Settings (ADAS)
- BT/BLE pairing and connection data
- etc.

**__Note__: Please refer to each relevant feature SPSS for details/requirements regarding the specific content/data to be cleared upon a reset.

4.3.1.5 EMR-REQ-275656/C-Buffered AVD Data

The EmbeddedModemResetServer shall remove any buffered AVD data upon an Embedded Modem Master Reset (per REQ-275645, REQ-479699), a VIN Removal (per REQ-275663, REQ-275664, REQ-275665) or a Remote Reset (per REQ-392689, REQ-392690, REQ-392691). Please refer to DVD SPSS for more details on buffered data.

4.3.2 Use Cases

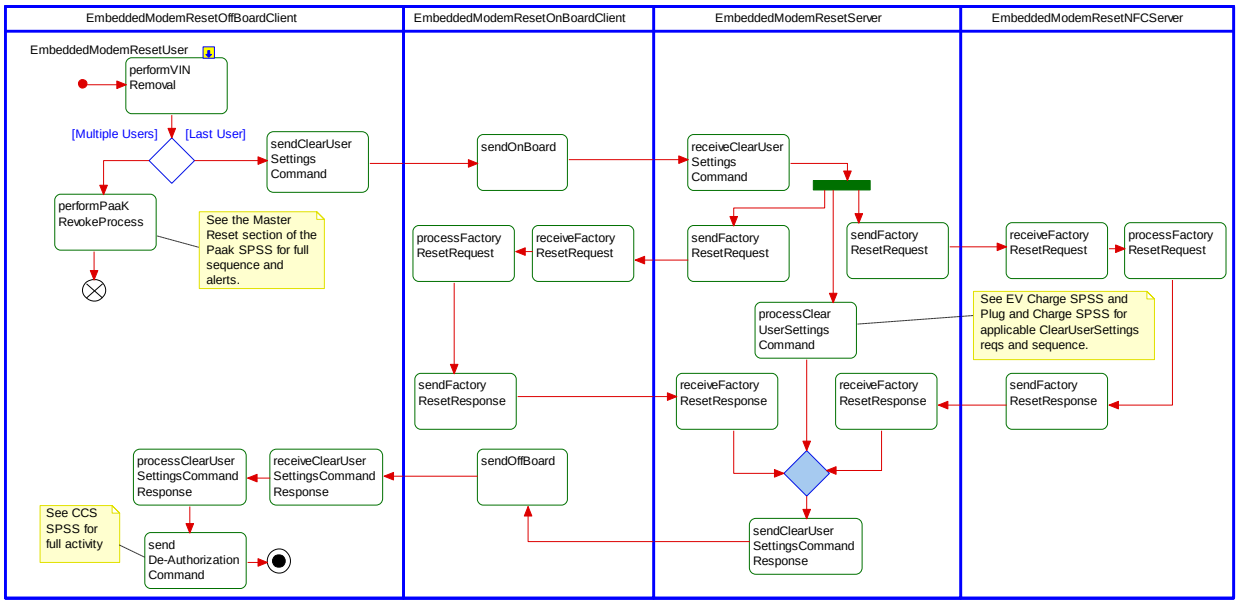
4.3.2.1 EMR-UC-REQ-275666/B-Removal Of VIN From Account

Actors	Vehicle occupant
Pre-conditions	HMI display is ON EmbeddedModemResetServer is Provisioned
Scenario Description	The user removed VIN from account via Mobile App.
Post-conditions	CVFMA receives request to trigger Master Reset operation. Reset of customer settings, connectivity settings, feature specific settings, feature/subscription unenrollment (if applicable) and EmbeddedModemResetServer de-authorization (if applicable)
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.3.3 White Box View

4.3.3.1 EMR-ACT-REQ-275667/D-Removal Of VIN From Account

Activity Diagram



4.3.3.2 EMR-SD-REQ-275668/D-Removal Of VIN From Account

Constraints

Pre-Condition

HMI display is ON

EmbeddedModemResetServer is Provisioned

Scenarios

Normal Usage

The user removed VIN from account via Mobile App

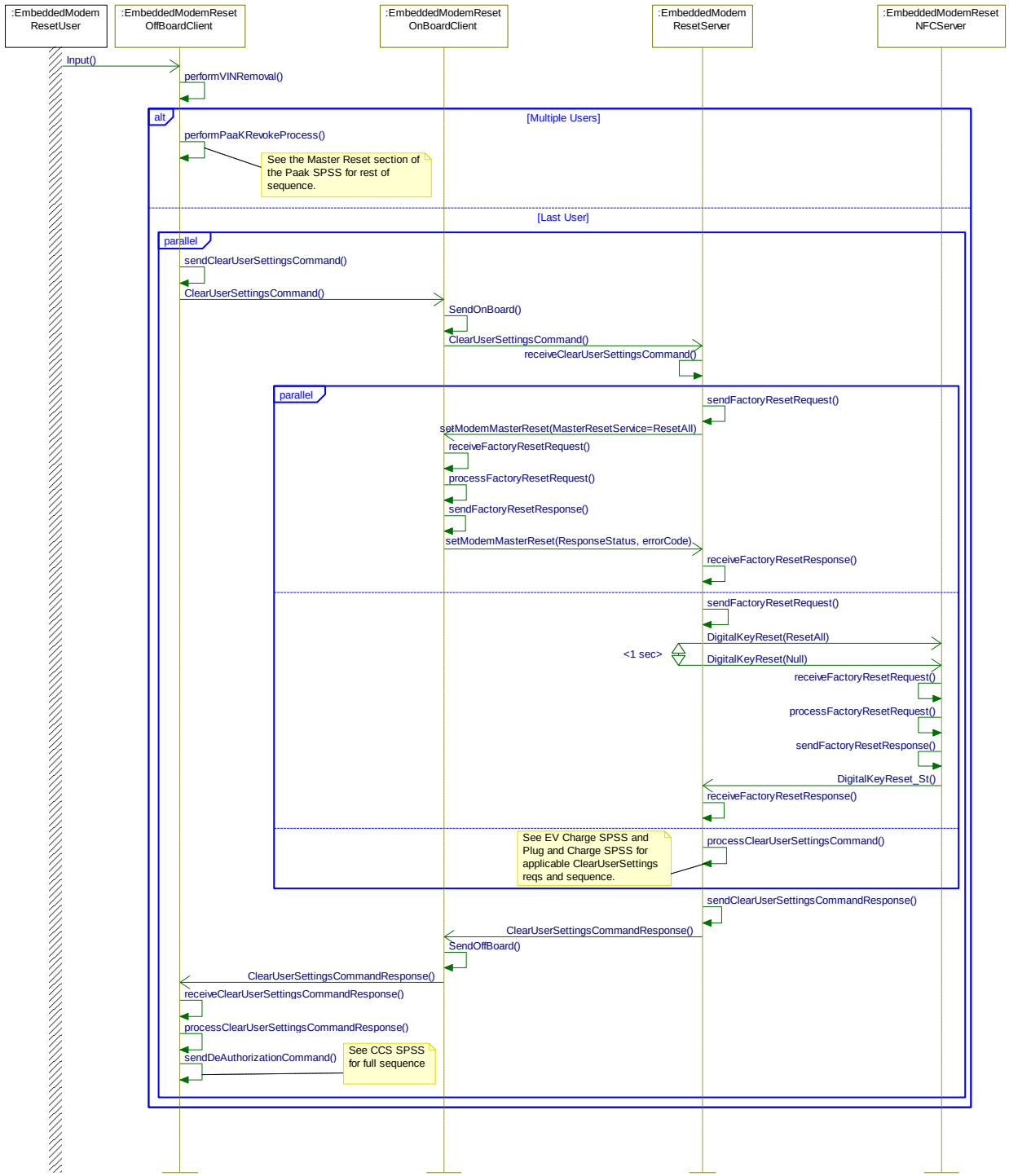
Post-Condition

CVFMA receives request to trigger Master Reset operation.

Reset of customer settings, connectivity settings, feature specific settings, feature/subscription unenrollment (if applicable) and EmbeddedModemResetServer

de-authorization (if applicable)

Sequence Diagram



4.4 EMRv2-FUN-REQ-275669/A-Wifi Hotspot - Embedded Modem Reset

4.4.1 Requirements

4.4.1.1 EMR-REQ-480077/A-Wifi Hotspot Embedded Modem Reset - Preconditions

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall monitor the below conditions to determine whether Wifi Hotspot Reset shall be made available to the user (enabled/disabled). The corresponding NotAvailReason shall be set via resetAvailabilityBroadcast if the listed precondition is not met:

Precondition	NotAvailReason if condition not met
TCUAvailability_St = (0x2) Enable	Modem not available

If all of the above preconditions have been met, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = WifiHotSpotReset, EnableState = Enabled).

If at least one of the above conditions has not been met, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = WifiHotSpotReset, EnableState = Disabled, NotAvailReason).

If any of the above conditions are not available or cannot be determined, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = WifiHotSpotReset, EnableState = Not_Available).

4.4.1.2 EMR-REQ-480318/A-Wifi Hotspot Embedded Modem Reset - InterfaceClient notifying EmbeddedModemResetServer

The EmbeddedModemResetInterfaceClient shall send resetRequestBroadcast(ResetRequest = Wifi Hotspot Reset) to the EmbeddedModemResetServer when a Wifi Hotspot Reset is requested by the user.

4.4.1.3 EMR-REQ-275670/A-Wifi Hotspot Embedded Modem Reset - InterfaceClient Request

The EmbeddedModemResetInterfaceClient shall send EmbeddedModemReset_Rq = “(0x1) WifiHotspot_Reset” to the EmbeddedModemResetServer when requested by the user.

4.4.1.4 EMR-REQ-281489/C-Wifi Hotspot Embedded Modem Reset - Server Request

When Primary_Display_Device = FORD_APIM, upon reception of EmbeddedModemReset_Rq = “(0x1) WifiHotspot_Reset” from the EmbeddedModemResetInterfaceClient, the EmbeddedModemResetServer shall call the API, setModemMasterReset(MasterResetService = 0x1 - ResetWLANOnly), from the EmbeddedModemResetOnBoardClient.

4.4.1.5 EMRv2-REQ-480078/A-Wifi Hotspot Embedded Modem Reset - Server Request v2

When Primary_Display_Device = PHOENIX, upon reception of resetRequestBroadcast(ResetRequest = Wifi Hotspot Reset) from the EmbeddedModemResetInterfaceClient, the EmbeddedModemResetServer shall call the API, setModemMasterReset(MasterResetService = 0x1 - ResetWLANOnly), from the EmbeddedModemResetOnBoardClient.

4.4.1.6 EMR-REQ-281490/C-Wifi Hotspot Embedded Modem Reset - OnBoardClient Response

Upon completion of the Wifi Hotspot Feature Reset, the EmbeddedModemResetOnBoardClient shall send the setModemMasterReset API response to the EmbeddedModemResetServer indicating:

- ResponseStatus = 0x00 Success, if the reset succedded
- ResponseStatus = 0x01 – 0x10 Fail, if the reset failed
    - ErrorCode shall be set to any valid code in the event of a failure

4.4.1.7 EMR-REQ-275671/B-Wifi Hotspot Embedded Modem Reset - Server Response

When Primary_Display_Device = FORD_APIM, upon successful completion of the Wifi Hotspot Feature Reset, the EmbeddedModemResetServer shall send EmbeddedModemReset_St = “(0x5) WifiHotspotReset_Complete” to the EmbeddedModemResetInterfaceClient.

Upon a failed Wifi Hotspot Feature Reset, the EmbeddedModemResetServer shall send EmbeddedModemReset_St = "(0x1) Reset_NotComplete" to the EmbeddedModemResetInterfaceClient.

This transmission of the EmbeddedModemReset_St to the EmbeddedModemResetInterfaceClient shall not be delayed or dependent on the transmission of any FTCP alert to the EmbeddedModemResetOffBoardClient.

4.4.1.8 EMR-REQ-480079/A-Wifi Hotspot Embedded Modem Reset - Reset Progress Broadcast

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall publish resetProgressBroadcast() per the below:

- resetProgressBroadcast(ResetType = Wifi Hotspot Reset, ResetStatus = None) when
  - no reset is actively being processed
  - this value shall be sent 1 second after having sent a 'Complete' status
- resetProgressBroadcast(ResetType = Wifi Hotspot Reset, ResetStatus = In Progress) when
  - the EmbeddedModemResetServer begins issuing reset requests, until a 'Complete' status has been determined
- resetProgressBroadcast(ResetType = Wifi Hotspot Reset, ResetStatus = Complete - Success) upon:
  - reception of a successful setModemMasterReset API response
- resetProgressBroadcast(ResetType = Wifi Hotspot Reset, ResetStatus = Complete - Fail) when:
  - reception of a failed setModemMasterReset API response
  - the max time allowed for reset has elapsed (See REQ-479701)

4.4.1.9 EMR-REQ-275647/C-Master & Embedded Modem Reset - Request Handling

Upon receiving a Master Reset or Feature Reset request (via either FactoryReset.Rq or EmbeddedModemReset_Rq or resetRequestBroadcast), the EmbeddedModemResetServer shall:

- Process the request if one is not already in process
- Execute only one reset at any given time
- Ignore the request if an EmbeddedModemInterfaceClient initiated reset request is already being processed
- Queue the request if an EmbeddedModemOffBoardClient initiated reset request is already being processed. The EmbeddedModemResetServer shall process the request only after the ongoing reset has completed.

Upon receiving a ClearUserSettingsCommand (per VIN Removal), the EmbeddedModemResetServer shall:

- Process the request if one is not already in process
- Queue the request if an existing reset request is already in process. The EmbeddedModemResetServer shall process the request only after the ongoing reset has completed.

The EmbeddedModemResetServer shall persist all queued reset requests through module restarts, power on/off, ignition cycles, etc.

4.4.1.10 EMR-REQ-275672/A-Wifi Hotspot Embedded Modem Reset - Operational States

The Wifi Hotspot Feature Reset shall only be permitted if the EmbeddedModemResetOnBoardClient is in any of the following states:

- "Provisioned"

4.4.1.11 EMR-REQ-275673/A-Wifi Hotspot Embedded Modem Reset - Cleared Data

The feature data to be cleared by the EmbeddedModemResetOnBoardClient upon a Wifi Hotspot Feature Reset (per REQ-275670) shall include all relevant Wifi Hotspot data as defined in the Wifi Hotspot SPSS (see WFHSv2-REQ-283559-Wi-Fi Hotspot reset settings)

**Please refer to each feature SPSS for details on the specific settings.

4.4.1.12 EMR-HMI-REQ-275674/A-Wifi Hotspot Embedded Modem Reset - User Input

The EmbeddedModemResetInterfaceClient shall provide a user interface (button/graphic) to perform the Wifi Hotspot Feature Reset.

4.4.1.13 EMR-HMI-REQ-275675/A-Wifi Hotspot Embedded Modem Reset - User Input Enable/Disable

The EmbeddedModemResetInterfaceClient shall enable/disable (show/hide, grey-out, etc.) the Wifi Hotspot Feature Reset user interface (button/graphic) based on the following:

- When TCUAvailability_St = (0x2) Enable, the above shall be enabled
- When TCUAvailability_St != (0x2) Enable, the above shall be disabled (greyed-out, hidden, etc.)
    - If TCUAvailability_St is unavailable or missing on the bus, the above shall be disabled (greyed-out, hidden, etc.)

4.4.1.14 EMRv2-HMI-REQ-480317/A-Wifi Hotspot Embedded Modem Reset - User Input Enable/Disable v2

The EmbeddedModemResetInterfaceClient shall enable/disable the Wifi Hotspot Reset user interface (button/graphic) based on resetAvailabilityBroadcast received from the EmbeddedModemResetServer:

- If resetAvailabilityBroadcast(ResetType = WifiHotSpotReset, EnableState = Enabled), the Wifi Hotspot Reset user interface shall be enabled
- If resetAvailabilityBroadcast(ResetType = WifiHotSpotReset, EnableState = Disabled, NotAvailReason), the Wifi Hotspot Reset user interface shall be disabled
- If resetAvailabilityBroadcast(ResetType = WifiHotSpotReset, EnableState = Not_Available), the Wifi Hotspot Reset user interface shall be made unavailable (ex. spinning wheel)

If resetAvailabilityBroadcast(ResetType = WifiHotSpotReset, EnableState = Disabled, NotAvailReason) while the user selects the user interface (button/graphic), the EmbeddedModemResetInterfaceClient shall display a notification to the user corresponding to the reason provided via NotAvailReason.

4.4.1.15 EMR-REQ-480319/A-Wifi Hotspot Embedded Modem Reset - Progress Indication

The EmbeddedModemResetInterfaceClient shall receive resetProgressBroadcast(ResetType = Wifi Hotspot_Reset, ResetStatus) from the EmbeddedModemResetServer indicating the status of the indicated reset.

- When resetProgressBroadcast(ResetType = Wifi Hotspot_Reset, ResetStatus = InProgress) the EmbeddedModemResetInterfaceClient shall display an ‘In Progress’ screen
- When resetProgressBroadcast(ResetType = Wifi Hotspot_Reset, ResetStatus = Complete - Success) the EmbeddedModemResetInterfaceClient shall display a ‘Reset Success’ screen
- When resetProgressBroadcast(ResetType = Wifi Hotspot_Reset, ResetStatus = Complete - Fail) the EmbeddedModemResetInterfaceClient shall display a ‘Reset Failed screen

If the EmbeddedModemResetInterfaceClient does not receive a ‘Complete’ status via resetProgressBroadcast from the EmbeddedModemResetServer within T_Final (50s) of the initial reset request (per REQ-480318), the EmbeddedModemResetInterfaceClient shall consider the reset ‘Complete – Fail’ and display a ‘Reset Failed’ screen.

4.4.1.16 EMR-REQ-275654/B-Master & Embedded Modem Reset - Completion Time

When Primary_Display_Device = FORD_APIM, the EmbeddedModemResetServer and EmbeddedModemResetOnBoardClient shall remove all PII and application specific data within 45 seconds.

If this process fails to complete within the above time for any of the Embedded Modem Feature Resets, the EmbeddedModemResetServer shall respond to the EmbeddedModemResetInterfaceClient with EmbeddedModemReset_St = “(0x1) Reset_NotComplete”.

4.4.1.17 EMRv2-REQ-479701/A-Master & Embedded Modem Reset - Completion Time v2

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer and EmbeddedModemResetOnBoardClient shall remove all PII and application specific data within 45 seconds.

If this process fails to complete within the above time for any of the Embedded Modem Feature Resets, the EmbeddedModemResetServer shall send resetProgressBroadcast(ResetType, ResetStatus = Complete - Fail) to the EmbeddedModemResetInterfaceClient for the requested ResetType.

4.4.2 Use Cases

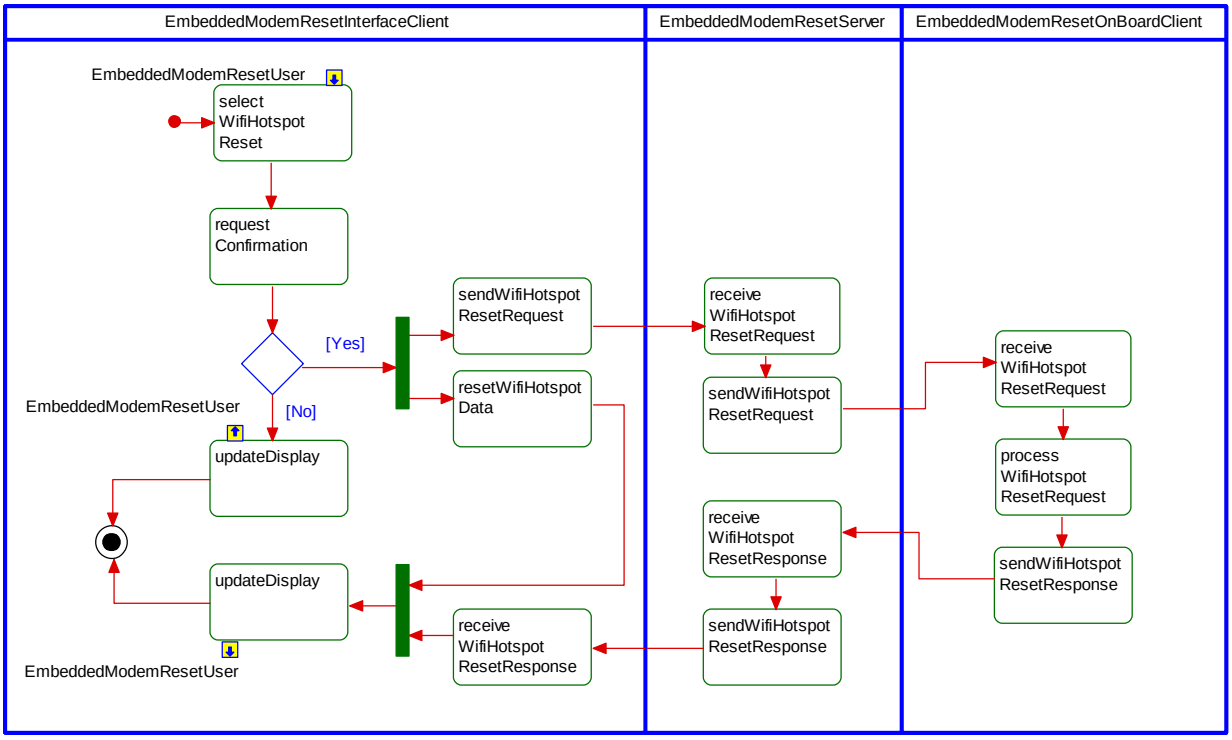
4.4.2.1 EMR-UC-REQ-275676/A-WifiHotspot Embedded Modem Reset

Actors	Vehicle occupant
Pre-conditions	HMI display is ON
Scenario Description	The user selects <Wifi Hotspot Reset> via HMI.
Post-conditions	All applicable Wifi Hotspot settings are restored to the factory defaults or last stored values (refer to the Wifi Hotspot SPSS for applicable settings).
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.4.3 White Box View

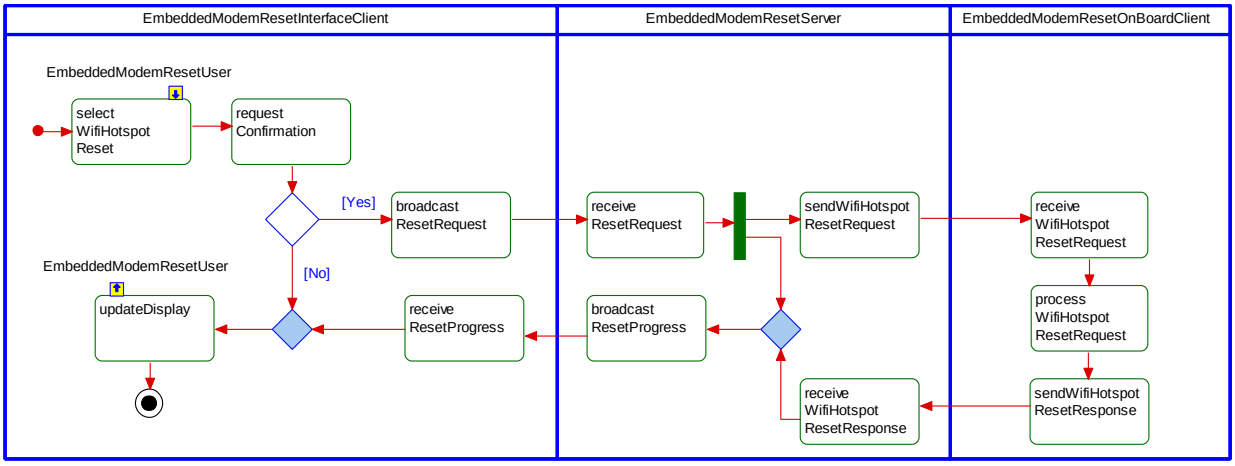
4.4.3.1 EMR-ACT-REQ-275677/A-Wifi Hotspot Embedded Modem Reset

Activity Diagram



4.4.3.2 EMRv2-ACT-REQ-480557/A-Wifi Hotspot Embedded Modem Reset v2

Activity Diagram



4.4.3.3 EMR-SD-REQ-275678/B-Wifi Hotspot Embedded Modem Reset

Constraints

Pre-Condition

HMI display is ON

Scenarios

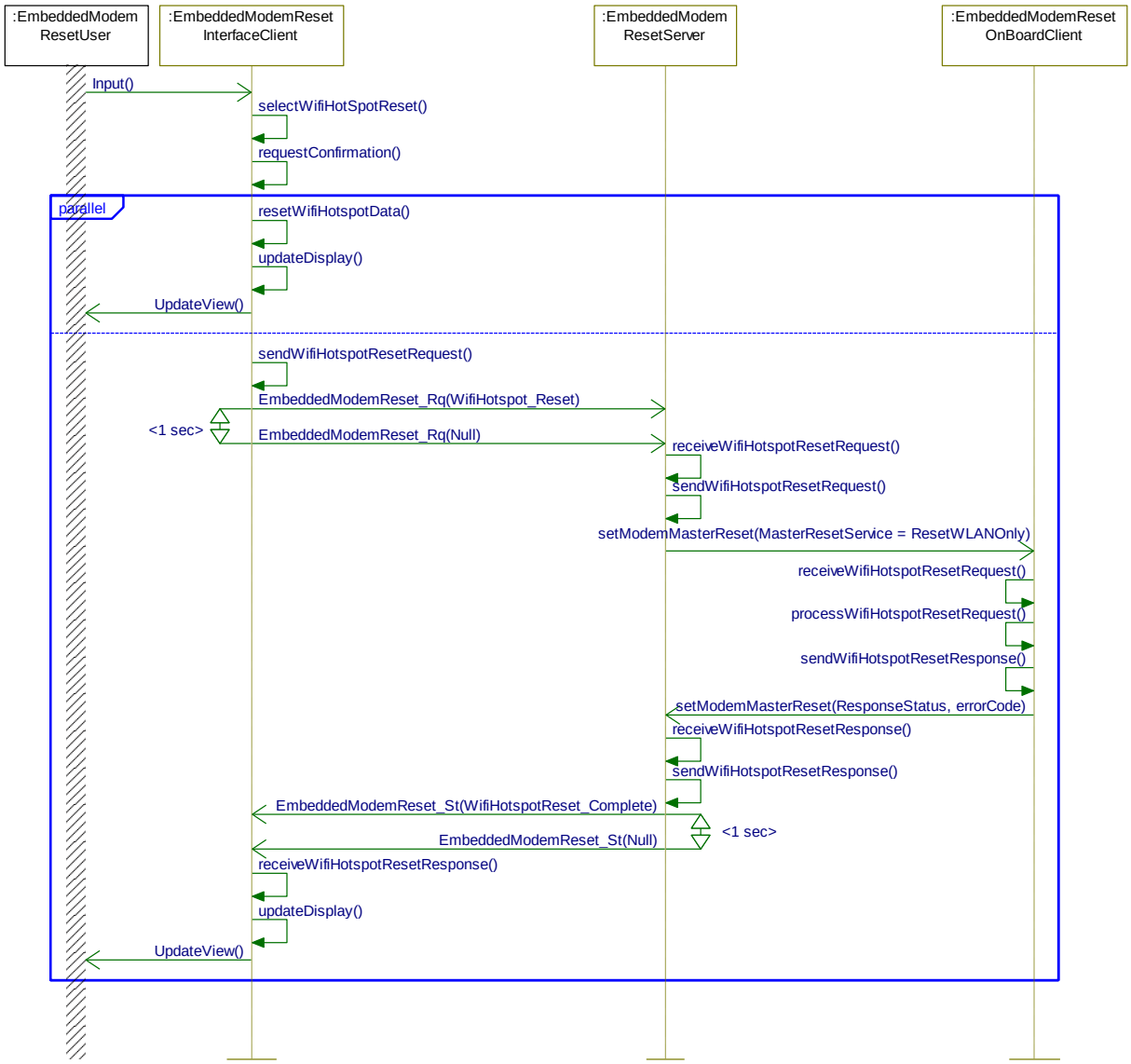
Normal Usage

The user selects <Wifi Hotspot Reset> via HMI

Post-Condition

All applicable Wifi Hotspot settings are restored to the factory defaults or last stored values

Sequence Diagram



4.4.3.4 EMRv2-SD-REQ-480558/A-Wifi Hotspot Embedded Modem Reset v2

Constraints

Pre-Condition

HMI display is ON

Scenarios

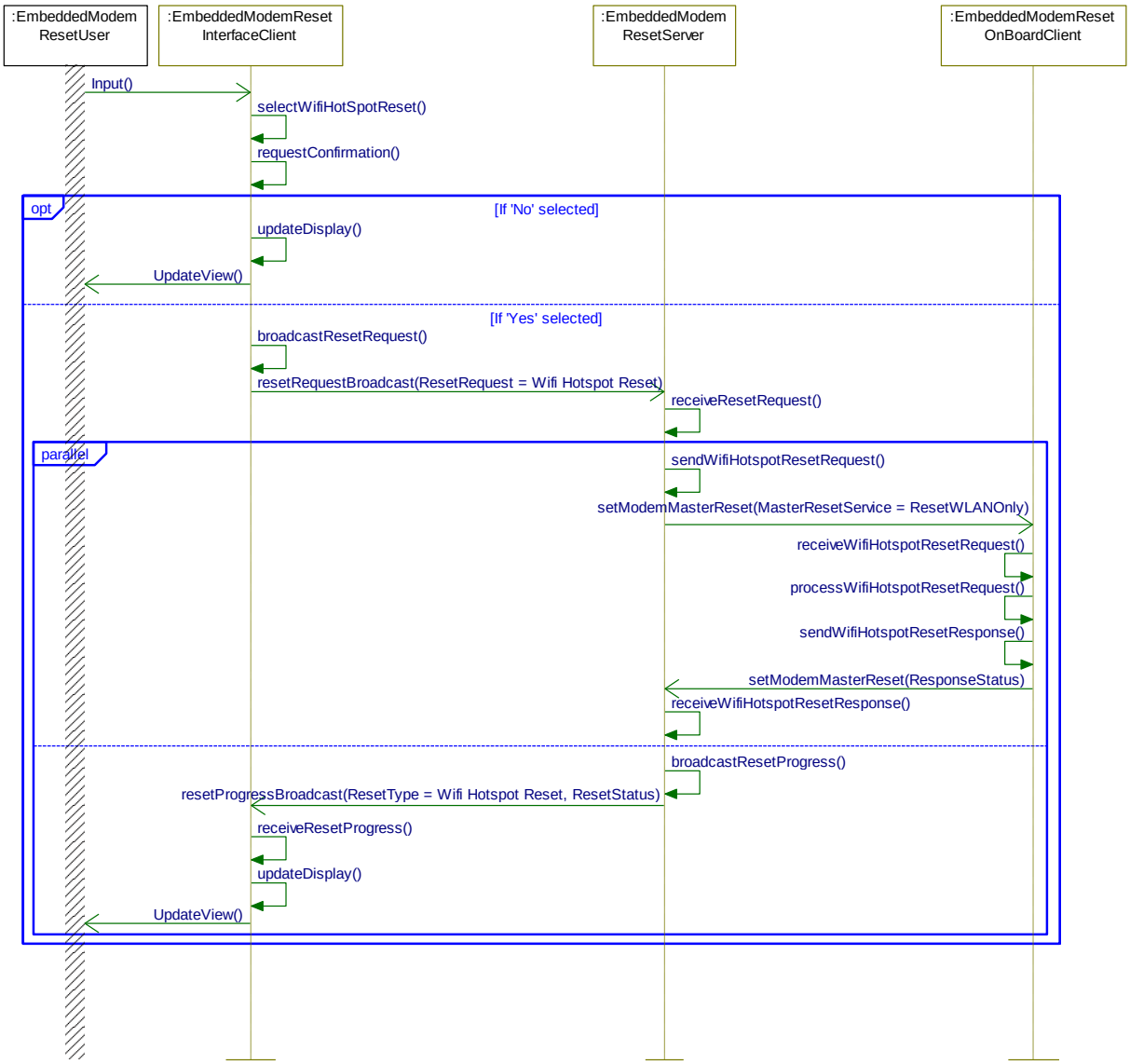
Normal Usage

The user selects <Wifi Hotspot Reset> via HMI

Post-Condition

All applicable Wifi Hotspot settings are restored to the factory defaults or last stored values

Sequence Diagram



4.5 EMRv2-FUN-REQ-275679/A-Phone-As-A-Key - Embedded Modem Reset

4.5.1 Requirements

4.5.1.1 EMR-REQ-480097/A-PaaK Embedded Modem Reset - Preconditions

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall monitor the below conditions to determine whether PaaK Reset shall be made available to the user (enabled/disabled). The corresponding NotAvailReason shall be set via resetAvailabilityBroadcast if the listed precondition is not met:

Precondition	**NotAvailReason if condition not met**
PaakESN_St/BLEMProvDID = "(0x53) ReadyForKeyDelivery", OR PaakESN_St/BLEMProvDID = "(0x54) KeyDelivered"	No PaaK Created
IgnitionStatus_St = Run	Not in Run
VehicleSpeed_St is less than 5mph (Driving Restrictions threshold)	Speed Exceeded
VehicleStartKeyType_St = Factory, AND VehicleStartKeySource_St != Digital_Key	User Key Started Vehicle
IgnKeyType_D_Actl != "(0x2) Key_In_Ign_MyKey"	MyKey Started Vehicle

- If IgnKeyType_D_Actl is not on the bus when ignition does not equal Run (ex Acc, Delay Acc, extended play), the EmbeddedModemResetServer shall assume the last signal state received
- If VehicleStartKeyType_St or VehicleStartKeySource become missing their values cannot be determined, the EmbeddedModemResetServer shall omit this precondition (do not consider for disabling the reset).

If all of the above preconditions have been met, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = PaaKReset, EnableState = Enabled).

If at least one of the above conditions has not been met, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = PaaKReset, EnableState = Disabled, NotAvailReason).

If any of the above conditions are not available or cannot be determined, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = PaaKReset, EnableState = Not_Available).

4.5.1.2 EMR-REQ-275680/B-PaaK Embedded Modem Reset - InterfaceClient Request

The EmbeddedModemResetInterfaceClient shall send EmbeddedModemReset_Rq = "(0x2) PaaK_Reset" to the EmbeddedModemResetKeyServer when requested by the user.

4.5.1.3 EMR-REQ-480338/A-PaaK Embedded Modem Reset - InterfaceClient notifying EmbeddedModemResetServer

The EmbeddedModemResetInterfaceClient shall send resetRequestBroadcast(ResetRequest = PaaK Reset) to the EmbeddedModemResetServer when a PaaK Reset is requested by the user.

4.5.1.4 EMR-REQ-281570/C-PaaK Embedded Modem Reset - Server Request

When Primary_Display_Device = FORD_APIM, upon reception of EmbeddedModemReset_Rq = (0x2) PaaK_Reset" from the EmbeddedModemResetInterfaceClient, the EmbeddedModemResetServer shall:

- Begin monitoring the response from the EmbeddedModemResetKeyServer to determine success/fail (per REQ-275682)

4.5.1.5 EMRv2-REQ-480098/A-PaaK Embedded Modem Reset - Server Request v2

When Primary_Display_Device = PHOENIX, upon reception of resetRequestBroadcast(ResetRequest = PaaK Reset) from the EmbeddedModemResetInterfaceClient, the EmbeddedModemResetServer shall:

- Send setSyncReset(ResetService = 0x5 – PaaK Reset) to the EmbeddedModemResetInterfaceClient

- If setSyncResetConfirm(ConfirmStatus = Fail) is received from the EmbeddedModemResetInterfaceClient, the EmbeddedModemResetServer shall attempt one retry. If that retry also results in a Fail response, the reset shall be aborted and considered a Failure.
- Begin monitoring the response from the EmbeddedModemResetKeyServer to determine success/fail (per REQ-275682)

4.5.1.6 EMR-REQ-480339/A-PaaK Embedded Modem Reset - InterfaceClient Issuing Reset Request

Upon receiving setSyncReset(ResetService = 0x5 – PaaK Reset), the EmbeddedModemResetInterfaceClient shall send EmbeddedModemReset_Rq = "(0x2) PaaK_Reset" to the EmbeddedModemResetKeyServer.

4.5.1.7 EMR-REQ-480340/A-PaaK Embedded Modem Reset - InterfaceClient Reset Response

After sending EmbeddedModemReset_Rq per REQ-480339, the EmbeddedModemResetInterfaceClient shall send setSyncResetConfirm(ConfirmStatus) to the EmbeddedModemResetServer indicating:

- ConfirmStatus = 0x0 Success, if the request was successfully sent
- ConfirmStatus = 0x1 Fail, if the request failed to be sent

4.5.1.8 EMR-REQ-281571/A-PaaK Embedded Modem Reset - KeyServer Response

The EmbeddedModemResetKeyServer shall perform the PaaK Reset and respond with PaaKInfo_Rsp (indicating the resulting Opcode and KeyProgress) within T_RevokeRspWait after receiving a PaaK Reset request.

4.5.1.9 EMR-REQ-275681/B-PaaK Embedded Modem Reset - Server Response

When Primary_Display_Device = FORD_APIM, upon successful completion of a PaaK Reset (see REQ-275682), the EmbeddedModemResetServer shall send EmbeddedModemReset_St = "(0x2) PaaKReset_Complete" to the EmbeddedModemResetInterfaceClient.

Upon a failed PaaK Reset (see REQ-275682), the EmbeddedModemResetServer shall send EmbeddedModemReset_St = "(0x1) Reset_NotComplete" to the EmbeddedModemResetInterfaceClient.

This transmission of the EmbeddedModemReset_St to the EmbeddedModemResetInterfaceClient shall not be delayed or dependent on the transmission of any FTCP alert to the EmbeddedModemResetOffBoardClient.

4.5.1.10 EMR-REQ-480099/A-PaaK Embedded Modem Reset - Reset Progress Broadcast

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall publish resetProgressBroadcast() per the below:

- resetProgressBroadcast(ResetType = PaaK Reset, ResetStatus = None) when
  - no reset is actively being processed
  - this value shall be sent 1 second after having sent a 'Complete' status
- resetProgressBroadcast(ResetType = PaaK Reset, ResetStatus = In Progress) when
  - the EmbeddedModemResetServer begins issuing reset requests, until a 'Complete' status has been determined
- resetProgressBroadcast(ResetType = PaaK Reset, ResetStatus = Complete - Success) upon:
  - successful completion of a PaaK Reset as per REQ-275682
- resetProgressBroadcast(ResetType = PaaK Reset, ResetStatus = Complete - Fail) when:
  - failure to complete the PaaK Reset as per REQ-275682
  - failure to send the PaaK Reset as per REQ-480099

4.5.1.11 EMR-REQ-275647/C-Master & Embedded Modem Reset - Request Handling

Upon receiving a Master Reset or Feature Reset request (via either FactoryReset.Rq or EmbeddedModemReset_Rq or resetRequestBroadcast), the EmbeddedModemResetServer shall:

- Process the request if one is not already in process
- Execute only one reset at any given time
- Ignore the request if an EmbeddedModemInterfaceClient initiated reset request is already being processed
- Queue the request if an EmbeddedModemOffBoardClient initiated reset request is already being processed. The EmbeddedModemResetServer shall process the request only after the ongoing reset has completed.

Upon receiving a ClearUserSettingsCommand (per VIN Removal), the EmbeddedModemResetServer shall:

- Process the request if one is not already in process
- Queue the request if an existing reset request is already in process. The EmbeddedModemResetServer shall process the request only after the ongoing reset has completed.

The EmbeddedModemResetServer shall persist all queued reset requests through module restarts, power on/off, ignition cycles, etc.

4.5.1.12 EMR-REQ-275682/B-PaaK Embedded Modem Reset - Determine Reset Fail/Success

For a PaaK Reset to be deemed successful, the EmbeddedModemResetKeyServer must successfully revoke all PaaK's and report this to the EmbeddedModemResetServer. In order to determine and properly notify the EmbeddedModemInterfaceClient, the EmbeddedModemResetServer shall monitor PaaKInfo_Rsp for up to T_RevokeRspWait after receiving a PaaK Reset request.

If PaaKInfo_Rsp is received with:

- Opcode = "Revoke All Keys (0x4)" and
- KeyProgress = "Success (0x1)"

then the EmbeddedModemResetServer shall send a "success" response to the EmbeddedModemResetInterfaceClient as detailed in REQ-275681 or REQ-480099.

If PaaKInfo_Rsp is received with any other Opcode or KeyProgress values, then the EmbeddedModemResetServer shall send a "failed" response to the EmbeddedModemResetInterfaceClient as detailed in REQ-275681 or REQ-480099.

If a PaaKInfo_Rsp is not received within T_RevokeRspWait (with a CES of any "Final Result"), then the EmbeddedModemResetServer shall send a "failed" response to the EmbeddedModemResetInterfaceClient as detailed in REQ-275681 or REQ-480099.

Note: The signal above is a TP Signal, please refer to the ECG Transport Protocol SPSS for more information.

4.5.1.13 EMR-TMR-REQ-275683/A-T_RevokeRspWait

Name	Description	Units	Range	Resolution	Default
T_RevokeRspWait	The maximum amount of time the EmbeddedModemResetServer shall wait for PaaKInfo_Rsp before reporting "failed" to the EmbeddedModemInterfaceClient. Note: Use default value.	sec	55-75	5	65

4.5.1.14 EMR-REQ-275684/B-PaaK Embedded Modem Reset - Operational States

The PaaK Feature Reset shall only be permitted if the EmbeddedModemResetServer is in any of the following states:

- "Provisioned"

4.5.1.15 EMR-REQ-275685/A-PaaK Embedded Modem Reset - Cleared Data

The feature data to be cleared by the EmbeddedModemResetKeyServer upon a PaaK Feature Reset (per REQ-281570) shall include all relevant PaaK data as defined in the PaaK SPSS (see PaaK-REQ-234407-Master Reset).

**Please refer to each feature SPSS for details on the specific settings.

4.5.1.16 EMR-HMI-REQ-275686/A-PaaK Embedded Modem Reset - User Input

The EmbeddedModemResetInterfaceClient shall provide a user interface (button/graphic) to perform the PaaK Feature Reset.

4.5.1.17 EMR-HMI-REQ-275687/A-PaaK Embedded Modem Reset - User Input Enable/Disable

The EmbeddedModemResetInterfaceClient shall enable/disable (make active/inactive, grey-out) the PaaK Feature Reset user interface (button/graphic) based on the following:

- When PaakESN_St/BLEMProvDID = "(0x53) ReadyForKeyDelivery", OR
  PaakESN_St/BLEMProvDID = "(0x54) KeyDelivered" the above shall be enabled

- When PaakESN_St/BLEMProvDID != "(0x53) ReadyForKeyDelivery", OR
  PaakESN_St/BLEMProvDID != "(0x54) KeyDelivered" the above shall be disabled (greyed-out, hidden, etc.)

Note: The signal above is a TP Signal, please refer to the APIM Transport Protocol SPSS for more information.

4.5.1.18 EMRv2-HMI-REQ-480337/A-PaaK Embedded Modem Reset - User Input Enable/Disable v2

The EmbeddedModemResetInterfaceClient shall enable/disable the PaaK Reset user interface (button/graphic) based on resetAvailabilityBroadcast received from the EmbeddedModemResetServer:

- If resetAvailabilityBroadcast(ResetType = PaaKReset, EnableState = Enabled), the PaaK Reset user interface shall be enabled
- If resetAvailabilityBroadcast(ResetType = PaaKReset, EnableState = Disabled, NotAvailReason), the PaaK Reset user interface shall be disabled
- If resetAvailabilityBroadcast(ResetType = PaaKReset, EnableState = Not_Available), the PaaK Reset user interface shall be made unavailable (ex. spinning wheel)

If resetAvailabilityBroadcast(ResetType = PaaKReset, EnableState = Disabled, NotAvailReason) while the user selects the user interface (button/graphic), the EmbeddedModemResetInterfaceClient shall display a notification to the user corresponding to the reason provided via NotAvailReason.

4.5.1.19 EMR-REQ-480341/A-PaaK Embedded Modem Reset - Progress Indication

The EmbeddedModemResetInterfaceClient shall receive resetProgressBroadcast(ResetType = PaaK_Reset, ResetStatus) from the EmbeddedModemResetServer indicating the status of the indicated reset.

- When resetProgressBroadcast(ResetType = PaaK Reset, ResetStatus = InProgress) the EmbeddedModemResetInterfaceClient shall display an 'In Progress' screen
- When resetProgressBroadcast(ResetType = PaaK Reset, ResetStatus = Complete - Success) the EmbeddedModemResetInterfaceClient shall display a 'Reset Success' screen
- When resetProgressBroadcast(ResetType = PaaK Reset, ResetStatus = Complete - Fail) the EmbeddedModemResetInterfaceClient shall display a 'Reset Failed screen

If the EmbeddedModemResetInterfaceClient does not receive a 'Complete' status via resetProgressBroadcast from the EmbeddedModemResetServer within T_Final (50s) of the initial reset request (per REQ-480338), the EmbeddedModemResetInterfaceClient shall consider the reset 'Complete – Fail' and display a 'Reset Failed' screen.

4.5.1.20 EMR-REQ-275688/D-PaaK Embedded Modem Reset - FTCP Alert

Upon completing the PaaK Feature Reset and successful confirmation of a PaaK Revoke operation (see PaaK SPSS), the EmbeddedModemResetServer shall send a CAKStatusAlert to the EmbeddedModemResetOffBoardClient indicating the change (revoke, and reason for revoke).

This alert shall include VSTAT information only when the vehicle is authorized (See CCS SPSS for authorization information).

4.5.2 Use Cases

4.5.2.1 EMR-UC-REQ-275689/A-PaaK Embedded Modem Reset

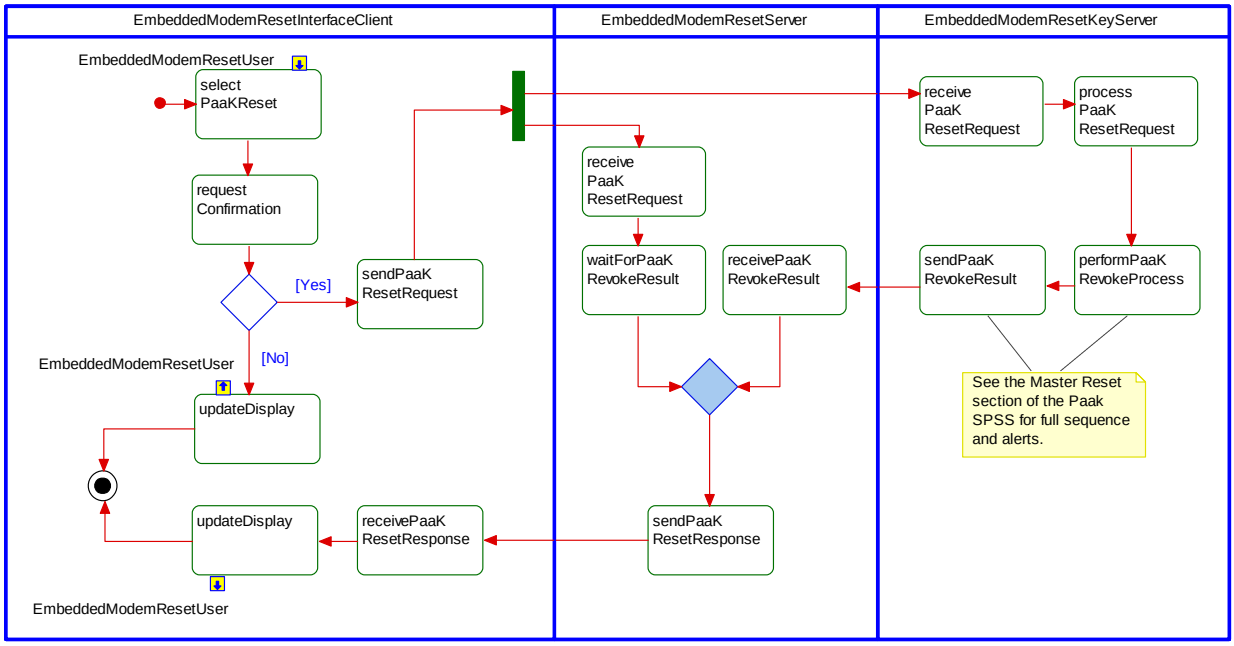
Actors	Vehicle occupant
Pre-conditions	HMI display is ON
Scenario Description	The user selects <Phone-As-A-Key Reset> via HMI.

Post-conditions	All applicable Phone-As-A-Key settings are restored to the factory defaults (refer to the PaaK SPSS for applicable settings).
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.5.3 White Box View

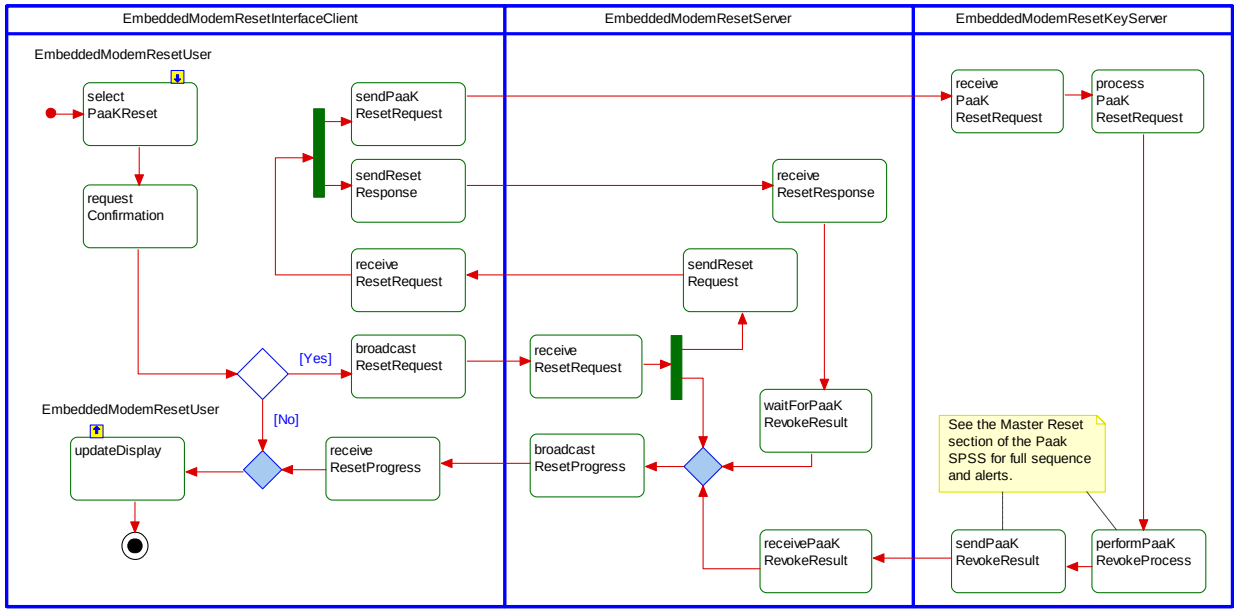
4.5.3.1 EMR-ACT-REQ-275690/B-PaaK Embedded Modem Reset

Activity Diagram



4.5.3.2 EMRv2-ACT-REQ-480559/A-PaaK Embedded Modem Reset v2

Activity Diagram



4.5.3.3 EMR-SD-REQ-275691/B-PaaK Embedded Modem Reset

Constraints

Pre-Condition

HMI display is ON

Scenarios

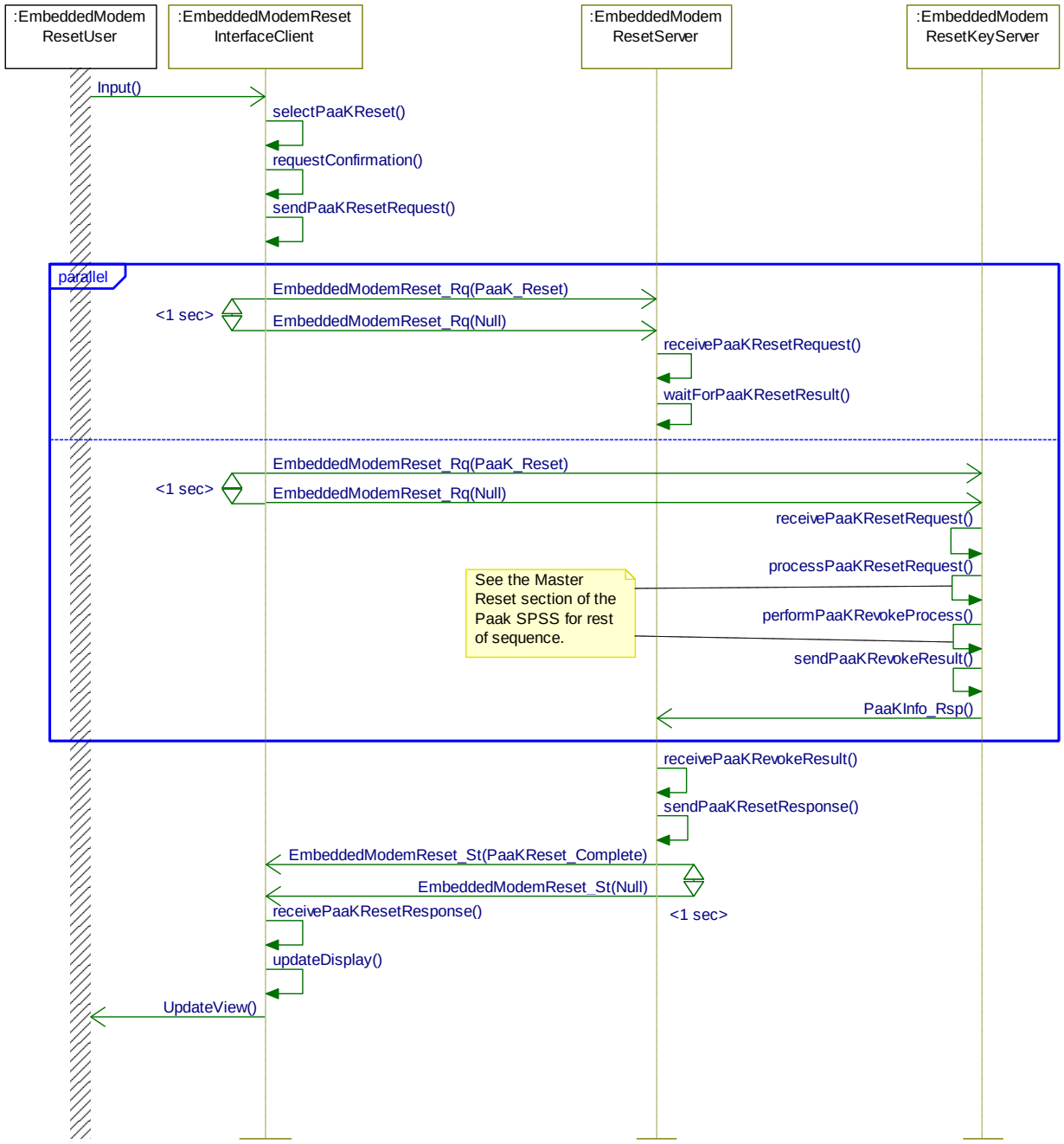
Normal Usage

The user selects <Phone-As-A-Key Reset> via HMI

Post-Condition

All applicable Phone-As-A-Key settings are restored to the factory defaults

Sequence Diagram



4.5.3.4 EMRv2-SD-REQ-480560/A-PaaK Embedded Modem Reset v2

Constraints

Pre-Condition

HMI display is ON

Scenarios

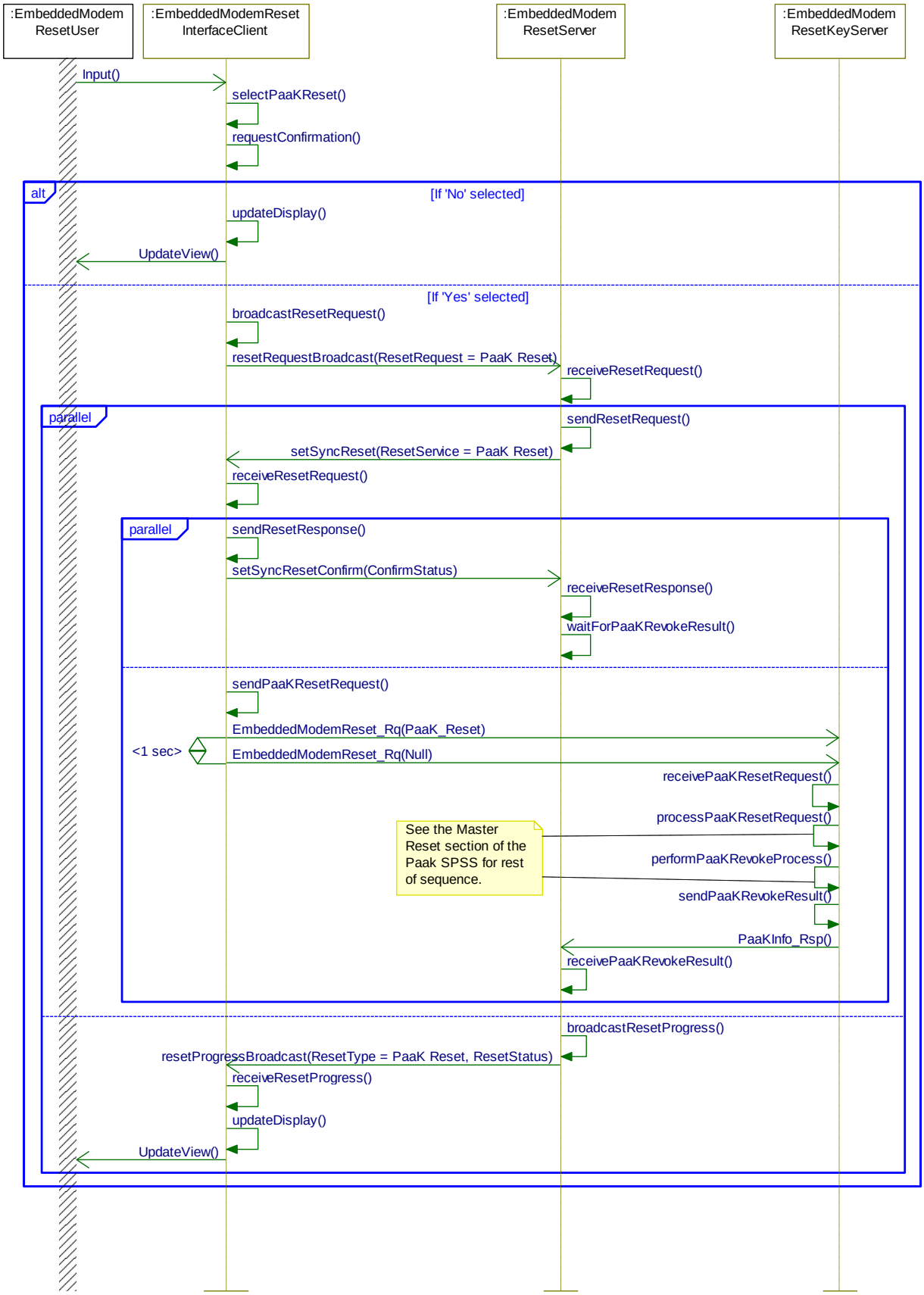
Normal Usage

The user selects <Phone-As-A-Key Reset> via HMI

Post-Condition

All applicable Phone-As-A-Key settings are restored to the factory defaults

Sequence Diagram



4.6 EMR-FUN-REQ-290254/A-Brand Connect - Embedded Modem Reset

This feature reset allows the user to reset all settings for the supported Embedded Modem Features without affecting the settings of any other clients or servers (ex. SYNC, AHU, DSP, etc.). The name “Brand Connect” refers to the “{Brand} Connect” dynamic label text detailed in H31a, which changes dynamically based on Ford or Lincoln configurations.

4.6.1 Requirements

4.6.1.1 EMR-REQ-480117/A-Brand Connect Embedded Modem Reset1 - Preconditions

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall monitor the below conditions to determine whether Brand Connect Reset1 shall be made available to the user (enabled/disabled). The corresponding NotAvailReason shall be set via resetAvailabilityBroadcast if the listed precondition is not met:

Precondition	NotAvailReason if condition not met
IgnitionStatus_St = Run	Not in Run
GearLeverPosition_St = Park	Not in Park
VehicleSpeed_St is less than 5mph (Driving Restrictions threshold)	Speed Exceeded
VehicleStartKeyType_St = Factory, AND VehicleStartKeySource_St != Digital_Key	User Key Started Vehicle
IgnKeyType_D_Actl != “(0x2) Key_In_Ign_MyKey”	MyKey Started Vehicle

- If IgnKeyType_D_Actl is not on the bus when ignition does not equal Run (ex Acc, Delay Acc, extended play), the EmbeddedModemResetServer shall assume the last signal state received
- If VehicleStartKeyType_St or VehicleStartKeySource become missing their values cannot be determined, the EmbeddedModemResetServer shall omit this precondition (do not consider for disabling the reset).

If all of the above preconditions have been met, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = BrandConnectReset1, EnableState = Enabled).

If at least one of the above conditions has not been met, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = BrandConnectReset1, EnableState = Disabled, NotAvailReason).

If any of the above conditions are not available or cannot be determined, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = BrandConnectReset1, EnableState = Not_Available).

4.6.1.2 EMR-REQ-480118/A-Brand Connect Embedded Modem Reset2 - Preconditions

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall monitor the below conditions to determine whether Brand Connect Reset2 shall be made available to the user (enabled/disabled). The corresponding NotAvailReason shall be set via resetAvailabilityBroadcast if the listed precondition is not met:

Precondition	NotAvailReason if condition not met
IgnitionStatus_St = Run	Not in Run
GearLeverPosition_St = Park	Not in Park
VehicleSpeed_St is less than 5mph (Driving Restrictions threshold)	Speed Exceeded
VehicleStartKeyType_St = Factory, AND VehicleStartKeySource_St != Digital_Key	User Key Started Vehicle
IgnKeyType_D_Actl != “(0x2) Key_In_Ign_MyKey”	MyKey Started Vehicle

- If IgnKeyType_D_Actl is not on the bus when ignition does not equal Run (ex Acc, Delay Acc, extended play), the EmbeddedModemResetServer shall assume the last signal state received

- If VehicleStartKeyType_St or VehicleStartKeySource become missing their values cannot be determined, the EmbeddedModemResetServer shall omit this precondition (do not consider for disabling the reset).

If all of the above preconditions have been met, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = BrandConnectReset2, EnableState = Enabled).

If at least one of the above conditions has not been met, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = BrandConnectReset2, EnableState = Disabled, NotAvailReason).

If any of the above conditions are not available or cannot be determined, the EmbeddedModemResetServer shall set resetAvailabilityBroadcast(ResetType = BrandConnectReset2, EnableState = Not_Available).

4.6.1.3 EMR-REQ-290255/B-Brand Connect Embedded Modem Reset - InterfaceClient Request

The EmbeddedModemResetInterfaceClient shall send EmbeddedModemReset_Rq to the EmbeddedModemResetServer, EmbeddedModemResetKeyServer, and EmbeddedModemResetEVServer with the below values, under the following cases:

- EmbeddedModemReset_Rq = "(0x5) BrandConnect_Reset1"
  - When the user perfoms a Brand Connect Reset and the EmbeddedModemResetInterfaceClient is not configured for a HEV, BEV, or PHEV, OR
  - When the user confirms they wish to clear all EV Charge Settings with their Brand Connect Reset (when configured for HEV, BEV, or PHEV)

- EmbeddedModemReset_Rq = "(0x6) BrandConnect_Reset2"
  - When the user confirms they wish to retain all EV Charge Settings with their Brand Connect Reset (when configured for HEV, BEV, or PHEV)

Note: Please see rule [H72a.R352] or [H72c.R352] for the relevant Hybrid vehicle type configurations.

4.6.1.4 EMR-REQ-480359/A-Brand Connect Embedded Modem Reset1 - InterfaceClient notifying EmbeddedModemResetServer

The EmbeddedModemResetInterfaceClient shall send resetRequestBroadcast(ResetRequest = Brand Connect Reset1) to the EmbeddedModemResetServer when a Brand Connect Reset1 is requested by the user.

4.6.1.5 EMR-REQ-480360/A-Brand Connect Embedded Modem Reset2 - InterfaceClient notifying EmbeddedModemResetServer

The EmbeddedModemResetInterfaceClient shall send resetRequestBroadcast(ResetRequest = Brand Connect Reset2) to the EmbeddedModemResetServer when a Brand Connect Reset2 is requested by the user.

4.6.1.6 EMR-REQ-290272/E-Brand Connect Embedded Modem Reset - Server Request

When Primary_Display_Device = FORD_APIM, upon reception of EmbeddedModemReset_Rq= "(0x5) BrandConnect_Reset1" OR "(0x6) BrandConnect_Reset2" from the EmbeddedModemResetInterfaceClient, the EmbeddedModemResetServer shall:

- Perform the Brand Connect Reset for any applicable internal features/functions (see REQ-290258)
  - This means internally notifying other applications/services in the EmbeddedModemResetServer that a reset is to be performed. Each application/service is responsible for clearing their own data
  - Note: The same application/service data is cleared for the Brand Connect Reset, Embedded Modem Master Reset, and VIN Removal
- Call the API, setModemMasterReset(MasterResetService = 0x0 - ResetAll) from the EmbeddedModemResetOnBoardClient.
- Send DigitalKeyReset_Rq = "(0x1) ResetAll" to the EmbeddedModemResetNFCServer (see REQ-429821)

4.6.1.7 EMRv2-REQ-480119/A-Brand Connect Embedded Modem Reset1 - Server Request v2

When Primary_Display_Device = PHOENIX, upon reception of resetRequestBroadcast(ResetRequest = Brand Connect Reset1) from the EmbeddedModemResetInterfaceClient, the EmbeddedModemResetServer shall:

- Perform the Brand Connect Reset for any applicable internal features/functions (see REQ-290258)

- This means internally notifying other applications/services in the EmbeddedModemResetServer that a reset is to be performed. Each application/service is responsible for clearing their own data
- Note: The same application/service data is cleared for the Brand Connect Reset, Embedded Modem Master Reset, and VIN Removal

- Call the API, setModemMasterReset(MasterResetService = 0x0 - ResetAll) from the EmbeddedModemResetOnBoardClient.
- Call the API, setSyncReset(ResetService = 0x2 – Brand Connect Reset1) from the EmbeddedModemResetInterfaceClient (see REQ-429821)
- Send DigitalKeyReset_Rq = "(0x1) ResetAll" to the EmbeddedModemResetNFCServer (see REQ-429821)
- Send OffboardChargeClearAll_Rq = "(0x1) Request" to EmbeddedModemResetEVServer (see REQ-429821)
  - See EVCS-FUN-REQ-309463-Master Reset
- Send DgtlCommPnc_Rq = "(0x1) Reset" to EmbeddedModemResetPnCServer (see REQ-429821)
  - See PNC-FUN-REQ-326625-Master Reset

4.6.1.8 EMRv2-REQ-480120/A-Brand Connect Embedded Modem Reset2 - Server Request v2

When Primary_Display_Device = PHOENIX, upon reception of resetRequestBroadcast(ResetRequest = Brand Connect Reset2) from the EmbeddedModemResetInterfaceClient, the EmbeddedModemResetServer shall:

- Perform the Brand Connect Reset for any applicable internal features/functions (see REQ-290258)
  - This means internally notifying other applications/services in the EmbeddedModemResetServer that a reset is to be performed. Each application/service is responsible for clearing their own data
  - Note: The same application/service data is cleared for the Brand Connect Reset, Embedded Modem Master Reset, and VIN Removal
- Call the API, setModemMasterReset(MasterResetService = 0x0 - ResetAll) from the EmbeddedModemResetOnBoardClient.
- Call the API, setSyncReset(ResetService = 0x3 – Brand Connect Reset2) from the EmbeddedModemResetInterfaceClient (see REQ-429821)
- Send DigitalKeyReset_Rq = "(0x1) ResetAll" to the EmbeddedModemResetNFCServer (see REQ-429821)

4.6.1.9 EMRv2-REQ-480361/A-Brand Connect Embedded Modem Reset - InterfaceClient Request v2

Upon reception of setSyncReset(ResetService), the EmbeddedModemResetInterfaceClient shall send EmbeddedModemReset_Rq accordingly:

- If setSyncReset(ResetService = 0x2 – Brand Connect Reset1), the EmbeddedModemResetInterfaceClient shall send EmbeddedModemReset_Rq = "(0x5) BrandConnect_Reset1"
- If setSyncReset(ResetService = 0x3 – Brand Connect Reset2), the EmbeddedModemResetInterfaceClient shall send EmbeddedModemReset_Rq = "(0x6) BrandConnect_Reset2"

The EmbeddedModemResetInterfaceClient shall then send setSyncResetConfirm(ConfirmStatus) indicating the successful or failed transmission of EmbeddedModemReset_Rq.

Note: Although EmbeddedModemReset_Rq is received by the EmbeddedModemResetServer, EmbeddedModemResetEVServer, and EmbeddedModemResetKeyServer, this shall only be acted upon by the EmbeddedModemResetKeyServer.

4.6.1.10 EMR-REQ-480121/A-Brand Connect Embedded Modem Reset1 - Reset Progress Broadcast

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall send resetProgressBroadcast() per the below:

- resetProgressBroadcast(ResetType = Brand Connect Reset1, ResetStatus = None) when
  - no reset is actively being processed
  - this value shall be sent 1 second after having sent a 'Complete' status
- resetProgressBroadcast(ResetType = Brand Connect Reset1, ResetStatus = In Progress) when
  - the EmbeddedModemResetServer begins issuing reset requests, until a 'Complete' status has been determined
- resetProgressBroadcast(ResetType = Brand Connect Reset1, ResetStatus = Complete - Success) upon:
  - completion of the Brand Connect Reset, AND
  - reception of a successful setModemMasterReset API response (if in a Connected Market, see REQ-381350), AND

- reception of a successful DigitalKeyReset_St (see REQ-429821), AND
- reception of PnCStat_St = 0x1 (see REQ-429821)

- resetProgressBroadcast(ResetType = Brand Connect Reset1, ResetStatus = Complete - Fail) when:
  - any of the conditions listed for 'Complete - Success' above has failed
  - the max time allowed for reset has elapsed (See REQ-479701)

4.6.1.11 EMR-REQ-480122/A-Brand Connect Embedded Modem Reset2 - Reset Progress Broadcast

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer shall send resetProgressBroadcast() per the below:

- resetProgressBroadcast(ResetType = Brand Connect Reset2, ResetStatus = None) when
  - no reset is actively being processed
  - this value shall be sent 1 second after having sent a 'Complete' status
- resetProgressBroadcast(ResetType = Brand Connect Reset1, ResetStatus = In Progress) when
  - the EmbeddedModemResetServer begins issuing reset requests, until a 'Complete' status has been determined
- resetProgressBroadcast(ResetType = Brand Connect Reset2, ResetStatus = Complete - Success) upon:
  - completion of the Brand Connect Reset, AND
  - reception of a successful setModemMasterReset API response (if in a Connected Market, see REQ-381350), AND
  - reception of a successful DigitalKeyReset_St (see REQ-429821)
- resetProgressBroadcast(ResetType = Brand Connect Reset2, ResetStatus = Complete - Fail) when:
  - any of the conditions listed for 'Complete - Success' above has failed
  - the max time allowed for reset has elapsed (See REQ-479701)

4.6.1.12 EMR-REQ-480362/A-Brand Connect Embedded Modem Reset1 - Progress Indication

The EmbeddedModemResetInterfaceClient shall receive resetProgressBroadcast(ResetType = Brand Connect Reset1, ResetStatus) from the EmbeddedModemResetServer indicating the status of the indicated reset.

- When resetProgressBroadcast(ResetType = Brand Connect Reset1, ResetStatus = InProgress) the EmbeddedModemResetInterfaceClient shall display an 'In Progress' screen
- When resetProgressBroadcast(ResetType = Brand Connect Reset1, ResetStatus = Complete - Success) the EmbeddedModemResetInterfaceClient shall display a 'Reset Success' screen
- When resetProgressBroadcast(ResetType = Brand Connect Reset1, ResetStatus = Complete - Fail) the EmbeddedModemResetInterfaceClient shall display a 'Reset Failed screen

If the EmbeddedModemResetInterfaceClient does not receive a 'Complete' status via resetProgressBroadcast from the EmbeddedModemResetServer within T_Final (50s) of the initial reset request (per REQ-480359), the EmbeddedModemResetInterfaceClient shall consider the reset 'Complete – Fail' and display a 'Reset Failed' screen.

4.6.1.13 EMR-REQ-480363/A-Brand Connect Embedded Modem Reset2 - Progress Indication

The EmbeddedModemResetInterfaceClient shall receive resetProgressBroadcast(ResetType = Brand Connect Reset2, ResetStatus) from the EmbeddedModemResetServer indicating the status of the indicated reset.

- When resetProgressBroadcast(ResetType = Brand Connect Reset2, ResetStatus = InProgress) the EmbeddedModemResetInterfaceClient shall display an 'In Progress' screen
- When resetProgressBroadcast(ResetType = Brand Connect Reset2, ResetStatus = Complete - Success) the EmbeddedModemResetInterfaceClient shall display a 'Reset Success' screen
- When resetProgressBroadcast(ResetType = Brand Connect Reset2, ResetStatus = Complete - Fail) the EmbeddedModemResetInterfaceClient shall display a 'Reset Failed screen

If the EmbeddedModemResetInterfaceClient does not receive a 'Complete' status via resetProgressBroadcast from the EmbeddedModemResetServer within T_Final (50s) of the initial reset request (per REQ-480360), the EmbeddedModemResetInterfaceClient shall consider the reset 'Complete – Fail' and display a 'Reset Failed' screen.

4.6.1.14 EMR-REQ-290256/B-Brand Connect Embedded Modem Reset - Response

When Primary_Display_Device = FORD_APIM, no response is required upon completion of the Brand Connect Embedded Modem Reset from the EmbeddedModemResetServer, EmbeddedModemResetKeyServer, or EmbeddedModemResetEVServer.

4.6.1.15 EMR-REQ-281278/D-Embedded Modem Reset - OnBoardClient Response

Upon completion of the Embedded Modem Reset, the EmbeddedModemResetOnBoardClient shall send the setModemMasterReset API response to the EmbeddedModemResetServer indicating:

- ResponseStatus = 0x00 Success, if the reset succeeded
- ResponseStatus = 0x01 – 0x10 Fail, if the reset failed
    - ErrorCode shall be set to any valid code in the event of a failure

4.6.1.16 EMR-REQ-429822/A-Embedded Modem Reset - EmbeddedModemResetNFCServer Response

Upon completion of the Embedded Modem Master Reset, the EmbeddedModemResetNFCServer shall send DigitalKeyReset_St to the EmbeddedModemResetServer indicating:

- (0x2) Success, if the reset succeeded
- (0x1) Fail, if the reset failed
    - The EmbeddedModemResetServer shall log the failure

4.6.1.17 EMR-REQ-481657/A-Brand Connect Embedded Modem Reset - EmbeddedModemResetServer Reset Status

The EmbeddedModemResetServer shall provide/determine its success/failure status internally and log the status.

4.6.1.18 EMR-REQ-481658/A-Brand Connect Embedded Modem Reset - EmbeddedModemResetInterfaceClient Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetInterfaceClient via setSyncResetConfirm(ConfirmStatus) and log the status.

4.6.1.19 EMR-REQ-481659/A-Brand Connect Embedded Modem Reset - EmbeddedModemResetOnBoardClient Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetOnBoardClient via setModemMasterReset(ResponseStatus) and log the status.

4.6.1.20 EMR-REQ-481660/A-Brand Connect Embedded Modem Reset - EmbeddedModemResetPnCServer Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetPnCServer via PnCStat_St and log the status (when applicable):

- If PnCStat_St = 0x1 – No Contracts Installed, the reset shall be determined a success
- If PnCStat_St != 0x1 – No Contracts Installed, the reset shall be determined a failure
    - See PNC-FUN-REQ-326625-Master Reset

4.6.1.21 EMR-REQ-481661/A-Brand Connect Embedded Modem Reset - EmbeddedModemResetNFCServer Reset Status

The EmbeddedModemResetServer shall receive the success/failure status from the EmbeddedModemResetNFCServer via DigitalKeyReset_St and log the status:

- If DigitalKeyReset_St = (0x2) Success, the reset shall be determined a success
- If DigitalKeyReset_St = (0x1) Fail, the reset shall be determined a failure

4.6.1.22 EMR-REQ-275647/C-Master & Embedded Modem Reset - Request Handling

Upon receiving a Master Reset or Feature Reset request (via either FactoryReset.Rq or EmbeddedModemReset_Rq or resetRequestBroadcast), the EmbeddedModemResetServer shall:

- Process the request if one is not already in process
- Execute only one reset at any given time
- Ignore the request if an EmbeddedModemInterfaceClient initiated reset request is already being processed
- Queue the request if an EmbeddedModemOffBoardClient initiated reset request is already being processed. The EmbeddedModemResetServer shall process the request only after the ongoing reset has completed.

Upon receiving a ClearUserSettingsCommand (per VIN Removal), the EmbeddedModemResetServer shall:

- Process the request if one is not already in process
- Queue the request if an existing reset request is already in process. The EmbeddedModemResetServer shall process the request only after the ongoing reset has completed.

The EmbeddedModemResetServer shall persist all queued reset requests through module restarts, power on/off, ignition cycles, etc.

4.6.1.23 EMR-REQ-290257/B-Brand Connect Embedded Modem Reset - Server Operational States

The Brand Connect Embedded Modem Reset shall only be performed by the EmbeddedModemResetServer if the EmbeddedModemResetServer is in any of the following states:

- "Provisioned"

4.6.1.24 EMR-REQ-290480/A-Brand Connect Embedded Modem Reset - OnBoardClient Operational States

The Brand Connect Embedded Modem Reset shall only be performed by the EmbeddedModemResetOnBoardClient if the EmbeddedModemResetOnBoardClient is in any of the following states:

- "Provisioned"

4.6.1.25 EMR-REQ-429823/A-Embedded Modem Reset - NFCServer Operational States

The Embedded Modem Master Reset shall only be performed by the EmbeddedModemResetNFCServer if the EmbeddedModemResetNFCServer is in any of the following states:

- "Provisioned"

4.6.1.26 EMR-REQ-290258/D-Brand Connect Embedded Modem Reset - Cleared Data

The feature data to be cleared upon a Brand Connect Embedded Modem Reset (per REQ-290255, REQ-290272, REQ-480119, REQ-480120) may contain settings pertaining to:

- ECG Common Functions
- Embedded Modem Common Functions
- Control My Car
- Vehicle Health Report
- Wifi Hotspot
- In Vehicle Software Update
- Online Traffic
- Connectivity Customer Settings
- PaaK
- EV Charge Programming
- DVD
- Plug and Charge

****Note**: Please refer to each relevant feature SPSS for details/requirements regarding the specific content/data to be cleared upon a reset.

4.6.1.27 EMR-HMI-REQ-290259/A-Brand Connect Embedded Modem Reset - User Input

The EmbeddedModemResetInterfaceClient shall provide a user interface (button/graphic) to perform the Brand Connect Feature Reset. It shall also provide a means to differentiate between the two types of Brand Connect Feature Resets detailed in REQ-290255.

4.6.1.28 EMR-HMI-REQ-290260/D-Brand Connect Embedded Modem Reset - User Input Enable/Disable

The EmbeddedModemResetInterfaceClient shall enable/disable the Brand Connect Feature Reset user interface (button/graphic) based on:

- TCU config. on EmbeddedModemResetInterfaceClient (DE01 Byte 9 Bit 7)
  - When set to "Present", the above shall be enabled
  - When set to "Not Present", the above shall be disabled (greyed-out, hidden, etc.)
- TCU Reset config. on EmbeddedModemResetInterfaceClient (DE01 Byte 9 Bit 3)
  - When set to "Enabled", the above shall be enabled
  - When set to "Disabled", the above shall be disabled (greyed-out, hidden, etc.)

The Brand Connect Feature Reset user interface (button/graphic/popup) used to differentiate between the two Brand Connect Feature Resets (REQ-290255) shall be offered/shown based on:

- HEV, BEV, and PHEV configs. on EmbeddedModemResetInterfaceClient

- When configured for HEV, BEV, or PHEV, the user interface shall be offered/shown
- When not configured for HEV, BEV, or PHEV, the user interface shall not be offered/shown

- Please see rule [H72a.R352] or [H72c.R352] for the relevant Hybrid vehicle type configurations.

4.6.1.29 EMR-REQ-480357/A-Brand Connect Embedded Modem Reset1 - User Input Availability

The EmbeddedModemResetInterfaceClient shall enable/disable the Brand Connect Reset1 user interface (button/graphic) based on resetAvailabilityBroadcast received from the EmbeddedModemResetServer:

- If resetAvailabilityBroadcast(ResetType = BrandConnectReset1, EnableState = Enabled), the Brand Connect Reset1 user interface shall be enabled
- If resetAvailabilityBroadcast(ResetType = BrandConnectReset1, EnableState = Disabled, NotAvailReason), the Brand Connect Reset1 user interface shall be disabled
- If resetAvailabilityBroadcast(ResetType = BrandConnectReset1, EnableState = Not_Available), the Brand Connect Reset1 user interface shall be made unavailable (ex. spinning wheel)

If resetAvailabilityBroadcast(ResetType = BrandConnectReset1, EnableState = Disabled, NotAvailReason) while the user selects the user interface (button/graphic), the EmbeddedModemResetInterfaceClient shall display a notification to the user corresponding to the reason provided via NotAvailReason.

4.6.1.30 EMR-REQ-480358/A-Brand Connect Embedded Modem Reset2- User Input Availability

The EmbeddedModemResetInterfaceClient shall enable/disable the Brand Connect Reset2 user interface (button/graphic) based on resetAvailabilityBroadcast received from the EmbeddedModemResetServer:

- If resetAvailabilityBroadcast(ResetType = BrandConnectReset2, EnableState = Enabled), the Brand Connect Reset2 user interface shall be enabled
- If resetAvailabilityBroadcast(ResetType = BrandConnectReset2, EnableState = Disabled, NotAvailReason), the Brand Connect Reset2 user interface shall be disabled
- If resetAvailabilityBroadcast(ResetType = BrandConnectReset2, EnableState = Not_Available), the Brand Connect Reset2 user interface shall be made unavailable (ex. spinning wheel)

If resetAvailabilityBroadcast(ResetType = BrandConnectReset2, EnableState = Disabled, NotAvailReason) while the user selects the user interface (button/graphic), the EmbeddedModemResetInterfaceClient shall display a notification to the user corresponding to the reason provided via NotAvailReason.

4.6.1.31 EMR-REQ-290261/A-Brand Connect Embedded Modem Reset - Software Retention

The feature data to be cleared shall operate only the Method-2, Method-3, and GMRDB based configurations. There shall not be any changes to the EmbeddedModemResetServer, EmbeddedModemResetOnBoardClient, EmbeddedModemResetKeyServer, or EmbeddedModemResetEVServer software.

4.6.1.32 EMR-REQ-290262/C-Brand Connect Embedded Modem Reset - FTCP Alert

Upon completing the Brand Connect Embedded Modem Reset, the EmbeddedModemResetServer shall send a MasterResetAlert to the EmbeddedModemResetOffBoardClient indicating that a “Brand Connect Reset” was performed.

This alert shall be sent by the EmbeddedModemResetServer whether the vehicle is authorized or not (See CCS SPSS for authorization information).

This alert shall include VSTAT information only when the vehicle is authorized (See CCS SPSS for authorization information).

4.6.1.33 EMR-REQ-290263/A-Brand Connect Embedded Modem Reset - FTCP Alert Queing

The EmbeddedModemResetServer shall queue the MasterResetAlert (to be sent per REQ-290262) in case of a connectivity issue with the EmbeddedModemResetOffBoardClient.

4.6.1.34 EMR-REQ-275654/B-Master & Embedded Modem Reset - Completion Time

When Primary_Display_Device = FORD_APIM, the EmbeddedModemResetServer and EmbeddedModemResetOnBoardClient shall remove all PII and application specific data within 45 seconds.

If this process fails to complete within the above time for any of the Embedded Modem Feature Resets, the EmbeddedModemResetServer shall respond to the EmbeddedModemResetInterfaceClient with EmbeddedModemReset_St = “(0x1) Reset_NotComplete”.

4.6.1.35 EMRv2-REQ-479701/A-Master & Embedded Modem Reset - Completion Time v2

When Primary_Display_Device = PHOENIX, the EmbeddedModemResetServer and EmbeddedModemResetOnBoardClient shall remove all PII and application specific data within 45 seconds.

If this process fails to complete within the above time for any of the Embedded Modem Feature Resets, the EmbeddedModemResetServer shall send resetProgressBroadcast(ResetType, ResetStatus = Complete - Fail) to the EmbeddedModemResetInterfaceClient for the requested ResetType.

4.6.1.36 EMR-REQ-275656/C-Buffered AVD Data

The EmbeddedModemResetServer shall remove any buffered AVD data upon an Embedded Modem Master Reset (per REQ-275645, REQ-479699), a VIN Removal (per REQ-275663, REQ-275664, REQ-275665) or a Remote Reset (per REQ-392689, REQ-392690, REQ-392691). Please refer to DVD SPSS for more details on buffered data.

4.6.2 Use Cases

4.6.2.1 EMR-UC-REQ-290264/B-Brand Connect Embedded Modem Reset & Clear EV Settings

Actors	Vehicle occupant
Pre-conditions	HMI display is ON
Scenario Description	The user selects <Brand Connect Reset> via HMI and confirms they would like to remove all EV Charge Settings (if vehicle is an EV, otherwise no confirmation is required).
Post-conditions	All applicable Brand Connect settings are restored to the factory defaults (refer to the TCU Common Embedded Modem SPSS, Wifi Hotspot SPSS, CCS SPSS, PaaK SPSS, Online Traffic SPSS, EV SPSS for applicable settings/default values or more feature specific requirements). EmbeddedModemResetEVServer is disconnected from the EmbeddedModemResetOffboardClient.
List of Exception Use Cases	N/A
Interfaces	G-HMI

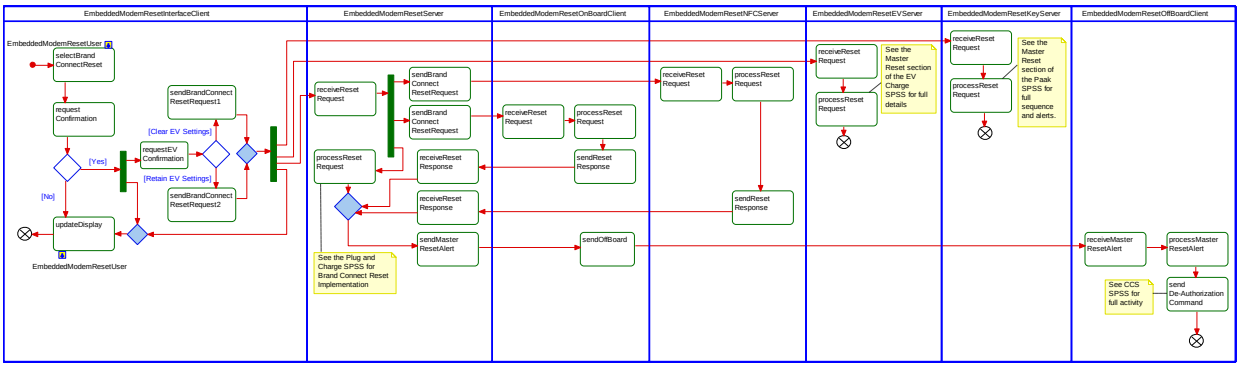
4.6.2.2 EMR-UC-REQ-290265/A-Brand Connect Embedded Modem Reset & Retain EV Settings

Actors	Vehicle occupant
Pre-conditions	HMI display is ON
Scenario Description	The user selects <Brand Connect Reset> via HMI and confirms they would not like to remove all EV Charge Settings.
Post-conditions	All applicable Brand Connect settings are restored to the factory defaults (refer to the TCU Common Embedded Modem SPSS, Wifi Hotspot SPSS, CCS SPSS, PaaK SPSS, Online Traffic SPSS for applicable settings/default values or more feature specific requirements). EmbeddedModemResetEVServer is disconnected from the EmbeddedModemResetOffboardClient. All EV Charge Settings are retained.
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.6.3 White Box View

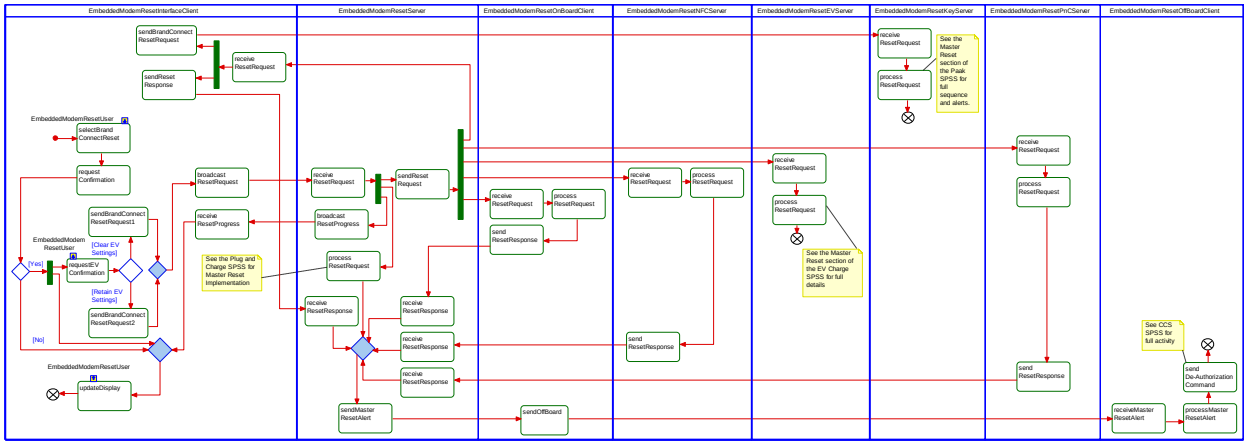
4.6.3.1 EMR-ACT-REQ-290266/E-Brand Connect Embedded Modem Reset

Activity Diagram



4.6.3.2 EMRv2-ACT-REQ-480577/A-Brand Connect Embedded Modem Reset v2

Activity Diagram



4.6.3.3 EMR-SD-REQ-290267/E-Brand Connect Embedded Modem Reset

Constraints

Pre-Condition

HMI display is ON

Scenarios

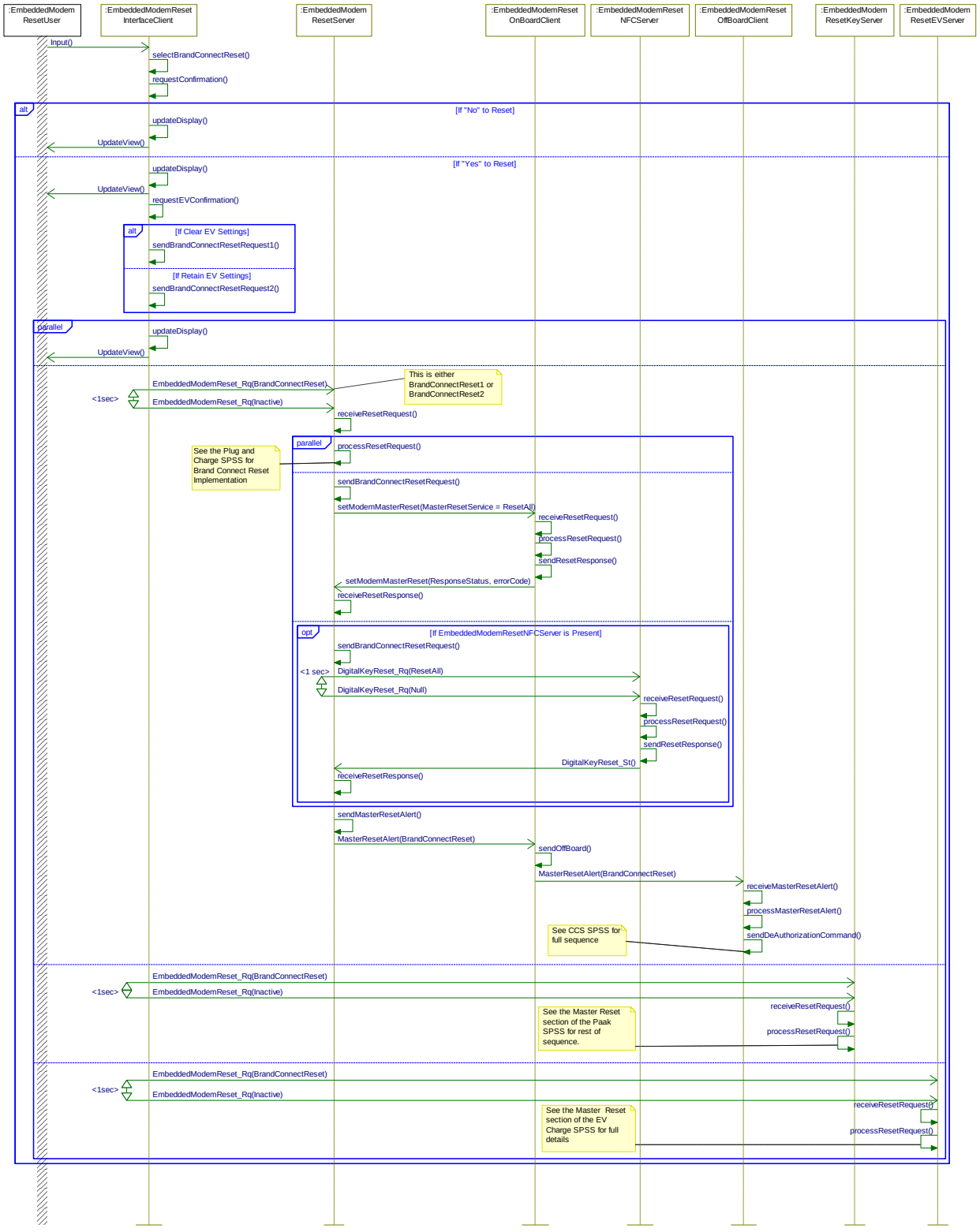
Normal Usage

The user selects <Brand Connect Reset> via HMI

Post-Condition

All applicable settings are restored to the factory defaults

Sequence Diagram



4.6.3.4 EMRv2-SD-REQ-480578/A-Brand Connect Embedded Modem Reset v2

Constraints

Pre-Condition

HMI display is ON

Scenarios

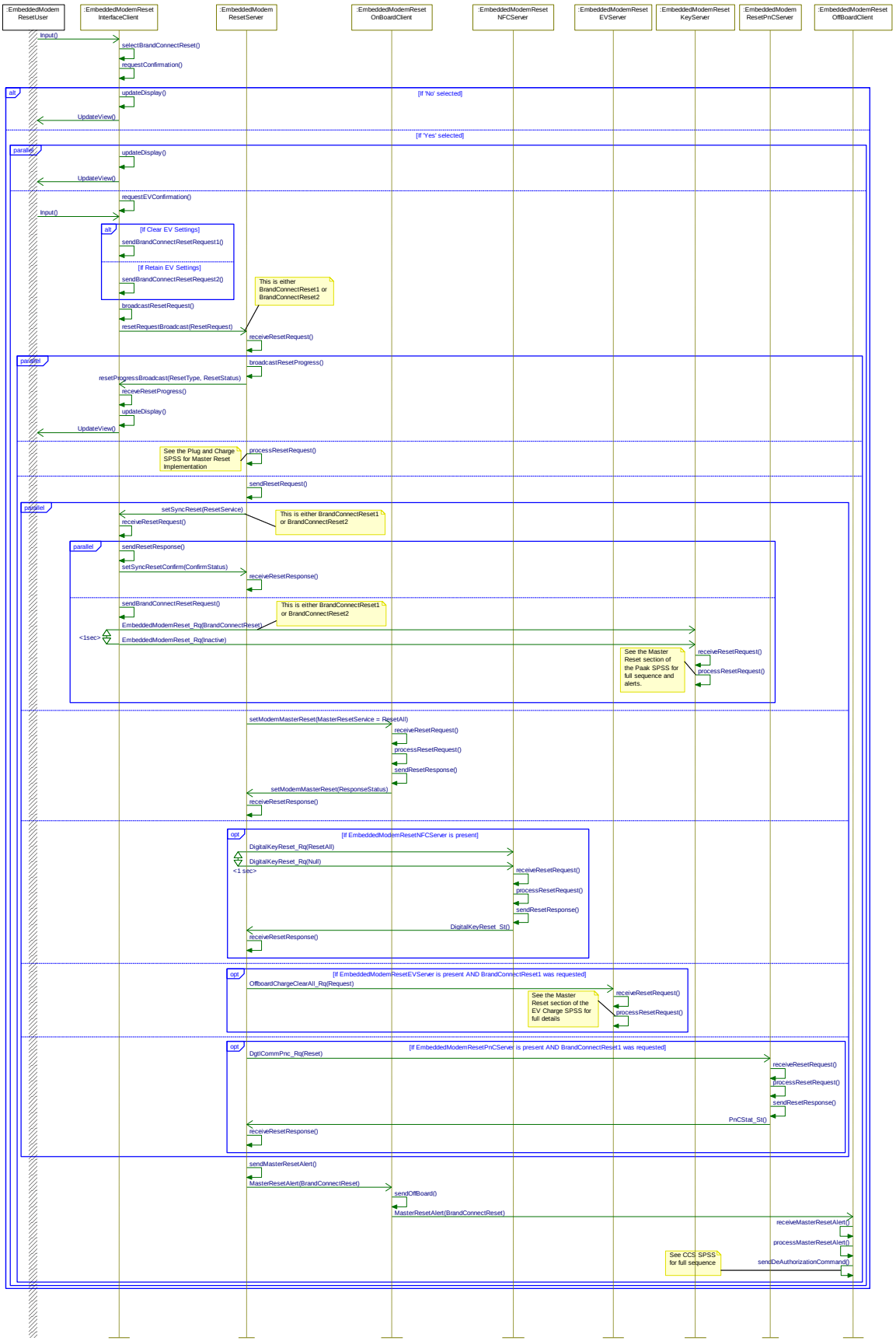
Normal Usage

The user selects <Brand Connect Reset> via HMI

Post-Condition

All applicable settings are restored to the factory defaults

Sequence Diagram



4.7 EMR-FUN-REQ-375815/A-Reset Control

4.7.1 Use Cases

4.7.1.1 EMR-UC-REQ-375817/A-Reset Control Activation

Actors	Vehicle occupant
Pre-conditions	HMI display is ON EmbeddedModemResetServer is Provisioned
Scenario Description	The user subscribes to Stolen Vehicle Services
Post-conditions	EmbeddedModemResetServer enables Reset Control and sets internal parameter to DeactivateReset.
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.7.1.2 EMR-UC-REQ-375818/A-Reset Control Deactivation

Actors	Vehicle occupant
Pre-conditions	HMI display is ON EmbeddedModemResetServer is Provisioned
Scenario Description	The user unsubscribes from Stolen Vehicle Services
Post-conditions	EmbeddedModemResetServer disables Reset Control and sets internal parameter to Off.
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.7.1.3 EMR-UC-REQ-375819/B-Reset Control Disabled

Actors	Dealer Technician/Engineer
Pre-conditions	HMI display is ON
Scenario Description	The technician sends FTCP Command to Disable the feature
Post-conditions	Reset Control is disabled. Master Reset and Brand Connect Reset behave as normal. Factory Reset behaves as normal (if supported)
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.7.1.4 EMR-UC-REQ-375820/A-User performs Master Reset while Reset Control Enabled

Actors	Vehicle occupant
Pre-conditions	HMI display is ON EmbeddedModemResetServer is Provisioned Reset Control is enabled SVS is subscribed

Scenario Description	The user presses Master Reset on EmbeddedModemResetInterfaceClient
Post-conditions	User is notified they must disable Reset Control to perform that action. Reset is not performed.
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.7.1.5 EMR-UC-REQ-443217/A-User performs Factory Reset while Reset Control Enabled

Actors	Vehicle occupant
Pre-conditions	HMI display is ON EmbeddedModemResetServer is Provisioned Reset Control is enabled SVS is subscribed
Scenario Description	The user presses Factory Reset on EmbeddedModemResetInterfaceClient
Post-conditions	User is notified they must disable Reset Control to perform that action. Reset is not performed.
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.7.1.6 EMR-UC-REQ-375821/A-User requests to disable Reset Control

Actors	Vehicle occupant
Pre-conditions	HMI display is ON EmbeddedModemResetServer is Provisioned Reset Control is enabled SVS is subscribed
Scenario Description	The user requests to disable Reset Control via FordPass
Post-conditions	EmbeddedModemResetServer disables Reset Control EmbeddedModemResetServer starts Reset Control Timer EmbeddedModemResetInterfaceClient disables Reset Control functionality
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.7.1.7 EMR-UC-REQ-375822/A-User performs Master Reset while Reset Control Disabled

Actors	Vehicle occupant
Pre-conditions	HMI display is ON EmbeddedModemResetServer is Provisioned Reset Control is disabled Reset Control Timer is not expired SVS is subscribed
Scenario Description	The user presses Master Reset on EmbeddedModemResetInterfaceClient
Post-conditions	Master Reset is performed as normal. Reset Control Timer continues to count.
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.7.1.8 EMR-UC-REQ-443218/A-User performs Factory Reset while Reset Control Disabled

Actors	Vehicle occupant
Pre-conditions	HMI display is ON EmbeddedModemResetServer is Provisioned Reset Control is disabled Reset Control Timer is not expired SVS is subscribed
Scenario Description	The user presses Factory Reset on EmbeddedModemResetInterfaceClient
Post-conditions	Factory Reset is performed as normal. Reset Control Timer continues to count.
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.7.1.9 EMR-UC-REQ-375823/A-Reset Control Timer expires

Actors	Vehicle occupant
Pre-conditions	HMI display is ON EmbeddedModemResetServer is Provisioned Reset Control is Disabled Reset Control Timer is not expired SVS is subscribed
Scenario Description	The user does not request a reset on the EmbeddedModemResetInterfaceClient within Reset Control Timer, and timer expires
Post-conditions	EmbeddedModemResetServer enables Reset Control and sets internal parameter to DeactivateReset. EmbeddedModemResetInterfaceClient enables Reset Control functionality
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.7.1.10 EMR-UC-REQ-375824/A-User requests to enable Reset Control

Actors	Vehicle occupant
Pre-conditions	HMI display is ON EmbeddedModemResetServer is Provisioned Reset Control is disabled Reset Control Timer is not expired SVS is subscribed
Scenario Description	The user requests to enable Reset Control via FordPass
Post-conditions	EmbeddedModemResetServer enables Reset Control and sets internal parameter to DeactivateReset. EmbeddedModemResetServer stops/resets Reset Control Timer EmbeddedModemResetInterfaceClient enables Reset Control functionality
List of Exception Use Cases	N/A
Interfaces	G-HMI

4.7.2 Requirements

4.7.2.1 EMR-REQ-375825/A-Reset Control Feature Internal Config. Parameter

EmbeddedModemResetServer shall have an internal configurable parameter (RESET_CONTROL_FEATURE) to control the Reset Control feature status (Disabled, Off, On)

4.7.2.2 EMR-REQ-375826/A-Reset Control Status Internal Config. Parameter

EmbeddedModemResetServer shall have an internal configurable parameter (RESET_CONTROL_STATUS) to control the active Reset Control status (DeactivateReset, ActivateReset)

4.7.2.3 EMR-REQ-375827/A-Reset Control Timer Internal Config. Parameter T_ResetControl

EmbeddedModemResetServer shall have an internal configurable parameter (RESET_CONTROL_TIMER) to control the value of T_ResetControl (see REQ-375851-T_ResetControl).

4.7.2.4 EMR-REQ-375828/A-Reset Control Status Alert

EmbeddedModemResetServer shall send a non-correlated ResetControlStatusAlert to the EmbeddedModemResetOffBoardClient anytime RESET_CONTROL_STATUS changes value.
EmbeddedModemResetServer shall send a correlated ResetControlStatusAlert to the EmbeddedModemResetOffBoardClient anytime RESET_CONTROL_STATUS changes value due to a UpdateResetControlSettingsCommand.

The ResetControlStatusAlert shall only be sent when the EmbeddedModemResetServer is in the “Authorized” state. This applies to all requirements mentioning the transmission of this alert.

4.7.2.5 EMR-REQ-375829/A-Reading Reset Control Config. Parameters

The EmbeddedModemResetInterfaceClient shall read the RESET_CONTROL_STATUS using getResetControlStatus(ResetControlStatus). The EmbeddedModemResetInterfaceClient shall also receive an updated RESET_CONTROL_STATUS when requested by the EmbeddedModemResetServer via setResetControlStatus(ResetControlStatus).

4.7.2.6 EMR-REQ-375830/A-Reset Control Feature Config. Parameter = DISABLED

EmbeddedModemResetServer shall set RESET_CONTROL_FEATURE = “Disabled” only when the Reset Control function is required to be disabled. The only means to configure this parameter shall be via UpdateResetControlSettingsCommand (see REQ-375842).

4.7.2.7 EMR-REQ-375831/A-Reset Control Feature Config. Parameter = OFF

EmbeddedModemResetServer shall set RESET_CONTROL_FEATURE = “Off” by default, and shall hold this value for as long as SVS subscription is not active. SVS subscription state shall be determined by CCS (internal to EmbeddedModemResetServer). Upon SVS subscription cancellation or expiry EmbeddedModemResetServer shall set RESET_CONTROL_FEATURE = “Off.”

4.7.2.8 EMR-REQ-375832/A-Reset Control Feature Config. Parameter = ON

EmbeddedModemResetServer shall set RESET_CONTROL_FEATURE DID = “On” when SVS subscription becomes active and shall hold this value for as long as SVS subscription is active. SVS subscription state shall be determined by CCS (internal to EmbeddedModemResetServer)

4.7.2.9 EMR-REQ-375833/B-Reset Control Status Config. Parameter Default

EmbeddedModemResetServer shall set RESET_CONTROL_STATUS = “ActivateReset” by default, when RESET_CONTROL_FEATURE = “Off” or “Disabled”. While in this state, EmbeddedModemResetServer shall enable the Factory Reset & Master Reset & Brand Connect Reset functions (i.e. not perform the Reset Control requirements below).

The EmbeddedModemResetServer shall request the EmbeddedModemResetInterfaceClient to Activate the Reset buttons via setResetControl(ResetControlStatus = ActivateReset).

4.7.2.10 EMR-REQ-375834/C-Reset Control Status Config. Parameter = DEACTIVATERESET

EmbeddedModemResetServer shall set RESET_CONTROL_STATUS = “DeactivateReset” when RESET_CONTROL_FEATURE = “On” and EmbeddedModemResetServer is in the “Authorized” state. While in this state, EmbeddedModemResetServer shall disable the Factory Reset & Master Reset & Brand Connect Reset functions (i.e. perform the Reset Control requirements below).

The EmbeddedModemResetServer shall request the EmbeddedModemResetInterfaceClient to Deactivate the Reset buttons via setResetControl(ResetControlStatus = DeactivateReset).

4.7.2.11 EMR-REQ-375835/C-Reset Control Status Config. Parameter due to Reset

When the customer performs a Factory Reset, Master Reset or Brand Connect Reset, the EmbeddedModemResetServer will transition to “Waiting for Auth.” In this state, the EmbeddedModemResetServer shall set RESET_CONTROL_STATUS = “ActivateReset” irrespective of SVS subscription state.

4.7.2.12 EMR-REQ-375836/A-Reset Control Status Config. Parameter due to re-Authorization

If the customer re-authorizes the vehicle within 48hrs of performing the Reset in REQ-375835, the EmbeddedModemResetServer will transition to “Authorized.” In this state, the EmbeddedModemResetServer shall set RESET_CONTROL_STATUS = “DeactivateReset” while SVS remains subscribed.

4.7.2.13 EMR-REQ-375837/B-Reset Control Status Config. Parameter = ACTIVATERESET

EmbeddedModemResetServer shall set RESET_CONTROL_STATUS = “ActivateReset” when commanded to by the EmbeddedModemResetOffBoardClient (see REQ-375843) while RESET_CONTROL_FEATURE = “On”. While in this state, EmbeddedModemResetServer shall temporarily enable Factory Reset & Master Reset & Brand Connect Reset functions (see REQ-375846). SVS subscription state shall be determined by CCS (internal to EmbeddedModemResetServer)

The EmbeddedModemResetServer shall request the EmbeddedModemResetInterfaceClient to Activate the Reset buttons via setResetControl(ResetControlStatus = ActivateReset).

4.7.2.14 EMR-REQ-375838/A-Reset Control while ActivateReset - EmbeddedModemResetInterfaceClient

Upon receiving setResetControl(ResetControlStatus = ActivateReset), the EmbeddedModemResetInterfaceClient shall disable the Reset Control functionality (i.e. not perform the Reset Control requirements below) and perform all resets as normal upon request.

The EmbeddedModemResetInterfaceClient shall then respond to the EmbeddedModemResetServer with setResetControl(ResetControlResponse = Activated).

4.7.2.15 EMR-REQ-375839/A-Reset Control while DeactivateReset - EmbeddedModemResetInterfaceClient

Upon receiving setResetControl(ResetControlStatus = DeactivateReset), the EmbeddedModemResetInterfaceClient shall:

- allow/perform all feature resets as normal, except Master Reset and Brand Connect Reset
- display the Master Reset and Brand Connect Reset buttons/user interfaces as normal, but shall not perform the reset or send EmbeddedModemReset_Rq or FactoryReset.Rq when requested by the user
- respond to the EmbeddedModemResetServer with setResetControl(ResetControlResponse = Deactivated).
- send setRCUserSelection(UserSelection=MasterReset) to the EmbeddedModemResetServer when a Master Reset has been requested by the user
- send setRCUserSelection(UserSelection=BrandConnectReset) to the EmbeddedModemResetServer when a Brand Connect Reset has been requested by the user
- show a popup/message indicating that Reset Control must be disabled from the mobile app in order to perform the requested action

4.7.2.16 EMRv2-REQ-443223/A-Reset Control while DeactivateReset - EmbeddedModemResetInterfaceClient (v2)

Upon receiving setResetControl(ResetControlStatus = DeactivateReset), the EmbeddedModemResetInterfaceClient shall:

- allow/perform all feature resets as normal, except Factory Reset, Master Reset and Brand Connect Reset
- display the Factory Reset, Master Reset and Brand Connect Reset buttons/user interfaces as normal, but shall not perform the reset or send EmbeddedModemReset_Rq or FactoryReset.Rq when requested by the user
- respond to the EmbeddedModemResetServer with setResetControl(ResetControlResponse = Deactivated).

- send setRCUserSelection(UserSelection=MasterReset) to the EmbeddedModemResetServer when a Master Reset or Factory Reset has been requested by the user
- send setRCUserSelection(UserSelection=BrandConnectReset) to the EmbeddedModemResetServer when a Brand Connect Reset has been requested by the user
- show a popup/message indicating that Reset Control must be disabled from the mobile app in order to perform the requested action

4.7.2.17 EMR-REQ-375840/B-Reset Request while in DeactivateReset

EmbeddedModemResetServer shall receive setRCUserSelection(UserSelection=MasterReset) or setRCUserSelection(UserSelection=BrandConnectReset) from the EmbeddedModemResetInterfaceClient when a Master/Factory Reset or Brand Connect Reset has been requested by the user while RESET_CONTOL_STATUS = DeactivateReset. When received, EmbeddedModemResetServer shall send non-correlated ResetControlNotificationAlert to the EmbeddedModemResetOffBoardClient indicating the request to disable Reset Control, as well as the source of the request (Master Reset or Brand Connect Reset).

4.7.2.18 EMR-REQ-375841/B-Reset Request while ActivateReset

When a Factory Reset, Master Reset or Brand Connect Reset has been requested by the user while RESET_CONTOL_STATUS = ActivateReset, the EmbeddedModemResetServer shall not receive setRCUserSelection() from the EmbeddedModemInterfaceClient, and shall not send ResetControlNotificationAlert to the EmbeddedModemResetOffBoardClient. The EmbeddedModemResetServer shall perform the requested reset per normal operation.

4.7.2.19 EMR-REQ-375842/B-UpdateResetControlSettingsCommand – Feature Disable

EmbeddedModemResetServer shall receive a UpdateResetControlSettingsCommand from EmbeddedModemResetOffBoardClient when it is required to disable Reset Control entirely (not a FordPass function/request).

- When UpdateResetControlSettingsCommand indicates that the Reset Control feature be disabled (resetControlStatus = DISABLE_RESET_CONTROL_FEATURE), EmbeddedModemResetServer shall set RESET_CONTROL_FEATURE = “Disabled”
    - The EmbeddedModemResetServer shall then send a non-correlated ResetControlStatusAlert to the EmbeddedModemResetOffBoardClient indicating “DISABLE_RESET_CONTROL_FEATURE”
    - The EmbeddedModemResetServer shall still set RESET_CONTROL_STATUS = “ActivateReset” and request the EmbeddedModemResetInterfaceClient to Activate the Reset buttons via setResetControl(ResetControlStatus = ActivateReset) per REQ-375833

- When UpdateResetControlSettingsCommand indicates that the Reset Control feature be re-enabled (resetControlStatus = ACTIVATE_RESET or DEACTIVATE_RESET), EmbeddedModemResetServer shall set RESET_CONTROL_FEATURE = “Off” (the default state)
    - The EmbeddedModemResetServer shall also check whether an SVS Subscription is active at this time, and if so, set RESET_CONTROL_FEATURE = “On”
    - The EmbeddedModemResetServer shall then send a non-correlated ResetControlStatusAlert as required, per REQ-375828

4.7.2.20 EMR-REQ-375843/B-UpdateResetControlSettingsCommand – Enable/Disable

EmbeddedModemResetServer shall receive a UpdateResetControlSettingsCommand from EmbeddedModemResetOffBoardClient when Reset Control is enabled/disabled by the user via FordPass.

- When UpdateResetControlSettingsCommand is received, indicating the user requested to disable Reset Control (resetControlStatus = ACTIVATE_RESET), EmbeddedModemResetServer shall set RESET_CONTROL_STATUS = “ActivateReset”
- When UpdateResetControlSettingsCommand is received, indicating the user requested to enable Reset Control (resetControlStatus = DEACTIVATE_RESET), EmbeddedModemResetServer shall set RESET_CONTROL_STATUS = “DeactivateReset”

The above is true as long as RESET_CONTROL_FEATURE = “On.” If RESET_CONTROL_FEATURE = “Off” the above shall not be honored (it should not be possible to receive these Commands when there is no SVS Subscription. If RESET_CONTROL_FEATURE = “Disabled” when the above commands are received, see REQ-375842.

4.7.2.21 EMR-REQ-375844/A-UpdateResetControlSettingsCommand – Timer Value

EmbeddedModemResetServer shall receive a UpdateResetControlSettingsCommand from EmbeddedModemResetOffBoardClient when the Reset Control Timer value is requested to be updated.

- When UpdateResetControlSettingsCommand indicates that the Reset Control Timer shall be configured to a new value, EmbeddedModemResetServer shall update RESET_CONTROL_TIMER to the value requested.
- If the requested value is out of the allowed range, the EmbeddedModemResetServer shall not update RESET_CONTROL_TIMER.

4.7.2.22 EMR-REQ-375845/A-Reset Control Timer Start/Stop

- When EmbeddedModemResetServer sets RESET_CONTROL_STATUS = “ActivateReset” based on the UpdateResetControlSettingsCommand, the EmbeddedModemResetServer shall start a timer, T_ResetControl.
- When EmbeddedModemResetServer sets RESET_CONTROL_STATUS = “DeactivateReset” based on the UpdateResetControlSettingsCommand, the EmbeddedModemResetServer shall stop and reset T_ResetControl.
- If RESET_CONTROL_FEATURE = “Off” while T_ResetControl is ongoing (ex. if SVS becomes unsubscribed), EmbeddedModemResetServer shall stop and reset T_ResetControl.
- If RESET_CONTROL_FEATURE = “Disable” the timer shall not be started or used at all. If RESET_CONTROL_FEATURE = “Disable” while T_ResetControl is ongoing, EmbeddedModemResetServer shall stop and reset T_ResetControl.
- If the EmbeddedModemResetServer transitions to “Wait for Auth” while T_ResetControl is ongoing, EmbeddedModemResetServer shall stop and reset T_ResetControl.

4.7.2.23 EMR-REQ-375846/B-Reset Control Timer

EmbeddedModemResetServer shall keep RESET_CONTROL_STATUS set to “ActivateReset” as long as T_ResetControl has not expired. Once T_ResetControl expires, EmbeddedModemResetServer shall set RESET_CONTROL_STATUS = “DeactivateReset” and shall send a non-correlated ResetControlStatusAlert to the EmbeddedModemResetOffBoardClient indicating the change.

EmbeddedModemResetServer shall maintain the active count of T_ResetControl through ignition cycles, power cycles, etc.

If the user initiates any reset on EmbeddedModemResetInterfaceClient while in ActivateReset, T_ResetControl shall continue to count and shall not be cancelled. The customer shall be able to initiate as many reset requests as they wish within T_ResetControl.

4.7.2.24 EMR-TMR-REQ-375851/A-T_ResetControl

Name	Description	Units	Range	Resolution	Default
T_ResetControl	Maximum time the EmbeddedModemResetServer shall allow Reset Control to be disabled	sec	0-259200	60	3600

4.7.2.25 EMR-REQ-375848/A-UpdateResetControlSettingsCommandResponse to Cloud

EmbeddedModemResetServer shall respond to UpdateResetControlSettingsCommand with a UpdateResetControlSettingsCommandResponse.

4.7.2.26 EMR-REQ-375849/B-Loss of Communication

If EmbeddedModemResetInterfaceClient loses communication with EmbeddedModemResetServer, EmbeddedModemResetInterfaceClient shall perform the below based on the last saved SVS Subscription state:

- If the SVS Subscription state indicates that an SVS Subscription was Active, the EmbeddedModemResetInterfaceClient shall show the Master Reset and Brand Connect Reset buttons/menu’s as unavailable (disabled, hidden, etc.)
- If the SVS Subscription state indicates that an SVS Subscription was Inactive, the EmbeddedModemResetInterfaceClient shall enable and allow all reset functionality per usual, as if ResetControlStatus = ActivateReset in REQ-375838.

In order to support the above, the EmbeddedModemResetInterfaceClient shall store the SVS Subscription status obtained from CCS. The EmbeddedModemResetInterfaceClient shall read, update, and store this parameter locally upon each transition of IgnitionStatus from “Off” to “Run.”

4.7.2.27 EMRv2-REQ-443226/A-Loss of Communication (v2)

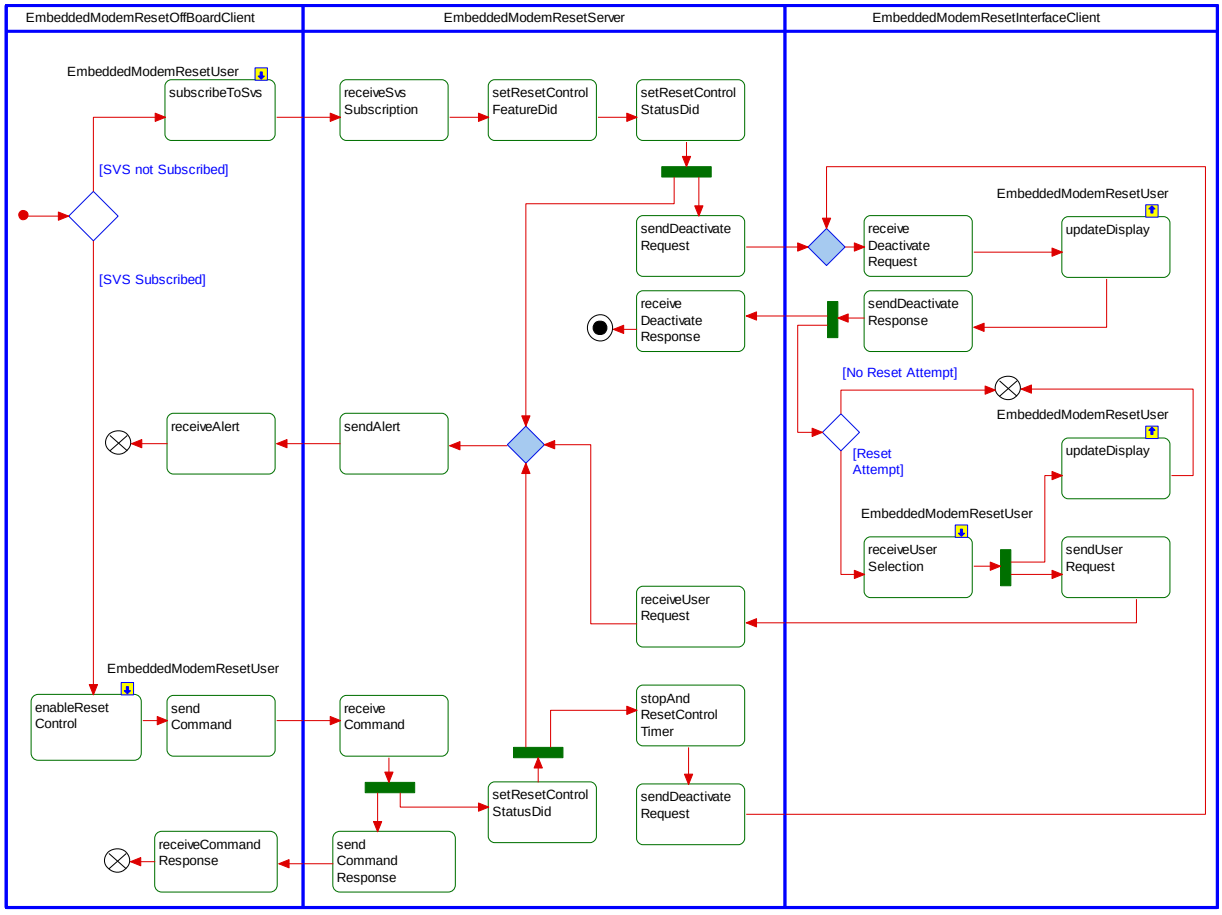
If EmbeddedModemResetInterfaceClient loses communication with EmbeddedModemResetServer (or if it cannot determine/read CCS data), EmbeddedModemResetInterfaceClient shall perform the below:

- If the SVS Subscription state is unknown, the EmbeddedModemResetInterfaceClient shall disable all reset functionality and show a notification to the user indicating the unknown state (loading wheel, etc.)

4.7.3 White Box View

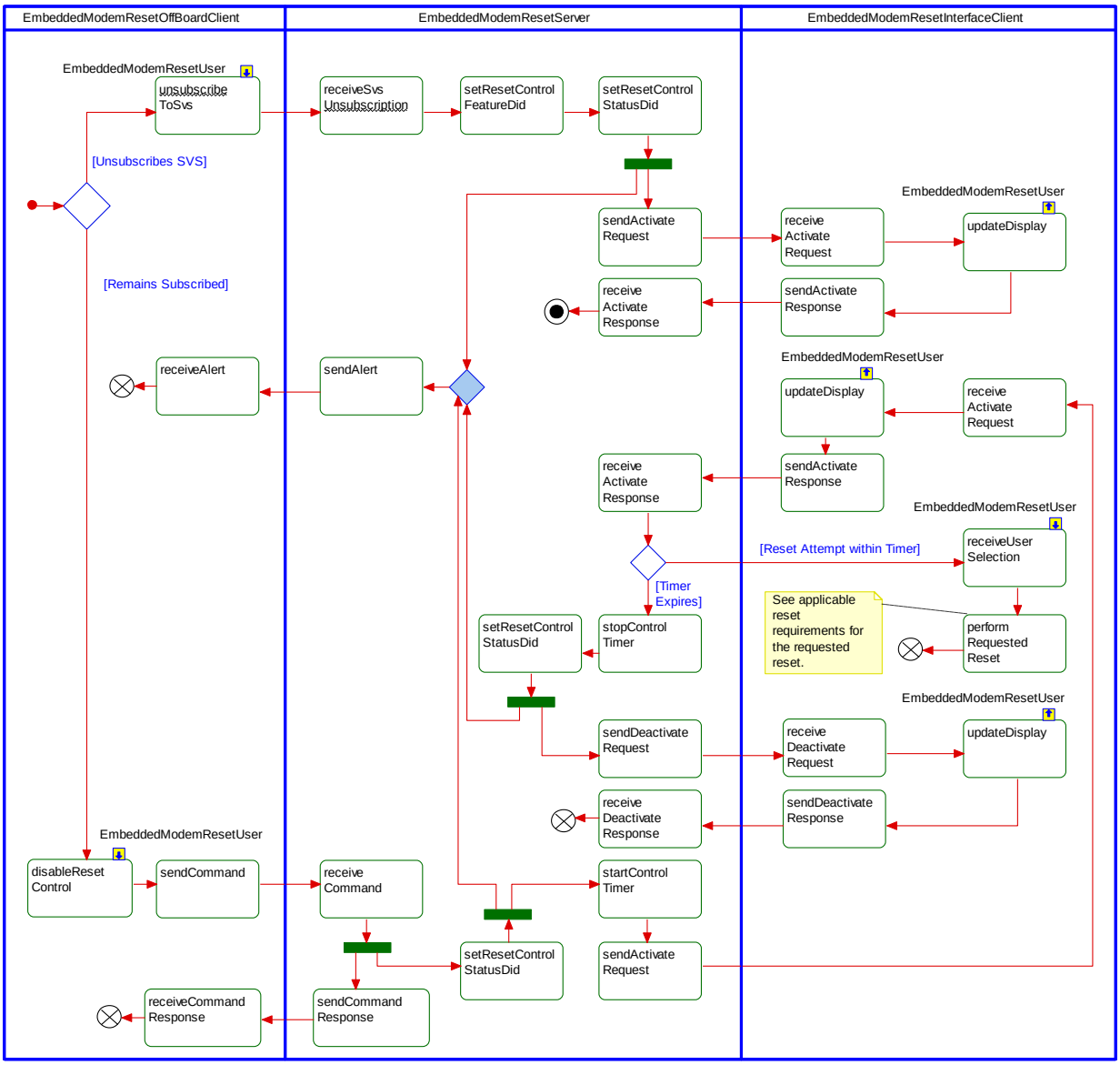
4.7.3.1 EMR-ACT-REQ-375895/A-User Enables Reset Control

Activity Diagram



4.7.3.2 EMR-ACT-REQ-376524/A-User Disables Reset Control

Activity Diagram



4.7.3.3 EMR-SD-REQ-375897/A-User Enables Reset Control

Constraints

Pre-Condition

HMI display is ON
EmbeddedModemResetServer is Provisioned

Scenarios

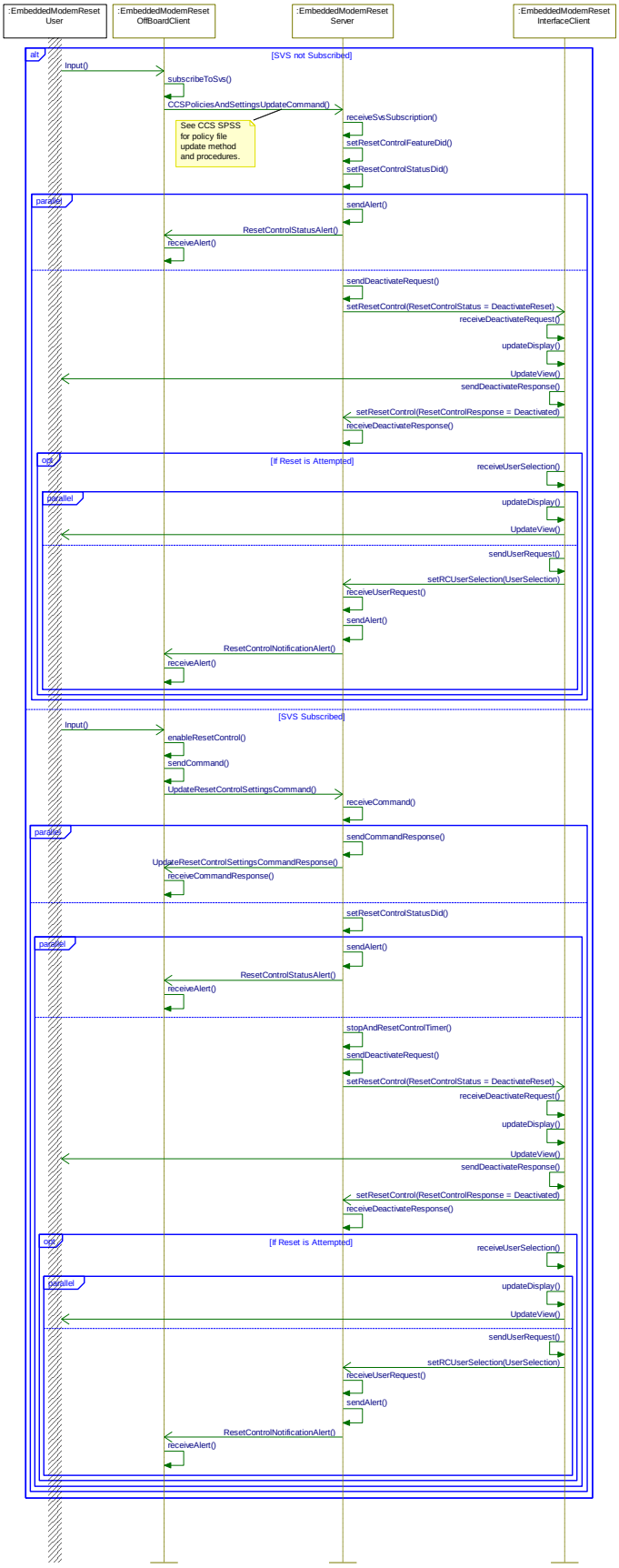
Normal Usage

The user subscribes to Stolen Vehicle Services, OR (if already subscribed)
The user requests to enable Reset Control via FordPass

Post-Condition

EmbeddedModemResetServer enables Reset Control and sets internal parameter to DeactivateReset
EmbeddedModemResetInterfaceClient enables Reset Control functionality (prohibits resets)
EmbeddedModemResetServer stops/resets Reset Control Timer (if previously set)

Sequence Diagram



4.7.3.4 EMR-SD-REQ-376595/A-User Disables Reset Control

Constraints

Pre-Condition

HMI display is ON
EmbeddedModemResetServer is Provisioned
Reset Control is enabled
SVS is subscribed

Scenarios

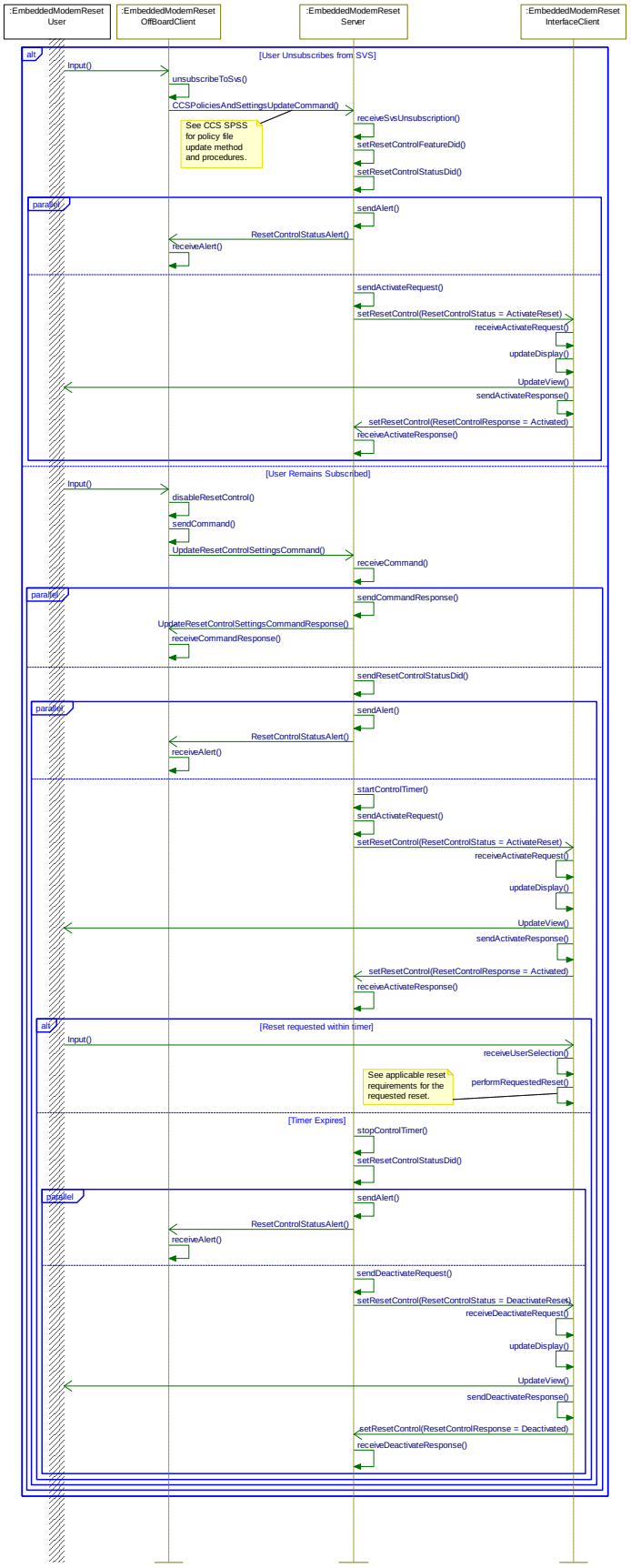
Normal Usage

The user unsubscribes to Stolen Vehicle Services, OR (if remaining subscribed)
The user requests to temporarily disable Reset Control via FordPass

Post-Condition

EmbeddedModemResetServer disables Reset Control and sets internal parameter to ActivateReset.
EmbeddedModemResetInterfaceClient disables Reset Control functionality (allows resets)
EmbeddedModemResetServer starts Reset Control Timer (if staying subscribed to SVS)

Sequence Diagram



5 Appendix: Reference Documents

Reference #	Document Title
1	EV Charge Programming SPSS
2	Embedded Modem Common Functions SPSS
3	ECG Common Functions SPSS
4	Control My Car Client v2 TCU SPSS
5	Vehicle Health Report TCU SPSS
6	WiFi Hotspot Server v2 SPSS
7	TCU In Vehicle Software Update SPSS
8	Online Traffic TCU SPSS
9	CCOI (CCS) Server SPSS
10	PaaK SPSS
11	APIM Transport Protocol SPSS
12	ECG Transport Protocol SPSS
13	Dynamic Vehicle Data Client SPSS
14	Plug and Charge SPSS
15	