Chennai Metro Rail Limited
Tender Description: Design, Manufacture, Supply, Testing, Commissioning of Standard Gauge Metro Rolling Stock (78 cars) and Training of Personnel
Tender No. CMRL/PHASE II/SYS/ARE03/2020
Tender ID: 2020_CMRL_605069_1

Addendum No. 05

S. No.	Part / Section	Clause No.	Original Bid Condition	Revised Bid Condition
1	Part 2 - Section VI ERTS	20.6.6	Security i. The Contractor shall define procedures to ensure the security of the software configuration status and system during both the development and operation stages. ii. Other than just procedural control, built-in security facility / function (e.g. access control, anti-virus, firewall, any computer security standards to comply with – ("this is for AFC only", etc.) is essential for safety-related and bona fide systems (e.g. ATS and AFC). These should be added if they are not included in the Particular Spec. for the individual system.	Security The Contractor shall define procedures to ensure the security of all hardware, software, communication protocols, architecture, networks and data acquisition concepts of Rolling stock & its sub-systems during both the development and operation stages. Other than just procedural control, built-in security facility / function (e.g. access control, anti-virus, firewall, any computer security standards) to comply with aspects to be considered include and shall not be limited to: 1) Sabotage : The Contractor shall describe measures taken to protect all hardware, software, communication protocols, architecture, networks and data acquisition concepts of Rolling stock & its sub-systems against sabotage during the development and operational phase. This description shall define the physical restrictions as well as procedural measures and specific tests to be carried out on the train. 2) Unauthorised Access : The Contractor shall describe measures taken to protect all hardware, software, communication protocols, architecture, networks and data acquisition concepts of Rolling stock & its sub-systems against unauthorized access and subsequent modification. The description shall define both physical and procedural methods. 3) Virus : The Contractor shall ensure software which is susceptible to viruses is developed in environment certified free from computer viruses. To achieve this, the Contractor shall use propriety virus detection software and suppression tools, as reviewed by CMRL. Approval of the software tools by CMRL shall not relieve the Contractor of his obligations to ensure that the software is free of viruses. Other manipulation may be caused by malicious activity like intrusion, hacking, phishing, wireless signal jamming, physical tampering, damaging critical communication cable or nodes; accident or natural disaster. Security Levels shall be declared by RS contractor for all software used in Rolling stock. Security Plan: The Contractor shall submit the Security Plan to CMRL describing all the precautions mentioned above taken for the security of all hardware, software, communication protocols, architecture, networks and data acquisition concepts of Rolling stock & its sub-systems. The contractor shall comply IEC62443 and TS50701 (or any other International Standards) and prepare the Security Plan including Operational & Technical precautions / procedures taken as also incorporated in the system design to ensure necessary safety of the complete Rolling Stock sub-system including both Hardware & Software. The Contractor shall ensure that all the computer based systems in network are provided with latest anti-virus protection. This Security Plan must be regularly reviewed, updated and accepted through a process of security certification, access control, gateway security, communications security, physical security, accreditations and certifications. The RS contractor must demonstrate practically, the ability of the system to proactively detect, contain, eradicate and recover from a security breach in a real-time basis. The RS contractor shall define procedures for assured operations and continuous monitoring of the security controls.
2	Part 2 - Section VI ERTS	Appendix E : 1.6.1	Contractor shall supply the overhauling kits for two train sets. The price of overhauling kits for two train sets shall be included in the Contract. Overhauling kits for all those equipment, systems, sub-systems of trains that will need overhauling during intermediate overhaul of the train will be included in these kits. Contractor shall submit the list of such kits and if possible the details of the items in the kits in technical offer.	Contractor shall supply the overhauling kits for **One trainset**. The price of overhauling kits for **One trainset** shall be included in the Contract. Overhauling kits for all those equipment, systems, sub-systems of trains that will need overhauling during intermediate overhaul of the train will be included in these kits. Contractor shall submit the list of such kits and if possible the details of the items in the kits in technical offer.