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| ERTMS/ETCS | |
| **Subset-076-6-3\_SOM\_LNTC\_SN\_v400\_SV30**  State : *Ordered list of Test Case Steps with communication information* | |
| REF : | Subset-076-6-3\_SOM\_LNTC\_SN\_v400\_SV30 |
| ISSUE : | 4.0.0 |
| DATE : | 30/05/25 14:01 |

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| Company | Technical Approval | Management approval |
| CEDEX |  |  |
| DLR |  |  |
| ITALCERTIFER |  |  |
| LEF |  |  |
| MULTITEL |  |  |
| RINA |  |  |

# Modification History

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| **Issue Number Date** | **Section Number** | **Modification / Description** | **Author** |
|  |  |  | Multitel |

# Sequence description

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| **Start Of Mission in Level LNTC** |

# Test cases

Important: All columns called ‘Test Results’ are only placeholders for results of the test execution. They shall not be used for the description of test cases.   
A test is passed if all cells of ‘Test Result’ are passed.

| **SEQUENCE OF TEST** | | | | | | | | | | | |
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| **Step** | **Row** | **Dist. (m)** | **Previous** | | **Description of Events** | **I/O** | **Interface** | **Comments** | **Next** | | **Test Result** |
| **Levels** | **Mode** | **Levels** | **Mode** |
| **Feature 4060300:** 4.6.3: Transitions Conditions Table  **Test Case 10:** The ETCS on-board equipment is powered .Transition Condition Id [4]. | | | | | | | | | | | |
| 1 | 1 | 0.00 | N/A | NP | ERTMS/ETCS onboard unit is powered up | I | SIM | Info:  The on-board equipment changes to SB mode. | N/A | NP | - |
| 2 | 2 | 0.00 | N/A | NP | Any message (NID\_MESSAGE\_JRU=ALL; M\_MODE=6) is recorded | O | JRU | - | N/A | SB | - |
| **Feature 5040300:** 5.4.3: Table of requirements for 'Start of Mission' procedure  **Test Case 24:** Start of Mission procedure is engaged | | | | | | | | | | | |
| 3 | 1 | 0.00 | N/A | SB | Cab active | I | TIU | - | N/A | SB | - |
| 4 | 2 | 0.00 | N/A | SB | CAB STATUS (NID\_MESSAGE\_JRU=38; M\_MODE=6; M\_CAB\_A\_STATUS=1) is recorded | O | JRU | - | N/A | SB | - |
| 5 | 3 | 0.00 | N/A | SB | The Mode symbol "Stand By" is displayed | O | DMI | - | N/A | SB | - |
| **Feature 5040300:** 5.4.3: Table of requirements for 'Start of Mission' procedure  **Test Case 7:** The on-board equipment requests the driver to enter a driver ID within the scope of the Start of Mission procedure in SB mode when the status of the driver ID is unknown. | | | | | | | | | | | |
| 6 | 1 | 0.00 | N/A | SB | The Driver ID window is displayed | O | DMI | There is no value initially displayed (the status of the driver ID is unknown). | N/A | SB | - |
| 7 | 2 | 0.00 | N/A | SB | The Close button in the Driver ID window is disabled | O | DMI | - | N/A | SB | - |
| 8 | 3 | 0.00 | N/A | SB | The driver enters the "Driver ID" | I | DMI | - | N/A | SB | - |
| 9 | 4 | 0.00 | N/A | SB | Any message (NID\_MESSAGE\_JRU=ALL; DRIVER\_ID) is recorded | O | JRU | - | N/A | SB | - |
| **Feature 5040300:** 5.4.3: Table of requirements for 'Start of Mission' procedure  **Test Case 10:** Within the scope of the Start of Mission procedure in SB mode, the status of the ERTMS/ETCS Level data is INVALID. The driver selects a level (the existing ERTMS/ETCS Level or a new one). | | | | | | | | | | | |
| 10 | 1 | 0.00 | N/A | SB | The driver selects "Level 0/1/2/NTC" | I | DMI | Depending on the implementation, a list of available levels may be presented to the driver on the DMI. The driver is then allowed to select one level among the proposed levels.  For NTC levels, the abbreviations of the concerned National Systems shall be presented to the driver.  \_\_\_\_\_  The Driver selects LNTC | LNTC | SB | - |
| 11 | 2 | 0.00 | LNTC | SB | DRIVER’S ACTIONS (NID\_MESSAGE\_JRU=11; M\_DRIVERACTIONS=0010 0010/0010 0011/0010 0100/0010 0110) is recorded | O | JRU | - | LNTC | SB | - |
| 12 | 3 | 0.00 | LNTC | SB | Any message (NID\_MESSAGE\_JRU=ALL; M\_LEVEL=0/1/2/3) is recorded | O | JRU | - | LNTC | SB | - |
| **Feature 5040300:** 5.4.3: Table of requirements for 'Start of Mission' procedure  **Test Case 6:** Within the scope of the Start of Mission procedure in SB mode, the On-Board equipment offers the driver to select either SH or NL or ‘Train Data Entry’ before the on-board equipment requests the driver to enter a complete set of Train Data. The driver selects ‘Train Data Entry’. | | | | | | | | | | | |
| 13 | 1 | 0.00 | LNTC | SB | The Main window is displayed | O | DMI | Starting conditions  The driver can select either SH or NL or 'Train Data Entry'  The 'Non-Leading' button is enabled if the 'non leading' input signal is received. | LNTC | SB | - |
| 14 | 2 | 0.00 | LNTC | SB | The driver presses "Train Data" | I | DMI | - | LNTC | SB | - |
| 15 | 3 | 0.00 | LNTC | SB | DRIVER’S ACTIONS (NID\_MESSAGE\_JRU=11; M\_DRIVERACTIONS=0001 0100) is recorded | O | JRU | - | LNTC | SB | - |
| **Feature 5040300:** 5.4.3: Table of requirements for 'Start of Mission' procedure  **Test Case 47:** The on-board equipment requests the driver to enter a complete set of Train Data within the scope of the Start of Mission procedure in SB mode when the status of the Train Data is unknown (S12) | | | | | | | | | | | |
| 18 | 1 | 0.00 | LNTC | SB | The Train Data window is displayed | O | DMI | The on-board equipment requires the driver to enter all Train Data unknown by the on-board equipment and prevents the driver from performing any other actions.  The driver might be requested to enter:  - 'Train category(ies)',  - 'Traction / brake parameters',  - 'Maximum train speed',  - 'Loading gauge',  - 'Axle load category',  - 'Train fitted with airtight system' and  - 'Train length' only displayed (and can be modified if train data is flexible) if "safe consist length not captured as part of valid Train Data".  But the driver shall never be requested to enter:  - Train Data "safe consist length",  - 'Traction system(s) accepted by the engine',  - 'List of National Systems available on-board' or  - 'Axle number'. | LNTC | SB | - |
| 19 | 2 | 0.00 | LNTC | SB | The driver enters the "Train Data" | I | DMI | The Driver enters each Train data unknown on-board | LNTC | SB | - |
| 20 | 3 | 0.00 | LNTC | SB | The Train Data Validation Window is displayed | O | DMI | A complete set of valid Train Data is available | LNTC | SB | - |
| 21 | 4 | 0.00 | LNTC | SB | The driver validates the "Train Data" | I | DMI | The on-board equipment allows the driver to validate as soon as a valid and complete set of Train Data is entered. | LNTC | SB | - |
| 22 | 5 | 0.00 | LNTC | SB | DRIVER’S ACTIONS (NID\_MESSAGE\_JRU=11; M\_DRIVERACTIONS=0001 0101) is recorded | O | JRU | - | LNTC | SB | - |
| 23 | 6 | 0.00 | LNTC | SB | TRAIN DATA (NID\_MESSAGE\_JRU=2) is recorded | O | JRU | - | LNTC | SB | - |
| **Feature 5040300:** 5.4.3: Table of requirements for 'Start of Mission' procedure  **Test Case 46:** After the set of Train Data has been entered/re-validated by the driver (in S12), if the status of the Train running number is 'unknown', the ERTMS/ETCS on-board equipment requests the driver to enter the Train running number (S13) | | | | | | | | | | | |
| 25 | 1 | 0.00 | LNTC | SB | The current data value of "Train Running Number" is displayed | O | DMI | The displayed value of "Train Running Number" is empty as it is UNKNOWN. | LNTC | SB | - |
| 26 | 2 | 0.00 | LNTC | SB | The driver enters the "Train Running Number" | I | DMI | Entered Train Running Number: NID\_OPERATIONAL\_1 | LNTC | SB | - |
| 27 | 3 | 0.00 | LNTC | SB | TRAIN RUNNING NUMBER ENTERED BY THE DRIVER (NID\_MESSAGE\_JRU=49; NID\_OPERATIONAL=NID\_OPERATIONAL\_1) is recorded | O | JRU | - | LNTC | SB | - |
| **Feature 5040300:** 5.4.3: Table of requirements for 'Start of Mission' procedure  **Test Case 1:** The on-board equipment requests the driver to re-validate/enter a complete set of Train Data within the scope of the Start of Mission procedure in SB mode when level is 0/1/NTC (Subset-026-5.4.3.2 S12). The driver is requested to enter/re-validate the Train running number if the status of the Train running number is 'unknown' or 'invalid'. | | | | | | | | | | | |
| 28 | 3 | 0.00 | LNTC | SB | The Start button in the Main window is enabled | O | DMI | - | LNTC | SB | - |
| **Feature 5040300:** 5.4.3: Table of requirements for 'Start of Mission' procedure  **Test Case 15:** The driver selects 'Start' within the scope of the Start of Mission procedure in SB mode and in ERTMS Level NTC. | | | | | | | | | | | |
| 29 | 1 | 0.00 | LNTC | SB | The driver presses "Start" | I | DMI | - | LNTC | SB | - |
| 30 | 2 | 0.00 | LNTC | SB | DRIVER’S ACTIONS (NID\_MESSAGE\_JRU=11; M\_DRIVERACTIONS=0001 0011) is recorded | O | JRU | - | LNTC | SB | - |
| 31 | 3 | 0.00 | LNTC | SB | The Mode symbol "Acknowledge National System" is displayed | O | DMI | - | LNTC | SB | - |
| 32 | 4 | 0.00 | LNTC | SB | DMI SYMBOL STATUS (NID\_MESSAGE\_JRU=21; DMI\_SYMB\_STATUS=<Bit08=1>) is recorded | O | JRU | - | LNTC | SB | - |
| **Feature 4060300:** 4.6.3: Transitions Conditions Table  **Test Case 51:** The ETCS on-board equipment switches to SN Mode within the Start of Mission procedure. Transition Condition Id [58]. | | | | | | | | | | | |
| 35 | 3 | 0.00 | LNTC | SB | The driver acknowledges "National System" | I | DMI | - | LNTC | SB | - |
| 36 | 4 | 0.00 | LNTC | SB | DRIVER’S ACTIONS (NID\_MESSAGE\_JRU=11; M\_DRIVERACTIONS=0001 1100) is recorded | O | JRU | - | LNTC | SB | - |
| 37 | 5 | 0.00 | LNTC | SB | Any message (NID\_MESSAGE\_JRU=ALL; M\_MODE=13) is recorded | O | JRU | - | LNTC | SN | - |
| 38 | 6 | 0.00 | LNTC | SN | The Mode symbol "National System" is displayed | O | DMI | Info:  DMI Object: MO19 | LNTC | SN | - |
| 39 | 7 | 0.00 | LNTC | SN | DMI SYMBOL STATUS (NID\_MESSAGE\_JRU=21; DMI\_SYMB\_STATUS=<Bit34=1>) is recorded | O | JRU | - | LNTC | SN | - |

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| **Step 10: DMI Events**  **Distance 0.00 m** | | | |
| **Event Id.** | **Event Name** | **Data** | **Delay** |
| 29 | Request Change Level | LEVEL=NTC | 10 s |

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| **Step 11: DMI Events**  **Distance 0.00 m** | | | |
| **Event Id.** | **Event Name** | **Data** | **Delay** |
| 29 | Request Change Level | LEVEL=NTC | 10 s |

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| **Step 12: DMI Events**  **Distance 0.00 m** | | | |
| **Event Id.** | **Event Name** | **Data** | **Delay** |
| 29 | Request Change Level | LEVEL=NTC | 10 s |