

## 50 System Architecture Description Traffic CS - Annex A Traceability Report



DRAFT

DRAFT

# System Architecture Description Traffic CS - Annex A Traceability Report

## Copyright

Brussels: Europe's Rail Joint Undertaking, 2025

© Europe's Rail Joint Undertaking, 2025

This document is drafted by and belongs to EU Rail.

EU Rail encourages the distribution and re-use of this document, the technical specifications and the information it contains. EU Rail holds several intellectual property rights, such as copyright and trade mark rights, which need to be considered when this document is used.

EU Rail authorises you to re-publish, re-use, copy and store this document without changing it, provided that you indicate its source and include the following: EU Rail trade mark, title of the document, year of publication, version of document.

EU Rail makes no representation or warranty as to the accuracy or completeness of the information contained within these documents. EU Rail shall have no liability to any party as a result of the use of the information contained herein. EU Rail will have no liability whatsoever for any indirect or consequential loss or damage, and any such liability is expressly excluded.

You may study, research, implement, adapt, improve and otherwise use the information, the content and the models in the this document for your own purposes. If you decide to publish or disclose any adapted, modified or improved version of this document, any amended implementation or derivative work, then you must indicate that you have modified this document, with a reference to the document name and the terms of use of this document. You may not use EU Rail's trade marks or name in any way that may state or suggest, directly or indirectly, that EU Rail is the author of your adaptations.

























EU Rail cannot be held responsible for your product, even if you have used this document and its content. It is your responsibility to verify the quality, completeness and the accuracy of the information you use, for your own purposes.

**This work is currently a work in progress. The content presented is subject to change as it undergoes further review, refinement, and development. Please do not consider this version as final or authoritative.**

























## Preamble































This report shows the linking between the System Definition Traffic CS and the System Architecture Description of the Traffic CS system.

System Capability Tracing


































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
 SPMS-3305 - Grant movement permission	 SPMS-4462 - Grant movement permission	 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>	 SPMS-2148 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2097 - Traffic Management System</li></ul>
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		SF SPMS-2853 - Supervise state of the railway	• Person SPMS-2827 - Signaller	SPMS-6900 - Actual state of configuration data	• SPMS-6690 - I_TrafficManagementSystem_02
				SPMS-2167 - Supervise state of railway operation	• Person SPMS-2090 - Signaller
				SPMS-3044 - Allocated track path	• SPMS-2963 - HMI_Signaller_01
				SPMS-3078 - Provided usage restriction state	• SPMS-2963 - HMI_Signaller_01
				SPMS-3123 - Requested track path	• SPMS-2963 - HMI_Signaller_01
				SPMS-3174 - Usage restriction state	• SPMS-2963 - HMI_Signaller_01
				SPMS-3189 - Observed point status	• SPMS-2963 - HMI_Signaller_01
				SPMS-4666 - Aggregated track occupancy and train status information	• SPMS-2963 - HMI_Signaller_01
				SPMS-4908 - Supervise state of the railway	• Person SPMS-5110 - Signaller
				SPMS-5275 - Requested point position	• SPMS-2963 - HMI_Signaller_01
				SPMS-6902 - Actual state of configuration data	• SPMS-6580 - HMI_Signaller_02
				SPMS-6903 - Actual state of railway operation	
				SPMS-7719 - Request emergency stop	• SPMS-2963 - HMI_Signaller_01
		SF SPMS-2872 - Calculate safe speed profiles of one train	• SPMS-2807 - Train CS System	SPMS-2137 - Ensure safe movement of trains	• SPMS-2098 - CCS System
				SPMS-3065 - Allocated track path	• SPMS-2952 - I_CCS_1





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	
				 SPMS-3188 - Indicated start of mission data	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3190 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3191 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-2874 - Control track path allocation for movement permissions	 SPMS-2823 - Traffic CS System	 SPMS-7121 - Acknowledged train data	 SPMS-2952 - I_CCS_1
				 SPMS-2137 - Ensure safe movement of trains	 SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	 SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	 SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	 SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	 SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	 SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	 SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	 SPMS-2952 - I_CCS_1
				 SPMS-4878 - Control execution of movement permission request	 SPMS-5060 - Plan Execution System



























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4883 - Authorise movement permissions	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-5424 - Respond and request for movement authority data	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-6982 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7661 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
	 SPMS-3044 - Allocated track path		<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>	 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>
				 SPMS-2874 - Control track path allocation for movement permissions	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>
				 SPMS-6396 - Indicated track section state	<ul style="list-style-type: none"><li> SPMS-6305 - HMI_Signaller</li></ul>
				 SPMS-6432 - Authorised movement permission	<ul style="list-style-type: none"><li> SPMS-6985 - I_Signaller</li></ul>
				 SPMS-7230 - Authorised distance and speed restriction	<ul style="list-style-type: none"><li> SPMS-2198 - HMI_Signaller</li></ul>
	 SPMS-3052 - Allocated track path		<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>	 SPMS-2249 - Authorised distance and speed restriction	<ul style="list-style-type: none"><li> SPMS-2200 - I_TrafficManagementSystem</li></ul>
				 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>
				 SPMS-2874 - Control track path allocation for movement permissions	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				SPMS-6416 - Reported operating state	
				SPMS-6431 - to be deleted	• SPMS-6308 - SCI_CMD
		SPMS-3065 - Allocated track path	• SPMS-2952 - I_CCS_1	SPMS-2872 - Calculate safe speed profiles of one train	• SPMS-2807 - Train CS System
				SPMS-2874 - Control track path allocation for movement permissions	• SPMS-2823 - Traffic CS System
				SPMS-6393 - Authorised movement permission	• SPMS-6306 - I_SUBSET_026
		SPMS-3079 - Required operational traffic plan	• SPMS-2958 - I_TrafficManagementSystem_01	SPMS-2351 - Required operational traffic plan	• SPMS-2200 - I_TrafficManagementSystem
				SPMS-2843 - Calculate operational traffic plan	• SPMS-2813 - Traffic Management System
				SPMS-2874 - Control track path allocation for movement permissions	• SPMS-2823 - Traffic CS System
				SPMS-6347 - Calculated operational traffic plan	• SPMS-6302 - SCI_OP_01
		SPMS-3123 - Requested track path	• SPMS-2963 - HMI_Signaller_01	SPMS-2347 - Requested track path	• SPMS-2198 - HMI_Signaller
				SPMS-2853 - Supervise state of the railway	• SPMS-2827 - Signaller
				SPMS-2874 - Control track path allocation for movement permissions	• SPMS-2823 - Traffic CS System
				SPMS-6413 - Register input	
				SPMS-6417 - Requested input for movement permission	• SPMS-6305 - HMI_Signaller
		SPMS-6971 - Determine proximity of station platform	• SPMS-2807 - Train CS System	SPMS-2107 - Control state of train doors	• SPMS-2098 - CCS System



























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-6973 - Determinated distance to the next station platform and properties	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6977 - Determinated position and state of one train	
				 SPMS-6982 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7844 - Determine proximity of station platform	•  SPMS-5063 - European Train Control System On-board
		 SPMS-6982 - Allocated track path	•  SPMS-2952 - I_CCS_1	 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System
				 SPMS-6971 - Determine proximity of station platform	•  SPMS-2807 - Train CS System
	 SPMS-5368 - Grant movement permission (Operational plan)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li> SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3189 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4908 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-5110 - Signaller</li></ul>


































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2872 - Calculate safe speed profiles of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	
				 SPMS-3188 - Indicated start of mission data	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3190 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3191 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board

























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-3232 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-4878 - Control execution of movement permission request	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-4883 - Authorise movement permissions	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-5424 - Respond and request for movement authority data	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-6982 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7661 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
		 SPMS-6971 - Determine proximity of station platform	<ul style="list-style-type: none"><li> SPMS-2807 - Train CS System</li></ul>	 SPMS-2107 - Control state of train doors	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-6973 - Determinated distance to the next station platform and properties	<ul style="list-style-type: none"><li> SPMS-2971 - I_SUBSET_034_119</li></ul>






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-6977 - Determinated position and state of one train	
				 SPMS-6982 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7844 - Determine proximity of station platform	•  SPMS-5063 - European Train Control System On-board
	 SPMS-5645 - Grant movement permission (Operational plan - Traffic CS view)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01

























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5339 - Observed point status	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-6900 - Actual state of configuration data	•  SPMS-6690 - I_TrafficManagementSystem_02
		 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller	 SPMS-2167 - Supervise state of railway operation	•  SPMS-2090 - Signaller
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2872 - Calculate safe speed profiles of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	
				 SPMS-3188 - Indicated start of mission data	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3190 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3191 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4878 - Control execution of movement permission request	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-4883 - Authorise movement permissions	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-5424 - Respond and request for movement authority data	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-6982 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7661 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
	 SPMS-5810 - Grant movement permission (Signaller request)	 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>	 SPMS-2148 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2097 - Traffic Management System</li></ul>
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	



























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li>•  SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li>•  SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li>•  SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li>•  SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3189 - Observed point status	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4908 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-5110 - Signaller</li></ul>
				 SPMS-5275 - Requested point position	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-6902 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6580 - HMI_Signaller_02</li></ul>
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
		 SPMS-2872 - Calculate safe speed profiles of one train	<ul style="list-style-type: none"><li> SPMS-2807 - Train CS System</li></ul>	 SPMS-2137 - Ensure safe movement of trains	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3065 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	
				 SPMS-3188 - Indicated start of mission data	<ul style="list-style-type: none"><li> SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>
				 SPMS-3190 - Calculated supervision limits	<ul style="list-style-type: none"><li> SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>
				 SPMS-3191 - Calculated supervision limits	<ul style="list-style-type: none"><li> SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>
				 SPMS-3239 - Provided driver information	<ul style="list-style-type: none"><li> SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4878 - Control execution of movement permission request	•  SPMS-5060 - Plan Execution System
				 SPMS-4883 - Authorise movement permissions	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6982 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7661 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
	 SPMS-5811 - Grant movement permission (Signaller request - Traffic CS view)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li> SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2872 - Calculate safe speed profiles of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3188 - Indicated start of mission data	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3190 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3191 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4878 - Control execution of movement permission request	•  SPMS-5060 - Plan Execution System
				 SPMS-4883 - Authorise movement permissions	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6982 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7661 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
 SPMS-3309 - Localise train on railway infrastructure	 SPMS-4364 - Localise train on railway infrastructure	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5339 - Observed point status	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-6900 - Actual state of configuration data	•  SPMS-6690 - I_TrafficManagementSystem_02
		 SPMS-2878 - Determine position and state of one train	•  SPMS-2807 - Train CS System	 SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System
				 SPMS-3004 - Actual present geographical coordinate	•  SPMS-2970 - I_RollingStockReferencePoint
				 SPMS-3007 - Actual present position and direction in track coordinates	•  SPMS-2970 - I_RollingStockReferencePoint
				 SPMS-3153 - Determined train position and state	
				 SPMS-3154 - Determined train position and state	
				 SPMS-3171 - Estimated speed	
				 SPMS-3212 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4874 - Determine state and position of one train	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5515 - Determined train position and state	•  SPMS-2952 - I_CCS_1

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-6665 - Determine 1D train front end position in relation to reference location	<ul style="list-style-type: none"> <li>  SPMS-5063 - European Train Control System On-board           </li> </ul>
				 SPMS-6668 - Measure+Estimate 1D distance since last reset of odometry	<ul style="list-style-type: none"> <li>  SPMS-5063 - European Train Control System On-board           </li> </ul>
				 SPMS-6670 - Measure+Estimate 3D kinematic information and uncertainty of one train	<ul style="list-style-type: none"> <li>  SPMS-5072 - Advance Safe Train Positioning           </li> </ul>
				 SPMS-6977 - Determinated position and state of one train	
				 SPMS-6993 - Determined train position and state	
				 SPMS-7765 - Acknowledged position	<ul style="list-style-type: none"> <li>  SPMS-2952 - I_CCS_1           </li> </ul>
				 SPMS-7766 - Provided driver information	<ul style="list-style-type: none"> <li>  SPMS-2961 - DMI_Driver_Machine_Interface           </li> </ul>
		 SPMS-2880 - Measure+Estimate 1D acceleration of one train	<ul style="list-style-type: none"> <li>  SPMS-2807 - Train CS System           </li> </ul>	 SPMS-2192 - Sense+Observe motion of one train	<ul style="list-style-type: none"> <li>  SPMS-2098 - CCS System           </li> </ul>
				 SPMS-2989 - Actual acceleration	<ul style="list-style-type: none"> <li>  SPMS-2970 - I_RollingStockReferencePoint           </li> </ul>
				 SPMS-3148 - Estimated acceleration	
				 SPMS-6667 - Measure+Estimate 1D acceleration of one train	<ul style="list-style-type: none"> <li>  SPMS-5063 - European Train Control System On-board           </li> </ul>
		 SPMS-2892 - Measure+Estimate 1D speed of one train front end	<ul style="list-style-type: none"> <li>  SPMS-2807 - Train CS System           </li> </ul>	 SPMS-2192 - Sense+Observe motion of one train	<ul style="list-style-type: none"> <li>  SPMS-2098 - CCS System           </li> </ul>
				 SPMS-3013 - Actual velocity	<ul style="list-style-type: none"> <li>  SPMS-2970 - I_RollingStockReferencePoint           </li> </ul>
				 SPMS-3165 - Estimated speed	


























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3169 - Estimated speed	
				 SPMS-3171 - Estimated speed	
				 SPMS-4510 - Estimated speed	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-5338 - Estimated speed	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6666 - Measure+Estimate 1D speed of one train front end	•  SPMS-5063 - European Train Control System On-board
				 SPMS-6994 - Estimated speed	•  SPMS-2961 - DMI_Driver_Machine_Interface
		 SPMS-2919 - Sense+Observe track vacancy proving section state	•  SPMS-2818 - Trackside Assets CS System	 SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System
				 SPMS-3015 - Actual wheel passing	•  SPMS-2968 - I_Wheel
				 SPMS-4648 - Observed track vacancy proving section state	•  SPMS-2953 - I_CCS_2
				 SPMS-4901 - Sense+Observe track vacancy proving section state	•  SPMS-5070 - Subsystem - Train Detection System
		 SPMS-2944 - Aggregate movable objects information	•  SPMS-2823 - Traffic CS System	 SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01




































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3130 - Activated state of configuration data	
				 SPMS-3212 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-4648 - Observed track vacancy proving section state	•  SPMS-2953 - I_CCS_2
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4871 - Aggregate movable object information	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5268 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
	 SPMS-4465 - Localise train on railway infrastructure (Detect track vacancy proving section occupation)	 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller	 SPMS-7765 - Acknowledged position	•  SPMS-2952 - I_CCS_1
				 SPMS-2167 - Supervise state of railway operation	•  SPMS-2090 - Signaller
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4908 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-5110 - Signaller</li></ul>
				 SPMS-5275 - Requested point position	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-6902 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6580 - HMI_Signaller_02</li></ul>
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
		 SPMS-2919 - Sense+Observe track vacancy proving section state	<ul style="list-style-type: none"><li> SPMS-2818 - Trackside Assets CS System</li></ul>	 SPMS-2192 - Sense+Observe motion of one train	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3015 - Actual wheel passing	<ul style="list-style-type: none"><li> SPMS-2968 - I_Wheel</li></ul>
				 SPMS-4648 - Observed track vacancy proving section state	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-4901 - Sense+Observe track vacancy proving section state	<ul style="list-style-type: none"><li> SPMS-5070 - Subsystem - Train Detection System</li></ul>
		 SPMS-2944 - Aggregate movable objects information	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>	 SPMS-2192 - Sense+Observe motion of one train	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3130 - Activated state of configuration data	
				 SPMS-3212 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-4648 - Observed track vacancy proving section state	•  SPMS-2953 - I_CCS_2
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4871 - Aggregate movable object information	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5268 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
				 SPMS-7765 - Acknowledged position	•  SPMS-2952 - I_CCS_1
		 SPMS-4648 - Observed track vacancy proving section state	•  SPMS-2953 - I_CCS_2	 SPMS-2919 - Sense+Observe track vacancy proving section state	•  SPMS-2818 - Trackside Assets CS System
		 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01	 SPMS-2944 - Aggregate movable objects information	•  SPMS-2823 - Traffic CS System
				 SPMS-6398 - Observed track vacancy proving section state	•  SPMS-6311 - SCI_TDS
				 SPMS-2330 - Estimated motion state	•  SPMS-2198 - HMI_Signaller
				 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller
				 SPMS-2944 - Aggregate movable objects information	•  SPMS-2823 - Traffic CS System

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
	 SPMS-4467 - Localise train on railway infrastructure	 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>	 SPMS-2148 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2097 - Traffic Management System</li></ul>
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>


































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
	SPMS-4474 - Localise train on railway infrastructure (Determine localisation information for one train)	SF SPMS-2843 - Calculate operational traffic plan	• SPMS-2813 - Traffic Management System	SF SPMS-2148 - Calculate operational traffic plan	• SPMS-2097 - Traffic Management System
				DF SPMS-2988 - Required operational traffic plan	• DF SPMS-2958 - I_TrafficManagementSystem_01
				DF SPMS-3050 - Aggregated track occupancy and train status information	• DF SPMS-2958 - I_TrafficManagementSystem_01
				DF SPMS-3052 - Allocated track path	• DF SPMS-2958 - I_TrafficManagementSystem_01
				DF SPMS-3079 - Required operational traffic plan	• DF SPMS-2958 - I_TrafficManagementSystem_01
				DF SPMS-3173 - Usage restriction state	• DF SPMS-2958 - I_TrafficManagementSystem_01
				DF SPMS-4546 - Required operational traffic plan	• DF SPMS-2958 - I_TrafficManagementSystem_01
				SF SPMS-4875 - Calculate operational traffic plan	• SPMS-5111 - Traffic Management System
				DF SPMS-5333 - Required operational traffic plan	• DF SPMS-2958 - I_TrafficManagementSystem_01
				DF SPMS-5339 - Observed point status	• DF SPMS-2958 - I_TrafficManagementSystem_01
				DF SPMS-6900 - Actual state of configuration data	• DF SPMS-6690 - I_TrafficManagementSystem_02

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-2853 - Supervise state of the railway	 SPMS-2827 - Signaller	 SPMS-2167 - Supervise state of railway operation	 SPMS-2090 - Signaller
				 SPMS-3044 - Allocated track path	 SPMS-2963 - HMI_Signaller_01
				 SPMS-3078 - Provided usage restriction state	 SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	 SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	 SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	 SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	 SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	 SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	 SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	 SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	 SPMS-2963 - HMI_Signaller_01
		 SPMS-2878 - Determine position and state of one train	 SPMS-2807 - Train CS System	 SPMS-2192 - Sense+Observe motion of one train	 SPMS-2098 - CCS System
				 SPMS-3004 - Actual present geographical coordinate	 SPMS-2970 - I_RollingStockReferencePoint
				 SPMS-3007 - Actual present position and direction in track coordinates	 SPMS-2970 - I_RollingStockReferencePoint






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3153 - Determined train position and state	
				 SPMS-3154 - Determined train position and state	
				 SPMS-3171 - Estimated speed	
				 SPMS-3212 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4874 - Determine state and position of one train	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5515 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-6665 - Determine 1D train front end position in relation to reference location	•  SPMS-5063 - European Train Control System On-board
				 SPMS-6668 - Measure+Estimate 1D distance since last reset of odometry	•  SPMS-5063 - European Train Control System On-board
				 SPMS-6670 - Measure+Estimate 3D kinematic information and uncertainty of one train	•  SPMS-5072 - Advance Safe Train Positioning
				 SPMS-6977 - Determinated position and state of one train	
				 SPMS-6993 - Determined train position and state	
				 SPMS-7765 - Acknowledged position	•  SPMS-2952 - I_CCS_1
				 SPMS-7766 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface


























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-2892 - Measure+Estimate 1D speed of one train front end	 SPMS-2807 - Train CS System	 SPMS-2192 - Sense+Observe motion of one train	 SPMS-2098 - CCS System
				 SPMS-3013 - Actual velocity	 SPMS-2970 - I_RollingStockReferencePoint
				 SPMS-3165 - Estimated speed	
				 SPMS-3169 - Estimated speed	
				 SPMS-3171 - Estimated speed	
				 SPMS-4510 - Estimated speed	 SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-5338 - Estimated speed	 SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6666 - Measure+Estimate 1D speed of one train front end	 SPMS-5063 - European Train Control System On-board
		 SPMS-2944 - Aggregate movable objects information	 SPMS-2823 - Traffic CS System	 SPMS-6994 - Estimated speed	 SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-2192 - Sense+Observe motion of one train	 SPMS-2098 - CCS System
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3050 - Aggregated track occupancy and train status information	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3130 - Activated state of configuration data	



























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3212 - Determined train position and state	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-4648 - Observed track vacancy proving section state	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4871 - Aggregate movable object information	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5268 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5355 - Report operating state	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-7765 - Acknowledged position	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
		 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>	 SPMS-2300 - Estimated motion state	<ul style="list-style-type: none"><li> SPMS-2200 - I_TrafficManagementSystem</li></ul>
		 SPMS-3171 - Estimated speed		 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>
				 SPMS-2944 - Aggregate movable objects information	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>
		 SPMS-3171 - Estimated speed		 SPMS-2878 - Determine position and state of one train	<ul style="list-style-type: none"><li> SPMS-2807 - Train CS System</li></ul>
				 SPMS-2892 - Measure+Estimate 1D speed of one train front end	<ul style="list-style-type: none"><li> SPMS-2807 - Train CS System</li></ul>
		 SPMS-3212 - Determined train position and state	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>	 SPMS-2878 - Determine position and state of one train	<ul style="list-style-type: none"><li> SPMS-2807 - Train CS System</li></ul>




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-4666 - Aggregated track occupancy and train status information	 SPMS-2963 - HMI_Signaller_01	 SPMS-2944 - Aggregate movable objects information	 SPMS-2823 - Traffic CS System
				 SPMS-2330 - Estimated motion state	 SPMS-2198 - HMI_Signaller
				 SPMS-2853 - Supervise state of the railway	 SPMS-2827 - Signaller
		 SPMS-5332 - Generate train-specific timetable information	 SPMS-2823 - Traffic CS System	 SPMS-2944 - Aggregate movable objects information	 SPMS-2823 - Traffic CS System
				 SPMS-2107 - Control state of train doors	 SPMS-2098 - CCS System
				 SPMS-2160 - Calculate information to support driving	 SPMS-2098 - CCS System
				 SPMS-2180 - Control automatic driving speed of one train	 SPMS-2098 - CCS System
				 SPMS-3067 - Generated train-specific timetable information	 SPMS-2952 - I_CCS_1
				 SPMS-3182 - Generated train-specific timetable and infrastructure information	 SPMS-2952 - I_CCS_1
				 SPMS-4549 - Generated train-specific timetable information	 SPMS-2952 - I_CCS_1
				 SPMS-4879 - Generate journey profile for one train unit	 SPMS-5058 - Automatic Train Operation Trackside
				 SPMS-4915 - Generate segment profile for one train	 SPMS-5058 - Automatic Train Operation Trackside
				 SPMS-5333 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5334 - Provided current time	 SPMS-2973 - I_CCS_3




































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5335 - Activated state of configuration data	
				 SPMS-5515 - Determined train position and state	•  SPMS-2952 - I_CCS_1
		 SPMS-5515 - Determined train position and state	•  SPMS-2952 - I_CCS_1	 SPMS-2878 - Determine position and state of one train	•  SPMS-2807 - Train CS System
				 SPMS-5332 - Generate train-specific timetable information	•  SPMS-2823 - Traffic CS System
	 SPMS-5864 - Localise train on railway infrastructure (Traffic CS view)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System
				 SPMS-5333 - Required operational traffic plan	

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					<ul style="list-style-type: none"> <li>•  SPMS-2958 - <a href="#">I_TrafficManagementSystem_01</a></li> </ul>
				 SPMS-5339 - <a href="#">Observed point status</a>	<ul style="list-style-type: none"> <li>•  SPMS-2958 - <a href="#">I_TrafficManagementSystem_01</a></li> </ul>
				 SPMS-6900 - <a href="#">Actual state of configuration data</a>	<ul style="list-style-type: none"> <li>•  SPMS-6690 - <a href="#">I_TrafficManagementSystem_02</a></li> </ul>
		 SPMS-2878 - <a href="#">Determine position and state of one train</a>	<ul style="list-style-type: none"> <li>•  SPMS-2807 - <a href="#">Train CS System</a></li> </ul>	 SPMS-2192 - <a href="#">Sense+Observe motion of one train</a>	<ul style="list-style-type: none"> <li>•  SPMS-2098 - <a href="#">CCS System</a></li> </ul>
				 SPMS-3004 - <a href="#">Actual present geographical coordinate</a>	<ul style="list-style-type: none"> <li>•  SPMS-2970 - <a href="#">I_RollingStockReferencePoint</a></li> </ul>
				 SPMS-3007 - <a href="#">Actual present position and direction in track coordinates</a>	<ul style="list-style-type: none"> <li>•  SPMS-2970 - <a href="#">I_RollingStockReferencePoint</a></li> </ul>
				 SPMS-3153 - <a href="#">Determined train position and state</a>	
				 SPMS-3154 - <a href="#">Determined train position and state</a>	
				 SPMS-3171 - <a href="#">Estimated speed</a>	
				 SPMS-3212 - <a href="#">Determined train position and state</a>	<ul style="list-style-type: none"> <li>•  SPMS-2952 - <a href="#">I_CCS_1</a></li> </ul>
				 SPMS-3232 - <a href="#">Allocated track path</a>	<ul style="list-style-type: none"> <li>•  SPMS-2952 - <a href="#">I_CCS_1</a></li> </ul>
				 SPMS-4874 - <a href="#">Determine state and position of one train</a>	<ul style="list-style-type: none"> <li>•  SPMS-5063 - <a href="#">European Train Control System On-board</a></li> </ul>
				 SPMS-5515 - <a href="#">Determined train position and state</a>	<ul style="list-style-type: none"> <li>•  SPMS-2952 - <a href="#">I_CCS_1</a></li> </ul>
					<ul style="list-style-type: none"> <li>•  SPMS-5063 - <a href="#">European Train Control System On-board</a></li> </ul>





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-6665 - Determine 1D train front end position in relation to reference location	
				 SPMS-6668 - Measure+Estimate 1D distance since last reset of odometry	•  SPMS-5063 - European Train Control System On-board
				 SPMS-6670 - Measure+Estimate 3D kinematic information and uncertainty of one train	•  SPMS-5072 - Advance Safe Train Positioning
				 SPMS-6977 - Determinated position and state of one train	
				 SPMS-6993 - Determined train position and state	
				 SPMS-7765 - Acknowledged position	•  SPMS-2952 - I_CCS_1
				 SPMS-7766 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
		 SPMS-2919 - Sense+Observe track vacancy proving section state	•  SPMS-2818 - Trackside Assets CS System	 SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System
				 SPMS-3015 - Actual wheel passing	•  SPMS-2968 - I_Wheel
				 SPMS-4648 - Observed track vacancy proving section state	•  SPMS-2953 - I_CCS_2
				 SPMS-4901 - Sense+Observe track vacancy proving section state	•  SPMS-5070 - Subsystem - Train Detection System
		 SPMS-2944 - Aggregate movable objects information	•  SPMS-2823 - Traffic CS System	 SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3028 - Aggregated track occupancy and train status information	































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3039 - Allocated track path	
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3130 - Activated state of configuration data	
				 SPMS-3212 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-4648 - Observed track vacancy proving section state	•  SPMS-2953 - I_CCS_2
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4871 - Aggregate movable object information	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5268 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
				 SPMS-7765 - Acknowledged position	•  SPMS-2952 - I_CCS_1
 SPMS-3312 - Set point position	 SPMS-4382 - Set point position (Left to right, Operational plan)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2851 - Determine required position of one point machine	<ul style="list-style-type: none"><li> SPMS-2818 - Trackside Assets CS System</li></ul>	 SPMS-2190 - Control position of one point	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3008 - Required point machine position	<ul style="list-style-type: none"><li> SPMS-2967 - I_PointMachine_P3</li></ul>
				 SPMS-3227 - Required point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-4885 - Determine required position of one point machine	<ul style="list-style-type: none"><li> SPMS-5068 - Subsystem - Point</li></ul>
				 SPMS-5816 - Observed point position	



































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-2886 - Observe point status	 SPMS-2823 - Traffic CS System	 SPMS-2108 - Sense+Observe point status	 SPMS-2098 - CCS System
				 SPMS-3189 - Observed point status	 SPMS-2963 - HMI_Signaller_01
				 SPMS-3209 - Observed point position	 SPMS-2953 - I_CCS_2
				 SPMS-4888 - Observe point status	 SPMS-5062 - European Trackside Protection System
				 SPMS-5339 - Observed point status	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5355 - Report operating state	 SPMS-5060 - Plan Execution System
		 SPMS-2914 - Sense+Observe position of one point	 SPMS-2818 - Trackside Assets CS System	 SPMS-2108 - Sense+Observe point status	 SPMS-2098 - CCS System
				 SPMS-3209 - Observed point position	 SPMS-2953 - I_CCS_2
				 SPMS-3220 - Observed point position	 SPMS-2953 - I_CCS_2
				 SPMS-3228 - Observed point position	 SPMS-2953 - I_CCS_2
				 SPMS-4900 - Sense+Observe point position	 SPMS-5068 - Subsystem - Point
				 SPMS-5268 - Observed point position	 SPMS-2953 - I_CCS_2
				 SPMS-5815 - Actual physical point machine position	 SPMS-2967 - I_PointMachine_P3
				 SPMS-5816 - Observed point position	
		 SPMS-5265 - Control target state of one point	 SPMS-2823 - Traffic CS System	 SPMS-2190 - Control position of one point	 SPMS-2098 - CCS System




































































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3227 - Required point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3228 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4877 - Control execution of switchable trackside asset request	•  SPMS-5060 - Plan Execution System
				 SPMS-4903 - Authorise target position of point	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-5276 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-5277 - Activated state of configuration data	
				 SPMS-5278 - Allocated track path	
	 SPMS-4476 - Set point position	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2851 - Determine required position of one point machine	<ul style="list-style-type: none"><li> SPMS-2818 - Trackside Assets CS System</li></ul>	 SPMS-2190 - Control position of one point	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3008 - Required point machine position	<ul style="list-style-type: none"><li> SPMS-2967 - I_PointMachine_P3</li></ul>
				 SPMS-3227 - Required point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-4885 - Determine required position of one point machine	<ul style="list-style-type: none"><li> SPMS-5068 - Subsystem - Point</li></ul>
				 SPMS-5816 - Observed point position	
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li> SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	


































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2886 - Observe point status	•  SPMS-2823 - Traffic CS System	 SPMS-2108 - Sense+Observe point status	•  SPMS-2098 - CCS System
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3209 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-4888 - Observe point status	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5339 - Observed point status	

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2958 - <a href="#">I_TrafficManagementSystem_01</a>
				 SPMS-5355 - <a href="#">Report operating state</a>	•  SPMS-5060 - <a href="#">Plan Execution System</a>
		 SPMS-2914 - <a href="#">Sense+Observe position of one point</a>	•  SPMS-2818 - <a href="#">Trackside Assets CS System</a>	 SPMS-2108 - <a href="#">Sense+Observe point status</a>	•  SPMS-2098 - <a href="#">CCS System</a>
				 SPMS-3209 - <a href="#">Observed point position</a>	•  SPMS-2953 - <a href="#">I_CCS_2</a>
				 SPMS-3220 - <a href="#">Observed point position</a>	•  SPMS-2953 - <a href="#">I_CCS_2</a>
				 SPMS-3228 - <a href="#">Observed point position</a>	•  SPMS-2953 - <a href="#">I_CCS_2</a>
				 SPMS-4900 - <a href="#">Sense+Observe point position</a>	•  SPMS-5068 - <a href="#">Subsystem - Point</a>
				 SPMS-5268 - <a href="#">Observed point position</a>	•  SPMS-2953 - <a href="#">I_CCS_2</a>
				 SPMS-5815 - <a href="#">Actual physical point machine position</a>	•  SPMS-2967 - <a href="#">I_PointMachine_P3</a>
				 SPMS-5816 - <a href="#">Observed point position</a>	
		 SPMS-3189 - <a href="#">Observed point status</a>	•  SPMS-2963 - <a href="#">HMI_Signaller_01</a>	 SPMS-2312 - <a href="#">Observed point status</a>	•  SPMS-2198 - <a href="#">HMI_Signaller</a>
				 SPMS-2853 - <a href="#">Supervise state of the railway</a>	•  SPMS-2827 - <a href="#">Signaller</a>
				 SPMS-2886 - <a href="#">Observe point status</a>	•  SPMS-2823 - <a href="#">Traffic CS System</a>
		 SPMS-3209 - <a href="#">Observed point position</a>	•  SPMS-2953 - <a href="#">I_CCS_2</a>	 SPMS-2886 - <a href="#">Observe point status</a>	•  SPMS-2823 - <a href="#">Traffic CS System</a>
				 SPMS-2914 - <a href="#">Sense+Observe position of one point</a>	•  SPMS-2818 - <a href="#">Trackside Assets CS System</a>

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-3227 - Required point position	 SPMS-2953 - I_CCS_2	 SPMS-2851 - Determine required position of one point machine	 SPMS-2818 - Trackside Assets CS System
				 SPMS-5265 - Control target state of one point	 SPMS-2823 - Traffic CS System
				 SPMS-6357 - Commanded point position state	 SPMS-6310 - SCI_P
		 SPMS-3228 - Observed point position	 SPMS-2953 - I_CCS_2	 SPMS-2311 - Observed point status	
				 SPMS-2914 - Sense+Observe position of one point	 SPMS-2818 - Trackside Assets CS System
		 SPMS-4546 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01	 SPMS-2350 - Required operational traffic plan	 SPMS-2200 - I_TrafficManagementSystem
				 SPMS-2843 - Calculate operational traffic plan	 SPMS-2813 - Traffic Management System
				 SPMS-5265 - Control target state of one point	 SPMS-2823 - Traffic CS System
		 SPMS-5265 - Control target state of one point	 SPMS-2823 - Traffic CS System	 SPMS-2190 - Control position of one point	 SPMS-2098 - CCS System
				 SPMS-3227 - Required point position	 SPMS-2953 - I_CCS_2
				 SPMS-3228 - Observed point position	 SPMS-2953 - I_CCS_2
				 SPMS-4546 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4877 - Control execution of switchable trackside asset request	 SPMS-5060 - Plan Execution System




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4903 - Authorise target position of point	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5275 - Requested point position	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-5276 - Provided current time	<ul style="list-style-type: none"><li> SPMS-2973 - I_CCS_3</li></ul>
				 SPMS-5277 - Activated state of configuration data	
				 SPMS-5278 - Allocated track path	
	 SPMS-5273 - Exerted fource			 SPMS-2932 - Exert force on point rails	<ul style="list-style-type: none"><li> SPMS-2812 - Point Machine</li></ul>
				 SPMS-2942 - Has physical behaviour moves+lies+is locked	<ul style="list-style-type: none"><li> SPMS-2812 - Point Machine</li></ul>
				 SPMS-4799 - Exerted force	
				 SPMS-6391 - Exerted force	
	 SPMS-5275 - Requested point position		<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>	 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>
				 SPMS-4628 - Requested point position	<ul style="list-style-type: none"><li> SPMS-2198 - HMI_Signaller</li></ul>
				 SPMS-5265 - Control target state of one point	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>
	 SPMS-5339 - Observed point status		<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>	 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>
				 SPMS-2886 - Observe point status	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>
				 SPMS-5329 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2200 - I_TrafficManagementSystem</li></ul>

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-5816 - Observed point position		 SPMS-2851 - Determine required position of one point machine	 SPMS-2818 - Trackside Assets CS System
				 SPMS-2914 - Sense+Observe position of one point	 SPMS-2818 - Trackside Assets CS System
	 SPMS-4692 - Set point position (Left to right, Signaller request)	 SPMS-2843 - Calculate operational traffic plan	 SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	 SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	 SPMS-5111 - Traffic Management System
				 SPMS-5333 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5339 - Observed point status	
































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-6900 - Actual state of configuration data	•  SPMS-6690 - I_TrafficManagementSystem_02
		 SPMS-2851 - Determine required position of one point machine	•  SPMS-2818 - Trackside Assets CS System	 SPMS-2190 - Control position of one point	•  SPMS-2098 - CCS System
				 SPMS-3008 - Required point machine position	•  SPMS-2967 - I_PointMachine_P3
				 SPMS-3227 - Required point position	•  SPMS-2953 - I_CCS_2
				 SPMS-4885 - Determine required position of one point machine	•  SPMS-5068 - Subsystem - Point
				 SPMS-5816 - Observed point position	
		 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller	 SPMS-2167 - Supervise state of railway operation	•  SPMS-2090 - Signaller
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	




























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2886 - Observe point status	•  SPMS-2823 - Traffic CS System	 SPMS-2108 - Sense+Observe point status	•  SPMS-2098 - CCS System
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3209 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-4888 - Observe point status	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5339 - Observed point status	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
		 SPMS-2914 - Sense+Observe position of one point	•  SPMS-2818 - Trackside Assets CS System	 SPMS-2108 - Sense+Observe point status	•  SPMS-2098 - CCS System
				 SPMS-3209 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3228 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-4900 - Sense+Observe point position	•  SPMS-5068 - Subsystem - Point


































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5268 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-5815 - Actual physical point machine position	•  SPMS-2967 - I_PointMachine_P3
				 SPMS-5816 - Observed point position	
	 SPMS-4715 - Set point position (Left to right, Operational plan - Traffic CS view)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5339 - Observed point status	

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2958 - <a href="#">I_TrafficManagementSystem_01</a>
				 SPMS-6900 - <a href="#">Actual state of configuration data</a>	•  SPMS-6690 - <a href="#">I_TrafficManagementSystem_02</a>
		 SPMS-2851 - <a href="#">Determine required position of one point machine</a>	•  SPMS-2818 - <a href="#">Trackside Assets CS System</a>	 SPMS-2190 - <a href="#">Control position of one point</a>	•  SPMS-2098 - <a href="#">CCS System</a>
				 SPMS-3008 - <a href="#">Required point machine position</a>	•  SPMS-2967 - <a href="#">I_PointMachine_P3</a>
				 SPMS-3227 - <a href="#">Required point position</a>	•  SPMS-2953 - <a href="#">I_CCS_2</a>
				 SPMS-4885 - <a href="#">Determine required position of one point machine</a>	•  SPMS-5068 - <a href="#">Subsystem - Point</a>
				 SPMS-5816 - <a href="#">Observed point position</a>	
		 SPMS-2886 - <a href="#">Observe point status</a>	•  SPMS-2823 - <a href="#">Traffic CS System</a>	 SPMS-2108 - <a href="#">Sense+Observe point status</a>	•  SPMS-2098 - <a href="#">CCS System</a>
				 SPMS-3189 - <a href="#">Observed point status</a>	•  SPMS-2963 - <a href="#">HMI_Signaller_01</a>
				 SPMS-3209 - <a href="#">Observed point position</a>	•  SPMS-2953 - <a href="#">I_CCS_2</a>
				 SPMS-4888 - <a href="#">Observe point status</a>	•  SPMS-5062 - <a href="#">European Trackside Protection System</a>
				 SPMS-5339 - <a href="#">Observed point status</a>	•  SPMS-2958 - <a href="#">I_TrafficManagementSystem_01</a>
				 SPMS-5355 - <a href="#">Report operating state</a>	•  SPMS-5060 - <a href="#">Plan Execution System</a>
		 SPMS-2914 - <a href="#">Sense+Observe position of one point</a>	•  SPMS-2818 - <a href="#">Trackside Assets CS System</a>	 SPMS-2108 - <a href="#">Sense+Observe point status</a>	•  SPMS-2098 - <a href="#">CCS System</a>

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3209 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-3220 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-3228 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-4900 - Sense+Observe point position	<ul style="list-style-type: none"><li> SPMS-5068 - Subsystem - Point</li></ul>
				 SPMS-5268 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-5815 - Actual physical point machine position	<ul style="list-style-type: none"><li> SPMS-2967 - I_PointMachine_P3</li></ul>
				 SPMS-5816 - Observed point position	
		 SPMS-5265 - Control target state of one point	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>	 SPMS-2190 - Control position of one point	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3227 - Required point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-3228 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4877 - Control execution of switchable trackside asset request	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-4903 - Authorise target position of point	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5275 - Requested point position	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-5276 - Provided current time	



























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2973 - I_CCS_3
				 SPMS-5277 - Activated state of configuration data	
				 SPMS-5278 - Allocated track path	
	 SPMS-4788 - Set point position (Left to right, Signaller request - Traffic CS view)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2851 - Determine required position of one point machine	<ul style="list-style-type: none"><li> SPMS-2818 - Trackside Assets CS System</li></ul>	 SPMS-2190 - Control position of one point	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3008 - Required point machine position	<ul style="list-style-type: none"><li> SPMS-2967 - I_PointMachine_P3</li></ul>
				 SPMS-3227 - Required point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-4885 - Determine required position of one point machine	<ul style="list-style-type: none"><li> SPMS-5068 - Subsystem - Point</li></ul>
				 SPMS-5816 - Observed point position	
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li> SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3189 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4908 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-5110 - Signaller</li></ul>




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5275 - Requested point position	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-6902 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6580 - HMI_Signaller_02</li></ul>
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
		 SPMS-2886 - Observe point status	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>	 SPMS-2108 - Sense+Observe point status	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3189 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3209 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-4888 - Observe point status	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5355 - Report operating state	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
		 SPMS-2914 - Sense+Observe position of one point	<ul style="list-style-type: none"><li> SPMS-2818 - Trackside Assets CS System</li></ul>	 SPMS-2108 - Sense+Observe point status	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3209 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-3220 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-3228 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-4900 - Sense+Observe point position	<ul style="list-style-type: none"><li> SPMS-5068 - Subsystem - Point</li></ul>































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5268 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-5815 - Actual physical point machine position	•  SPMS-2967 - I_PointMachine_P3
				 SPMS-5816 - Observed point position	
		 SPMS-5265 - Control target state of one point	•  SPMS-2823 - Traffic CS System	 SPMS-2190 - Control position of one point	•  SPMS-2098 - CCS System
				 SPMS-3227 - Required point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3228 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4877 - Control execution of switchable trackside asset request	•  SPMS-5060 - Plan Execution System
				 SPMS-4903 - Authorise target position of point	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-5276 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-5277 - Activated state of configuration data	
				 SPMS-5278 - Allocated track path	
 SPMS-3313 - Execute end of mission	 SPMS-5703 - Execute end of mission	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System


































































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li> SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2878 - Determine position and state of one train	•  SPMS-2807 - Train CS System	 SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System
				 SPMS-3004 - Actual present geographical coordinate	•  SPMS-2970 - I_RollingStockReferencePoint
				 SPMS-3007 - Actual present position and direction in track coordinates	•  SPMS-2970 - I_RollingStockReferencePoint
				 SPMS-3153 - Determined train position and state	
				 SPMS-3154 - Determined train position and state	

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3171 - Estimated speed	
				 SPMS-3212 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4874 - Determine state and position of one train	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5515 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-6665 - Determine 1D train front end position in relation to reference location	•  SPMS-5063 - European Train Control System On-board
				 SPMS-6668 - Measure+Estimate 1D distance since last reset of odometry	•  SPMS-5063 - European Train Control System On-board
				 SPMS-6670 - Measure+Estimate 3D kinematic information and uncertainty of one train	•  SPMS-5072 - Advance Safe Train Positioning
				 SPMS-6977 - Determinated position and state of one train	
				 SPMS-6993 - Determined train position and state	
				 SPMS-7765 - Acknowledged position	•  SPMS-2952 - I_CCS_1
				 SPMS-7766 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
		 SPMS-2897 - Supervise standstill of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3022 - Required state of parking brake or emergency brake	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6974 - Main power status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6983 - Reported cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-7852 - Supervise standstill of one train	•  SPMS-5063 - European Train Control System On-board
		 SPMS-2921 - Supervise compliance of speed profiles of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2995 - Reported cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-3020 - Required state of full service brake or traction cut off or emergency brake	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-7661 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7849 - Supervise compliance of speed profiles of one train	•  SPMS-5063 - European Train Control System On-board
		 SPMS-2944 - Aggregate movable objects information	•  SPMS-2823 - Traffic CS System	 SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3130 - Activated state of configuration data	
























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3212 - <a href="#">Determined train position and state</a>	<ul style="list-style-type: none"><li> SPMS-2952 - <a href="#">I_CCS_1</a></li></ul>
				 SPMS-4648 - <a href="#">Observed track vacancy proving section state</a>	<ul style="list-style-type: none"><li> SPMS-2953 - <a href="#">I_CCS_2</a></li></ul>
				 SPMS-4666 - <a href="#">Aggregated track occupancy and train status information</a>	<ul style="list-style-type: none"><li> SPMS-2963 - <a href="#">HMI_Signaller_01</a></li></ul>
				 SPMS-4871 - <a href="#">Aggregate movable object information</a>	<ul style="list-style-type: none"><li> SPMS-5062 - <a href="#">European Trackside Protection System</a></li></ul>
				 SPMS-5268 - <a href="#">Observed point position</a>	<ul style="list-style-type: none"><li> SPMS-2953 - <a href="#">I_CCS_2</a></li></ul>
				 SPMS-5274 - <a href="#">Aggregated track occupancy and train status information</a>	
				 SPMS-5355 - <a href="#">Report operating state</a>	<ul style="list-style-type: none"><li> SPMS-5060 - <a href="#">Plan Execution System</a></li></ul>
				 SPMS-7765 - <a href="#">Acknowledged position</a>	<ul style="list-style-type: none"><li> SPMS-2952 - <a href="#">I_CCS_1</a></li></ul>
		 SPMS-2992 - <a href="#">Required cab status</a>		 SPMS-2235 - <a href="#">Required cab status</a>	
				 SPMS-2936 - <a href="#">Control cab mode of one train</a>	<ul style="list-style-type: none"><li> SPMS-2820 - <a href="#">Rolling Stock Operation System</a></li></ul>
				 SPMS-2947 - <a href="#">Toggle train cab</a>	<ul style="list-style-type: none"><li> SPMS-2822 - <a href="#">Driver</a></li></ul>
				 SPMS-7885 - <a href="#">Required cab status</a>	
		 SPMS-3050 - <a href="#">Aggregated track occupancy and train status information</a>	<ul style="list-style-type: none"><li> SPMS-2958 - <a href="#">I_TrafficManagementSystem_01</a></li></ul>	 SPMS-2300 - <a href="#">Estimated motion state</a>	<ul style="list-style-type: none"><li> SPMS-2200 - <a href="#">I_TrafficManagementSystem</a></li></ul>
				 SPMS-2843 - <a href="#">Calculate operational traffic plan</a>	<ul style="list-style-type: none"><li> SPMS-2813 - <a href="#">Traffic Management System</a></li></ul>
				 SPMS-2944 - <a href="#">Aggregate movable objects information</a>	<ul style="list-style-type: none"><li> SPMS-2823 - <a href="#">Traffic CS System</a></li></ul>































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-3212 - <a href="#">Determined train position and state</a>	<ul style="list-style-type: none"><li> SPMS-2952 - <a href="#">I_CCS_1</a></li></ul>	 SPMS-2878 - <a href="#">Determine position and state of one train</a>	<ul style="list-style-type: none"><li> SPMS-2807 - <a href="#">Train CS System</a></li></ul>
				 SPMS-2944 - <a href="#">Aggregate movable objects information</a>	<ul style="list-style-type: none"><li> SPMS-2823 - <a href="#">Traffic CS System</a></li></ul>
		 SPMS-4666 - <a href="#">Aggregated track occupancy and train status information</a>	<ul style="list-style-type: none"><li> SPMS-2963 - <a href="#">HMI_Signaller_01</a></li></ul>	 SPMS-2330 - <a href="#">Estimated motion state</a>	<ul style="list-style-type: none"><li> SPMS-2198 - <a href="#">HMI_Signaller</a></li></ul>
				 SPMS-2853 - <a href="#">Supervise state of the railway</a>	<ul style="list-style-type: none"><li> SPMS-2827 - <a href="#">Signaller</a></li></ul>
				 SPMS-2944 - <a href="#">Aggregate movable objects information</a>	<ul style="list-style-type: none"><li> SPMS-2823 - <a href="#">Traffic CS System</a></li></ul>
		 SPMS-6933 - <a href="#">Control voice communication for one train</a>	<ul style="list-style-type: none"><li> SPMS-2807 - <a href="#">Train CS System</a></li></ul>	 SPMS-2110 - <a href="#">Control voice communication</a>	<ul style="list-style-type: none"><li> SPMS-2098 - <a href="#">CCS System</a></li></ul>
				 SPMS-6942 - <a href="#">Provided functional number</a>	<ul style="list-style-type: none"><li> SPMS-2961 - <a href="#">DMI_Driver_Machine_Interface</a></li></ul>
				 SPMS-6955 - <a href="#">Exchanged information</a>	
				 SPMS-6956 - <a href="#">Exchanged information</a>	
				 SPMS-6957 - <a href="#">Exchanged information</a>	<ul style="list-style-type: none"><li> SPMS-2961 - <a href="#">DMI_Driver_Machine_Interface</a></li></ul>
				 SPMS-6958 - <a href="#">Exchanged information</a>	<ul style="list-style-type: none"><li> SPMS-2961 - <a href="#">DMI_Driver_Machine_Interface</a></li></ul>
				 SPMS-6959 - <a href="#">Reported cab status</a>	<ul style="list-style-type: none"><li> SPMS-2971 - <a href="#">I_SUBSET_034_119</a></li></ul>
				 SPMS-6975 - <a href="#">Indicated functional number</a>	<ul style="list-style-type: none"><li> SPMS-2961 - <a href="#">DMI_Driver_Machine_Interface</a></li></ul>
				 SPMS-7769 - <a href="#">Control voice communication for one train</a>	
 SPMS-6939 - <a href="#">Required power status</a>		 SPMS-6876 - <a href="#">Required power status</a>			




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-6931 - Switch train power	<ul style="list-style-type: none"> <li>  SPMS-2822 - Driver           </li> </ul>
				 SPMS-6932 - Control power of one train	<ul style="list-style-type: none"> <li>  SPMS-2820 - Rolling Stock Operation System           </li> </ul>
				 SPMS-7886 - Required power status	
	 SPMS-6938 - Execute end of mission	 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2813 - Traffic Management System           </li> </ul>	 SPMS-2148 - Calculate operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2097 - Traffic Management System           </li> </ul>
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-5111 - Traffic Management System           </li> </ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-5339 - Observed point status	

























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					<ul style="list-style-type: none"> <li>•  SPMS-2958 - I_TrafficManagementSystem_01</li> </ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"> <li>•  SPMS-6690 - I_TrafficManagementSystem_02</li> </ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"> <li>•  SPMS-2827 - Signaller</li> </ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"> <li>•  SPMS-2090 - Signaller</li> </ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-3189 - Observed point status	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-4908 - Supervise state of the railway	<ul style="list-style-type: none"> <li>•  SPMS-5110 - Signaller</li> </ul>
				 SPMS-5275 - Requested point position	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-6902 - Actual state of configuration data	<ul style="list-style-type: none"> <li>•  SPMS-6580 - HMI_Signaller_02</li> </ul>
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
		 SPMS-2878 - Determine position and state of one train	<ul style="list-style-type: none"> <li>•  SPMS-2807 - Train CS System</li> </ul>	 SPMS-2192 - Sense+Observe motion of one train	<ul style="list-style-type: none"> <li>•  SPMS-2098 - CCS System</li> </ul>


























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3004 - Actual present geographical coordinate	<ul style="list-style-type: none"><li> SPMS-2970 - I_RollingStockReferencePoint</li></ul>
				 SPMS-3007 - Actual present position and direction in track coordinates	<ul style="list-style-type: none"><li> SPMS-2970 - I_RollingStockReferencePoint</li></ul>
				 SPMS-3153 - Determined train position and state	
				 SPMS-3154 - Determined train position and state	
				 SPMS-3171 - Estimated speed	
				 SPMS-3212 - Determined train position and state	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-3232 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-4874 - Determine state and position of one train	<ul style="list-style-type: none"><li> SPMS-5063 - European Train Control System On-board</li></ul>
				 SPMS-5515 - Determined train position and state	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-6665 - Determine 1D train front end position in relation to reference location	<ul style="list-style-type: none"><li> SPMS-5063 - European Train Control System On-board</li></ul>
				 SPMS-6668 - Measure+Estimate 1D distance since last reset of odometry	<ul style="list-style-type: none"><li> SPMS-5063 - European Train Control System On-board</li></ul>
				 SPMS-6670 - Measure+Estimate 3D kinematic information and uncertainty of one train	<ul style="list-style-type: none"><li> SPMS-5072 - Advance Safe Train Positioning</li></ul>
				 SPMS-6977 - Determinated position and state of one train	
				 SPMS-6993 - Determined train position and state	




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-7765 - Acknowledged position	•  SPMS-2952 - I_CCS_1
				 SPMS-7766 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
		 SPMS-2897 - Supervise standstill of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3022 - Required state of parking brake or emergency brake	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6974 - Main power status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6983 - Reported cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-7852 - Supervise standstill of one train	•  SPMS-5063 - European Train Control System On-board
		 SPMS-2944 - Aggregate movable objects information	•  SPMS-2823 - Traffic CS System	 SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3130 - Activated state of configuration data	
				 SPMS-3212 - Determined train position and state	•  SPMS-2952 - I_CCS_1


































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4648 - Observed track vacancy proving section state	•  SPMS-2953 - I_CCS_2
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4871 - Aggregate movable object information	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5268 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
				 SPMS-7765 - Acknowledged position	•  SPMS-2952 - I_CCS_1
		 SPMS-6933 - Control voice communication for one train	•  SPMS-2807 - Train CS System	 SPMS-2110 - Control voice communication	•  SPMS-2098 - CCS System
				 SPMS-6942 - Provided functional number	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6955 - Exchanged information	
				 SPMS-6956 - Exchanged information	
				 SPMS-6957 - Exchanged information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6958 - Exchanged information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6959 - Reported cab status	•  SPMS-2971 - I_SUBSET_034_119

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-6975 - Indicated functional number	<ul style="list-style-type: none"> <li>  SPMS-2961 - DMI_Driver_Machine_Interface           </li> </ul>
				 SPMS-7769 - Control voice communication for one train	
	 SPMS-7162 - Execute end of mission (Traffic CS view)	 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2813 - Traffic Management System           </li> </ul>	 SPMS-2148 - Calculate operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2097 - Traffic Management System           </li> </ul>
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-5111 - Traffic Management System           </li> </ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				SPMS-5339 - Observed point status	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-6900 - Actual state of configuration data	•  SPMS-6690 - I_TrafficManagementSystem_02
		SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller	SPMS-2167 - Supervise state of railway operation	•  SPMS-2090 - Signaller
				SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				SPMS-6903 - Actual state of railway operation	
				SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		SPMS-2878 - Determine position and state of one train	•  SPMS-2807 - Train CS System	SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3004 - Actual present geographical coordinate	<ul style="list-style-type: none"><li> SPMS-2970 - I_RollingStockReferencePoint</li></ul>
				 SPMS-3007 - Actual present position and direction in track coordinates	<ul style="list-style-type: none"><li> SPMS-2970 - I_RollingStockReferencePoint</li></ul>
				 SPMS-3153 - Determined train position and state	
				 SPMS-3154 - Determined train position and state	
				 SPMS-3171 - Estimated speed	
				 SPMS-3212 - Determined train position and state	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-3232 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-4874 - Determine state and position of one train	<ul style="list-style-type: none"><li> SPMS-5063 - European Train Control System On-board</li></ul>
				 SPMS-5515 - Determined train position and state	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-6665 - Determine 1D train front end position in relation to reference location	<ul style="list-style-type: none"><li> SPMS-5063 - European Train Control System On-board</li></ul>
				 SPMS-6668 - Measure+Estimate 1D distance since last reset of odometry	<ul style="list-style-type: none"><li> SPMS-5063 - European Train Control System On-board</li></ul>
				 SPMS-6670 - Measure+Estimate 3D kinematic information and uncertainty of one train	<ul style="list-style-type: none"><li> SPMS-5072 - Advance Safe Train Positioning</li></ul>
				 SPMS-6977 - Determinated position and state of one train	
				 SPMS-6993 - Determined train position and state	




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-7765 - Acknowledged position	•  SPMS-2952 - I_CCS_1
				 SPMS-7766 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
		 SPMS-2944 - Aggregate movable objects information	•  SPMS-2823 - Traffic CS System	 SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3130 - Activated state of configuration data	
				 SPMS-3212 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-4648 - Observed track vacancy proving section state	•  SPMS-2953 - I_CCS_2
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4871 - Aggregate movable object information	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5268 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-7765 - Acknowledged position	<ul style="list-style-type: none"> <li>  SPMS-2952 - I_CCS_1           </li> </ul>
 SPMS-3314 - Perform operational plan movement	 SPMS-4553 - Perform operational plan movement				
	 SPMS-5708 - Perform operational plan movement				
	 SPMS-5995 - Perform operational plan movement (Traffic control and supervision view)				
 SPMS-3316 - Perform train movement	 SPMS-4473 - Perform train movement	 SPMS-3012 - Required relative traction and brake effort manually		 SPMS-2366 - Required relative traction and brake effort manually	
				 SPMS-2836 - Control relative traction and braking effort manually	<ul style="list-style-type: none"> <li>  SPMS-2822 - Driver           </li> </ul>
				 SPMS-2837 - Implement specific traction and braking effort	<ul style="list-style-type: none"> <li>  SPMS-2820 - Rolling Stock Operation System           </li> </ul>
				 SPMS-6429 - Required relative traction and brake effort manually	
		 SPMS-6971 - Determine proximity of station platform	<ul style="list-style-type: none"> <li>  SPMS-2807 - Train CS System           </li> </ul>	 SPMS-2107 - Control state of train doors	<ul style="list-style-type: none"> <li>  SPMS-2098 - CCS System           </li> </ul>
	 SPMS-5643 - Perform train movement	 SPMS-2862 - Calculate information to support driving	<ul style="list-style-type: none"> <li>  SPMS-2807 - Train CS System           </li> </ul>	 SPMS-6973 - Determinated distance to the next station platform and properties	<ul style="list-style-type: none"> <li>  SPMS-2971 - I_SUBSET_034_119           </li> </ul>
				 SPMS-6977 - Determinated position and state of one train	
				 SPMS-6982 - Allocated track path	<ul style="list-style-type: none"> <li>  SPMS-2952 - I_CCS_1           </li> </ul>
				 SPMS-7844 - Determine proximity of station platform	<ul style="list-style-type: none"> <li>  SPMS-5063 - European Train Control System On-board           </li> </ul>
				 SPMS-2160 - Calculate information to support driving	<ul style="list-style-type: none"> <li>  SPMS-2098 - CCS System           </li> </ul>
				 SPMS-3182 - Generated train-specific timetable and infrastructure information	<ul style="list-style-type: none"> <li>  SPMS-2952 - I_CCS_1           </li> </ul>

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3186 - Indicated supporting information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3187 - Indicated supporting information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4561 - Indicated supporting information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4895 - Indicate information to support driving	•  SPMS-5073 - Multi Display System
				 SPMS-6525 - Observed state of doors	•  SPMS-4493 - I_SUBSET_139
				 SPMS-6993 - Determined train position and state	
				 SPMS-7838 - Calculate information to support driving	•  SPMS-5057 - Automatic Train Operation On-board
		 SPMS-2870 - Control automatic driving speed of one train	•  SPMS-2807 - Train CS System	 SPMS-2180 - Control automatic driving speed of one train	•  SPMS-2098 - CCS System
				 SPMS-3014 - Required relative traction and brake effort	•  SPMS-4493 - I_SUBSET_139
				 SPMS-3051 - Applied level of traction and brake effort	•  SPMS-4493 - I_SUBSET_139
				 SPMS-3055 - Authorised automatic driving state	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3067 - Generated train-specific timetable information	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3154 - Determined train position and state	
































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3169 - Estimated speed	
				 SPMS-3185 - Indicated automatic driving state	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4872 - Control automatic driving speed of one train	•  SPMS-5057 - Automatic Train Operation On-board
				 SPMS-4917 - Request+Store journey profile	•  SPMS-5057 - Automatic Train Operation On-board
				 SPMS-7846 - Indicate automatic driving state	•  SPMS-5073 - Multi Display System
				 SPMS-7847 - Register automatic driving input from driver	•  SPMS-5073 - Multi Display System
		 SPMS-5332 - Generate train-specific timetable information	•  SPMS-2823 - Traffic CS System	 SPMS-2107 - Control state of train doors	•  SPMS-2098 - CCS System
				 SPMS-2160 - Calculate information to support driving	•  SPMS-2098 - CCS System
				 SPMS-2180 - Control automatic driving speed of one train	•  SPMS-2098 - CCS System
				 SPMS-3067 - Generated train-specific timetable information	•  SPMS-2952 - I_CCS_1
				 SPMS-3182 - Generated train-specific timetable and infrastructure information	•  SPMS-2952 - I_CCS_1
				 SPMS-4549 - Generated train-specific timetable information	•  SPMS-2952 - I_CCS_1
				 SPMS-4879 - Generate journey profile for one train unit	•  SPMS-5058 - Automatic Train Operation Trackside
				 SPMS-4915 - Generate segment profile for one train	•  SPMS-5058 - Automatic Train Operation Trackside

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5334 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-5335 - Activated state of configuration data	
				 SPMS-5515 - Determined train position and state	•  SPMS-2952 - I_CCS_1
	 SPMS-5644 - Perform train movement (Traffic CS view)				
 SPMS-3318 - Activate usage restriction	 SPMS-4355 - Activate usage restriction (Planned usage restriction)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					<ul style="list-style-type: none"><li>•  SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li>•  SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li>•  SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li>•  SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3189 - Observed point status	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4908 - Supervise state of the railway	<ul style="list-style-type: none"><li>•  SPMS-5110 - Signaller</li></ul>
				 SPMS-5275 - Requested point position	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-6902 - Actual state of configuration data	<ul style="list-style-type: none"><li>•  SPMS-6580 - HMI_Signaller_02</li></ul>






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2929 - Control usage restrictions	•  SPMS-2823 - Traffic CS System	 SPMS-2159 - Control usage restriction areas	•  SPMS-2098 - CCS System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3000 - Usage restriction state	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3045 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3135 - Activated state of configuration data	
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-5723 - Control usage restriction area request	•  SPMS-5060 - Plan Execution System
				 SPMS-5724 - Authorise usage restriction areas	•  SPMS-5062 - European Trackside Protection System
	 SPMS-4469 - Activate usage restriction	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System
				SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-5339 - Observed point status	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-6900 - Actual state of configuration data	•  SPMS-6690 - I_TrafficManagementSystem_02
		SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller	SPMS-2167 - Supervise state of railway operation	•  SPMS-2090 - Signaller
				SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2929 - Control usage restrictions	•  SPMS-2823 - Traffic CS System	 SPMS-2159 - Control usage restriction areas	•  SPMS-2098 - CCS System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3000 - Usage restriction state	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3045 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3135 - Activated state of configuration data	
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-5723 - Control usage restriction area request	•  SPMS-5060 - Plan Execution System
				 SPMS-5724 - Authorise usage restriction areas	•  SPMS-5062 - European Trackside Protection System
	 SPMS-2988 - Required operational traffic plan		•  SPMS-2958 - I_TrafficManagementSystem_01	 SPMS-2357 - Required operational traffic plan	•  SPMS-2200 - I_TrafficManagementSystem
				 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System
				 SPMS-2929 - Control usage restrictions	•  SPMS-2823 - Traffic CS System
	 SPMS-3078 - Provided usage restriction state		•  SPMS-2963 - HMI_Signaller_01	 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller
				 SPMS-2929 - Control usage restrictions	•  SPMS-2823 - Traffic CS System
				 SPMS-4824 - Provided usage restriction state	•  SPMS-2198 - HMI_Signaller
	 SPMS-3173 - Usage restriction state		•  SPMS-2958 - I_TrafficManagementSystem_01	 SPMS-2215 - Usage restriction state	•  SPMS-2200 - I_TrafficManagementSystem
				 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System
				 SPMS-2929 - Control usage restrictions	




























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-3174 - Usage restriction state	 SPMS-2963 - HMI_Signaller_01		 SPMS-2823 - Traffic CS System
				 SPMS-2219 - Usage restriction state	 SPMS-2198 - HMI_Signaller
				 SPMS-2853 - Supervise state of the railway	 SPMS-2827 - Signaller
				 SPMS-2929 - Control usage restrictions	 SPMS-2823 - Traffic CS System
	 SPMS-7246 - Activate usage restriction (Unplanned TSR)	 SPMS-2843 - Calculate operational traffic plan	 SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	 SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	 SPMS-5111 - Traffic Management System
				 SPMS-5333 - Required operational traffic plan	






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2958 - <a href="#">I_TrafficManagementSystem_01</a>
				 SPMS-5339 - <a href="#">Observed point status</a>	•  SPMS-2958 - <a href="#">I_TrafficManagementSystem_01</a>
				 SPMS-6900 - <a href="#">Actual state of configuration data</a>	•  SPMS-6690 - <a href="#">I_TrafficManagementSystem_02</a>
		 SPMS-2853 - <a href="#">Supervise state of the railway</a>	•  SPMS-2827 - <a href="#">Signaller</a>	 SPMS-2167 - <a href="#">Supervise state of railway operation</a>	•  SPMS-2090 - <a href="#">Signaller</a>
				 SPMS-3044 - <a href="#">Allocated track path</a>	•  SPMS-2963 - <a href="#">HMI_Signaller_01</a>
				 SPMS-3078 - <a href="#">Provided usage restriction state</a>	•  SPMS-2963 - <a href="#">HMI_Signaller_01</a>
				 SPMS-3123 - <a href="#">Requested track path</a>	•  SPMS-2963 - <a href="#">HMI_Signaller_01</a>
				 SPMS-3174 - <a href="#">Usage restriction state</a>	•  SPMS-2963 - <a href="#">HMI_Signaller_01</a>
				 SPMS-3189 - <a href="#">Observed point status</a>	•  SPMS-2963 - <a href="#">HMI_Signaller_01</a>
				 SPMS-4666 - <a href="#">Aggregated track occupancy and train status information</a>	•  SPMS-2963 - <a href="#">HMI_Signaller_01</a>
				 SPMS-4908 - <a href="#">Supervise state of the railway</a>	•  SPMS-5110 - <a href="#">Signaller</a>
				 SPMS-5275 - <a href="#">Requested point position</a>	•  SPMS-2963 - <a href="#">HMI_Signaller_01</a>
				 SPMS-6902 - <a href="#">Actual state of configuration data</a>	•  SPMS-6580 - <a href="#">HMI_Signaller_02</a>
				 SPMS-6903 - <a href="#">Actual state of railway operation</a>	































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-2929 - Control usage restrictions	 SPMS-2823 - Traffic CS System	 SPMS-7719 - Request emergency stop	 SPMS-2963 - HMI_Signaller_01
				 SPMS-2159 - Control usage restriction areas	 SPMS-2098 - CCS System
				 SPMS-2988 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3000 - Usage restriction state	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3045 - Provided current time	 SPMS-2973 - I_CCS_3
				 SPMS-3078 - Provided usage restriction state	 SPMS-2963 - HMI_Signaller_01
				 SPMS-3135 - Activated state of configuration data	
				 SPMS-3173 - Usage restriction state	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3174 - Usage restriction state	 SPMS-2963 - HMI_Signaller_01
				 SPMS-5723 - Control usage restriction area request	 SPMS-5060 - Plan Execution System
				 SPMS-5724 - Authorise usage restriction areas	 SPMS-5062 - European Trackside Protection System
 SPMS-4518 - Deactivate usage restriction	 SPMS-4363 - Deactivate usage restriction (Planned usage restriction)	 SPMS-2843 - Calculate operational traffic plan	 SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	 SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System
				SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-5339 - Observed point status	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-6900 - Actual state of configuration data	•  SPMS-6690 - I_TrafficManagementSystem_02
		SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller	SPMS-2167 - Supervise state of railway operation	•  SPMS-2090 - Signaller
				SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2929 - Control usage restrictions	•  SPMS-2823 - Traffic CS System	 SPMS-2159 - Control usage restriction areas	•  SPMS-2098 - CCS System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3000 - Usage restriction state	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3045 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3135 - Activated state of configuration data	

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-5723 - Control usage restriction area request	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-5724 - Authorise usage restriction areas	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
	 SPMS-4470 - Deactivate usage restriction	 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>	 SPMS-2148 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2097 - Traffic Management System</li></ul>
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li> SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3189 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4908 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-5110 - Signaller</li></ul>
				 SPMS-5275 - Requested point position	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-6902 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6580 - HMI_Signaller_02</li></ul>
				 SPMS-6903 - Actual state of railway operation	































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-2874 - Control track path allocation for movement permissions	 SPMS-2823 - Traffic CS System	 SPMS-7719 - Request emergency stop	 SPMS-2963 - HMI_Signaller_01
				 SPMS-2137 - Ensure safe movement of trains	 SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	 SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	 SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	 SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	 SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	 SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	 SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	 SPMS-2952 - I_CCS_1
				 SPMS-4878 - Control execution of movement permission request	 SPMS-5060 - Plan Execution System



























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4883 - Authorise movement permissions	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-5424 - Respond and request for movement authority data	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-6982 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7661 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
		 SPMS-2929 - Control usage restrictions	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>	 SPMS-2159 - Control usage restriction areas	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3000 - Usage restriction state	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3045 - Provided current time	<ul style="list-style-type: none"><li> SPMS-2973 - I_CCS_3</li></ul>
				 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3135 - Activated state of configuration data	
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"> <li>  SPMS-2963 - HMI_Signaller_01           </li> </ul>
				 SPMS-5723 - Control usage restriction area request	<ul style="list-style-type: none"> <li>  SPMS-5060 - Plan Execution System           </li> </ul>
				 SPMS-5724 - Authorise usage restriction areas	<ul style="list-style-type: none"> <li>  SPMS-5062 - European Trackside Protection System           </li> </ul>
		 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>	 SPMS-2357 - Required operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2200 - I_TrafficManagementSystem           </li> </ul>
				 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"> <li>  SPMS-2813 - Traffic Management System           </li> </ul>
				 SPMS-2929 - Control usage restrictions	<ul style="list-style-type: none"> <li>  SPMS-2823 - Traffic CS System           </li> </ul>
				 SPMS-2216 - Usage restriction state	
				 SPMS-2874 - Control track path allocation for movement permissions	<ul style="list-style-type: none"> <li>  SPMS-2823 - Traffic CS System           </li> </ul>
				 SPMS-2929 - Control usage restrictions	<ul style="list-style-type: none"> <li>  SPMS-2823 - Traffic CS System           </li> </ul>
				 SPMS-7827 - Authorised usage restriction	
		 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"> <li>  SPMS-2963 - HMI_Signaller_01           </li> </ul>	 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"> <li>  SPMS-2827 - Signaller           </li> </ul>
				 SPMS-2929 - Control usage restrictions	<ul style="list-style-type: none"> <li>  SPMS-2823 - Traffic CS System           </li> </ul>
				 SPMS-4824 - Provided usage restriction state	<ul style="list-style-type: none"> <li>  SPMS-2198 - HMI_Signaller           </li> </ul>
		 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"> <li>  SPMS-2958 - I_TrafficManagementSystem_01           </li> </ul>	 SPMS-2215 - Usage restriction state	<ul style="list-style-type: none"> <li>  SPMS-2200 - I_TrafficManagementSystem           </li> </ul>





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>
				SPMS-2929 - Control usage restrictions	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>
		SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>	SPMS-2219 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2198 - HMI_Signaller</li></ul>
				SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>
				SPMS-2929 - Control usage restrictions	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>
	SPMS-7249 - Deactivate usage restriction (Unplanned TSR)	SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>	SPMS-2148 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2097 - Traffic Management System</li></ul>
				SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li> SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3189 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4908 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-5110 - Signaller</li></ul>
				 SPMS-5275 - Requested point position	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-6902 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6580 - HMI_Signaller_02</li></ul>




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2929 - Control usage restrictions	•  SPMS-2823 - Traffic CS System	 SPMS-2159 - Control usage restriction areas	•  SPMS-2098 - CCS System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3000 - Usage restriction state	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3045 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3135 - Activated state of configuration data	
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-5723 - Control usage restriction area request	•  SPMS-5060 - Plan Execution System
				 SPMS-5724 - Authorise usage restriction areas	•  SPMS-5062 - European Trackside Protection System
 SPMS-5041 - Shorten movement permission	 SPMS-5047 - Shorten movement permission (Operational plan change, accepted)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5339 - Observed point status	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-6900 - Actual state of configuration data	•  SPMS-6690 - I_TrafficManagementSystem_02
		 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller	 SPMS-2167 - Supervise state of railway operation	•  SPMS-2090 - Signaller
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01

























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2872 - Calculate safe speed profiles of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3188 - Indicated start of mission data	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3190 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3191 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1




























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4878 - Control execution of movement permission request	•  SPMS-5060 - Plan Execution System
				 SPMS-4883 - Authorise movement permissions	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6982 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7661 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
	 SPMS-5131 - Shorten movement permission (Operational plan change, rejected)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5339 - Observed point status	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-6900 - Actual state of configuration data	•  SPMS-6690 - I_TrafficManagementSystem_02
		 SPMS-2872 - Calculate safe speed profiles of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	
				 SPMS-3188 - Indicated start of mission data	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3190 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3191 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4878 - Control execution of movement permission request	•  SPMS-5060 - Plan Execution System
				 SPMS-4883 - Authorise movement permissions	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6982 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7661 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
	 SPMS-5170 - Shorten movement permission (Signaller request, accepted)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li> SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2872 - Calculate safe speed profiles of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3188 - Indicated start of mission data	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3190 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3191 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1


























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4878 - Control execution of movement permission request	•  SPMS-5060 - Plan Execution System
				 SPMS-4883 - Authorise movement permissions	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6982 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7661 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
	 SPMS-5171 - Shorten movement permission (Signaller request, rejected)	 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller	 SPMS-2167 - Supervise state of railway operation	•  SPMS-2090 - Signaller
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-2872 - Calculate safe speed profiles of one train	 SPMS-2807 - Train CS System	 SPMS-7719 - Request emergency stop	 SPMS-2963 - HMI_Signaller_01
				 SPMS-2137 - Ensure safe movement of trains	 SPMS-2098 - CCS System
				 SPMS-3065 - Allocated track path	 SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	
				 SPMS-3188 - Indicated start of mission data	 SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3190 - Calculated supervision limits	 SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3191 - Calculated supervision limits	 SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	 SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4873 - Calculate safe speed profiles	 SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	 SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	 SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4878 - Control execution of movement permission request	•  SPMS-5060 - Plan Execution System
				 SPMS-4883 - Authorise movement permissions	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6982 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7661 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
	 SPMS-5426 - Shorten movement permission (Cooperative shortening of movement permission)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	




































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5339 - Observed point status	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-6900 - Actual state of configuration data	•  SPMS-6690 - I_TrafficManagementSystem_02
		 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller	 SPMS-2167 - Supervise state of railway operation	•  SPMS-2090 - Signaller
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01





































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2872 - Calculate safe speed profiles of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	
				 SPMS-3188 - Indicated start of mission data	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3190 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface



























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3191 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	




























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3042 - Provided current time	<ul style="list-style-type: none"><li> SPMS-2973 - I_CCS_3</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3065 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-3232 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-4878 - Control execution of movement permission request	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-4883 - Authorise movement permissions	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-5424 - Respond and request for movement authority data	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-6982 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-7661 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01	 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller
				 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System
				 SPMS-6396 - Indicated track section state	•  SPMS-6305 - HMI_Signaller
				 SPMS-6432 - Authorised movement permission	•  SPMS-6985 - I_Signaller
				 SPMS-7230 - Authorised distance and speed restriction	•  SPMS-2198 - HMI_Signaller
		 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01	 SPMS-2249 - Authorised distance and speed restriction	•  SPMS-2200 - I_TrafficManagementSystem
				 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System
				 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System
				 SPMS-6416 - Reported operating state	
				 SPMS-6431 - to be deleted	•  SPMS-6308 - SCI_CMD
		 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1	 SPMS-2872 - Calculate safe speed profiles of one train	•  SPMS-2807 - Train CS System
				 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System
				 SPMS-6393 - Authorised movement permission	•  SPMS-6306 - I_SUBSET_026




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-3079 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01	 SPMS-2351 - Required operational traffic plan	 SPMS-2200 - I_TrafficManagementSystem
				 SPMS-2843 - Calculate operational traffic plan	 SPMS-2813 - Traffic Management System
				 SPMS-2874 - Control track path allocation for movement permissions	 SPMS-2823 - Traffic CS System
				 SPMS-6347 - Calculated operational traffic plan	 SPMS-6302 - SCI_OP_01
		 SPMS-3123 - Requested track path	 SPMS-2963 - HMI_Signaller_01	 SPMS-2347 - Requested track path	 SPMS-2198 - HMI_Signaller
				 SPMS-2853 - Supervise state of the railway	 SPMS-2827 - Signaller
				 SPMS-2874 - Control track path allocation for movement permissions	 SPMS-2823 - Traffic CS System
				 SPMS-6413 - Register input	
				 SPMS-6417 - Requested input for movement permission	 SPMS-6305 - HMI_Signaller
		 SPMS-5424 - Respond and request for movement authority data	 SPMS-2952 - I_CCS_1	 SPMS-2872 - Calculate safe speed profiles of one train	 SPMS-2807 - Train CS System
				 SPMS-2874 - Control track path allocation for movement permissions	 SPMS-2823 - Traffic CS System
				 SPMS-6434 - Responded train-specific authorisation	 SPMS-6306 - I_SUBSET_026
	 SPMS-5684 - Shorten movement permission (Operational plan change, accepted - Traffic CS view)	 SPMS-2843 - Calculate operational traffic plan	 SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	 SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5339 - Observed point status	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-6900 - Actual state of configuration data	•  SPMS-6690 - I_TrafficManagementSystem_02
		 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller	 SPMS-2167 - Supervise state of railway operation	•  SPMS-2090 - Signaller
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3078 - Provided usage restriction state	•  SPMS-2963 - HMI_Signaller_01

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3174 - Usage restriction state	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3189 - Observed point status	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2872 - Calculate safe speed profiles of one train	•  SPMS-2807 - Train CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	
				 SPMS-3188 - Indicated start of mission data	•  SPMS-2961 - DMI_Driver_Machine_Interface

























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3190 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3191 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4878 - Control execution of movement permission request	•  SPMS-5060 - Plan Execution System
				 SPMS-4883 - Authorise movement permissions	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6982 - Allocated track path	































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-2952 - I_CCS_1
				 SPMS-7661 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
	 SPMS-5685 - Shorten movement permission (Signaller request, accepted - Traffic CS view)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4546 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-4875 - Calculate operational traffic plan	•  SPMS-5111 - Traffic Management System
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5339 - Observed point status	



System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					<ul style="list-style-type: none"> <li>•  SPMS-2958 - I_TrafficManagementSystem_01</li> </ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"> <li>•  SPMS-6690 - I_TrafficManagementSystem_02</li> </ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"> <li>•  SPMS-2827 - Signaller</li> </ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"> <li>•  SPMS-2090 - Signaller</li> </ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-3189 - Observed point status	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-4908 - Supervise state of the railway	<ul style="list-style-type: none"> <li>•  SPMS-5110 - Signaller</li> </ul>
				 SPMS-5275 - Requested point position	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
				 SPMS-6902 - Actual state of configuration data	<ul style="list-style-type: none"> <li>•  SPMS-6580 - HMI_Signaller_02</li> </ul>
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"> <li>•  SPMS-2963 - HMI_Signaller_01</li> </ul>
		 SPMS-2872 - Calculate safe speed profiles of one train	<ul style="list-style-type: none"> <li>•  SPMS-2807 - Train CS System</li> </ul>	 SPMS-2137 - Ensure safe movement of trains	<ul style="list-style-type: none"> <li>•  SPMS-2098 - CCS System</li> </ul>






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3148 - Estimated acceleration	
				 SPMS-3153 - Determined train position and state	
				 SPMS-3165 - Estimated speed	
				 SPMS-3188 - Indicated start of mission data	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3190 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3191 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3239 - Provided driver information	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4873 - Calculate safe speed profiles	•  SPMS-5063 - European Train Control System On-board
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6236 - Activated cab status	•  SPMS-2971 - I_SUBSET_034_119
				 SPMS-6981 - Acknowledged permission	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-6992 - Calculated supervision limits	•  SPMS-2961 - DMI_Driver_Machine_Interface

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-7120 - Validated train data	•  SPMS-2952 - I_CCS_1
				 SPMS-7121 - Acknowledged train data	•  SPMS-2952 - I_CCS_1
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4878 - Control execution of movement permission request	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-4883 - Authorise movement permissions	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-5424 - Respond and request for movement authority data	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-6982 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7661 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
 SPMS-5345 - Release movement permission	 SPMS-5364 - Release movement permission	 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>	 SPMS-2148 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2097 - Traffic Management System</li></ul>
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li>•  SPMS-5111 - Traffic Management System</li></ul>
				SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li>•  SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li>•  SPMS-2827 - Signaller</li></ul>	SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li>•  SPMS-2090 - Signaller</li></ul>
				SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				SPMS-3123 - Requested track path	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				SPMS-3189 - Observed point status	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>
				SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li>•  SPMS-2963 - HMI_Signaller_01</li></ul>





























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				SPMS-4908 - Supervise state of the railway	•  SPMS-5110 - Signaller
				SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				SPMS-6903 - Actual state of railway operation	
				SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				SPMS-3000 - Usage restriction state	
				SPMS-3021 - Aggregated track occupancy and train status information	
				SPMS-3039 - Allocated track path	
				SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3131 - Activated state of configuration data	
				 SPMS-3220 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-3232 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-4878 - Control execution of movement permission request	•  SPMS-5060 - Plan Execution System
				 SPMS-4883 - Authorise movement permissions	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
				 SPMS-5424 - Respond and request for movement authority data	•  SPMS-2952 - I_CCS_1
				 SPMS-6982 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7661 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2944 - Aggregate movable objects information	•  SPMS-2823 - Traffic CS System	 SPMS-2192 - Sense+Observe motion of one train	•  SPMS-2098 - CCS System
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3130 - Activated state of configuration data	
				 SPMS-3212 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-4648 - Observed track vacancy proving section state	•  SPMS-2953 - I_CCS_2
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4871 - Aggregate movable object information	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5268 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
				 SPMS-7765 - Acknowledged position	•  SPMS-2952 - I_CCS_1
		 SPMS-3021 - Aggregated track occupancy and train status information		 SPMS-2303 - Estimated motion state	
				 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System
				 SPMS-2944 - Aggregate movable objects information	•  SPMS-2823 - Traffic CS System
		 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01	 SPMS-2853 - Supervise state of the railway	•  SPMS-2827 - Signaller
				 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System
				 SPMS-6396 - Indicated track section state	•  SPMS-6305 - HMI_Signaller
				 SPMS-6432 - Authorised movement permission	•  SPMS-6985 - I_Signaller

























































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>	 SPMS-7230 - Authorised distance and speed restriction	<ul style="list-style-type: none"><li> SPMS-2198 - HMI_Signaller</li></ul>
				 SPMS-2249 - Authorised distance and speed restriction	<ul style="list-style-type: none"><li> SPMS-2200 - I_TrafficManagementSystem</li></ul>
				 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>
				 SPMS-2874 - Control track path allocation for movement permissions	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>
				 SPMS-6416 - Reported operating state	
				 SPMS-6431 - to be deleted	<ul style="list-style-type: none"><li> SPMS-6308 - SCI_CMD</li></ul>
	 SPMS-5369 - Release movement permission	 SPMS-2843 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2813 - Traffic Management System</li></ul>	 SPMS-2148 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2097 - Traffic Management System</li></ul>
				 SPMS-2988 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3052 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>


























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2853 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-2827 - Signaller</li></ul>	 SPMS-2167 - Supervise state of railway operation	<ul style="list-style-type: none"><li> SPMS-2090 - Signaller</li></ul>
				 SPMS-3044 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3078 - Provided usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3123 - Requested track path	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3174 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-3189 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4666 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
				 SPMS-4908 - Supervise state of the railway	<ul style="list-style-type: none"><li> SPMS-5110 - Signaller</li></ul>
































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5275 - Requested point position	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-6902 - Actual state of configuration data	•  SPMS-6580 - HMI_Signaller_02
				 SPMS-6903 - Actual state of railway operation	
				 SPMS-7719 - Request emergency stop	•  SPMS-2963 - HMI_Signaller_01
		 SPMS-2874 - Control track path allocation for movement permissions	•  SPMS-2823 - Traffic CS System	 SPMS-2137 - Ensure safe movement of trains	•  SPMS-2098 - CCS System
				 SPMS-2991 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3000 - Usage restriction state	
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3042 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-3044 - Allocated track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3065 - Allocated track path	•  SPMS-2952 - I_CCS_1
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3123 - Requested track path	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-3131 - Activated state of configuration data	

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3220 - Observed point position	<ul style="list-style-type: none"><li> SPMS-2953 - I_CCS_2</li></ul>
				 SPMS-3232 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-4878 - Control execution of movement permission request	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-4883 - Authorise movement permissions	<ul style="list-style-type: none"><li> SPMS-5062 - European Trackside Protection System</li></ul>
				 SPMS-5278 - Allocated track path	
				 SPMS-5355 - Report operating state	<ul style="list-style-type: none"><li> SPMS-5060 - Plan Execution System</li></ul>
				 SPMS-5424 - Respond and request for movement authority data	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-6982 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7661 - Allocated track path	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-7719 - Request emergency stop	<ul style="list-style-type: none"><li> SPMS-2963 - HMI_Signaller_01</li></ul>
		 SPMS-2944 - Aggregate movable objects information	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>	 SPMS-2192 - Sense+Observe motion of one train	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3021 - Aggregated track occupancy and train status information	
				 SPMS-3028 - Aggregated track occupancy and train status information	
				 SPMS-3039 - Allocated track path	
				 SPMS-3050 - Aggregated track occupancy and train status information	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3130 - Activated state of configuration data	

































System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-3212 - Determined train position and state	•  SPMS-2952 - I_CCS_1
				 SPMS-4648 - Observed track vacancy proving section state	•  SPMS-2953 - I_CCS_2
				 SPMS-4666 - Aggregated track occupancy and train status information	•  SPMS-2963 - HMI_Signaller_01
				 SPMS-4871 - Aggregate movable object information	•  SPMS-5062 - European Trackside Protection System
				 SPMS-5268 - Observed point position	•  SPMS-2953 - I_CCS_2
				 SPMS-5274 - Aggregated track occupancy and train status information	
				 SPMS-5355 - Report operating state	•  SPMS-5060 - Plan Execution System
 SPMS-5346 - Drive train automatically	 SPMS-5365 - Drive train automatically	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3079 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3173 - Usage restriction state	






























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li>•  SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li>•  SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li>•  SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2862 - Calculate information to support driving	<ul style="list-style-type: none"><li>•  SPMS-2807 - Train CS System</li></ul>	 SPMS-2160 - Calculate information to support driving	<ul style="list-style-type: none"><li>•  SPMS-2098 - CCS System</li></ul>
				 SPMS-3182 - Generated train-specific timetable and infrastructure information	<ul style="list-style-type: none"><li>•  SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-3186 - Indicated supporting information	<ul style="list-style-type: none"><li>•  SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>
				 SPMS-3187 - Indicated supporting information	<ul style="list-style-type: none"><li>•  SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>
				 SPMS-4561 - Indicated supporting information	<ul style="list-style-type: none"><li>•  SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>
				 SPMS-4895 - Indicate information to support driving	<ul style="list-style-type: none"><li>•  SPMS-5073 - Multi Display System</li></ul>
				 SPMS-6525 - Observed state of doors	


























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-4493 - I_SUBSET_139
				 SPMS-6993 - Determined train position and state	
				 SPMS-7838 - Calculate information to support driving	•  SPMS-5057 - Automatic Train Operation On-board
		 SPMS-2870 - Control automatic driving speed of one train	•  SPMS-2807 - Train CS System	 SPMS-2180 - Control automatic driving speed of one train	•  SPMS-2098 - CCS System
				 SPMS-3014 - Required relative traction and brake effort	•  SPMS-4493 - I_SUBSET_139
				 SPMS-3051 - Applied level of traction and brake effort	•  SPMS-4493 - I_SUBSET_139
				 SPMS-3055 - Authorised automatic driving state	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-3067 - Generated train-specific timetable information	•  SPMS-2952 - I_CCS_1
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3154 - Determined train position and state	
				 SPMS-3169 - Estimated speed	
				 SPMS-3185 - Indicated automatic driving state	•  SPMS-2961 - DMI_Driver_Machine_Interface
				 SPMS-4872 - Control automatic driving speed of one train	•  SPMS-5057 - Automatic Train Operation On-board
				 SPMS-4917 - Request+Store journey profile	•  SPMS-5057 - Automatic Train Operation On-board

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-7846 - Indicate automatic driving state	<ul style="list-style-type: none"><li> SPMS-5073 - Multi Display System</li></ul>
				 SPMS-7847 - Register automatic driving input from driver	<ul style="list-style-type: none"><li> SPMS-5073 - Multi Display System</li></ul>
		 SPMS-3014 - Required relative traction and brake effort	<ul style="list-style-type: none"><li> SPMS-4493 - I_SUBSET_139</li></ul>	 SPMS-2365 - Required relative traction and brake effort	<ul style="list-style-type: none"><li> SPMS-2195 - I_SUBSET_139</li></ul>
				 SPMS-2837 - Implement specific traction and braking effort	<ul style="list-style-type: none"><li> SPMS-2820 - Rolling Stock Operation System</li></ul>
				 SPMS-2870 - Control automatic driving speed of one train	<ul style="list-style-type: none"><li> SPMS-2807 - Train CS System</li></ul>
		 SPMS-3051 - Applied level of traction and brake effort	<ul style="list-style-type: none"><li> SPMS-4493 - I_SUBSET_139</li></ul>	 SPMS-2245 - Applied level of traction and brake effort	<ul style="list-style-type: none"><li> SPMS-2195 - I_SUBSET_139</li></ul>
				 SPMS-2837 - Implement specific traction and braking effort	<ul style="list-style-type: none"><li> SPMS-2820 - Rolling Stock Operation System</li></ul>
				 SPMS-2870 - Control automatic driving speed of one train	<ul style="list-style-type: none"><li> SPMS-2807 - Train CS System</li></ul>
				 SPMS-7856 - Applied level of traction and brake effort	
		 SPMS-3067 - Generated train-specific timetable information	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>	 SPMS-2360 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2200 - I_TrafficManagementSystem</li></ul>
				 SPMS-2870 - Control automatic driving speed of one train	<ul style="list-style-type: none"><li> SPMS-2807 - Train CS System</li></ul>
				 SPMS-5332 - Generate train-specific timetable information	<ul style="list-style-type: none"><li> SPMS-2823 - Traffic CS System</li></ul>
				 SPMS-6392 - Generated journey profile	<ul style="list-style-type: none"><li> SPMS-6307 - I_SUBSET_126</li></ul>



System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-3182 - Generated train-specific timetable and infrastructure information	 SPMS-2952 - I_CCS_1	 SPMS-7733 - Defined segment profile	 SPMS-6307 - I_SUBSET_126
				 SPMS-2354 - Required operational traffic plan	 SPMS-2200 - I_TrafficManagementSystem
				 SPMS-2862 - Calculate information to support driving	 SPMS-2807 - Train CS System
				 SPMS-5332 - Generate train-specific timetable information	 SPMS-2823 - Traffic CS System
				 SPMS-7862 - Defined segment profile	 SPMS-6307 - I_SUBSET_126
		 SPMS-5332 - Generate train-specific timetable information	 SPMS-2823 - Traffic CS System	 SPMS-7865 - Generated journey profile	 SPMS-6307 - I_SUBSET_126
				 SPMS-2107 - Control state of train doors	 SPMS-2098 - CCS System
				 SPMS-2160 - Calculate information to support driving	 SPMS-2098 - CCS System
				 SPMS-2180 - Control automatic driving speed of one train	 SPMS-2098 - CCS System
				 SPMS-3067 - Generated train-specific timetable information	 SPMS-2952 - I_CCS_1
				 SPMS-3182 - Generated train-specific timetable and infrastructure information	 SPMS-2952 - I_CCS_1
				 SPMS-4549 - Generated train-specific timetable information	 SPMS-2952 - I_CCS_1
				 SPMS-4879 - Generate journey profile for one train unit	 SPMS-5058 - Automatic Train Operation Trackside
				 SPMS-4915 - Generate segment profile for one train	 SPMS-5058 - Automatic Train Operation Trackside




























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5334 - Provided current time	•  SPMS-2973 - I_CCS_3
				 SPMS-5335 - Activated state of configuration data	
				 SPMS-5515 - Determined train position and state	•  SPMS-2952 - I_CCS_1
		 SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01	 SPMS-2354 - Required operational traffic plan	•  SPMS-2200 - I_TrafficManagementSystem
				 SPMS-2359 - Required operational traffic plan	•  SPMS-2200 - I_TrafficManagementSystem
				 SPMS-2360 - Required operational traffic plan	•  SPMS-2200 - I_TrafficManagementSystem
				 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System
				 SPMS-5332 - Generate train-specific timetable information	•  SPMS-2823 - Traffic CS System
	 SPMS-5370 - Drive train automatically (Operational plan)	 SPMS-2843 - Calculate operational traffic plan	•  SPMS-2813 - Traffic Management System	 SPMS-2148 - Calculate operational traffic plan	•  SPMS-2097 - Traffic Management System
				 SPMS-2988 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3050 - Aggregated track occupancy and train status information	•  SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-3052 - Allocated track path	


























System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3079 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-3173 - Usage restriction state	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4546 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-4875 - Calculate operational traffic plan	<ul style="list-style-type: none"><li> SPMS-5111 - Traffic Management System</li></ul>
				 SPMS-5333 - Required operational traffic plan	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-5339 - Observed point status	<ul style="list-style-type: none"><li> SPMS-2958 - I_TrafficManagementSystem_01</li></ul>
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"><li> SPMS-6690 - I_TrafficManagementSystem_02</li></ul>
		 SPMS-2862 - Calculate information to support driving	<ul style="list-style-type: none"><li> SPMS-2807 - Train CS System</li></ul>	 SPMS-2160 - Calculate information to support driving	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				 SPMS-3182 - Generated train-specific timetable and infrastructure information	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				 SPMS-3186 - Indicated supporting information	<ul style="list-style-type: none"><li> SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>
				 SPMS-3187 - Indicated supporting information	<ul style="list-style-type: none"><li> SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				SPMS-4561 - Indicated supporting information	<ul style="list-style-type: none"><li> SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>
				SPMS-4895 - Indicate information to support driving	<ul style="list-style-type: none"><li> SPMS-5073 - Multi Display System</li></ul>
				SPMS-6525 - Observed state of doors	<ul style="list-style-type: none"><li> SPMS-4493 - I_SUBSET_139</li></ul>
				SPMS-6993 - Determined train position and state	
				SPMS-7838 - Calculate information to support driving	<ul style="list-style-type: none"><li> SPMS-5057 - Automatic Train Operation On-board</li></ul>
		SPMS-2870 - Control automatic driving speed of one train	<ul style="list-style-type: none"><li> SPMS-2807 - Train CS System</li></ul>	SPMS-2180 - Control automatic driving speed of one train	<ul style="list-style-type: none"><li> SPMS-2098 - CCS System</li></ul>
				SPMS-3014 - Required relative traction and brake effort	<ul style="list-style-type: none"><li> SPMS-4493 - I_SUBSET_139</li></ul>
				SPMS-3051 - Applied level of traction and brake effort	<ul style="list-style-type: none"><li> SPMS-4493 - I_SUBSET_139</li></ul>
				SPMS-3055 - Authorised automatic driving state	<ul style="list-style-type: none"><li> SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>
				SPMS-3067 - Generated train-specific timetable information	<ul style="list-style-type: none"><li> SPMS-2952 - I_CCS_1</li></ul>
				SPMS-3072 - Calculated supervision limits	
				SPMS-3154 - Determined train position and state	
				SPMS-3169 - Estimated speed	
				SPMS-3185 - Indicated automatic driving state	<ul style="list-style-type: none"><li> SPMS-2961 - DMI_Driver_Machine_Interface</li></ul>
				SPMS-4872 - Control automatic driving speed of one train	

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
					•  SPMS-5057 - Automatic Train Operation On-board
				SPMS-4917 - Request+Store journey profile	•  SPMS-5057 - Automatic Train Operation On-board
				SPMS-7846 - Indicate automatic driving state	•  SPMS-5073 - Multi Display System
				SPMS-7847 - Register automatic driving input from driver	•  SPMS-5073 - Multi Display System
		SPMS-5332 - Generate train-specific timetable information	•  SPMS-2823 - Traffic CS System	SPMS-2107 - Control state of train doors	•  SPMS-2098 - CCS System
				SPMS-2160 - Calculate information to support driving	•  SPMS-2098 - CCS System
				SPMS-2180 - Control automatic driving speed of one train	•  SPMS-2098 - CCS System
				SPMS-3067 - Generated train-specific timetable information	•  SPMS-2952 - I_CCS_1
				SPMS-3182 - Generated train-specific timetable and infrastructure information	•  SPMS-2952 - I_CCS_1
				SPMS-4549 - Generated train-specific timetable information	•  SPMS-2952 - I_CCS_1
				SPMS-4879 - Generate journey profile for one train unit	•  SPMS-5058 - Automatic Train Operation Trackside
				SPMS-4915 - Generate segment profile for one train	•  SPMS-5058 - Automatic Train Operation Trackside
				SPMS-5333 - Required operational traffic plan	•  SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-5334 - Provided current time	•  SPMS-2973 - I_CCS_3

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
SPMS-5740 - Drive train automatically (Operational plan - Traffic CS view)		SF SPMS-2843 - Calculate operational traffic plan	• SPMS-2813 - Traffic Management System	SPMS-5335 - Activated state of configuration data	
				SPMS-5515 - Determined train position and state	• SPMS-2952 - I_CCS_1
				SPMS-2148 - Calculate operational traffic plan	• SPMS-2097 - Traffic Management System
				SPMS-2988 - Required operational traffic plan	• SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3050 - Aggregated track occupancy and train status information	• SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3052 - Allocated track path	• SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3079 - Required operational traffic plan	• SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-3173 - Usage restriction state	• SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-4546 - Required operational traffic plan	• SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-4875 - Calculate operational traffic plan	• SPMS-5111 - Traffic Management System
				SPMS-5333 - Required operational traffic plan	• SPMS-2958 - I_TrafficManagementSystem_01
				SPMS-5339 - Observed point status	• SPMS-2958 - I_TrafficManagementSystem_01

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
				 SPMS-6900 - Actual state of configuration data	<ul style="list-style-type: none"> <li>  SPMS-6690 - I_TrafficManagementSystem_02           </li> </ul>
		 SPMS-2870 - Control automatic driving speed of one train	<ul style="list-style-type: none"> <li>  SPMS-2807 - Train CS System           </li> </ul>	 SPMS-2180 - Control automatic driving speed of one train	<ul style="list-style-type: none"> <li>  SPMS-2098 - CCS System           </li> </ul>
				 SPMS-3014 - Required relative traction and brake effort	<ul style="list-style-type: none"> <li>  SPMS-4493 - I_SUBSET_139           </li> </ul>
				 SPMS-3051 - Applied level of traction and brake effort	<ul style="list-style-type: none"> <li>  SPMS-4493 - I_SUBSET_139           </li> </ul>
				 SPMS-3055 - Authorised automatic driving state	<ul style="list-style-type: none"> <li>  SPMS-2961 - DMI_Driver_Machine_Interface           </li> </ul>
				 SPMS-3067 - Generated train-specific timetable information	<ul style="list-style-type: none"> <li>  SPMS-2952 - I_CCS_1           </li> </ul>
				 SPMS-3072 - Calculated supervision limits	
				 SPMS-3154 - Determined train position and state	
				 SPMS-3169 - Estimated speed	
				 SPMS-3185 - Indicated automatic driving state	<ul style="list-style-type: none"> <li>  SPMS-2961 - DMI_Driver_Machine_Interface           </li> </ul>
				 SPMS-4872 - Control automatic driving speed of one train	<ul style="list-style-type: none"> <li>  SPMS-5057 - Automatic Train Operation On-board           </li> </ul>
				 SPMS-4917 - Request+Store journey profile	<ul style="list-style-type: none"> <li>  SPMS-5057 - Automatic Train Operation On-board           </li> </ul>
				 SPMS-7846 - Indicate automatic driving state	<ul style="list-style-type: none"> <li>  SPMS-5073 - Multi Display System           </li> </ul>
				 SPMS-7847 - Register automatic driving input from driver	<ul style="list-style-type: none"> <li>  SPMS-5073 - Multi Display System           </li> </ul>

System Capability	Chain / Scenario	Logical Function / Logical Functional Exchange	Allocated to	Physical Function / Physical Functional Exchange	Allocated to
		 SPMS-5332 - Generate train-specific timetable information	 SPMS-2823 - Traffic CS System	 SPMS-2107 - Control state of train doors	 SPMS-2098 - CCS System
				 SPMS-2160 - Calculate information to support driving	 SPMS-2098 - CCS System
				 SPMS-2180 - Control automatic driving speed of one train	 SPMS-2098 - CCS System
				 SPMS-3067 - Generated train-specific timetable information	 SPMS-2952 - I_CCS_1
				 SPMS-3182 - Generated train-specific timetable and infrastructure information	 SPMS-2952 - I_CCS_1
				 SPMS-4549 - Generated train-specific timetable information	 SPMS-2952 - I_CCS_1
				 SPMS-4879 - Generate journey profile for one train unit	 SPMS-5058 - Automatic Train Operation Trackside
				 SPMS-4915 - Generate segment profile for one train	 SPMS-5058 - Automatic Train Operation Trackside
				 SPMS-5333 - Required operational traffic plan	 SPMS-2958 - I_TrafficManagementSystem_01
				 SPMS-5334 - Provided current time	 SPMS-2973 - I_CCS_3
				 SPMS-5335 - Activated state of configuration data	
				 SPMS-5515 - Determined train position and state	 SPMS-2952 - I_CCS_1