# 8D Report #200494

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| **Project :** | ADA, Riyadh Metro Transit System&Consortium | **Awareness date :** | 23/03/2021 |
| **Platform :** | Turnkey Systems | **Opening date :** | 26/03/2021 |
| **Customer :** | ARRIYADH DEVELOPMENT AUTHORITY | **Update date :** | 18/10/2021 |
| **Supplier :** | ST Electronics | **Closing date :** | // |
| | | **Step :** | 6/8 |

| **Title :** | PEI - Unit not stable - loss of communication |
|---|---|

| D1 | Description |
|---|---|
| | Created by GEBSKI Miroslaw on 2021-03-26 |
| What, Where, How detected | Unit not stable - loss of communication |
| Why is it a problem | Train not authorized to go in service without PEI, Operational tests cannot be performed, should be solved before system demonstration and its impact for System demonstration and to start revenue service |
| How Many | See enclosed evidences |
| Objective to be reached | |
| Impacted Product (PBS) | 4. Communications \| 4.9. PA/PIS/CCTV Wayside \| 4.9.2. Passenger Information System |
| FBS | |

| D2 | Stakeholders | | |
|---|---|---|---|
| **Team leader** | GEBSKI Miroslaw | **Safety leader** | |

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|---|---|
| Region Site Solving | Europe | Region Projet | Africa Middle-East and Centr |
| Reporting Unit in charge solving the issue | TRA Katowice PL | Reporting Unit in charge of integration | TRA Katowice PL |

| D3 | Problem characterization |
|---|---|

| Provisional cost > 100K | | OTP reference | |
|---|---|---|---|
| Kx classification | K4 Out of revenue service | | |

| D4 | Containment |
|---|---|
| Start Date (D4-KPI) | Part/system have to be fully operational before System Demo in RIY. |
| Target start Date | 2021-07-15 |
| Start Date (D4-KPI) | 2021-07-15 |
| End of deployment | 2021-07-28 |

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| Progress / result / next steps for deployment | *Update by RANIPETA Mahaboob on 2021-07-28T00:00:00*<br><br>28/07/2021:Contianment action completed for the 3 types of PEI issues - See enclosed summary file with dedicated action for each subsystems inside PAPIS - Containment action under clarification between VBN/RIY/STEE 22-06-2021 Progress updated on file ver. 1.29 (enclosed) 28-05-2021 Progress updated on file ver. 1.25 (enclosed) 12-04-2021 Today analysis concentrate Hw issue IP PICU sub board failed 12-04-2021 Detailed action plan are present on enclosed follow up file -> Riyadh - Defects STEE products follow-up 27-04-2021 For PEI not working: RCA: HW issue: Component failure on PECU sub board. Containment: Replace the IP PICU board. For PEI power off: RCA: SQ issue (memory corruption) same as for Lucknow and Kochi project. Containment Re-program the board. To confirm with requirements in EN50150 compliancy |
|---|---|

## List of actions

| No | Actions (what?) | Resp. action (who?) | Due date (when?) | Date of completion |
|---|---|---|---|---|
| 1232811 | PEI speech not working: Replace the IP PICU board, 5 PEI Faulty | RANIPETA Mahaboob | 2021-07-31 | 2021-07-28 |
| 1232812 | PEI power off: Not to power off the train without using TCMS control | RANIPETA Mahaboob | 2021-07-31 | 2021-07-28 |
| 1232813 | PEI unstable: Replace PICU board with spares and to reinstall the software | RANIPETA Mahaboob | 2021-07-31 | 2021-07-28 |

| D5 | Root causes |
|---|---|
| Progress / result / next steps for deployment | *Update by RANIPETA Mahaboob on 2021-10-06*<br><br>05/10/2021: Investigation completed, root cause identified. The root cause for the PEI communication loss issue is due to the bad manual installation of the software. SW 5.6.0 is reinstalled before installation of 5.6.1 =>5.6.1 is installed in 3 trains, now under monitoring There are other 2 issues also reported for PEI : - PEI power off: Software design issue, Memory corrupted after shut down during write procedure - PEI unstable: Bad manual installation All issues are closed |
| Root causes Occurence | *Method - Plan not followed* |
| Root causes Non Detection | *, 2 - Validation issues* |

## List of actions to deploy the corrective solutions

| No | Actions (what?) | Resp. action (who?) | Due date (when?) | Date of completion |
|---|---|---|---|---|
| 1232810 | Software investigation and Hw issue IP PICU sub board failed to be investigated on remote session between on RIY/STEE 28-Sep-2021: 1. PEI speech not working: Hardware issue, component failure on PICU board 2. PEI power off: Software design issue : Memory corrupted after shut down during write procedure 3. PEI unstable: Bad manual installation | RANIPETA Mahaboob | 2021-08-31 | 2021-09-28 |

| D6 | Solution |
|---|---|
| What does the solution consist of? | Update of the PAPIS software STR 5.6.0 & STR 5.6.1 The new release STR 5.7.0 is also released by STE to fix other issues |
| Mod reference | |
| Target start Date | 2021-11-30 |
| Start Date (D6-KPI) | 2021-09-19 |
| % done | 100% on |

| List of actions to deploy corrective solutions | | | | |
|---|---|---|---|---|
| No | Actions (what?) | Resp. action (who?) | Due date (when?) | Date of completion |
| 1253961 | PAPIS version STR5.6.1 to be deployed on the full fleet | RANIPETA Mahaboob | 2021-10-31 | 2021-10-06 |

| D7 | Rex |
|---|---|
| List of recommendations | *Update by on* |
| Plateform concerned by Rex | |

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| Metiers concerned by Rex | |
|---|---|
| Impacted projects have been notified ? | |
| | |

| | List of actions to engrave the lessons learn | | | |
|---|---|---|---|---|
| No | Actions (what?) | Resp. action (who?) | Due date (when?) | Date of completion |