

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
1	Part-1				Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder/OEM is registered with the Competent Authority. While participating in bid, Bidder or has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.	Subject Tender is funded by ADB. Existing Tender condition prevails
2	Part-1				Reference to DPIIT's approved and authorized nodal ministry DoT's order dated 29.8.18, Clause no. 16 Table – A, that minimum local content of the offered product (Nodal Ministry Notified items - L2/L3 Switches) against the RFP should be 60 %. We understand in compliance to MII policy which is applicable on the current tender, Nodal ministry notification to meet minimum local content of 60% against Ethernet Switches needs to be adhered to. We understand Ethernet switches need to have minimum local content of 60% which are to be quoted in the bid.	Subject Tender is funded by ADB. Existing Tender condition prevails
3	Part-1			Reference to DPIIT's approved and authorized nodal ministry DoT's order dated 29.8.18, Clause no. 16 Table – A, that minimum local content of the offered product (Nodal Ministry Notified items - L2/L3 Switches) against the RFP should be 60 %.	We understand in compliance to MII policy which is applicable on the current tender, Nodal ministry notification to meet minimum local content of 60% against Ethernet Switches needs to be adhered to. Bidder need to submit form-I which is to be declared by the OEM as per prescribed format of DPIIT's approved ministry notification dated 29.08.18 claiming to meet the local content of 60%. Kindly confirm.	Subject Tender is funded by ADB. Existing Tender condition prevails
4	Part-1	General		C3&5-ASA06-IFB: Deadline for submission of Bid - 29 April 2023	The tender has a requirement of 10 different stages and complex interfacing requirements between different stations, OCC, BCC and Temporary OCC, including Cyber security requirements for Phase 2 corridors. In order to submit a competitive and complete Bid, more time is required. It is hence requested to extend the Bid submission date by another month to 20 May 2023	Please refer Corrigendum No- 1.
5	Part-1	IFB	6	Last date for seeking pre-bid clarifications: 16 Mar 2023 up to 15:00 Hrs.	For a complex Tender like this which has 8 stages and integration of OCC/BCC facilities need more time to raise queries. Request Employer to extend the deadline for submission of Tender queries to 31 March 2023 from the current 16 March 2023	Last date for seeking pre-bid clarifications was extended till 23 Mar 2023 up to 15:00 Hrs as per pre-bid meeting held on 16 Mar 2023.
6	Part-1	Section-I	20.1	This authorization shall be in the form of a Power of Attorney included in the Technical Bid.	We understand that bidder can use their own format of Power of Attorney. Kindly confirm.	Yes, Bidder can use valid format of POA.
7	Part-1	Section-I	4.1	4.1 A Bidder may be a natural person, private entity, or government owned enterprise subject to ITB 4.5—or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture.	1. We request you to clarify the total no of entities allowed for forming JV / Consortium for this bid. 2. JV can be formed between Foreign bidder & Local bidder.	1. Please refer Part 1 EQC 1.7 Other Criteria. 2. Please refer Part Section – I, ITB 4.2 Eligible Bidders, Part-1.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
8	Part-1	Section-I	ITB 2.1	The Borrower or Recipient (hereinafter called "Borrower") indicated in the BDS has applied for or received financing (hereinafter called "funds") from the Asian Development Bank (hereinafter called "ADB") towards the cost of the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Document is issued.	The Borrower specified in the BDS has applied for or received a Loan from New Development Bank (hereinafter referred to as NDB), towards part of the cost for the project specified in the BDS  We would like to know whether the Loan is approved and received by ADB (ASIAN DEVELOPMENT BANK) for CMRL Package ASA06.	Please refer Part-1, Section – I, ITB 2. Information will be shared to the successful Bidder.
9	Part-1	Section-II	10.Price Bid:	The Price bid for item of works will be in Excel format and shall be downloaded by the bidder and shall quote his prices against each Price Centre item which shall be inclusive of all taxes, duties etc.	It is requested to kindly confirm the following: 1.BOCW is excluded in all taxes, duties. 2.GST & custom is excluded in all taxes, duties. Kindly confirm.	1.Tender condition prevails. 2.Please refer Addendum-1.
10	Part-1	Section-II	ITB 14.5	Bidder shall use the Indices as per 'Schedule of adjustment data of Part 1 – Section IV – Bidding Forms and to fill their proposed weightings against each of the variable components in the Schedule of adjustment data within the range indicated against each item therein. This filled-in Schedule of adjustment data shall be uploaded along with Letter of Price Bid as part of Financial Bid	As you would be aware, the overall BOQ shall be freezed during the Deisgn phase, we may not be able to arrive at the requisite percentage. Hence, Kindly request you to allow to submit the "Schedule of adjustment data" during the Signing of Contract Agreement.	Not agreed. Tender condition prevails.
11	Part-1	Section-II	ITB 35.1	The date for the selling exchange rate shall be: 28 days prior to the stipulated date of submission of the Bid.	We understand that the Stipulated date of Submission of Bid is the "ACTUAL" date of Submission of Bid. Kindly confirm.	It is the last date for bid submission, as finally amended through an addendum, if any. Refer Addendum.
12	Part-1	Section-III	EQC 1.1.1	The following credentials are required for Cyber Security Expert: CISO, CISSP, CISM, CISA, CSSA certificates or equivalent.	As you would be aware, the following certifications are combination standards, Technical expertise, It is requested to kindly amend the clause as follow:  The following credentials are required for Cyber Security Expert: <b>CISO/ CISSP/CISM/ CISA/ CSSA certificates or equivalent.</b>	Please refer Addendum -1
13	Part-1	Section-IV	16	The Name and Designation of Officer for submission of Bid Security, Bid document cost, Pre bid Meeting and for clarification Purposes is : Deputy Advisor (Signaling & Telecom) Chennai Metro Rail Limited METROS, No.327,	Request CMRL to kindly confirm that the address for Bid security, Bid document, cost submission is correct.	Yes.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				Anna Salai, Nandanam, Chennai - 600035 Telephone: +91 44 24378288 Email: sankaramurthi.appu@cmrl.in		
14	Part-1	Section-IV	3.Bid security	We have been informed that [name of the Bidder] (hereinafter called "the Bidder") has submitted to you its bid dated [please specify] (hereinafter called "the Bid") for the execution of [name of contract] under Invitation for Bids No. [please specify] ("the IFB").	Request CMRL to kindly amend the clause to read as follows due to the changing nature of Bid submission date: "We have been informed that [name of the Bidder] (hereinafter called "the Bidder") has submitted to you their Bid dated as stated in their "Letter of Price Bid" (hereinafter called "the Bid") for the execution of [name of contract] under Invitation for Bids No. [please specify] ("the IFB")	Tender condition prevails.
15	Part-1	Section-IV	Price Centers B,C,D1,D2,E1,E2,F,G,H1 and H2: 9.1.19	The 'Detailed design for Telecommunication systems' for CMRL PHASE II - CORRIDOR 3 (Sholinganallur to SIPCOT 2) & CORRIDOR 5 (From Koyambedu Market Metro to Sholinganallur) are specified under Part-2, Employer's requirements, Drawings and Specifications but not limited to the following: (i) Complete functional specifications for various sub-systems such as FOTS, ISMS, PIS, PAS/PIDS, CCTV, ACIDS, Telephone, CDRS, Clock system(MCS), TSCADA (Telecom SCADA) etc. for complete Contract, for the entire Corridors 3 & 5	Kindly confirm if there is any scope of T SCADA in Corridor 4.	T-SCADA is under ASA-06 scope for entire corridor 3,4,&5 telecom systems
16	Part-2	General	General		Overall Scope of Metro Bhawan HQ has been clarified. Please clarify that installation & commissioning of all telecom subsystem equipment for the complete building of Metro Bhawan HQ is in scope of the current tender. Kindly confirm	Please refer additional clause 1.4.1.2 in Addendum-1. Please refer response in S.No. 36 for PAS integration.
17	Part-2	Section-VI A	1.2 Appendix-15	The Spare Parts to be supplied by the Contractor shall consist of: a) Contract Spares (as hereinafter defined); b) Commissioning Spares (as hereinafter defined); and c) Defects Liability Spares (as hereinafter defined).	It is requested to add the clause as follow : The left out spares from contract & commissioning portion can be carried forward and utilized as DLP spares	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
18	Part-2	Section–VI A	1.2.1.2	the Special Tools and Test Equipment to be supplied by the Contractor as part of the Works to suit each stage. Such list shall be an amplification and confirmation of the list supplied with the Tender, which have been subsequently modified during the Tender period, and shall be amended as necessary to reflect changes in design that may have occurred since the date of the Letter of Acceptance.	We understood, Bidder is responsible to supply special tools listed in Appendix - C of Particular Specifications only. Kindly confirm.	Bidder shall supply the Special Tools and Test Equipment mentioned under Appendix-C, Part-2, Section VI-B, Technical Specifications. This list shall be amended as necessary to reflect changes in design that may have occurred since the date of the Letter of Acceptance.
19	Part-2	Section–VI A	1.4	Prior to the issue of the Taking over Certificate for the Project, the Contractor will be given extended possessions of the Railway Envelope for the purposes of final adjustment, tightening, touching up or cleaning up prior to the final inspection of the Works. Such possessions shall be agreed with the Employer in accordance with the procedure set out in this Document.	We understand that there is no any major deviation while final adjustment and it is expected to be minor at the level without involving any extra supply and services. Kindly confirm.	Tender condition prevails
20	Part-2	Section–VI A	10.1 Authentication	PKI-based (strong authentication) shall be implemented based on the environment addressed. For the different core network solutions, some of the following methods shall be used: OTP, token, PKI certificate, smartcard, biometric, machine certificates.	Please elaborate more on smartcard and machine certificates requirement and it's use case	General specification Appendix 19 ISS Cyber Security covers the overall Cyber security guideline for CMRL Phase 2 project. For Specific requirements of subject package , please refer Part-2, Section – VI B (Technical Specifications) Chapter 16. Bidder needs to consider Cyber Security Expert as part of this tender. The Cyber security policy will be covered during detailed design along with CMRL and should be approved by the Engineer. Authentication requirements for telecom systems are covered under Part-2 Technical specifications. Bidder to consider this solution accordingly.

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
21	Part-2	Section–VI A	10.10 Application Security	10.10.1 Implemented Services and Applications shall follow industry best practices for secure development:	We Understand that all the Implemented Services and Applications should follow industry best practices which mentioned under this section "10.10 Application Security" and its doesn't required any additional security solution. Kindly confirm.	Bidder to be propose ISS&Cyber security solution considering threats in the metro industry.
22	Part-2	Section–VI A	10.7.3 Separation of duties	d. Centralized management for servers and network devices shall be implemented separately in each of the autonomous networks, based on industry recognized NMS (e.g., HP Open View, Cisco Works) and centralized monitoring system that will collect the alerts from the entire NMS system through a diode, to build integrated visibility.	It is Requested to kindly remove references to HP Open View and Cisco Works, as these are third party NMS solutions. Kindly confirm that the requirement is for Bidder to implement common sub-system level NMS for covering the respective sub-system equipment in C-3,C-4,C-5.	ISS and CS system to interwork with NMS of under lying CMRL network for all corridors for security.NMS requirements for telecom systems are covered under Part-2 Technical specifications
23	Part-2	Section–VI A	12.14.2	The Contractor shall ensure the timely preparation of the Testing & Commissioning Plans in a format and to a level of detail as agreed with the Engineer. The Contractor shall submit the first draft of the Testing and Commissioning Plans to the Engineer for his initial comments within 90 days of the Effective Date of <b>LOA/date of commencement</b> .	We understand that the " <b>Date of LOA</b> " and " <b>Date of Commencement</b> " is same. Kindly confirm.	Please refer Addendum-1
24	Part-2	Section–VI A	12.7 Construction Phase OHS & E Plan	12.7.1 Occupational Health and Safety Plan (OH&S) 12.7.3 Site Safety Plan	The requirements of both clause 12.7.1 & 12.7.3 are similar. Instead of submitting two separate plans meeting the requirement of both clauses only one of the clause should be retained under which the bidder will submit the site safety plan, preferably clause 12.7.3 should be retained and clause 12.7.1 can be removed.	Please refer Addendum-1
25	Part-2	Section–VI A	6. Project Management and Information System	6.2 Document Management System, (5) Geo-referencing of the alignment, (6) Geo-referencing co-ordinates of assets into a geographic information system (GIS) which the Contractor's Monthly Progress Report has utilized,	Kindly confirm that GIS tool is part of PMIS system/Document Management System that shall be made available for use by Telecom Contractor.	Geo-referencing co-ordinates available and can be used for making monthly progress report
26	Part-2	Section–VI A	7.2 Bidder's Cyber Security Professional Team	7.2.1 Bidder personnel dedicated to cyber security. The Bidder shall recruit and employ dedicated professional personnel to handle cyber security issues throughout all project phases (planning and design, assimilation, operation and maintenance) under the Cyber Security Expert . 7.2.2 Additional personnel dedicated to cyber security. The providers of	Considering 5 resource for this requirement as mentioned below. Kindly confirm if manpower quantity is fine for this RFP requirement. If additional resources required, kindly confirm on the same. Cyber Security Expert - 1 personnel Information Security lead: Total 3 personnel for each system [Rolling Stock, Signaling and Train Control, Central Back bone network and IT network infrastructure] Security Manager - 1 personnel	One Cyber security Expert required as per Clause 1.1.1 Part-1 - EQC

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				the following systems and disciplines shall each appoint an Information Security lead: a. Rolling Stock. b. Signaling and Train Control. c. Central Back bone network and IT network infrastructure at OCC/BCC. 7.2.4 The Security Manager together with the providers' Information Security leads, shall comprise the Bidder's Information Security team throughout all phases of the Chennai Metro Project.		
27	Part-2	Section–VI A	8.5.3 Information Security requirements for design outputs	d. Anti-malware, EDR, anti-spam, anti-spyware, etc. software shall be installed on all computers.	It is requested to Kindly specify the no of computers which software(Anti-malware, anti-spam, anti-spyware, etc. software)has to be installed.	Minimum 1500 including Servers,desktops and laptops.However the exact number will be covered during detailed design
28	Part-2	Section–VI A	Appendix 16 3.2.2	The Contractor is deemed to have ascertained for himself the full scope of his responsibilities and obligations under the Contract in terms of attendance on and coordination with Interfacing Contractors and shall not be entitled to any additional payment, Cost or extension of time for completion should he have failed to do so.	It is requested to clarify the following : If in case any payment is due for interfacing contractors & causing delay then the contractor of ASA06 should not be responsible for the cost/payment and associated delay. Kindly confirm.	Tender condition prevails. Please refer Part-3, section-VIII, PC61 - 8.7.4
29	Part-2	Section–VI A	Appendix 19 10.10.9	The Physical Security Information Management (PSIM) and Incident Management System (IMS) shall be capable of interfacing with SIEM solution.	Who is responsible for interfacing all the other subsystems with SIEM/SOAR or any other security solutions ?	ASA06 contractor to propose Cyber Security System design and implement it for all 3 corridors of CMRL Phase-II telecom and other interfaces as described in this tender scope.
30	Part-2	Section–VI A	Appendix 19 10.9.7	A device control solution shall be implemented, including applying customized security policies over all physical, wireless and storage interfaces (e.g., USB, modem, Wi-Fi, Bluetooth, and external hard drives).	Suggesting to change it as USB control	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
31	Part-2	Section–VI A	Appendix 19 14.1.2	The Bidder shall periodically (every 24 months as a minimum) conduct a cyber risk assessment in order to assess the capability of an external or an internal hacker to compromise the project systems, network and applications.	The frequency of risk assessment is given as every 24 months as minimum.Is there any timeline expected for submission of the reports / key risk findings / KRIs/Risk Treatment Plans to the Management ?	Please refer revised bid condition 16.20.1 and 16.20.2, Section VIB, Part-2 in Addendum -1
32	Part-2	Section–VI A	Appendix 19 7. 2.1	Bidder personnel dedicated to cyber security. The Bidder shall recruit and employ dedicated professional personnel to handle cyber security issues throughout all project phases (planning and design, assimilation, operation and maintenance) under the Cyber Security Expert	Does it mean - Bidder needs to set up Chief Information Security Office functions with adequate qualified resources converging all the functional requirements of Information Security Management like Risk Management, Security Monitoring,Policy development, deployment, monitoring, Policy Compliance , Security Management functions like Change Management, PAM approvals etc as per CMRL requirements as specified in Appendix 19 document. Where will they be located ?	Bidder needs to consider Cyber Security Expert as part of this tender. The Cyber security policy will be covered during detailed design along with CMRL and should be approved by the Engineer. The ISS&Cyber security solution will be deployed at OCC/BCC for all the corridors and their respective interface to monitor and manage and periodical risk assessment and policy enforcements approved by the Engineer during the detailed design.
33	Part-2	Section–VI B			Scheme-The telecom equipment( EPABX/ IPPBX) being procured comes under the purview of DOT governed by Govt. of india to ensure security of the nation and the Metro. Union Government of India has issued strict guidelines under a policy called “Preferential Market Access” (PMA)( The Notification No. 18-10/2017-IP dated 29th August 2018) , as notified by the Ministry of Communications & IT, to give preference to Domestically Manufactured Telecom products in Public procurement funded by Central Government .We request you to kindly incorporate the said notification/policy in the tender.	Tender condition prevails.
34	Part-2	Section–VI B			As per Telecommunications Engineering centre(TEC) Server Media Gateway based IP PBX should be TEC-GR certified product , so we requested to kindly include TEC-GR certificate should be enclosed against the bidding product.	Tender condition prevails.
35	Part-2	Section–VI B		List of total no. of platform supervisory booth at all stations.	Details required as list of total number of PSB is not mentioned.	Please refer clause 3.6.11.15 and refer 3.6.5.1.4 clause revised bid condition in Addendum-1

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
36	Part-2	Section–VI B		Please confirm the number of lifts at Kovilambakkam Metro station	In lift schedule at Kovilambakkam Metro station 4 lifts are mentioned but for the same in architecture drawing 5 lifts are visible. Street level plan is not inline with concourse level plan.	At kovilambakkam metro station lifts quantity as follows: Ground to Concourse-3 Concourse to Platform-2
37	Part-2	Section–VI B		PAS Connectivity	PAS Connectivity in the complete building of Metro Bhawan HQ considered as part of this contract or there is existing PAS network for Metro Bhawan HQ which needs to be integrated.	The Contractor shall integrate with existing building PA system by providing required speaker lines along with speakers in rooms as per clause 1.4.1.2 in Addendum-1.
38	Part-2	Section–VI B		Contract spares	Pls confirm, there is no contract spares required in Telephone system system, under this package.	Please refer Part-3, Section - VIII Particular Conditions 27 for details and LRU Definition in chapter 1 of Part-2, Section – VI B (Technical Specifications)
39	Part-2	Section–VI B			<p>We observed that there are no display clocks for passengers in the middle of platform or for train operator at platform end-to-end for smooth &amp; timely operation of metro trains.</p> <p>Requesting your kind attention for addition of outdoor clocks at Platform as per following suggestion.</p> <p><b>Suggestion:</b></p> <ul style="list-style-type: none"> <li>- Double sided analogue display clocks of 60 cm dial diameter with automatic turn on / turn off LED illumination features at selected (configurable) hours.</li> <li>Or Double sided digital display clocks (100 mm digit height) in the middle of the platform for passengers to be visible in all lightening conditions &amp;</li> <li>- Single sided digital display clocks (170mm digit height) in Platform end-to-end diagonally for train operators.</li> </ul>	Tender Condition Prevails
40	Part-2	Section–VI B			Own chipset provide robust control over the camera's software (firmware, cyber security & patches for security vulnerabilities) and also to avoid Chinese origin cameras to gain backdoor entry access into the camera and access sensitive & crucial video footage to external spying agencies & Chinese govt. agencies.	Please follow tender conditions. Refer ITB 4, 5 and Section 5 in Part-1 tender document.
41	Part-2	Section–VI B			<p>Additional Clause</p> <p>The Intellectual Property Rights (IPR) of CCTV Cameras to be supplied against this tender do not reside in China or from a country which shares a land border with India. CCTV CAMERAs to be supplied against this tender are not manufactured by an entity in which the majority shareholding (&gt;50%) of the entity is from China or from</p>	Please follow tender conditions. Refer ITB 4, 5 and Section 5 in Part-1 tender document.



**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
					a country which shares a land border with India. These clauses are added and coming in most of latest Govt tenders viz. ITI, UP Police, Delhi Police, ONGC Uran etc. to avoid Chinese origin cameras to gain backdoor entry access into the camera and access sensitive & crucial video footage to external spying agencies & Chinese govt. agencies.	
42	Part-2	Section–VI B	1.10.1.1	d) A separate integrated test facility including all equipment's to be installed at Admin building of Poonamallee Depot (Offline Integration test platform/Telecom Lab and Offline Integrated Testing Lab of Signaling). These small test set-ups should be capable to demonstrate various functionalities for all Telecom systems and meet our above requirements. This test set-up to be functional and should be handed over to employer after integrated testing.	Kindly confirm for FOTS if Integration Test Platform and Telecom Lab is one of the same this or different one as accordingly BOQ need to be considered	Clause Self explanatory. One set of equipments are required at integrated test lab facility.  Integrated Test Platform is to test Telecom interfaces with Signalling, through simulation of field conditions/train running. Please refer appendix-D for details.
43	Part-2	Section–VI B	1.10.1.1	(d) A separate integrated test facility including all equipment's to be installed at Admin building of Poonamallee Depot (Offline Integration test platform/Telecom Lab and Offline Integrated Testing Lab of Signaling). These small test set-ups should be capable to demonstrate various functionalities for all Telecom systems and meet our above requirements. This test set-up to be functional and should be handed over to employer after integrated testing.	It is requested to Kindly confirm for FOTS if Integration Test Platform and Telecom Lab is same or different.Kindly confirm	Clause Self explanatory. One set of equipments are required at integrated test lab facility.  Integrated Test Platform is to test Telecom interfaces with Signalling, through simulation of field conditions/train running. Please refer appendix-D for details.
44	Part-2	Section–VI B	1.10.1.1	(d) A separate integrated test facility including all equipment's to be installed at Admin building of Poonamallee Depot (Offline Integration test platform/Telecom Lab and Offline Integrated Testing Lab of Signaling). These small test set-ups should be capable to demonstrate various functionalities for all Telecom systems and meet our above requirements. This test set-up to be functional and should be handed over to employer after integrated testing.	Kindly confirm Integration Test Platform and Telecom Lab are the same or different.	Clause Self explanatory. One set of equipments are required at integrated test lab facility.  Integrated Test Platform is to test Telecom interfaces with Signalling, through simulation of field conditions/train running. Please refer appendix-D for details.

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
45	Part-2	Section–VI B	1.4.1.1	1. Temporary OCC (@ Poonamallee Depot) a. All Workstations and Consoles in Temporary OCC Room b. CER-01 (Equipment Room for Temporary OCC) c. Telecom Maintenance Management Room d. Integrated Testing and Commissioning Lab 2. Permanent OCC (@ Madhavaram Depot) a. OCC Room b. Incident Management Room c. Telecom Maintenance Management Room d. Security Control Room	Please confirm, is there any requirement to create temporary BCC as well along with Temporary OCC in Poonamallee Depot ? Because in general practice temporary setup of either OCC or BCC shall be created to operate the system from central location and when temporary OCC moved to permanent location then Permanent OCC and BCC build.	Temporary OCC & BCC at Poonamallee Depot is to be commissioned as part of this tender and will be shifted to OCC at Madhavaram which is to be implemented during Stage 4b and BCC at Nandanam Metros which is to be implemented during Stage 4a . This needs to be considered as part of this tender. Please refer Addendum -1 for revised bid condition
46	Part-2	Section–VI B	1.4.1.1, Pg 398	Temporary OCC & BCC at Poonamallee Depot is to be commissioned as part of this tender and will be shifted to OCC at Madhavaram which is to be implemented during Stage 4b and BCC at Nandanam Metros which is to be implemented during Stage 4a . This needs to be considered as part of this tender. All Centralized Telecom Facilities for the following locations shall be under the scope of this contractor.  1. Temporary OCC (@ Poonamallee Depot) a. All Workstations and Consoles in Temporary OCC Room b. CER-01 (Equipment Room for Temporary OCC) c. Telecom Maintenance Management Room d. Integrated Testing and Commissioning Lab 2. Permanent OCC (@ Madhavaram Depot) a. OCC Room b. Incident Management Room c. Telecom Maintenance Management Room d. Security Control Room	As per RFP, Test Lab will remain in Temporary OCC i.e. at Poonamallee Depot and will not be relocated to permanent OCC i.e. Madhavaram Depot. Kindly confirm.	Integrated Offline Testing Lab/Telecom Lab is permanently located at Poonamallee Depot.
47	Part-2	Section–VI B	1.4.1.1.(m)	1)OCC & BCC shall be common for all three corridors of CMRL phase II i.e. Corridor 3,4 & 5. OCC shall be located at Madhavaram and BCC shall be located at Nandanam Metros.	Request CMRL to kindly confirm the various suppliers and protocols used in ASA05 tender and the likely suppliers of ASA08 tender for Integration of OCC/BCC and Temporary OCC as required by the ASA06 Tender. Although the requirements of the tender states that the interface shall use open standards protocols, many a time,	Refer Clause 18.10.14 Technical Specifications Scope of Allocation matrix for more details.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				2)ASA06 Contractor Telecommunication shall provide interface with above systems using open standards protocols for seamless operations.	practically, these are not possible to integrate. CMRL, as a common Employer for all packages, to kindly advise how these interface problems can be resolved without overly burdening the ASA06 Bidder.	
48	Part-2	Section–VI B	1.4.4	<p>Relevant Codes and Standards:-</p> <p>95) Specification for OFC-IRS TC/55:2006</p> <p>108) Common Test Methods for cables under fire conditions – test for resistance to vertical flame propagation for a single insulated conductor or cable – apparatus- EN 60332-1-2:2004+A112016, EN 60332-2-2:2004</p> <p>109) Common Test Method for cables under fire conditions - Test for vertical flame spread of vertically mounted bunched wires or cables - procedures – category A F/R- EN 60332-3-22:2009</p> <p>110) Common test methods for cables under fire conditions – tests on gases evolved during combustion of materials from cables – procedures – Determination of the amount of Halogen acid gas.- EN 60754, BS EN 60754-1:2014</p> <p>111) Common test methods for cables under fire conditions – Measurement of smoke density of cables burning under defined conditions - Procedure EN 61034-2:2005+A1:2013</p>	<p>95) IRS TC/55:2006 does not contains cable construction details of 144 fibre OFC.We understand that OFC shall be armored (Corrugated Tape) OFC and shall comply the mechanical and environmental properties as per mentioned in 15.2.5, 15.2.6 &amp; 15.2.8. Kindly Confirm.</p> <p>We understand that OFC is to be installed in underground/tunnel areas along the track on cable tray &amp; same tray will also carry the electrical cable in it. We understand that outer sheath of the cable shall be of LSZH type and shall also comply the fire test as mentioned in clause 1.4.4.1 ( 108,109,110 &amp;111) of Part_2; Part-2, Section – VI B (Technical Specifications) along with clause 15.1.2.2(Flammability), 15.1.2.3 (Fire Resistance), 15.1.2.4(Corrosive and Acid Gas Emission) &amp; 15.1.2.5 (Smoke Emission) . Kindly Confirm.</p>	<p>Tender condition prevails.</p> <p>For Cable laying details please refer clause 1.13.6.4.</p> <p>Cable to be laid inside HDPE duct using the cable Hangers/ L angle support provided by the civil contractor at Elevated/At grade/Tunnel area.</p> <p>Within the station primary containment trays provided by MEP contractor can be used.</p> <p>IRS TC/55:2006 is for 24F armoured cable which is part of this tender scope.</p> <p>Please refer revised bid condition 15.2.1.1, Section-VI B, Part-2 in Addendum 1.</p>
49	Part-2	Section–VI B	1.5.5 Cabling work	<p>BCC shall be exact replica as redundant set up of OCC Telecom sub system set up.</p> <p>All equipment shall work in active-active mode (Hot standby). In case of unavailability of OCC equipment, the redundant equipment in BCC will take over without any human intervention and without any service failure / disruption to the end user. Contractor need to elaborate in Detailed design on different failure scenarios.</p> <p>As per technical requirement mentioned in GS &amp; PS all the Telecom sub systems Servers , controllers , consoles, HMIs , NMS work</p>	Kindly share the expected RPO and RTO values for data replication between OCC and BCC.	<p>Please follow tender conditions.</p> <p>Please refer additional clause 1.7.1, Part-2, Section-VIB in Addendum 1.</p>

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				stations, Client Terminals , telecom Equipments , end devices , licenses , software , firm ware , switching & processing capacity , and corresponding interfaces provisioned for OCC , same shall be replicated in BCC.		
50	Part-2	Section–VI B	1.5.5.2	<p>ASA-06 shall provide the main cable (144 C Fiber optic cable) along the Track side in their relevant section including the C5 area between Virugambakkam Metro and Mugalivakkam Metro.</p> <p>ASA-06 shall also extent the 144 Fibre to the TER/CER of the</p> <ol style="list-style-type: none"> <li>1. Boundary station managed by ASA-08.</li> <li>2. Interchange station managed by ASA-05 to link between corridor 5 &amp; 3.</li> </ol> <p>Any connectivity requirements, to OCC Madhavaram and BCC at Nandanam Metros to be considered by the ASA06 Contractor from TER/CER of nearby station or Depot.</p> <p>Telecom services like camera for Signaling point machines etc., in the boundaries with other Telecom packages in viaduct/tunnel to be provided by ASA06 contractor. Actual requirements will be covered during design.</p>	It is requested to consider the following: Please drop 144 core fiber cable on alternate stations between Virugambakkam Metro and Mugalivakkam Metro as the requirement is only to extend the fiber cable between these two station. Fiber connectivity is already provided on all the station by ASA-05 between Virugambakkam Metro and Mugalivakkam Metro station. Kindly confirm on the same.	Tender Conditions prevails. This will be examined during detail design
51	Part-2	Section–VI B	1.6.3 Availability Requirements & 6.1.4.5	Detailed availability requirements are given CCTV System (99.95%) & The availability requirement of CCTV equipment shall better than 99.977%	Clause 1.6.3 & 6.1.4.5 are contradictory (99.95% Vs 99.977%). Suggest to consider 1.6.3 (99.95%) for CCTV availability. Kindly conform	Please refer Addendum-1.
52	Part-2	Section–VI B	1.8.9.3	All systems provided shall be modularly expandable to an expansion capacity of 25% by the addition of cards and/or modules without the need to replace the installed hardware and software of the system as a minimum.	It is requested to Kindly confirm if this clause is applicable to Modular L3 Switch only for FOTS & OAIT system.	Please refer additional clause 9.2.5.6 in Addendum-1
53	Part-2	Section–VI B	10.1.1.1	The Telephone System shall provide the CMRL Phase II, Corridor 3&5 staff with voice, fax and data communications between CMRL personnel internally and also externally to the PSTN on IP PBX Exchange.	we request you to, Kindly provide the minimum BOQ	This tender is based on Design and Build. Bidders need to propose quantities for complying all tender requirements.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
54	Part-2	Section–VI B	10.1.1.3	The provision of Media gateways inside depot shall be provided as part of this tender by Telecom Contractor	we request you to kindly amend as gateway shall be from same OEM of IPPBX as 3rd party gateway will have a challenge for the support in future and seamless integration.	Please refer Addendum-1.
55	Part-2	Section–VI B	10.1.1.3	The provision of Media gateways inside depot shall be provided as part of this tender by Telecom Contractor .	Kindly provide the no. of Analog phones required in Madhavaram Depot to consider the provision of media gateway inside depot.	Please refer Depot building drawings for the estimation of BOQ, contractor shall make reasonable assumptions in arriving at the BOQ.
56	Part-2	Section–VI B	10.1.3.2.1	10.1.3.2.1 The Voice Over IP telephone communication system shall provide telephone lines over IP network using proven protocols such as H.323, SIP etc. for stations. The system shall ensure instant, uninterruptible, real-time audio/video communication between key points, such as between OCC & BCC and different key locations like all Station Control Rooms (SCR), Auxiliary Sub Station (ASS), each signalling equipment room, telecom equipment room at stations and depot, between adjacent/interfacing station control rooms, between station control room and DCC as a minimum.	protocols such as H.323, SIP etc. for stations. TO BE CHANGED TO protocols such as H.323/ SIP etc. for stations	Tender Condition prevails
57	Part-2	Section–VI B	10.1.3.2.1	The Voice Over IP telephone communication system shall provide telephone lines over IP network using proven protocols such as H.323, SIP etc. for stations. The system shall ensure instant, uninterruptible, real-time audio/video communication between key points, such as between OCC & BCC and different key locations like all Station Control Rooms (SCR), Auxiliary Sub Station (ASS), each signalling equipment room, telecom equipment room at stations and depot, between adjacent/interfacing station control rooms, between station control room and DCC as a minimum.	we understand the solution can be provided based on H.323 or SIP open standard protocols. Please clarify	Tender Condition prevails. Actual implementation methodology will be decided during detail design

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
58	Part-2	Section–VI B	10.1.3.2.2	The IP PBX network shall be equipped with VOIP SIP phones and network switches and other related hardware and software such that it shall provide sufficient bandwidth and processing speeds to allow low delay, jitter and echo free, high quality, low latency audio/video communication over IP network.	we request you to kindly amend as VOIP SIP as VOIP SIP/IP shall be from same OEM of IPPBX as 3rd party phone will have a challenge for the support and does not provide the adequate feature as required in tender.	Tenderer needs to interface and integrate with ASA-05 and ASA-08 supplied phones using Open standards as part of this contract.
59	Part-2	Section–VI B	10.1.3.4.3	Centralized Digital Recording System for recording of free space voice conversations of all Controllers in DCC Room, OCC,BCC and Security Room at OCC/BCC.The micro phones of free space voice recorder shall be so placed in DCC to enable clear recording of all controller positions without any mixing / disturbance.	FSR is only to be provided at OCC, BCC and Depot and NOT at Stations. Kindly clarify.	FSR needs to be provided at OCC, BCC and Depots only. Please refer revised bid condition in Addendum-1.
60	Part-2	Section–VI B	10.1.3.5.1	The Telephone Common Network Management System (NMS) main at OCC and redundant at BCC with Maintenance Supervisory Console, Keyboard with common Log Printer Server and associated printers, shall be provided by Telecom Contractor.Corridor 3,4&5 Telephone system and network shall be interfaced preferably with Common NMS by using open standards and all features and functionality shall be ensured. If contractor fails to interface with common NMS, separate NMS may be provided.	kindly amend the same, The NMS for the Telephone system should be from Same OEM of IPPBX system for better manageability and monitoring, backup and restore the system database etc.	Please refer Addendum-1
61	Part-2	Section–VI B	10.2.2.2.3	The Contractor shall integrate with existing exchanges available at Nandanam Metros (Metro Head Quarter), Phase 1 and Phase 1 ext Telephone System for seamless communication via standard protocols.	For "Integration with existing exchange", kindly provide the make and model of existing exchange at Phase 1 and Phase 1 ext. Please also clarify the interfaces/licensing availability will be provided by the existing contractor for these telephone systems.	Please refer Addendum-1
62	Part-2	Section–VI B	10.2.2.2.3	The Contractor shall integrate with existing exchanges available at Nandanam Metros (Metro Head Quarter), Phase 1 and Phase 1 ext Telephone System for seamless communication via standard protocols.	Please specify the number of interface channels to be taken into account and the kinds of interaction protocols that are allowed by the current exchanges.	Please refer Addendum-1

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
63	Part-2	Section–VI B	10.3.2 Direct Line Communication System	10.3.2.5.2 It shall be configured in hot standby configuration such that no single failure should affect the availability of the system. Or Bidder may propose Virtualized solution by having all services applications, Database, Management servers including other system applications in Virtualized manner to optimize the solution hardware etc. as per bidder design.	Please clarify the virtualization solution can be proposed for Direct Line Communication System Only ( OR ) can be proposed for all telecom sub-system applications, databases, management servers for optimizing the solution hardware	Virtualization can be proposed without compromising the functional and other performance parameters
64	Part-2	Section–VI B	10.3.2.1.2	The Direct Line Communication system shall be logically independent of the IP PBX network on the CMRL Phase II network by creating separate VLAN and managing QOS in FOTS switch level.	We understand that the communication server is common for DLT and IP PBX, and the VLAN and managing QoS will be assigned to end equipment and gateways at switch level. and priority is given to DLT end points.Please confirm	VLAN managing QoS will be done at FOTS switch level for DLT end points.
65	Part-2	Section–VI B	10.3.2.1.3	The Direct Line Telephones shall be single button selection connected to OCC & BCC so that an audible alarm is sounded and the location of the calling telephones is displayed on appropriate console at OCC & BCC. At the locations other than the OCC & BCC, Direct Line Telephones shall be terminated on IP telephone sets. Consoles shall be provided with single button selection for each direct line connection.	It is requested to Kindly confirm that the Direct Line console is MMI/HMI based or the Phone Instrument based.	Please refer Clause 10.3.2.2.3 and 10.3.2.2.5 in Addendum-1
66	Part-2	Section–VI B	10.3.2.2	Direct Line Console	kindly confirm that the Direct Line console is MMI/HMI based on the Phone Intrument based.	Please refer Clause 10.3.2.2.3 and 10.3.2.2.5 in Addendum-1
67	Part-2	Section–VI B	10.3.2.2.1	Direct Line Consoles shall be provided by other designated Contractor at OCC & BCC for each of the controllers.	It is requested to Kindly clarify whether DLC is a part of ASA-06 Telecom Contractor or not.	Please referAddendum-1
68	Part-2	Section–VI B	10.3.2.2.1	Direct Line Consoles shall be provided by other designated Contractor at OCC & BCC for each of the controllers.	Kindly confirm the scope of supply for direct line console and quantity of Controllers.	Please refer Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
69	Part-2	Section–VI B	10.3.2.2.1	Direct Line Consoles shall be provided by other designated Contractor at OCC & BCC for each of the controllers.	As Direct line consoles requires special features which any 3rd party console cannot support , so to meet CMRL requirement , it is requested to change it to " Direct line consoles shall be provided by the same OEM at OCC & BCC for each of the controller".	Please refer Addendum-1
70	Part-2	Section–VI B	10.3.2.2.2	10.3.2.2.2 Contractor shall interface for ensuring Console functionality if different OEM by using open interface standards and subscriber equipment shall be fully compatible to achieve all features of Direct Line Console. Detailed interface plan shall be prepared jointly with other Telecom Contractor.	Pls. explain "if different OEM" . As per our understanding DLC console and DLC main application software must be from same OEM.	Tenderer is responsible for interfacing and integration of all subscribers with DLC Using Open interface standrads.Please refer Addendum-1
71	Part-2	Section–VI B	10.3.2.4.1	Help points: f) Telecom contractor shall interface with Help points systems which are provided by other telecom contractors	We understand that the Help Points interface license for ASA05 and ASA08 also needs to be considered here. Please confirm.	Licences need to be considered for the entire phase-2 Telephones as part of ASA06 including integration.However phones will be supplied by ASA-05 and ASA-08 for their respective section.
72	Part-2	Section–VI B	10.3.2.4.1	(f) Telecom contractor shall interface with Help points systems which are provided by other telecom contractors	Please provide technical spec. and total qty. of Help Point phones which are provided by other contractors	Interface will be SIP based for Help Points supplied by other contractors. Help points to be provided one per platform as per clause 10.3.2.4. Please also refer 10.3.2.4.1.
73	Part-2	Section–VI B	10.3.2.4.2	Emergency Telephones at cross passages in Tunnels and shall be provided by other designated contractors having underground sections in their scope. ASA- 06 Contractor shall provide media gateways with long line cards to interface with Emergency phones in tunnels.	kindly confirm that the Emergency phone is industrial Grade and required with Hooter/ buzzer and Flasher	Emergency Telephones shall be provided by other designated contractors for tunnel section.(ASA-05 and ASA-08).
74	Part-2	Section–VI B	10.3.2.4.2	Emergency Telephones at cross passages in Tunnels and shall be provided by other designated contractors having underground sections in their scope. ASA-06 Contractor shall provide media gateways with long line cards to interface with Emergency phones in tunnels.Call originated from Emergency Telephones from tunnel area shall be landed in nearest station's SCR phone, in case phone in SCR gets unattended in defined and	Please provide technical spec. and total qty. of emergency phones provided by other contractor for previous tenders i.e. C4-ASA05	Emergency Telephones shall be provided by other designated contractors for tunnel section.(ASA-05 and ASA-08).  Every 250mtr Emergency phones to be installed in UG tunnels(Refer alignment drawings for actual quantity).



**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				configurable time duration then same call will be re-routed to controller's phone in OCC /BCC		Please refer revised bid condition for clause 10.3.2.4.2 in Addendum-1
75	Part-2	Section–VI B	10.3.2.4.2	Emergency Telephones at cross passages in Tunnels and shall be provided by other designated contractors having underground sections in their scope. ASA 06 Contractor shall provide media gateways with long line cards to interface with Emergency phones in tunnels	1. kindly confirm that the Emergency phone is with industrial Grade and required with Hooter/ buzzer and Flasher 2. we understand that the emergency telephones are supporting analog interface , Please confirm	1.Emergency Telephones shall be provided by other designated contractors for tunnel section.(ASA-05 and ASA-08). 2.Emergency telephones are supporting analog interface.Please refer Addendum-1
76	Part-2	Section–VI B	10.3.2.5.2	The IP PBX Call Management Server shall be provided by Telecom Contractor, in hot redundant configuration, will be placed at OCC with the redundant part at the BCC and should be configurable in two different subnets. It shall be configured in hot standby configuration such that no single failure should affect the availability of the system. Or Bidder may propose Virtualized solution by having all services applications, Database, Management servers including other system applications in Virtualized manner to optimize the solution hardware etc. as per bidder design. In such case Subsystem/system redundant software shall be residing in separate server other than primary application server which should work in Hot standby mode.	We understand that the hot redundant setup needs to be supplied between the OCC and BCC sites and not within the locations. Please clarify	Please refer additional clause 1.7.1, Part-2, Section-VIB in Addendum 1.
77	Part-2	Section–VI B	10.3.2.7	For IP PBX network it is envisioned that a group of 4 stations shall be connected in a ring topology and the IP PBX at OCC & BCC shall be main node forming a Star topology in effect. Each group shall be connected to the main node of OCC & BCC directly on Ethernet link in redundant configuration	We understand that this is applicable for FOTS network ports that are connected to end-user telephone devices. Please confirm.	Please refer additional clause 1.7.1, Part-2, Section-VIB in Addendum 1 and revised bid condition for clause 10.3.2.7 in Addendum-1
78	Part-2	Section–VI B	10.3.2.7.5	The maximum traffic interruption time on any circuit due to link, node or any other failure shall be less than 150 ms.	This condition may be applicable for TDM circuits. For SIP phones , if connectivity is lost , it takes more time to re-register to the call server. Please confirm if this condition is applicable for IP interfaces/Phones as well.	Tender condition prevails

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
79	Part-2	Section–VI B	10.4.2.3.3	As part of threat isolation and tracking provision for IP Network, MAC/IP tracing associations for troubleshooting and intrusion control is required. Isolation of networks based on such assessments should be possible from IP Network NMS to contain potential threats.	This clause is more relevant with FOTS system, request you amend the same under Telephone system chapter.	Please refer Addendum-1
80	Part-2	Section–VI B	10.4.2.3.6	The Telephone Network Management Systems shall support for integration with other OEM systems	As we understand the below, The telephone system shall support the same OEM NMS only, it can integrate with other OEM system as SCADA, IP phones etc, kindly confirm.	Telephone NMS needs to be integrated as part of this contract with T-SCADA. Any other integration will be covered during detail design
81	Part-2	Section–VI B	10.4.5	Telephone Matrix	Please share station wise Total qty. of each type of phones	Refer amended table 10.4.5 in Addendum-1.
82	Part-2	Section–VI B	11.2	Scope of Work Provision of separate Layer 2 at station, RSS & depot including for OA&IT network. Core switch for OA&IT inclusive is in the scope of Telecom Contract GE IP backbone ring shall be of minimum 2.5 Gbps capacity. Also maximum number of stations per ring shall not exceed 10 stations	As the Standard the same FOTS technical specification has been asked for OAIT. Does this refer to the Core switch as chassis based and WAN switches similar to FOTS WAN Switches. The 1Gig Backbone for OAIT is sufficient. Request to change 2.5G capacity backbone to 1G.	Tender condition prevails.
83	Part-2	Section–VI B	11.2.2	All personal computers, printers and servers for data storage and related application software are not included in scope of the communication Contractor except one number of workstation per SCR.	As per the RFP, Bidder has to supply "one number of workstation per SCR" only. No. of OAIT PC given in HMI position table, we need not to supply. Kindly confirm.	One OAIT workstation is required at each station and also one as per HMI positions. Please refer Appendix G, Section VI B, Part-2.
84	Part-2	Section–VI B	11.4 System Description	11.4.2 The OA / IT network shall be extended to all locations / rooms in stations, , RSS. Contractor shall provide 2 separate ports at middle of each platform, 2 ports at each entrance, 2 ports in concourse area. OA&IT Network shall have separate Distribution/ and access layer as required. The contractor to ensure that there should not be any single point of failure. The Contractor shall provide One number of workstation in SCR, Two 24-port switches (One in TER and one in SCR all L-	It is requested to kindly confirm that monitoring of OA/IT endpoints, end user equipment such as office IT and servers is excluded from Bidder's scope or not.	OAIT NMS shall monitor all equipments supplied under ASA-06 and other telecom packages as per the interface requirements.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				2) at each station. Specifications of the switch(L-L-2) shall be as provided in the FOTS specification. A separate NMS for OA/IT with all hardware and software shall also be supplied.		
85	Part-2	Section–VI B	12.1	This Chapter specifies the Particular Technical and performance requirements of the Centralized Digital Recording system. The Digital Recording System Records and Archives calls on Telephones and FSR provided in OCC, BCC ,Depots and Corridor 3,4 and 5 Stations of CMRL Phase II.	Please confirm that the PAS and radio recording is not included in the scope of this tender	Radio Recording is part of ASA-07 contract.However interfacing with Radio is part of this contract.PAS recording is covered as part of CCTV chapter 6.1.3.3.5
86	Part-2	Section–VI B	12.7 CDRS NMS	12.7.8 The NMS shall have self-diagnostic feature.	It is requested to amend the clause as this is a feature of third party NMS which may be removed under scope of CDRS NMS.	Tender Condition prevails .
87	Part-2	Section–VI B	13.1.3	13.1.3 Telecom SCADA shall also provide relevant data / information, which would enable the maintenance staff to assess the need for unscheduled Preventive Maintenance based on the degradation of normal operating parameters. Following equipment shall be controlled and monitored through their respective Servers and NMS at OCC / BCC: i. Fibre Optic Transmission System-FOTS ii. Office Automation and Information Technology - OAIT. iii. Integrated Security Management System- ISMS iv. Closed Circuit Television System -CCTV v. Access Control and Intrusion Detection System- ACIDS. vi. Centralised Passenger Information System- PIS vii. Public Address System-PAS. viii. Passenger Information Display System-PIDS ix. Telephone System-TEL x. Master Clock System -MCK xi. Radio System-TETRA	It is requested to Kindly confirm that SITC of NMS for xi. Radio System and xiii. AFC is not under the scope of ASA 06.	Integration with T-SCADA is required.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				xii. Central Digital Recording System-CDRS xiii. Automatic Fare Collection System-AFC		
88	Part-2	Section–VI B	15.2.1.3	Optical Requirements–Single Mode Fibe	We understand that single mode fibre shall G.652.D fibre and its parameters shall be as per latest TEC 89010:2021 (RAW MATERIAL FOR MANUFACTURING OF OPTICAL FIBRE CABLE). Kindly Confirm.	Please refer revised bid condition in Addendum-1 for clauses 9.2.4.11 and 15.2.9.1
89	Part-2	Section–VI B	15.2.10 & 15.2.10.1	All patch cords(or jumpers) and pigtails shall be fitted with one type of high quality optical connector such as FC/PC connectors for the single mode patch cord/pigtail at the factory.	It is Recommended to use LC type connector instead of FC/PC connectors. As LC type connector has better quality than FC/PC connector.	Please refer Addendum-1.
90	Part-2	Section–VI B	15.6 Mounting Brackets and Secondary Fixtures 15.6.1	The mounting brackets, Secondary Fixtures for CCTV, PIDS, PAS, Clocks and other Telecom equipment and mounting accessories should be manufactured from AISI316L stainless steel, these accessories shall be designed to meet every mounting requirements in the most severe and corrosive environments along with aesthetics requirement of station / building architecture.	Recommend to amend the fixture and bracket material to be used Galvanized steel or GI with Powder Coating instead of AISI316L Stainless Steel.	Please refer Addendum-1
91	Part-2	Section–VI B	15.7 Specification & Model no of special tools & Instrument	Cable Fault Locator & Cable Route Detector Technical Specifications not provided in the RFP	Request to share the minimum specifications to identify the correct instrument which fulfills the functionality	Prior to procurement, the full details & specifications of the proposed models to be proposed, for obtaining Notice of No Objection from the Engineer.
92	Part-2	Section–VI B	15.7.4	Optical Light Source:- Calibration: NIST traceable	We request to modify the clause as below: Calibration: Manufacture's calibration	Tender Condition prevails
93	Part-2	Section–VI B	15.7.4.6	Calibration: NIST Traceable	It is requested to amend the clause as : <b>Calibration: Manufacturer's calibration</b> for wider participation of OEM (NIST is US standard and few OEM only will comply).	Tender Condition prevails

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
94	Part-2	Section–VI B	15.7.6	OTDR:- OPM Range: +6 to -70dBm(+6 to -60dBm 850nm)	We request to modify the clause as below: OPM range: +10 to -65 dBm N.B: The optical power range given in the tender is proprietary in nature and made by a specific manufacturer. By changing the range from +6 to -70 dBm to +10 to -65 dBm will not affect or or hamper any activity in the field. Furthermore, it will give entry to more manufacturer and help for better negotiation.	Bidder can propose suitable model based on solution requirements
95	Part-2	Section–VI B	15.7.6.13	OPM range: +6 to -70 dBm	It is requested to amend the <b>power range: +6 to -60 dBm</b> for wider participation of OEM (Ideally -60 dBm itself represents zero power and no system works beyond this)	Bidder can propose suitable model based on solution requirements
96	Part-2	Section–VI B	16.1.1 and Appendix 19-6.8	"The proposed solution have the potential to be scaled in the future...."	Could we have the indicative current base level of number of Users / IT Infrastructure/Servers/End Points etc and the projected requirements for the next 3 years based on CMRL growth. This would help in Sizing/Capacity Planning of the system requirements	General specification Appendix 19 ISS Cyber Security covers the overall Cyber security guideline for CMRL Phase 2 project. For Specific requirements of subject package , please refer Part-2, Section – VI B (Technical Specifications) Chapter 16. Bidder needs to consider Cyber Security Expert as part of this tender. The Cyber security policy will be covered during detailed design along with CMRL and should be approved by the Engineer. As part of ISS & Cyber security, Bidder has to implement the solutions for the Phase 2 Telecommunication Infrastructure. Bidder has to size his solution to address Telecom equipments for 113 stations and 2 depots.
97	Part-2	Section–VI B	16.10.1	Applications, databases and services shall not run with full operating system privileges and shall be granted the minimum required privileges. Databases shall not be granted admin privileges.	It is Requested to kindly confirm the total numner of applications and databases needed to be protected & confirm the loctions where the applications will get hosted.	Applications covered for various telecom systems of all the 3 corridors of entire CMRL Phase-II as covered in the Part-2 Technical specifications. This will be covered during detailed design.

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
<b>S. No.</b>	<b>Part</b>	<b>Section</b>	<b>Clause</b>	<b>Original Bid Condition</b>	<b>Bidder's Query</b>	<b>Response</b>
98	Part-2	Section–VI B	16.10.13	The application or a security solution above it shall have proper and secure session management to protect the sessions from unauthorized access, modification or hijacking.	It is Requested to kindly confirm the total number of concurrent internal and external users who will be accessing these applications	The concurrent session can be minimum of 200. However, this will be covered during detailed design. CMRL Operations systems administrators
99	Part-2	Section–VI B	16.10.4	File transfers shall take place using secure application protocols like SFTP, HTTPS or TCP/IP with SSL.	It is Requested to kindly confirm whether SSL certificate will be a scope of this RFP or CMRL will share it.	SSL is part of this RFP. It should be taken by the bidder in the name of CMRL
100	Part-2	Section–VI B	16.11 Monitoring [SIEM]	16.12.3 Critical security controls shall be built for resilience and high availability.	Please confirm if the SIEM solution needs to be deployed in HA at all the location (e.g.. - DC and DR). If Yes, do CMRL need HA at all the layers or only for Collection layer?	The applications will be deployed at OCC and BCC,covering all the three corridors.
101	Part-2	Section–VI B	16.11 Monitoring [SIEM]	General	It is requested to kindly confirm the existance of Chennai Metro CSOC already exist and contractor (MSI) only require to propose SIEM for CMRL and Manpower is not required for 24/7 SOC Monitoring. Kindly confirm Kindly confirm the number of EPS or equivalent GB per day usage to size SIEM solution	NO existing CSOC in CMRL. Bidder shall propose ISS&CS solution at OCC and BCC. OCC,BCC will be monitored by Operation teams of CMRL. Number of EPS will be considered during detail design
102	Part-2	Section–VI B	16.11.10	SIEM platform shall be implemented for centrally collecting, analyzing and correlating generated audit information. The correlation engine shall be capable of generating real time alerts (SMS, email) and reports for detected suspicions events and security violation.	It is Requested to kindly confirm the number of locations (e.g. - DC-1 and DR-1 and branches-10) from where the log will be collected.	The applications will be deployed at OCC,BCC ,depot and stations as per the Tender scope, covering all the three corridors.
103	Part-2	Section–VI B	16.11.11	The Physical Security Information Management (PSIM) System and the Incident Management System (IMS) shall be capable of interfacing with the SIEM solution in the Metro System, using standard interfaces such as syslog or equivalent.	It is Requested to kindly share the details of PSIM and IMS solution details like - Make and Model etc.	Bidder to propose OEM's considering scope requirements of the tender.
104	Part-2	Section–VI B	16.11.12	SIEM collectors shall be installed in the operational networks. The unidirectional transmission of the SIEM data shall be secured.	It is Requested to kindly confirm the total number of Operational Networks from where the logs needed to be collected & confirm whether all the Operational Networks are connected to the OCC and BCC	All 3 three corridors and the interface systems are connected to OCC/BCC.

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
105	Part-2	Section–VI B	16.11.6	Security event logs shall be generated and kept for each device and system and shall be sent to Security Information and Event Management (SIEM) for further analysis, correlation, and evaluation in order to identify and respond to suspicious activity. The event logs shall be kept for a minimal period of 1 (one) year	The Log retention is mentioned however, please suggest and provide details for how long online and offline Logs availability needs to be factored Also please suggest sustained and peak EPS (Event Per Second) or details of per day data ingestion (GB/day) this is important for SIEM licencing also this will help us to license and size the solution appropriately.Kindly confirm.	Solution with licenses and storage to be factored for 6 months online and 12 months offline thereafter rewriting on the offline data
106	Part-2	Section–VI B	16.12.1	Contingency plans shall be developed, documented and maintained to ensure the essential level of service shall be provided following any loss of processing capability or destruction of IT Systems. All systems shall have Disaster Recovery (DR).	It is Requested to kindly confirm, all the security solutions need to deploy on both OCC and BCC for high availability & confirm whether the HA will be Active- Active or Active-Passive	The ISS and Cyber security solution to be deployed at both OCC/BCC in redundant configuration. The redundancy model will be covered during detail design.
107	Part-2	Section–VI B	16.12.4 Backup	16.12.4 Backup – The backup shall maintain the same security policy (confidentiality, integrity and availability) on the backed-up data as on the operational environment. Backups of sensitive data shall have strong encryption and key management. The system shall include the capability to back up and restore all security-relevant data. Processes for secure handling of backup media shall be developed and implemented. Backups shall be kept in at least two separate locations (OCC/BCC). One of the backup copies shall be kept as an offline backup. Bidder shall propose automatic backup mechanism along with a provision for manual backup. 16.12.5 Each environment shall be individually backed-up.	Kindly provide the data protection policy with backup schedule of full and incremental, data retention policy if any specific.	This will be done during detail design
108	Part-2	Section–VI B	16.12.5	Each environment shall be individually backed-up.	It is Requested to kindly give more inputs in this point	Please follow tender conditions.
109	Part-2	Section–VI B	16.12.6	Metro System security shall comply with RAM requirements.	It is Requested to kindly give more inputs in this point	Please follow tender conditions.
110	Part-2	Section–VI B	16.13	Data Loss Prevention	It is Requested to kindly confirm the no of computers, servers and Laptops to be protected with the DLP solution	This will be covered during detailed design. Minimum of 1500 End points can be considered.

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
<b>S. No.</b>	<b>Part</b>	<b>Section</b>	<b>Clause</b>	<b>Original Bid Condition</b>	<b>Bidder's Query</b>	<b>Response</b>
111	Part-2	Section–VI B	16.13 Data Leak Prevention (DLP)	8.3.4 Endpoint (data-in-use) agents or clients shall run on internal end-user Workstations and DC servers. End point shall be used to control information flow between groups or types of users.	It is requested to Kindly specify the no of Workstations & DC servers location wise which DLP has to be installed.	Minimum 1500 including Servers, desktops and laptops. However, the exact number will be covered during detailed design
112	Part-2	Section–VI B	16.13.14	The solution should support Email DLP in on prem for the Email Exchange, All licenses required for the same should be included and management should be from the same centralized management platform	It is Requested to kindly confirm the following: centralized management console deployed on both OCC and BCC. Total number of mail boxes for the Email DLP Average number of email spent in single day.	Solution is centrally deployed at OCC/BCC. The actual requirements will be covered during detailed design
113	Part-2	Section–VI B	16.13.9	The solution should provide the single policy and reporting view for all the Network and Endpoint DLP channels. DLP solution should detect and prevent content getting posted or uploaded to specific websites, blogs, and forums accessed over HTTP, HTTPS. The solution should be able to enforce policies by URL's, domains or URL categories either natively or by integrated Web Security solution. The solution should be able to monitor FTP traffic including fully correlating transferred control information and should be able to monitor IM traffic even if it's tunneled over HTTP protocol.	It is Requested to kindly confirm whether the data is already classified or needs to classify the data & share the amount of data needed to be classified (eg:100 GB, 1 TB)	This will be covered in detail design. Bidder needs to provide suitable solution
114	Part-2	Section–VI B	16.14.2	The requirements listed below shall be complied throughout the Chennai Metro Project. a) All sensitive digital information (any information that is protected against unwarranted disclosure, such as IP schema, low level designs) shall be encrypted. b) Sensitive information shall be stored in encrypted and compartmentalized folders, accessed only by users with access authorizations. c) Remote access shall be allowed via VPN secured communication only. d) Anti-malware, EDR, anti-spam, anti-spyware, etc. software shall be installed on all	It is Requested to kindly confirm the disk encryption is required for only for the laptops. If yes please confirm the total number of laptops and its operating system details, else please help us with the total number of devices needed to be encrypted	Please refer Addendum-1



**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				computers,Servers and Laptops. e) Personal firewalls shall be installed on personal computers. f) Laptop disks shall be encrypted. g) The level of Information Security shall be monitored in accordance with the requirements defined by CMRL.		
115	Part-2	Section–VI B	16.14.8	The following non-exhaustive list describes types of security threats related to the Metro System identified during the Initial Risk Analysis: f) Threat prevention and management shall pertain to all known threats at the time of delivery such as the following: Access rate control; Authentication bypass; ARP poisoning; Broken access control; Brute force login; Buffer overflows; Cross site scripting; Cross site request; Data Loss Prevention (DLP); Directory traversal; DHCP spoofing; DNS poisoning; Forms tampering; Hidden field manipulation; Session hijacking; SQL injection; Site reconnaissance; Schema poisoning; XML parameter tampering; WSDL scanning.	It is Requested to kindly confirm the total no of internet-facing applications and internal applications and where it has hosted.	AFC and OAIT systems require internet and will be hosted at OCC and BCC via FOTS and OAIT Firewalls
116	Part-2	Section–VI B	16.2 and 16.3	16.2 Security Services and Infrastructure 16.3 Authentication & Identification [IDAM/PAM Solution]	We understand that as part of ISS and Cyber Security, bidder has to design SIEM,Application & Data Security, IDAM /PAM, Pen Test, AV, EDR, DLP, AAA,NAC and NG-FW,IPS & IDS systems.For the high level design, sizing, capacity requirements, we may need the indicative Sizing requirements in terms of volume of data Ingress/Egress points, Security Event Logs, User Base, End Point Devices, number of Servers, Interfaces, storage systems, projected data traffic, any other location for Data Centre , Secondary Data Centre, preferred location of NOC/CSOC functions. (other than the OCC/BCC location as mentioned in the Bid document). Kindly provide the same.	OCC/BCC will have ISS&Cyber security solution for entire corridors of Phase -II and its interfaces as mentioned in the tender scope. As part of ISS & Cyber security, Bidder has to implement the solutions for the Phase 2 Telecommunication Infrastructure. Bidder has to size his solution to address Telecom equipments for 113 stations and 2 depots.
117	Part-2	Section–VI B	16.2 Security Services and Infrastructure	General	It is requested to Kindly provide the minimum BoQ for each cyber security solution.	This tender is based on Design and build requirement. Contractor needs to propose design with quantity complying all tender conditions

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
118	Part-2	Section–VI B	16.20.1	Periodic Cyber Risk Assessment A. The Bidder shall conduct an Initial cyber risk assessment prior to the design phase. B. The Bidder shall periodically (every 24 months as a minimum) conduct a cyber risk assessment in order to assess the capability of an external or an internal hacker to compromise the project systems, network and applications.	It is Requested to kindly help us with the asset list needed to be assessed prior to the design phase & help us with the cyber risk assessment scope of work for CMRL	Please refer Addendum-1
119	Part-2	Section–VI B	16.20.2	Penetration Testing (PT) A. The Bidder shall periodically conduct a PT (multiple testing) in order to assess the capability of an external or an internal hacker to compromise the project systems, network and applications. The PT shall comply with the following requirements: a. PT for critical components of the Chennai Metro – every 12 months. b. PT for non-critical components – every 18 months.	It is Requested to kindly confirm the number the critical and non-critical components of the chennai Metro & also confirm whther the PT will be White box, Black box or Grey box	Please refer Addendum-1
120	Part-2	Section–VI B	16.21.6	All designs and infrastructure shall be verified by an independent Cyberseurity agent engaged by the Bidder, preferably empanelled by CERT-India" "The Telecom systems shall comply therequirements of the periodic cybersecurity audits from independent agencyn engaged by the Employer	Does it mean - Bidder should have an independent Cybersecurity Audit Agency engaged and CMRL shall have another independent Cyber security audit engagement for periodical audits ?	Please refer Addendum-1
121	Part-2	Section–VI B	16.22.4	Data retention The data which shall be transferred by the transfer server shall include TSCADA data, CCTV footage , System Logs, IOT sensor data, data transfer requirements of from other systems installed in FOTS/OAIT network like Automatic Fare collection, Electrical and Mechanical system.	Data retention for activity logs / security event logs for all systems- specification need to be provided.	Data retention for activity logs / security event logs for all systems can be 6 months online and 12 months offline thereafter rewriting on the offline data. The actual data retention method will be covered during detail design.
122	Part-2	Section–VI B	16.3 Authentication & Identification [IDAM/PAM Solution]	General	It is requested to Kindly provide the details as follow: 1.how many applications will be integrated with Identity and Access Management solution for Single Sign-On (SSO) functionality 2.Total number of expected users for Identity and Access Management Solution and	Tender condition prevails. This will be covered during detail design

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
					<p>expected YoY growth.</p> <p>3.In each application which will be integrated with IAM, expected user base per application</p> <p>4. Applications Type (Web/ Thick Client/Thin Client) which will be integrated for SSO</p> <p>5.What will be YoY expected growth in user base per application wise?</p> <p>6.What is the Directory used (like open LDAP, MS AD etc.)</p> <p>7.Whether newly joined users will be first onboarded on Identity and Access Management solution (IAM) or respective client application</p> <p>8.Whether any external users (like vendors, citizens, etc.) need to access the applications through SSO</p> <p>9.the number of environments required for this project such as (DC, DR, UAT, and SIT etc.). Also, whether HA is required in the Production and DR site kindly confirm</p> <p>10.Any homegrown applications that have to be integrated with IAM. If yes, does the client has a development team for integration in homegrown applications</p> <p>11.Required authentication modes (password/OTP/DSC etc.) for this project.</p>	
123	Part-2	Section–VI B	16.3 Authentication & Identification [IDAM/PAM Solution]	General	<p>It is requested to Kindly provide the details as follow:</p> <p>All the applications which need to be integrated with the Identity and Access Management solution for Single Sign-On functionality supports SAML 2.0 and OpenID protocols or not. The number of users who would be using IDAM/PAM Solution. Number of Applications to be onboarded on IDAM/PAM Solution. Number of Devices to be onboarded on IDAM/PAM Solution. These details will help to formulate the hardware sizing The station will have site to site connectivity to the main DC, HA and DR location. the firewall quantity requirement for both OCC &amp; BCC</p> <p>3rd party vulnerability assessment requirement and time period to do the same.</p>	<p>SSO with IDAM/PAM Solution to cover minimum 250 users. Solution will be deployed at OCC/BCC with redundancy and all the 3 corridors are connected to it.The actual requirements will be considered during detail design.</p> <p>For Risk assessment and PT refer revised clause 16.20.1 ,16.20.2 and 16.21.6 in Addendum 1</p>
124	Part-2	Section–VI B	16.3.11	User identification and authentication shall take place at the network, device, application, and/or device/software level. A user shall be restricted from establishing a secure data exchange without first being identified and authenticated by at least two authentication factors.	It is Requested to kindly confirm the preferred second factor authentication.	Authentication requirements for telecom systems are covered under Part-2 Technical specifications. Bidder to consider this solution accordingly.
125	Part-2	Section–VI B	16.3.12	The identification service shall be based on a managed directory implemented separately in each one of the System's independent networks.	It is Requested to kindly confirm, Whether the IDAM ad PAM deployed in individual locations or centralised DC and DR.	It is a central Cyber Security solution at OCC/BCC

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
126	Part-2	Section–VI B	16.3.3	PKI-based (strong authentication) shall be implemented based on the environment addressed. For the different core network solutions, some of the following methods shall be used: PKI certificate, smartcard ,Biometric, machine certificates	It is Requested to kindly share more information on smartcard and machine certificates requirement and it's use case	Authentication requirements for telecom systems are covered under Part-2 Technical specifications. Bidder to consider this solution accordingly.
127	Part-2	Section–VI B	16.3.34	Proposed solution should be on-premises and should be capable of supporting 100% user capacity at any given point of time.	It is requested to kindly confirm the total number of users to be considered on day one for PAM and IDAM.	SSO with IDAM/PAM Solution to cover minimum 250 users
128	Part-2	Section–VI B	16.3.43	The solution should protect home-grown and/or third-party applications.	It is Requested to kindly confirm do these applications support SAML.	Please follow tender conditions.
129	Part-2	Section–VI B	16.3.7	Passwords should be changed frequently. Password history shall be used	It is Requested to kindly confirm In how many days the password required to change	Please refer Addendum-1
130	Part-2	Section–VI B	16.4.1	Multi-layered and zone-based network architecture meeting updated industry standards shall be adopted to ensure secure and strong segregation between various environments	It is Requested to kindly confirm the total no of devices and users present in each and every environment Request you to confirm the no of segregated environments	This will be covered during detailed design
131	Part-2	Section–VI B	16.4.16	The Information System shall limit the concurrent sessions for each System account.	It is Requested to kindly confirm the concurrent session limit for each account.	The concurrent session can be around 200.However this will be covered during detailed design
132	Part-2	Section–VI B	16.4.2	The core networks of FOTS & OAIT shall be separated physically. The other systems Interfaces like signaling, AFC, rolling stock will be interfaced with FOTS network. The actual requirements will be taken up during the detailed design.	It is Requested to kindly confirm whether the NAC will be pysicaly deployed for both FOTS & OAIT	NAC will be physically deployed for both FOTS and OAIT network as they are two separate application networks.
133	Part-2	Section–VI B	16.4.22	The solution should be able to evaluate endpoints connect behind an unmanaged switch. This capability would be required to support customer's ecosystem. Until user/device is authenticated and system's security posture is evaluated, access to the network should not be provided from endpoints which are connected to unmanaged switch.	It is Requested to kindly remove this point because it is inclining towards a specific OEM.	Bidders need to consider solution to authenticate all the end points connected to CMRL Phase-II network.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
134	Part-2	Section–VI B	16.4.8	Privileged user access shall be managed with Privileged access management	It is Requested to kindly confirm the number of privileged users to be on boarded in PAM solution	Privileged users can be considered minimum 50.
135	Part-2	Section–VI B	16.5	Network Security – [Next Generation Firewall Solution]	With reference to the points mentioned in specifications, 16.5.4, 16.5.42-16.5.46 - It is recommended to have a dedicated IPS layer over the single layer security of NGFW with multiple solutions loaded on single appliance. Preference to be given to Multi-Layer Security as a industry best practice.	Tender condition prevails
136	Part-2	Section–VI B	16.5	Hardware redundancy for firewalls need to be considered for both FOTS and OAITSystems. Proactive network protection shall be implemented based on multiple components/technologies, as follows:	It is Requested to kindly confirm the FOTS and OAIT firewall shall be deployed in OCC or any other sites	Tender condition prevails Two fire walls at OCC/BCC for FOTS and Two Firewalls for OAIT. Kindly Refer clause 16.5 for details
137	Part-2	Section–VI B	16.5	16.5 Network Security – [Next Generation Firewall Solution]	With reference to the points mentioned in specifications, 16.5.4, 16.5.42-16.5.46 - It is recommended to have a dedicated IPS layer over the single layer security of NGFW with multiple solutions loaded on single appliance. Preference to be given to Multi-Layer Security as a industry best practice.	Tender condition prevails
138	Part-2	Section–VI B	16.5	16.9 Server, Host and End-point Security [EDR Solution]	It is requested to kindly consider the separate column for Server security specifications as the Server Architecture and the application pool in Server class is completely different ang high-end compared to Client Architecture and Needs better AV engine to manage and protect from threats for the same.	End point security solution shall be provided for servers and Workstation/ laptops separately or combination of both.
139	Part-2	Section–VI B	16.5 Network Security – [Next Generation Firewall Solution]	16.5.4 An Intrusion Prevention System (IPS) and an Intrusion Detection System (IDS) (internally) shall be deployed both externally and internally to the firewall technology implemented , protecting the network environments. The proposed IPS/IDS systems shall support signature-based, anomaly-based and stateful protocol analysis. Separate Firewalls with IPS/IDS to be provided for FOTS and OAIT networks.	It is Request to kindly incorporated IPS module should be incorporated within the Firewall. The proposed IPS/IDS systems shall support signature-based, anomaly-based and stateful protocol analysis. There is no need for separate appliance as the same functionality can be achieved by one appliance. Please confirm.	Integrated Firewall with IPS and IDS system can be proposed
140	Part-2	Section–VI B	16.5 Network Security – [Next Generation Firewall Solution]	16.5.6 End-to-end communication security shall be implemented based on common practice secure protocols such as SSH, IPsec, SSL/TLS.	We understand that, Communication between firewall and management plane should be encrypted. Our assumption that management and gateway traffic should be encrypted. Please confirm	Tender condition prevails

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
141	Part-2	Section–VI B	16.5 Network Security – [Next Generation Firewall Solution]	a. Threat defense and intelligence services shall provide: Spotlight secure threat intelligence and protection from botnets (command and control); Adaptive enforcement based on GeoIP; Threat prevention to detect and block zero-day attacks; Routing and dynamic routing protocols; Multicast; Encapsulation; Virtual routers; Policy-based routing; Source-based routing; Equal-Cost MultiPath (ECMP); Firewall Quality of Service (QoS); Marking, policing, shaping, classification and scheduling; Guaranteed and maximum bandwidth control; Ingress traffic policing; Virtual channels.	<b>It is requested to kindly Remove the terms to make it compliant to firewall standards. Additionally explain the use case of each parameters.</b> a. Threat defense and intelligence services shall provide: threat intelligence and protection from botnets (command and control); enforcement based on GeoIP; Threat prevention to detect and block zero-day attacks; Routing and dynamic routing protocols; Multicast; Encapsulation; ; Policy-based routing; Source-based routing; ; Firewall Quality of Service (QoS); Marking, policing, shaping, classification and scheduling; Guaranteed and maximum bandwidth control;	Tender Condition prevails
142	Part-2	Section–VI B	16.5 Network Security – [Next Generation Firewall Solution]	16.5.18 Carrier-class routing features of IPv4/IPv6, OSPF, BGP, and multicast.	Kindly change the clause as "The appliance should support the following routing protocols - IPv4,IPv6, OSPF, BGP and multicas" Please define the features and functionality of "carrier class" or neutralize the statement.	Tender condition prevails
143	Part-2	Section–VI B	16.5 Network Security – [Next Generation Firewall Solution]	16.5.19 Firewall Services shall follow industry best practices	REMOVE THE TERM as it is ambiguous	Please referAddendum-1
144	Part-2	Section–VI B	16.5.66	Management solution must offer workflow functionality for authorization before any change management execution	It is Requested to kindly confirm the Management solution deployed in HA & individual management solution needed for FOTS and OAIT	Please follow tender conditions. Please refer 16.5 clause
145	Part-2	Section–VI B	16.6.1	The information system shall protect the integrity and confidentiality of transmitted information at the application level. Mechanisms used to ensure data integrity shall be based on message authentication, hash-functions, and digital signatures.	It is Requested to kindly confirm the total number of data sources/ devices needed to be secured & whether the Data security agent should be from the same OEM or same agent as EDR/HIPS	ISS&Cyber security system deployed for all telecom systems of 3 corridors. This will be covered during detail design. Data security agent can be from Same OEM or different OEM fulfilling tender requirements.
146	Part-2	Section–VI B	16.6.4	Protection mechanisms detecting and eradicating malicious code (such as viruses, worms, Trojan horses) shall be implemented at information system entry and exit points.	It is Requested to kindly confirm the centralized console should be on-prem or SaaS based console	On Premise solution at OCC and BCC

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
147	Part-2	Section–VI B	16.6.5	Relevant Protection mechanisms detecting and eradicating malicious code (such as viruses, worms, Trojan horses) shall be implemented at Workstations, servers, or mobile computing devices connected to the network.	It is Requested to kindly confirm the total number of workstataions, servers and mobile computing devices.	Minimum 1500 for IT infrastructure/Server/End points .However the exact number will be covered during detailed design. Separate solution can be considered for servers and workstations/laptops
148	Part-2	Section–VI B	16.9	Server, Host and End-point Security [EDR Solution]	Request you to recommend a separate column for Server security specifications as the Server Architecture and the application pool in Server class is completely different ang high-end compared to Client Architecture and Needs better AV engine to manage and protect from threats for the same.	End point security solution shall be provided for servers and Workstation/ laptops separately or combination of both."
149	Part-2	Section–VI B	16.9 Server, Host and End-point Security [EDR Solution]	16.9.34 Endpoint solution should have capability of AV, Vulnerability protection, HIPS, Firewall, Device control, virtual Patching and integrated DLP and pre and post machine learning execution.	Being DLP is mentioned in separate solution, Kindly remove DLP from this point. Also virtual patching is relevant to a particular OEM, kindly consider incorporating Virtual Patching/ Exploit Prevention as both the technology works in similar context.	Please refer Addendum-1
150	Part-2	Section–VI B	16.9 Server, Host and End-point Security [EDR Solution]	16.9.33 Solution should have capability to submit unknown files to sandboxing for simulation and create IOC's on real time basis as per sandboxing analysis and revert back to Endpoint security solution to block and clean threats and sandboxing solution should support customizable Windows Desktop & Server operating environments	Kindly consider to remove this clause as it will help in broad participation and also for this particular point sizeable hardware will be required.	Tender condition prevails
151	Part-2	Section–VI B	16.9.1	Each server and workstation shall be configured and hardened according to known best practices and guidelines. The exact list of guideline and hardening procedures documents shall be defined and provided to CMRL for approval. The security capabilities of the operating systems shall be optimally leveraged and configured. Monitoring capabilities shall be implemented on entire IT infrastructure including internal and external interfaces to FOTS & OAIT network.	It is Requested to kindly confirm the centralized console should be on-prem or SaaS based cloud console, and it will be deployed on both DC and DR.	On Premise solution at OCC and BCC.
152	Part-2	Section–VI B	16.9.11	16.9.11 Have artificial intelligence to provide zero-day protection and stop new and unknown threats by monitoring file behaviours while they execute in real-time to determine	Artificial intelligence are technique require more computing resource which is difficult to build on-premise. It is necessary for factor AI & ML technique from SaaS platform where telemetry information will be used for correlation, detection and automatic response of zero day attacks	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				file risk. Must be able to reduce the risk of virus/malware entering the network by blocking files with real-time compressed executable files.		
153	Part-2	Section–VI B	16.9.2	ISS shall incorporate EDR technology (Endpoint Detection and Response) and EPP capabilities, including host Firewall, device control configuration management, disk encryption and Host based IPS, to meet the need for continuous monitoring of and response to advanced threats.	Disk Encryption need to be considered as a separate product. Request to remove this clause from Server Host and Endpoint Security	Please refer Addendum-1
154	Part-2	Section–VI B	16.9.2	ISS shall incorporate EDR technology (Endpoint Detection and Response) and EPP capabilities, including host Firewall, device control configuration management, disk encryption and Host based IPS, to meet the need for continuous monitoring of and response to advanced threats.	It is Requested to kindly confirm whether the supplied EDR/HIPS, encryption, DLP, etc from a single OEM or single agent.	This will be discussed during detailed design. EDR/HIPS from Same OEM or different OEM
155	Part-2	Section–VI B	16.9.3	The Bidder shall add a capability to remove ‘suspected as compromised’ mobile devices from the network, manually and automatically (with an override option).	Can we consider EDR as a SaaS Platform for leveraging advanced Technique such as AI, ML for automation?	Tender condition prevails
156	Part-2	Section–VI B	16.9.3	The Bidder shall add a capability to remove ‘suspected as compromised’ mobile devices from the network, manually and automatically (with an override option).	It is requested to kindly to confirm whether EDR can be considered as a SaaS Platform for leveraging advanced Technique such as AI, ML for automation. Kindly Confirm	Tender condition prevails
157	Part-2	Section–VI B	16.9.34	Endpoint solution should have capability of AV, Vulnerability protection, HIPS, Firewall, Device control, virtual Patching and integrated DLP and pre and post machine learning execution.	It is Requested to kindly confirm whether the supplied DLP, EDR / HIPS from the same OEM or single agent	Solution can be from Single OEM or any other combination fulfilling the requirements of ASA-06 Tender scope
158	Part-2	Section–VI B	16.9.48	Must be capable of uninstalling and replacing existing client antivirus software (Provide the detailed list)	Request to change the Specification:- Suggesting to change it as Manual removal	Tender condition prevails



**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
159	Part-2	Section–VI B	16.9.5	Strong malware protection (against zero-day attacks), including: Personal Firewall; Host based IDS/IPS, anti-virus (Endpoint protection & Endpoint detection and response) package	Since server platform require advanced technique such as Vulnerability protection (Virtual patching) for application, OS and DB layers as well as Application control, Integrity Monitoring, Log inspection for server specific security controls. Hence we recommend to consider separate clause for server security.	Suitable separate solution can be proposed as part of Bid
160	Part-2	Section–VI B	16.9.53	Solution should provide the full disk, file and folder encryption.	It is requested to kindly Remove this clause as Encryption is a separate product and need to considered separate section.	Please refer Addendum-1
161	Part-2	Section–VI B	16.9.53	Solution should provide the full disk, file and folder encryption.	Request to change the specification:- suggesting to change it as Endpoint encryption status	Please refer Addendum-1
162	Part-2	Section–VI B	16.9.53	Solution should provide the full disk, file and folder encryption.	Remove this clause as Encryption is a separate product and need to considered separate section	Please refer Addendum-1
163	Part-2	Section–VI B	16.9.54	Solution should support the multiple ways of authentication like: password, Pin.	Remove this clause as Encryption is a separate product and need to considered separate section	Tender condition prevails
164	Part-2	Section–VI B	16.9.54	Solution should support the multiple ways of authentication like: password, Pin.	It is requested to kindly Remove this clause as Encryption is a separate product and need to considered separate section.	Tender condition prevails
165	Part-2	Section–VI B	16.9.8	The Solution should provide multi-layer of protection into a single Agent - (AV, NIPS, HIPS, Memory Exploit Mitigation, Advance Machine Learning, Emulation capabilities, Behavioural Monitoring and protection, reputation lookup, application and device control & system lockdown)	It is Requested to kindly specify the total no of workstations, laptops needs to be installed with the EDR agent and its operating system details & confirm the total number of Servers or VMs needs to be installed with HIPS agents and its operating system details	Minimum 1500 including Servers, desktops and laptops. However, the exact number will be covered during detailed design
166	Part-2	Section–VI B	16.9.9	Network threat protection should analyse incoming data and blocks threats while they travel through the network before hitting the system. Rules-based firewall and browser protection should be included to protect against web-based attacks.	Request to change the specification:- Partial(Firewall and browser protection available on Host	Tender condition prevails
167	Part-2	Section–VI B	17.11.1.2, Pg 685	T-SCADA has the following interfaces with Telecom Systems: (a) FOTS/OAIT	As per our understanding, T-SCADA system will be connected to 1G ethernet port of OCC & BCC FOTS & OAIT network. Kindly confirm.	Bidder can consider based on tender requirements
168	Part-2	Section–VI B	17.14	Interface between Telecom Contractor and Designated Contractors	Please specify PAS/PIDS Interface with Rolling Stock in detail and refer specific clause in TS.	Please refer Addendum-1
169	Part-2	Section–VI B	17.14	Interface between Telecom Contractor and Designated Contractors	Request to specify PAS/PIDS Interface with Rolling Stock and BMS in detail .	BMS with TVS SCADA /MEP and Rollingstock via signalling for PAS/PIDS. Please refer Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
170	Part-2	Section–VI B	17.2.7	Interfaces with Radio System and Telephone System Radio handporatbles will be interfaced with Telephony system to make PAS announcement originated from designated hand portable radio also to a set of pre defined PAS zones at each station. This needs to be planned executed, commissioned and demonstrated by Telecom duly interfacing with the other contractors.	Please specify the type of Interface i.e. Analogue or SIP protocol for PAS and Telephone Interface,	SIP Protocol for PAS and Telephone interface. For implementing through the-telephone system at station level additional interface requirements if any needs to be fulfilled by ASA-06 Contractor.
171	Part-2	Section–VI B	17.6.1.5, Pg 680	17.6 Interfaces of Telecom System with Radio System 17.6.1.5 The base stations shall interface with the FOTS to convey audio and data signal between base stations and central or distributed equipment.	It is requested to Kindly confirm if the 1G ethernet uplink will be provided for Radio System & CBTC, i.e. requirement is to have only 2 ports on distribution switch i.e. one port on each distribution switch located at each station.	Please refer clause 18.10.15 interface between Radio and ASA-06 Telecom contract. For Interface with signalling at OCC/BCC, please refer 18.10.6 for details.
172	Part-2	Section–VI B	18.10.14.3	Shall integrate Corridor3, 4&5 FOTS with OCC/BCC Core switches by using open standards and coordinate with ASA 05/ASA08 Contractor for writing interface document and listing desired inputs for successful integration. • Shall submit the POC jointly with ASA 05/ASA08	we understand that POC for ASA06 has to be performed inline with ASA 05/ASA08 if the MAKE is different compared to other packages. If the make is common for all the packages, POC is not required. Kindly confirm.	POC is required. The Bidder shall demonstrate the requirements of open protocol/multivendor integration capability needs demonstration.
173	Part-2	Section–VI B	18.10.14.3 2. ISMS/A CID	In case ASA-05/ASA08 architecture supports seamless NMS integration, ASA-06 shall permit the integration. ASA-06 shall acquire the common NMS for ASA-05 & 06 and back charge the proportionate cost to each contractor. If seamless integration is not possible, ASA-05 shall supply individual NMS. Virtualised environment shall be provided by ASA-06 for hosting all NMS softwares	It is requested to Request to amend as: "In case ASA-05/ASA08 architecture supports seamless NMS integration, ASA-06 shall permit the integration. ASA-06 shall acquire the common NMS for ASA-05, ASA-06 and ASA-08 and back charge the proportionate cost to each contractor. If seamless integration is not possible, ASA-05 and ASA-08 shall supply individual NMS. Virtualised environment shall be provided by ASA-06 for hosting all NMS softwares	Please refer revised bid condition in Addendum-1
174	Part-2	Section–VI B	18.10.14.3 5. FOTS / OAIT	In case ASA-05/ASA08 architecture supports seamless NMS integration, ASA-06 shall permit the integration. ASA-06 shall acquire the common NMS for ASA-05 & 06 and back charge the proportionate cost to each contractor. If seamless integration is not possible, ASA-05 shall supply individual NMS. Virtualised environment	Request to amend as: "In case ASA-05/ASA08 architecture supports seamless NMS integration, ASA-06 shall permit the integration. ASA-06 shall acquire the common NMS for ASA-05, ASA-06 and ASA-08 and back charge the proportionate cost to each contractor. If seamless integration is not possible, ASA-05 and ASA-08 shall supply individual NMS. Virtualised environment shall be provided by ASA-06 for hosting all NMS softwares	Please refer revised bid condition in Addendum-1

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				shall be provided by ASA-06 for hosting all NMS softwares		
175	Part-2	Section–VI B	18.10.14.3 6. PAS	In case ASA-05/ASA08 architecture supports seamless NMS integration, ASA-06 shall permit the integration. ASA-06 shall acquire the common NMS for ASA-05 & 06 and back charge the proportionate cost to each contractor. If seamless integration is not possible, ASA-05 shall supply individual NMS. Virtualised environment shall be provided by ASA-06 for hosting all NMS softwares	It is requested to Request to amend as: "In case ASA-05/ASA08 architecture supports seamless NMS integration, ASA-06 shall permit the integration. ASA-06 shall acquire the common NMS for ASA-05, ASA-06 and ASA-08 and back charge the proportionate cost to each contractor. If seamless integration is not possible, ASA-05 and ASA-08 shall supply individual NMS. Virtualised environment shall be provided by ASA-06 for hosting all NMS softwares	Please refer Addendum-1
176	Part-2	Section–VI B	18.10.14.3 Telephone	NMS OCC HW and SW - Remarks not updated	Remarks under NMS HW and SW to be updated as per 10.1.3.5.1 The Telephone Common Network Management System (NMS) main at OCC and redundant at BCC with Maintenance Supervisory Console, Keyboard with common Log Printer Server and associated printers, shall be provided by Telecom Contractor. Corridor 3,4&5 Telephone system and network shall be interfaced preferably with Common NMS by using open standards and all features and functionality shall be ensured. If contractor fails to interface with common NMS, separate NMS may be provided.	Please refer Addendum-1
177	Part-2	Section–VI B	2. Network Video Recording Server	6.1.5.1.7 System shall use video signals from various types of indoor / outdoor IP cameras installed at different locations, process them for viewing on workstations / monitors simultaneously at Central Control Room (OCC & BCC) and local control rooms (SCR and at Station Security room) at each station. Network Video Recording system shall provide local recording at each respective stations/Depot and mirrored recording (at any location of respective FOTS Network ring) for all CMRL Corridor 3,4&5 stations. Mouse-keyboard controllers shall be used for Pan, Tilt, Zoom and other functions of desired PTZ cameras. The configuration of the cameras, monitors / workstations shall be provided from the OCC, BCC and any other locations simultaneously.	Kindly confirm: "Video recording system shall provide primary recording at each respective- stations/Depot and Mirror (Secondary recording) for stations/Depot of any particular FOTS ring shall be combinedly done at any one location of respective FOTS Network ring. Compatible hardware for recording shall be supplied by the ASA-05 contractor duly complying the Interface requirements from OCC/BCC Contractor. Primary recording shall be done for 15 days at full resolution of the Camera with 20 FPS and secondary recording for 90 days at a resolution of 1920 x 1080 with 20 FPS. Secondary recording infrastructure may use modern Virtualization technologies to optimize the Hardware. In addition, Contractor shall provide additional storage space required to store 100 Camera footages for 90 days in the secondary recording device to keep the Archive/back up of Important events"	Recording requirements as per 6.1.2.6 clause
178	Part-2	Section–VI B	2.1(3)- Table - performance parameter	Incase of Horn speaker 500Hz to 4.5 Khz at -10 dB.	Requesting to revise the frequency range of Horn speaker 550 Hz to 5 KHz.	Please refer revised bid condition 3.5.2.8 in Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
179	Part-2	Section–VI B	2.1.1	A PIDS/PAS central server for all 3 Corridors of CMRL phase 2 shall be located in the OCC & BCC TER. The Centralised Passenger Information System (PIS) hosted in the PIDS/PAS central server shall be connected to the PIDS/PAS Corridor server (one for each Telecom package ASA-05,ASA06 & ASA-08) and PAS/PIDS workstation at station via the data transmission system. Corridor servers locations shall be finalised during design stage. The PIDS/PAS central server shall have redundant architecture and connectivity to workstation HMIs with mirroring of disks for high reliability.	Please confirm whether the central server shall be common for all 3 corridors of CMRL Phase-2 or individual for each corridor ?	Yes. It is common for all three corridors.
180	Part-2	Section–VI B	2.3.1.1	PIDS/PAS central server for all 3 Corridors of CMRL phase 2 shall be located in the OCC & BCC TER, which shall be connected to the PIDS/PAS Corridor server (for each corridor) and PAS/PIDS workstation at station via the data transmission system.	Kindly mention the minimum technical specifications and quantity of Servers for all Telecom Sub-systems like PAS/PIDS, Forsett	This tender is based on Design and build requirement. Contractor needs to propose design with quantity complying all tender conditions. Please refer HMI Chapter
181	Part-2	Section–VI B	2.4.1	The PIDS management system shall be a centralized control system with management workstation, system database, shared log printer (interface with printer server and associated shared printers for Telecom Sub system) and mass storage device to be located in the main CER at OCC & BCC.	Please mention the minimum technical specifications and quantity of mass storage device, type of storage - SAN/NAS/Unified, capacity required at OCC, BCC CER.	Tender condition prevails. This tender is based on Design and build requirement. Contractor needs to propose design with quantity complying all tender conditions
182	Part-2	Section–VI B	2.4.3	Appropriate software shall be pre-loaded onto the notebook computers to access full management facilities through the local maintenance port.	In general notebook computer used for system maintenance though the local maintenance port. It is suggested to kindly ammend the clause to restrict the access for maintenance purpose only instead of managemenet facilities.	Please refer Addendum-1
183	Part-2	Section–VI B	2.5.10.7	The PAS & PIDS NMS shall be on the same server/workstation. Or Bidder may propose Virtualized solution by having all services applications, Database, Management servers including other system applications in Virtualized manner to optimize the solution hardware etc. as per bidder design.	Kindly clarify the virtualization solution can be proposed for PAS and PIDS Only ( OR ) can be proposed for all telecom sub-system applications, databases, management servers for optimizing the solution hardware	Virtualization can be proposed without compromising the functional and other performance parameters

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
184	Part-2	Section–VI B	3. Relevant Codes and Standards	UL294 Edition-6 Standard for Access Control System Units. UL294B Edition-1 Standard for Power over Ethernet (PoE) Power Sources for Access Control Systems and Equipment	It is requested to consider as follow: UL for ACID system, suggested to consider UL294B/UL1076 for wider OEM participation.	Please refer revised bid clause 7.7,Section-VI B, Part-2, Addendum-1
185	Part-2	Section–VI B	3.1.3 & 3.6.11.15	(a)-Wall mountable Cabinet for Station Announcement Equipment at each Platform. Each station Platform Announcement Device shall be provided with a PAS Console to gain access to its associated platform(s). The microphone should be able to select one platform or all.	Please confirm the quantity per platform	Please refer revised bid condition in Addendum-1 for clause 3.6.5.1.4
186	Part-2	Section–VI B	3.1.6	PIDS/PAS HMI application shall be interfaced with station PAS to broadcast system triggered and operator initiated clear and audible, live voice announcements, pre-recorded speech messages to individual zones or a combination of zones throughout station. PAS & PIDS systems information (both announcements and displays) shall be synchronized.	We understand that the synchronisation requirements apply only to pre-recorded messages and not applicable for live messages/announcements/broadcasts. CMRL to kindly confirm.	Yes. Synchronisation requirements is applicable only to pre-recorded messages.
187	Part-2	Section–VI B	3.2 & 3.4.2.2	PAS Central Server:- PIDS/PAS central server for all 3 Corridors of CMRL phase 2 shall be located in the OCC & BCC TER, which shall be connected to the PIDS/PAS Corridor server (for each corridor) and PAS/PIDS workstation at station via the data transmission system. Details of Centralised Passenger Information System is given in chapter 2 of this TS	Please specify and confirm OCC/BCC servers are required seperately for each corridors or common server is required for all 3 corridores.	PIS (PAS/PIDS)Central server is required at OCC/BCC.Corridor server for each package(ASA-05,ASA-06 and ASA-08) will be at respective package. Refer clause 2.1.1 for details.
188	Part-2	Section–VI B	3.3.1.1	Stations Platforms, Concourses (both Paid & Unpaid), Commercial Areas, Ticket Gates, Gate Lines, Elevators, Escalator Landings, Staircases, Entrances, Exits, Sky walks (wherever applicable), Security Checking Machines, Cash Transfer Routes, Evacuation Routes, Parking areas, Front of the house areas, Back of House Rooms, washrooms, Equipment, Operational & Administrative rooms, Station Control Room, Station boundaries, Entry to viaduct and viaduct,	1. Please clarify the cross passage at tunnel area will a part of Platform zone or separate than all other zones. Any rooms to be considered or just passage. 2. Any RSS location is not be considered with PA System coverage, Please confirm?	1.Please refer revised bid condition in Addendum1. 2.PAS system to be deployed in RSS.Please refer 3.7.2.12.5. Following RSS /TSS are planned in this section 1. Mannapakkam. 2. Perumbakkam 3. Siruseri

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				vicinity of station area (entry / exit, structures, road side, nearby areas etc.) Technical Rooms, SCR, Security Room, ASS, Walk Ways, Station Manager Room, Cross passage in tunnel area, TOM etc.		
189	Part-2	Section-VI B	3.3.1.1 PAS System Location	Stations: Platforms, Concourses (both Paid & Unpaid), Commercial Areas, Ticket Gates, Gate Lines, Elevators, Escalator Landings, Staircases, Entrances, Exits, Sky walks (wherever applicable), Security Checking Machines, Cash Transfer Routes, Evacuation Routes, Parking areas, Front of the house areas, Back of House Rooms, washrooms, Equipment, Operational & Administrative rooms, Station Control Room, Station boundaries, Entry to viaduct and viaduct, vicinity of station area (entry / exit structures, road side, nearby areas etc.) Technical Rooms, SCR, Security Room, ASS, Walk Ways, Station Manager Room, Cross passage in tunnel area, TOM etc.	As per the RFP, PAS system is not required in RSS. Kindly confirm	PAS system to be deployed in RSS. Please refer 3.7.2.12.5. Following RSS /TSS are planned in this section 1. Mannapakkam. 2. Perumbakkam 3. Siruseri
190	Part-2	Section-VI B	3.4.1	Audio frequency Induction -Loop Systems (AFILS)	Please confirm the induction loop input power (230V AC or 48VDC)	AFILS can be operated with 230VAC. Bidder can use converter if DC powered AFLIS Proposed as part of their solution
191	Part-2	Section-VI B	3.4.2.3	(c) One hard wired PA Control panel, complete with microphone and zone selections shall be provided in OCC, BCC SCR (Station Control Room) and SSR (Security Control Room) of each station for announcement in the station area so that, in case of emergency, announcement can be done in each zone / all zones. One Microphone shall be provided at every platform, Microphone shall be located at nominated location of platform. The PAS System shall provide uniform broadcast coverage throughout all areas of each site within which staff or members of the public may gain access to. The design shall be	Please confirm whether the PAS system needs to be accessed from SSR room	Please refer revised bid condition in Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				such that the speakers are so located as to ensure that there are no dead zones between adjacent speakers due to interference or any other reason		
192	Part-2	Section–VI B	3.4.2.3	(c) One hard wired PA Control panel, complete with microphone and zone selections shall be provided in OCC, BCC SCR (Station Control Room) and SSR (Security Control Room) of each station for announcement in the station area so that, in case of emergency, announcement can be done in each zone / all zones. One Microphone shall be provided at every platform, Microphone shall be located at nominated location of platform. The PAS System shall provide uniform broadcast coverage throughout all areas of each site within which staff or members of the public may gain access to. The design shall be such that the speakers are so located as to ensure that there are no dead zones between adjacent speakers due to interference or any other reason	In reference to clause 3.1.3 the PAS at stations shall be accessed from the following locations (a) Wall mountable Cabinet for Station Announcement Equipment at each Platform.; (b) Station Control Room (SCR); (c) Controllers desk in Operations Control Centre (OCC) ; (d) Controllers desk in Backup Control Centre (BCC) but in clause 3.4.2.3 (c) SSR (Security Control Room) of each station for announcement in the station area is also mentioned for access. Please confirm whether the PAS system needs to be accessed from SSR room or not.	Please refer revised bid condition in Addendum-1
193	Part-2	Section–VI B	3.5.2.8	Table 2.1: Performance Parameter: 3) Frequency Response All areas 315 Hz to 16 kHz at +/- 3 dB and In case of horn speaker 500hz - 4.5 kHz at - 10dB.	Requesting to revise the frequency range of Horn speaker 550 Hz to 5 KHz.	Please refer revised bid condition in Addendum-1
194	Part-2	Section–VI B	3.5.5	System Response Times The processing and switching delay contributed by the PAS equipment shall not exceed 150 ms for any type of commands. The response time of PAS equipment shall include switching time and handover time of FOTS network.	Any hardware before making decision to switch to another unit analyse the failures to know whether it should switch or not. This analysing takes time to analyse the failures as switching without analysis provide risk for system fluctuation. Because of this EN54 also allowed the system to switchover within 100 seconds after the fault is reported. Therefore, we request to kindly ammend the requirement and keep the 150ms time restriction on processing time only.	Please refer Addendum-1
195	Part-2	Section–VI B	3.5.6.5	Loudspeakers shall be of same make/OEM as that of Control & Amplifier make/OEM. Other Loudspeakers manufacturers who shall comply with all applicable loudspeaker EN Standards and have credential in supplying for metro and Railway projects may also be supplied.	Different make/OEM Loudspeakers and amplifer shall be considered, meeting the technical requirement of tender to make it open for all.	Please refer revised clause 3.5.6.5 & 3.7.2.12.17 in Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
196	Part-2	Section–VI B	3.5.7.4	The PAS shall have minimum two audio matrix switches/controller (as Matrix Switch A & Matrix Switch B) in at each node with each controller controlling separate PAS circuits or matrix switches/controller shall be configured in redundant manner such that switch over between controllers shall not exceed 5 s for all required functionalities	1. As per the clause 3.7.2.1.2, PAS control equipment is asked for redundancy of controller. Controller A & controller B will be redundant to each other. Request you to revise accordingly. 2. Two controller unit with each controller controlling separate PAS circuits can not be configured in redundant manner. Two controller unit can be either configured as A and B system in which both controller unit will work in parellel and shall control separate A and B circuits and associated amplifiers or can be configured as an Active Standby system in which both controller shall be able to control both A & B circuits and associated amplifiers. By Seeing the system requirement in Clause reference 3.5.7.4, 3.5.7.5, 3.5.7.6, 3.5.7.7, configuration of controller unit in redundant manner not required, both can work as an parellel system. Kindly ammend the clause accordingly by removing the "matrix switches/controller shall be configured in redundant manner such that switch over between controllers shall not exceed 5 s for all required functionalities. "	Please refer Addendum-1
197	Part-2	Section–VI B	3.5.7.4	The PAS shall have minimum two audio matrix switches/controller (as Matrix Switch A & Matrix Switch B) in at each node with each controller controlling separate PAS circuits or matrix switches/controller shall be configured in redundant manner such that switch over between controllers shall not exceed 5 s for all required functionalities.	We understand that Two controller unit with each controller controlling separate PAS circuits can not be configured in redundant manner. Two controller unit can be either configured as A and B system in which both controller unit will work in parallel and shall control separate A and B circuits and associated amplifiers or can be configured as an Active-Standby system in which both controller shall be able to control both A & B circuits and associated amplifiers. By Seeing the system requirement in Clause reference 3.5.7.4, 3.5.7.5, 3.5.7.6, 3.5.7.7, configuration of controller unit in redundant manner not required, both can work as an parallel system. Kindly amend the clause accordingly by removing the "matrix switches/controller shall be configured in redundant manner such that switch over between controllers shall not exceed 5 s for all required functionalities. "	Please refer Addendum-1
198	Part-2	Section–VI B	3.5.7.5	As normal mode of operation, in response to PA service the Matrix switch/ controller A will feed to amplifiers driving Even numbered speakers of respective PA Zones & matrix switch/controller-B will feed to amplifiers driving Odd numbered speakers of the respective PA Zones. In normal mode, all even numbered & odd numbered speakers of any zone, combination of zones or all zones shall broadcast message simultaneously without causing any distortion or throughput synchronisation issue.	1. As per the clause 3.7.2.1.2, PAS control equipment is asked for redundancy of controller. Controller A & controller B will be redundant to each other. Request you to revise accordingly. 2. Two controller unit with each controller controlling separate PAS circuits can not be configured in redundant manner. Two controller unit can be either configured as A and B system in which both controller unit will work in parellel and shall control separate A and B circuits and associated amplifiers or can be configured as an Active Standby system in which both controller shall be able to control both A & B circuits and associated amplifiers. By Seeing the system requirement in Clause reference 3.5.7.4, 3.5.7.5, 3.5.7.6, 3.5.7.7, configuration of controller unit in redundant manner not required, both can work as an parellel system. Kindly ammend the clause accordingly by removing the "matrix switches/controller shall be configured in redundant manner such that switch over between controllers shall not exceed 5 s for all required functionalities. "	Please refer Addendum-1



**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
199	Part-2	Section–VI B	3.6.11.1.2	Both PAS MMI and PIDS MMI shall be implemented on a common Terminal/Workstation with the same look and feel. MMI at Station Control Room should be either an Integrated PC cum Monitor Unit to reduce space requirement and accidental failure or equipment can be kept in TER/CER and all signals extended to SCR (Monitor, Mouse, Keyboard etc.)	As the BoQ line item might differ in each type of solution, kindly confirm the bidder have to keep the workstation in TER and extend through KVM or integrated PC cum monitor have to be kept in SCR to reduce the space requirement.	This tender is based on Design and built requirement. Contractor needs to propose design with quantity complying all tender conditions
200	Part-2	Section–VI B	3.6.4.3	The Contractor shall note that, all stations will have minimum two platforms each. Additional PAS zones shall have to be planned and provided at such stations where number of platform are more than 2.	Please confirm how many stations have platforms count more than 2.	Please refer drawings.
201	Part-2	Section–VI B	3.6.4.4	Interchange station (Double stack stations) will have passenger transfer facility through physical connectivity between underground and elevated station of Corridor-1 and Corridor-2 respectively. PAS/PIDS coverage of the connecting passages, stair case, elevators, walkways etc. shall be suitably provided	Please confirm the number of Interchange station along with the passenger transfer facility through physical connectivity between underground and elevated station.	St. Thomas mount, Alandur , sholinganallur , alwarthiru nagar, valasarawakkam ,karapakkam, alapakkam are the interchange station in the C5-ECV-02, C5-ECV-03 & C3 ECV-01 . Apart from this, the PIDS/PAS configuration for interchange stations of all corridors will also be in the scope of ASA-06.
202	Part-2	Section–VI B	3.7.1.8	(c) All speakers shall be compliant to following Room Speaker - IP 34,	As asked for room speakers, IP34 rating is specific to some of the OEM's. Request you to remove the specific rating of room speakers.	Please refer Addendum-1
203	Part-2	Section–VI B	3.7.1.8(C)	Room Speaker - IP 34,	IP34 rating for room speakers is favoring specific to certain OEM's. Request to kindly remove the specific rating of room speakers for wider OEM participation.	Please refer Addendum-1
204	Part-2	Section–VI B	3.7.2.1.1	The hardware and software of the PAS shall use modular design to allow for easy expansion of the system. Addition of input and output ports for the switching equipment shall be achieved by simple addition of plug in cards or inputs or input output modules including amplifiers which should be of a hot swappable card type.	The hardware and software of the PAS shall use modular design to allow for easy expansion of the system. Addition of input and output ports for the switching equipment shall be achieved by simple addition of IP Devices. Please do consider the changes accordingly.	Please refer Addendum-1.
205	Part-2	Section–VI B	3.7.2.1.2	The PAS control equipment shall be provided with suitable redundant modules / cards to prevent single point of failure that affects overall system operation at a particular location including critical components so as to achieve	1. The PA controller operation at OCC & BCC do not affect the overall system operation. Redundant controller will be provisioned at OCC & BCC. Request to remove the hot redundancy of the controller for OCC & BCC. 2. Server redundancy required Instead of controller redundancy at OCC and BCC. At OCC and BCC two controller unit A and B can be provided for the system operation	Please refer Addendum-1.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				the RAMS requirement laid down.The PAS control equipment shall have hot redundancy of the controller in both OCC & BCC to prevent failure that affects overall system operations.	on separate circuits at OCC and BCC but to prevent failure that affects overall system operations, system require redundant servers. Kindly modify the clause accordingly.	
206	Part-2	Section–VI B	3.7.2.1.2	The PAS control equipment shall be provided with suitable redundant modules /cards to prevent single point of failure that affects overall system operation at a particular location including critical components so as to achieve the RAMS requirement laid down. The PAS control equipment shall have hot redundancy of the controller in both OCC & BCC to prevent failure that affects overall system operations.	Server redundancy required instead of controller redundancy at OCC and BCC. At OCC and BCC two controller unit A and B can be provided for the system operation on separate circuits at OCC and BCC but to prevent failure that affects overall system operations, system require redundant servers. It is requested Kindly amend the clause accordingly.	Please refer Addendum-1
207	Part-2	Section–VI B	3.7.2.12.17	All speakers should be from same OEM as that of PAS System Supplier.	It is a OEM specific requirement.There are other loudspeaker manufacturers available who have experience in supplying loudspeakers for many metro projects. It is requested to kindly allow Loudspeakers from the other OEMs as well who comply with all applicable loudspeaker EN standards and have credential in supplying for metro or any other passenger carrying transportation projects.	Please Refer Addendum-1
208	Part-2	Section–VI B	3.7.2.13.2	The mass storage device shall be provided with a storage capacity for at least 4 weeks of alarm data, system configuration data, alarm history, event logging data. It shall be possible to copy and store such data and the live announcements on media like CDs for future retrieval.	Clause No 2.5.10.6 and Clause no 3.7.2.13.2 are contradictory. Kindly confirm if the clause no 3.7.2.13.2 is related to NMS storage capacity for atleast 4 weeks.	Please refer 2.5.10.6 clause in Addendum-1
209	Part-2	Section–VI B	3.7.2.14.2	The design of the Power supply arrangement of the PA/VA system shall comply with requirements of BSEN 54-4 Fire Detection and Fire Alarm Systems. Power Supply Equipment. High quality, Li-ion batteries to withstand 1 hour of Fire alarm announcement shall be provided which shall be suitable for continuous operation for a minimum period of 10 years in a tropical environment whilst maintaining the required load capacity as stated above in case batteries are used.	In reference to clause 3.7.2.14.1 , the system shall be provided with UPS (a backup source for mains power).Hence, in this case,battery shall not be needed, as backup source of power is already available. We request to kindly reeview the requirement and ammend accordingly.	Tender condition prevails

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
210	Part-2	Section–VI B	3.7.2.2.1	The Digital Voice Announcer (DVA) equipment shall be of solid state type or hard disk with sufficient memory backup to store fixed, pre-formatted and instantly recorded messages.	Fixed digital recording; Pre-formatted with data to be added and Instantly recorded; messages are generally Stored in CENTRAL PAS PIDS Server for various Train Related and other Announcements.Please confirm.	Yes. Synchronisation requirements is applicable only to pre-recorded messages.
211	Part-2	Section–VI B	4.1.1	The contractor shall provide the suitable Passenger Information system, its associated software and hardware which includes the PAS/PIDS HMI, Passenger Display equipments etc. for meeting the intended functionality. The Contractor shall supply the Station software for the other Telecom packages(ASA-05/ASA-08).	As the telecom packages ASA-05 and ASA-08 are different and ASA -06 package caters 9 stations of Corridor 3 and 23 Stations of Corridor 5 which are also part of package ASA-08. Kindly confirm if the bidder has to provide software and hardware for stations as per ASA -06 or for all the stations of ASA-05, ASA-06 and ASA-08.	ASA-06 needs to consider required software for all 3 corridors (ASA05,ASA-06&ASA-08) .Please refer Clause 1.4.1 project overview for station details under each package and clause 18.10.14 scope of allocation matrix.
212	Part-2	Section–VI B	4.1.7	Similar facilities shall be provided from the OCC & BCC HMI with message display provided to individual stations, group of stations or to all stations of Corridor 3,4 & 5 of CMRL phase 2 simultaneously.	As Corridor 3 and Corridor 5 have 9 and 23 numbers of stations respectively and rest other stations will be part of ASA-08 package. Kindly confirm if the asked facility from OCC and BCC will be applicable for stations coming under ASA-06	The asked facility from OCC and BCC will be applicable for all stations coming under ASA-05,ASA-06 and AS-08.
213	Part-2	Section–VI B	4.2 Contractor's Scope of Supply and Services (b)	Software application and Client for this system shall be supplied and installed by contractor in each and every station of Phase-II (Corridor-3,4 &5) in its respective hardware systems.	As Corridor 3 and Corridor 5 have 9 and 23 numbers of stations respectively and rest other stations will be part of ASA-08 package Please confirm if the OCC/BCC Software application and station Client have to be supplied and installed for stations coming under ASA-06 only	ASA-06 needs to consider required software for all 3 corridors (ASA05,ASA-06&ASA-08) and their relevant interfaces. Please refer clause 18.10.14 scope of allocation matrix Remarks column and Testing &Commissioning. The commissioning activities shall cover installation and configurations of the softwares.
214	Part-2	Section–VI B	4.2.14.2 (ii) Interchange/Double stack Station: (a)	other than station's each platform and each concourse as per above (I) mentioned quantities ,01 single sided minimum 40 " TFT/LED Backlit LCD Full HD of IP65 Displays at each walkways, ,multimodal transport, other metro line at interchange station	As station details are not provided with multimodal transport stations, stations with walkways etc. Request to provide the total number of stations with multimodal transport and walkway.	The bidder shall consider 10 such locations under the scope of ASA-06. The bidder shall consider 20 such locations in ASA-05 & ASA08 package.
215	Part-2	Section–VI B	4.2.15.16.3 Specifications of TFT/LED Backlit LCD Full HD Display Panel: (a)	Minimum size for active area of the PIDS display for concourse and platform shall be minimum 40 inches. The proposed display shall comply the Viewing distance of 15m for concourse and 35m for platform Display Resolution - 1920 x 1080.	Clause No 4.2.4.4 and Clause no 4.2.15.16.3 are contradictory. Kindly confirm the minimum viewing distance for concourse should be 15 Mtr or 25 Mtr.	Please refer revised bid condition 4.2.4.4 in Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
216	Part-2	Section–VI B	4.2.2.5	Contractor shall provide Common Central server with integrated management software including station client application for all 3 corridors 3,4 & 5 PIDS of CMRL phase 2.	As Corridor 3 and Corridor 5 have 9 and 23 numbers of stations respectively and rest other stations will be part of ASA-08 package Please confirm if the OCC/BCC Software application and station Client have to be supplied and installed for stations coming under ASA-06 only	ASA-06 needs to consider required software for all 3 corridors (ASA05,ASA-06&ASA-08) and their relevant interfaces.Please refer clause 18.10.14 scope of allocation matrix Remarks column and Testing &Commissioning.The commissioning activities shall cover installation and configurations of the softwares.
217	Part-2	Section–VI B	4.2.2.5	Contractor shall provide Common Central server with integrated management software including station client application for all 3 corridors 3,4 & 5 PIDS of CMRL phase 2.	Please specify and confirm OCC/BCC servers are required seperately for each corridors or common server is required for all 3 corridores.	Yes. It is common for all three corridors.
218	Part-2	Section–VI B	4.2.3.3	40 "or better TFT/LED Backlit LCD Full HD Display Panel to be housed in IP 65 housing with proper arrangement of power and data cable termination. Housing for TFT/LED Backlit LCD Full HD Display Panel to be certified by OEM. Housing must be having side/front openable panels so that each panels can be accessed during the installation & maintenance.	We would like to suggest 55 inches (industrial grade) TFT to fulfil the requirements and for better viewing experience by passengers from a nominal distance. Kindly consider the suggestion and ammend the clause accordingly.	Tender condition prevails.
219	Part-2	Section–VI B	4.2.3.5	The Contractor shall, as required, make additional provision for displays at certain platform at the stations which have curvature.	As the station details are not provided with curvature platforms. Request to provide the total number of stations with curvature platforms.	This is design and built contract.Please refer the drawings for the details of platforms with curvature and design accordingly
220	Part-2	Section–VI B	4.2.4.4	Each display shall be fully visible to a normal sighted individual, when standing or sitting in a wheelchair, at a minimum distance of 25 meters or better from the display	Clause No 4.2.4.4 and Clause no 4.2.15.16.3 are contradictory. Kindly confirm the minimum viewing distance for concourse should be 15 Mtr or 25 Mtr.	Please refer revised bid condition in Addendum-1
221	Part-2	Section–VI B	4.3.1.19	The Contractor shall provide the following character sets as minimum, but not be limited to, for all kinds of display boards. Casey (Regular), Lucida Console and Verdana for English characters	Casey(Regular), Lucida Console and Verdana fonts are not recommended PIDS to achieve better viewability and visibility.	This can be considered during detail design

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
222	Part-2	Section–VI B	4.4.12	The PC-based control equipment shall be industrial grade PC model. The PC- based control equipment shall function normally from -5°C to +55°C (ambient) and with relative humidity ranging up to 95 %.	Request to kindly share the Industrial PC specification along with generation , RAM and Storage	The PC Specification shall meet the functional and performance requirements of PIDS.
223	Part-2	Section–VI B	5.1 ISMS Specifications	The ISMS platform shall support integration with MS – AD / ADFS or any Open ID 2.0 compliant single sign-on solutions.	It is requested to Kindly provide the details as follow: The applications which have to be integrated with IAM support SAML 2.0 or OpenID connect protocols or not	Single sign on solution is part of ISS&Cyber security solution.This covers ISMS supplied platforms.
224	Part-2	Section–VI B	5.1.5	The ISMS architecture must have failover options without any dependency on external application for both Hardware and Application level fail over. The primary and Secondary would be hosted in OCC / BCC in Active – Active mode for high reliability.	High availability or failover should be allowed through Universal proven technologies like Vmware , Evrrun etc . Kindly confirm else this will be come very proprietary to 1-2 OEMs.	Please refer Addendum-1
225	Part-2	Section–VI B	5.2.12	The VMS shall support end to end encrypted streams with cameras supporting Secure RTP (SRTP) / open encrypted standards both in unicast and multicast from the camera	Kindly remove the SRTP protocol, since the protocol is VMS OEM specific. However, the major brand VMS are supporting certificate authentication/encrytion across VMS,Recording applications,clients & cameras as well.	Please refer Addendum-1
226	Part-2	Section–VI B	5.2.13	The VMS platform must have Indian certification from agency like STQC or International agency like UL with valid Cyber Security certification under the Physical Security and emergency communication category.	Certificate of Secure code from Globally recognized firm inthis regard for VMS/ISMS should also be acceptable with proper authentication	Please refer Addendum-1
227	Part-2	Section–VI B	5.2.13	The VMS platform must have Indian certification from agency like STQC or International agency like UL with valid Cyber Security certification under the Physical Security and emergency communication category.	Kindly allow GDPR Certified and FIPS compliant VMS software	Please refer Addendum-1
228	Part-2	Section–VI B	5.2.14	4 The VMS platform must be an ISO27001 certified.	Kinldy amend it as the VMS/OEM must be as ISO14001 certified as min standard.	Tender condition prevails
229	Part-2	Section–VI B	5.2.16	The video management system shall be an enterprise class IP enabled fully distributed solution, designed for limitless multi-site and multiple server installations requiring 24/7 surveillance with support for devices from different vendors.	Please clarify regarding the multi site, recorders shall reside on station level & VMS in central level or both VMS & recorder shall be on station level dedicatedly?	Please refer clause 6.1.2.6 for the requirements of Recording . VMS will be deployed in OCC and BCC with viewing clients in any location with in the FOTS network.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
230	Part-2	Section–VI B	5.2.22	The video management system shall support high availability of recording servers. A failover option shall provide standby support for recording servers with automatic synchronization to ensure maximum uptime and minimum risk of losing data such that once Primary server goes offline then videos which are recorded at secondary server shall be automatic sync to primary server without user intervention.	Failover will be provided on Dual recording , parallel Recording , hence no Data will be lost and at a Client level , it will be seamless video operations . Sync back will be done thorough Camera local Recording.	Tender condition prevails
231	Part-2	Section–VI B	5.2.22	The video management system shall support high availability of recording servers. A failover option shall provide standby support for recording servers with automatic synchronization to ensure maximum uptime and minimum risk of losing data such that once Primary server goes offline then videos which are recorded at secondary server shall be automatic sync to primary server without user intervention.	Request you to please amend the clause as below; The video management system shall support high availability of recording servers. A failover option shall provide standby support for recording servers with automatic synchronization to ensure maximum uptime and minimum risk of losing data.	Please refer Addendum-1
232	Part-2	Section–VI B	5.2.22	The video management system shall support high availability of recording servers. A failover option shall provide standby support for recording servers with automatic synchronization to ensure maximum uptime and minimum risk of losing data such that once Primary server goes offline then videos which are recorded at secondary server shall be automatic sync to primary server without user intervention.	Please clarify that the failover recorder shall be located centrally or locally ( in station premises) ?	Please refer clause 6.1.2.6 .
233	Part-2	Section–VI B	5.2.28	The video management system shall support a solution that makes it possible to integrate multiple third-party video content applications seamlessly into viewing client environments.	Requesting you to specify the third party video content applications to integrate.	Please refer Addendum-1
234	Part-2	Section–VI B	5.2.3	The VMS shall integrate cameras using dedicated driver or using the industry standards ONVIF Profile S, Profile G And Profile T. The VMS provider supporting the ONVIF Profile S, G & T must be validated with certification and reference documents.	Kindly amend it as the VMS shall support min Onfis S complaint. Since the major VMS brands are already integrated at driver level with all major camera brands to achieve all camera features.	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
235	Part-2	Section–VI B	5.2.4	The VMS Solution Shall support native Fail over with in application with no dependency on any external application for both hardware and application redundancy. The native fail-over architecture must be for both management and recording servers. The fail over time should be near real time and there should not be any loss in the Live video and recorded video.	Universal High Availability techniques should be allowed since Virtualized is required for Optimization , Kindly Confirm	Please refer Addendum-1
236	Part-2	Section–VI B	5.2.4	The VMS Solution Shall support native Fail over with in application with no dependency on any external application for both hardware and application redundancy. The native fail-over architecture must be for both management and recording servers. The fail over time should be near real time and there should not be any loss in the Live video and recorded video.	With Native Failover Please allow Windows clustering for server redundancy as this is part of windows with no additional cost	Please refer Addendum-1
237	Part-2	Section–VI B	5.2.5	The VMS shall support Direct Multicast from Camera with no dependency of stream being sent to OCC Or BCC, recording servers for live viewing and optimize the overall bandwidth consumption on the FOTS back bone. The actual bandwidth requirements will be dealt in the design stage.	Request to allow The system shall support multicasting of video feeds to client workstations in order to conserve network resources. Multicasting should be enabled from the recording servers and not directly from the cameras. Thus the IGMP network would be necessary only for the switches where server and clients are connected.	Please refer Addendum-1
238	Part-2	Section–VI B	5.2.6	The VMS Application shall be capable to handle both IP v4 and IP v6 Unicast and Multicast traffic with both PIM - SM and PIM - DM support.	Since IPv6 is not rolled out completely and facing few complication into the Network &Security . VMS should have an option of Ipv4/Ipv6 since there will be multiple components into the package .	Please refer Addendum-1
239	Part-2	Section–VI B	5.3	Alarm Management Feature e. An alarm preview window shall display recorded video from a selected alarm or event if these have videos associated with them. If there are more than one cameras associated with an alarm or if more than one alarm is selected, the preview shall show video from all associated cameras (up to 9 cameras).	Generally,one or maximum two CCTV covers any location.One or two cameras is good for preview so Pls consider the same.	Tender condition prevails.
240	Part-2	Section–VI B	5.3.3	The Access control architecture should not have a central dependency on the OCC / BCC and must work independently either through a local server or any other kind of device being placed at station level to manage	Access Controller will store the data of all access point equipment,users in offline and online mode.So central distributed architecture enhance the system speed and reduce the network bandwidth.Pls consider the same.	Tender condition prevails

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				independent Access control logic during the location like Station being isolated from OCC / BCC.		
241	Part-2	Section–VI B	5.4 2. Network Video Recording Server	System should ensure that once recorded, the video cannot be altered, ensuring the audit trail is intact for evidential purposes. This has to be achieved using Authentication with SHA-1 hashing function, combined with 1024-bit RSA public-private key pair. Water marking alone for ensuring temper proof recording is not sufficient. The VMS must support digital signature to prove authentication and integrity. Temper proof recording mechanism which meets security of minimum 128 bits encryption shall be implemented.	Hope MD5 technique for Video Validation should be fine with AES 256 Encryption for Video Exports	Please refer Addendum-1 for revised bid condition
242	Part-2	Section–VI B	5.4(f(18))	Viewing Client: f. The viewing client shall allow the user to be able to: 18. print images, with optional comments.	Request you to please remove "optional comments" option as same is not relevant while printing camera image.	Tender condition prevails
243	Part-2	Section–VI B	5.5	MAPS	Please add that " the maps shall be allowed to place the other devices like fire detector, cameras & ACS doors etc " for better central monitoring purpose	Please refer clause 5.5(e) and 5.5(f) for details.
244	Part-2	Section–VI B	5.60 €	An alarm preview window shall display recorded video from a selected alarm or event if these have videos associated with them. If there are more than one cameras associated with an alarm or if more than one alarm is selected, the preview shall show video from all associated cameras (up to 9 cameras).	Generally, one or maximum two cameras covers any location. Hence, Please allow only one or two cameras for preview.	Tender condition prevails.
245	Part-2	Section–VI B	5.6	(i) It shall be possible to double-click an alarm to open an alarm window. The window shall show a preview of the alarm incident and live video.	Do we need to provide an Incident management System also as a part of ISMS ?	Tender condition prevails.
246	Part-2	Section–VI B	6.1.2.15	Camera must comply with Cybersecurity measures and shall provide on board Cybersecurity feature inbuilt in firmware to protect the hardware against cyber threats such as Brute force, snooping etc.	Request to add various range of cybersecurity features to strengthen the protection against different types of cyber attacks. Hence kindly amend the clause as follows Camera must comply with cybersecurity measures and shall provide on board cybersecurity feature inbuilt in signed firmware, CC EAL4++ Certified dedicated hardware chipset module with cryptographic algorithm, signed Video and brute force delay protection against cyber threats.	Tender condition prevails. Kindly refer IS & Cyber security chapter for details



<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
<b>S. No.</b>	<b>Part</b>	<b>Section</b>	<b>Clause</b>	<b>Original Bid Condition</b>	<b>Bidder's Query</b>	<b>Response</b>
247	Part-2	Section–VI B	6.1.2.3	(d) Long range PTZ/Fixed CCTV cameras with night vision facility shall be provided at the edge of the platforms with SOD Compliance which would be pointing towards the viaduct covering min. 150 mtrs. on train entering side of viaduct station.	As per our understanding long range cameras with night vision facility should be at edge of the platforms at every station which would be pointing towards the viaduct on each side of station. We suggest please use Fixed box cameras instead of PTZ cameras.	Please refer Addendum-1
248	Part-2	Section–VI B	6.1.2.6	Video recording system shall provide primary recording at each respective stations/Depot and Mirror (Secondary recording ) for stations/Depot of any particular FOTS ring shall be combinedly done at any one location of respective FOTS Network ring. Primary recording shall be done for 15 days at full resolution of the camera with 20 FPS and Secondary recording for 90 days at a resolution of 1920x1080 with 20FPS. Secondary recording infrastructure may use modern Virtualization technologies to optimize the Hardware. In addition, Contractor shall provide additional storage space required to store 100 Camera footages for 90 days in the secondary recording device to keep the Archive/back up of important events	As per our understanding mirror(secondary) recording location for all stations is at a combined location of one FOTS ring which requires high network bandwidth from stations to combined location. We suggest please make provision for primary recording at station itself and mirror recording at adjacent station as same provision is made in all previous metro projects for seamless recording.	Tender condition prevails.
249	Part-2	Section–VI B	6.1.3.3.5	CCTV Cameras (1 No. per zone as per PAS system design) Shall be assigned to record ambience audio announcement in the VMS. Camera specifications other than inbuilt mic shall be referred same as per clause 6.2.6.2	it is mentioned that microphone are required to record announcements, it may also capture public conversations and background noise, which could raise privacy concerns and may be subject to legal restrictions. Having an external microphone input would provide an option to add an extended cable till speaker to reduce capturing of external noise, This can help to limit unwanted noise.	Please follow tender conditions. Bidder can propose suitable arrangement as per the tender requirement.
250	Part-2	Section–VI B	6.1.4	PERFORMANCE REQUIREMENTS	This clause is very critical to ensure VAPT test certificate from any reputed third party agencies. Also this clause was there in earlier CCTV tender of Chennai Metro. To ensure security of CCTV surveillance system (Camera & Software) from vulnerabilities & breaches and discourage false undertaking from OEMs, security auditing and testing of equipment including source code of camera and software shall be carried out from STQC (Ministry of Electronics & Information Technology) or any other Government Agency from the list of CERT-In empaneled Information Security Auditing Government Agency from the list of CERT-In empaneled Information Security Auditing or STQC/OWASP/UL Cybersecurity Assurance Program Test Methods certified from Globally renowned laboratories complying to risk assessment criteria for security threat as par UL2900-1 or	PT is to be done every year for the entire CMRL PH-II Network. Refer Chapter 16 of TS IS & Cyber Security chapter. Please refer addendum for clause 16.20

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
					complying to penetration test report with proper defense against security vulnerabilities in devices to be submitted along with the bid.	
251	Part-2	Section–VI B	6.1.4.1	General >The OEM for CCTV system shall be registered in India with self-owned service center without joint venture. The OEM shall have implemented end to end CCTV solution in metro environment.	General >The OEM for CCTV system shall be registered in India with self-owned service center without joint venture from last 5 years. OEM shall provide Property Tax / Electricity / Telephone Bill / GST Registration /Lease agreement (in favor of OEM) along with an undertaking signed by OEM / OEM representative having POA on the OEMs letter head. The OEM shall have implemented end to end CCTV solution in metro environment  For achieving faster SLA and Prompt repairing or replacement of the cameras. Also OEM's should be well established in india since long.	Please refer Addendum-1
252	Part-2	Section–VI B	6.1.4.1	General The specific system performance requirements for the CCTV system shall be as specified herein: The OEM for CCTV system shall be registered in India with self-owned service centre without joint venture. The OEM shall have implemented end to end CCTV solution in metro environment	1. RBH access is a Canada based manufacturer of integrated Security Management System. We are present in india since last 15 years via a joint venture. We are manufacturing RBH Products under grade 2 make in India. Please allow RBH Products under Clause No. 6.1.4.1 General. 2. RBH has integrated security management software. RBH Software is installed in about 50 metro lanes globally. RBH view VMS is a part of RBH Security Management Suit. We have installed RBH Software With integrated CCTV. Not CCTV End to End. Kindly Allow RBH VMS as we have very long experance of working in Metro Environment.	Tender condition prevails.
253	Part-2	Section–VI B	6.2.1.1	Proposed CCTV system shall be based on Non-Proprietary open standard based integrated system with network centric functional and management architecture aimed at providing high speed manual / automatic operation for best performance.	Need more details to understand the "high speed manual/ automatic operation".	Please refer revised bid condition in Addendum-1
254	Part-2	Section–VI B	6.2.2.1.7	Focal Length should be of following as minimum. Lens 2.8-12mm, Lens 3-50mm & Lens 8-80mm. Vendor to indicate the focal length range for both wide & Telephoto dynamic range, Particular lens and allocation as per coverage area shall be finalized in detailed design stage	Please change the lens size as per below lens and camera specifications.9-40 mm lens size is used in clause 6.2.3.1 for fixed box camera, 3.8-8 mm lens is used for fixed dome camera as per clause 6.2.6.1 and 5-9.4 mm lens is used for bullet camera as per clause 6.2.6.2.	Please refer Addendum-1
255	Part-2	Section–VI B	6.2.2.1.7	For fixed box CCTV: 6.2.3 : Table 6.2.;, Focal length - 9 mm – 40 mm	Lens size is mentioned 9 mm – 40 mm for fixed box camera in clause 6.2.3 which is contradictory to clause 6.2.2.1.7. Request to kindly amend the lens size from clause 6.2.2.1.7 to select the appropriate lens	Please refer Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
256	Part-2	Section–VI B	6.2.2.1.7	Focal Length should be of following as minimum. Lens 2.8-12mm, Lens 3-50mm & Lens 8-80mm.	Lens range mentioned in the tender document are different in different sections and does not match 6.2.3.1 1 1)Focal length, 6.2.6.1 7) Lens 3.8mm~8mm, 6.2.6.2 C) Focal Length (Zoom Ratio) 5 – 9.4 mm motorized focus/zoom lens) when compared lens given in 6.2.2.1.7 , this creating confusion and can potentially lead to issues during evaluation process. kindly clarify which lens is the correct one and ensure that all sections of the tender document are updated accordingly.	Bidder to consider Lens based on tender scope.Actual requirement will be covered based on coverage study and detail design.Please refer addendum for 6.2.2.1.7
257	Part-2	Section–VI B	6.2.3.1	1) Focal length 9 mm – 40 mm	The ranges of lenses offered by different OEMs for CCTV cameras can have unique matching sensor size which leads slight variation in focal length. So at least 10% tolerance in both the minimum and maximum lens values should be allowed without change in functional requirement i.e. Field of viewHence, kindly amend this clause as follows Focal length 9 mm – 40 mm±10%	Bidder to consider Lens based on tender scope.Actual requirement will be covered based on coverage study and detail design.
258	Part-2	Section–VI B	6.2.6.1	High Definition IP Fixed Dome Camera (IR Camera):- 10) Supported Protocols:- Telnet, FTP, TCP/IP, UDP/IP (Unicast, Multicast IGMP), IPv4/v6, SNMP, SNT, RSTP, ONVIF etc. or as required to fulfil the functional requirement of project	Request you to remove the telnet and RSTP protocol as it is not required as per CCTV Standard applications and security reasons.	Please refer revised bid condition in Addendum-1
259	Part-2	Section–VI B	6.2.6.2	E) IR Viewable length 50m	E) IR Viewable length up to 40 or above with Optimized IR which should adjusting IR intensity depending on scene. The IR beam which automatically adapts becoming wider or narrower as the camera zooms in and out. So the entire field of view is always evenly illuminated. Provide more usable image quality.	Please refer revised bid condition in Addendum-1
260	Part-2	Section–VI B	6.2.6.2	High Definition IP Fixed Bullet Camera (IR Camera) E) Supported Protocols:- IR Viewable Length- 50 m L) Supported Protocols:- Telnet,FTP,TCP/IP, UDP/IP (Unicast, Multicast IGMP), IPv4/IPv6, SNMP, SNT, RSTP, ONVIF etc. or as required to fulfill the functional requirement of project. R) Wide Dynamic Range -100 dB or better	E) Request you to please amend the IR viewable length up to 40 m as 50 m is not relavant due to shorter focal length of camera. L) Request you to remove the telnet and RSTP protocol as it is not required as per CCTV Standard applications and security reasons. R) Request you to please change the WDR upto 87 dB.	E.Please refer revised bid condition in Addendum-1 L.Please refer revised bid condition in Addendum-1 R) Please refer revised bid condition
261	Part-2	Section–VI B	6.2.6.2( E)	IR Viewable Length- 50m	It is Request to kindly amend the IR viewable length up to 40m/50 m for wider OEM participation.	Please refer Addendum-1
262	Part-2	Section–VI B	6.2.6.2( E)	IR Viewable Length- 50m	Request you to please amend the IR viewable length up to 40 m as 50 m is not relavant due to shorter focal length of camera.	Please refer revised bid condition in Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
263	Part-2	Section–VI B	6.2.6.2( R)	Wide Dynamic Range- 100 dB or better	It is Request to kindly change the WDR 87 dB/100 dB or better for wider OEM participation.	Please refer Addendum-1
264	Part-2	Section–VI B	6.2.6.2( R)	Wide Dynamic Range- 100 dB or better	Request you to please change the WDR upto 87 dB.	Please refer Addendum-1
265	Part-2	Section–VI B	7.1.1.2	The ACIDS shall be provided at Stations, OCC,BCC,RSS & Administrative Building. The ACIDS in stations, as a minimum, shall be provided in important rooms like SCR, Ticket Offices, EFO's,Service gates (near AFC gate array), Technical rooms (Power Supply, Signaling and Low Voltage technical rooms), ASS, Crew control rooms and other important rooms. In Depots, ACIDS shall, as a minimum, be provided in Technical rooms (Power Supply, Signaling, Telecom, AFC and Low Voltage technical rooms), ,OCC & BCC theatre including main entry & exit gates to control access into important equipment rooms and critical areas. Location of the ACIDS system shall be finalized during detailed design stage.	Please provide the list of number of station, typical stations, and depots with ACIDS details	ACID details are already covered in this tender scope. ASA-06 shall interface &integrate the ACID equipments supplied under ASA-05&ASA-08 packages in line with interface requirements. Please refer Part 2 Section – VI B 1.4.1.1 Corridor Alignment for details of stations and Depot.
266	Part-2	Section–VI B	7.1.1.6	Contractor shall be responsible to interface with other Telecom contractors of other packages/corridors for station ACID system with Integrated Security Management system (ISMS).Contractor shall refer Chapter 5 for seamless integration with ISMS for Video management and recording.	We understand that Access control system will be integrated with ISMS via SDK and API level. Please clarify.	Please follow tender conditions. ACIDS and CCTV for all corridors will be integrated with ISMS system. Refer Clause 5.3.5 and Clause 18.10.14 Technical Specifications Scope of Allocation matrix SL.No.2 for more details.
267	Part-2	Section–VI B	7.1.2.1	Management of Monitoring and Recording Entrance/Exit The Security Access Control System shall monitor and record information of entrance/exit and interface the information interconnecting with video images captured by CCTV system.	Please clarify on the statement. Image capturing is done in CCTV system.	Please refer Part 2 Section – VI B clause 5.3.8. ACID control system shall interface with CCTV system for the implementation of the clause.
268	Part-2	Section–VI B	7.1.2.2	Management of Authentication The Security Access Control System shall provide the authentication function with IC card and biometrics such as fingerprint authentication .	Please provide us the specification of card reader and Biometric reader as this information is missing	Kindly refer clause 7.5.3.6.5 for reader specifications.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
269	Part-2	Section–VI B	7.1.2.2	Management of Authentication The Security Access Control System shall provide the authentication function with IC card and biometrics such as finger vein authentication.	It is requested to provide the specifications of card reader and Biometric reader.	Kindly refer clause 7.5.3.6.5 for reader specifications.
270	Part-2	Section–VI B	7.1.2.3	Management of Integration Function with Other systems The Security Access Control System shall have the function to interface other systems such as the CCTV system and fire alarm system.	It is requested to Kindly share the number of CCTV cameras per location required to interface with ACIDS.	ASA-06 CCTV chapter gives the details of Cameras required.ISMS System at OCC/BCC to integrate with ACIDS and CCTV systems of all 3 corridors.ASA-06 Contractor needs to plan CCTV cameras to meet the integration requirements of CCTV and ACIDS System as per the contract.
271	Part-2	Section–VI B	7.1.2.3	Management of Integration Function with Other systems The Security Access Control System shall have the function to interface other systems such as the CCTV system and fire alarm system.	Kindly share the number of CCTV cameras need to interfaced with ACIDS. Is this part of ISMS scope as chapter 5?	Please refer Part 2 Section – VI B clause 5.3.8. ACID control system shall interface with CCTV system for the implementation of the above clause. All Cameras adjacent to Access control equipment needs integration.ISMS System at OCC/BCC to integrate with ACIDS and CCTV systems of all 3 corridors.
272	Part-2	Section–VI B	7.1.2.7	Middle Security Zone In the middle security zone, railway company staff shall enter facilities/rooms in accordance with the security permission given in advance. The security permission shall be set in the smart card. The entry to the rooms shall be restricted with smart card.	Kindly share typical stations and depot details with details of low, medium and high security zones to consider reader type accordingly.	Please refer Part 2 Section – VI B clause 7.5.8 Access Control within Sites for the details. High security zones is detailed as per 7.1.2.8. The balance areas covered under 7.5.8 ,excluding the High security zone, covers the Medium security zone. Low security areas are not covered with any access control equipments as per clause 7.1.2.6
273	Part-2	Section–VI B	7.1.2.8	High Security Zone In the high security zone (Critical equipment and control rooms like Station/Depot Control room, TER/CER,SER,TSS,ASS and UPS room railway company staff shall be restricted with smart card and smart card with fingerprint authentication.	Kindly share typical stations and depot details with details of low, medium and high security zones to consider reader type accordingly.	Please refer Part 2 Section – VI B clause 7.5.8 Access Control within Sites for the details. High security zones is detailed as per 7.1.2.8. The balance areas covered under 7.5.8 ,excluding the High security zone, covers the Medium security zone.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
						Low security areas are not covered with any access control equipments as per clause 7.1.2.6
274	Part-2	Section–VI B	7.2.1.4	The system shall provide for the capability to manually control the output devices such as locking mechanisms. The control shall be restricted to authorized personnel only.	We understand that authorized person can open the lock by using secure key in override key switch. Please confirm.	Only authorised persons will be allowed to operate the entire telecom systems and their interfaces. The manual control can be initiated from ISMS software, Emergency release key switch and Override key switch.
275	Part-2	Section–VI B	7.2.1.5	The contractor shall provide BIC Card and/or a biometric authentication such as fingerprint authentication at Station/Depot Control room ,TER/CER,SER ,TSS ASS and UPS room and remaining access rooms shall be provided with card.	It is requested to provide the information about BIC card.Is it access to Station/Depot Control room ,TER/CER,SER ,TSS ASS and UPS room via Biometric only or Card and Biometric (2 Factor)	Please refer the Addendum-1
276	Part-2	Section–VI B	7.2.1.5	The contractor shall provide BIC Card and/or a biometric authentication such as fingerprint authentication at Station/Depot Control room ,TER/CER,SER ,TSS ASS and UPS room and remaining access rooms shall be provided with card.	What is BIC card? Is access to Station/Depot Control room ,TER/CER,SER ,TSS ASS and UPS room via Biometric only or Card and Biometric (2 Factor)	Please refer the Addendum-1
277	Part-2	Section–VI B	7.4	ACS system shall be an integrated smart card access, intrusion detection, and alarm monitoring control system designed to meet the operational requirements of ACS system shall be interfaced mainly with GE backbone Network, CCTV System and Automatic Fare Collection System (according to smart card technology), Clock System, Fire Alarm, Civil Works Interface for cabling, routing, etc.	Kindy share AFC card technology which will be used	Interfacing with AFC smart cards, is part of ASA-06 interface responsibility. Details will be finalised during interface design.
278	Part-2	Section–VI B	7.4	ACS system shall be an integrated smart card access, intrusion detection, and alarm monitoring control system designed to meet the operational requirements of ACS system shall be interfaced mainly with GE backbone Network, CCTV System and Automatic Fare Collection System (according to smart card technology),	It is requested to have AFC Functionality separate from Telecom system (ACIDS) to avoid any kind of security breach. Kindly confirm.	Tender Condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				Clock System, Fire Alarm, Civil Works Interface for cabling, routing, etc.		
279	Part-2	Section–VI B	7.4.1	The ACS Local equipment at every station, OCC&BCC , Technical rooms, Maintenance Centre and at the Depot shall provide the interface for collecting and processing data from local devices and interface to other system such as CCTV to form a security control structure.	ACS local equipment will connect to ACIDS server where software will be installed in a server and data is processed, Collecting information directly from device is forbidden in access control scenario as it's a security risk. Kindly suggest if interface to be done with ACIDS server	Refer Clause 18.10.14 Technical Specifications Scope of Allocation matrix for more details. The referred clause permits integration using APIs at server level and controller level. Depending on the architecture , contractor may decide during the details design. The API integration can be either at Controller level or at station server level or at central server level.
280	Part-2	Section–VI B	7.4.11	The system shall be able to import the data into standard format as pdf,xls ,xlsx,html and csv etc.	Importing can be done via readable file such as CSV	Clause is self-explanatory
281	Part-2	Section–VI B	7.4.2	The ACS Local equipment at every station shall be able to perform its function standalone in case of communication failure with the Access control software central ISMS server in the OCC & BCC. The system shall be able to detect sensor failure.	We understand the sensor failure is reader failure. Pls clarify.	The ACS local component at every station is capable of understanding failure with Central ISMS system and function on a standalone basis and also detect sensor failures for reader or any other ACS equipment.
282	Part-2	Section–VI B	7.4.4	The ACIDS HMI shall: Viewing client software application for stations MMI's shall be provided by Telecom contractor as ISMS solution and MMI hardware for respective package/corridors/stations. However, Other designated telecom Contractor shall provide MMI hardware for their respective packages/corridors/stations with all accessories and desirable OS software to interface with ISMS system at OCC/BCC. Required OS shall be finalized during design stage. Contractor shall interface with ISMS for below mentioned functionality of HMI	ACIDS HMI will be a separate HMI, for integration with ISMS, OPC interface can be provided	Please follow tender conditions. Integrated ISMS HMI is required using OPC or any other standard protocols. Refer the amended clause 7.4.4

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
283	Part-2	Section–VI B	7.4.4	The ACIDS HMI shall: Viewing client software application for stations MMI's shall be provided by Telecom contractor as ISMS solution and MMI hardware for respective package/corridors/stations. However, Other designated telecom Contractor shall provide MMI hardware for their respective packages/corridors/stations with all accessories and desirable OS software to interface with ISMS system at OCC/BCC. Required OS shall be finalized during design stage. Contractor shall interface with ISMS for below mentioned functionality of HMI	We understand that HMI ACID need to be implemented. It is requested to kindly confirm whether Common HMI for all system is required or there is separate HMI requirement for ACID. Kindly confirm.	Please follow tender conditions. Integrated ISMS HMI is required using OPC or any other standard protocols. Refer the amended clause 7.4.4
284	Part-2	Section–VI B	7.4.7	Smart Cards used for the Access control System shall be compatible with the Automatic Fare Collection system and shall be provided by AFC contractor such that the card can serve the dual purpose of Access control as well as Employee Pass for travel on the metro System. However, 1000 number of cards shall be provided by Telecom Contractor as part of tender requirement	Kindy share AFC card technology which will be used	Interfacing with AFC smart cards, is part of ASA-06 interface responsibility. Details will be finalised during interface design.
285	Part-2	Section–VI B	7.4.8	AFC Contractor shall provide ISO 14443 cards, Access control system shall be compatible with these types of Cards.	Kindly share datasheet of AFC cards	Please refer Addendum-1
286	Part-2	Section–VI B	7.5.1.1	As a part of ISMS , central access control server (with hardware redundancy and disk mirroring) shall be installed in CER, within the OCC & BCC, which shall control and monitor all of the Access Control and Intrusion Detection facilities installed within all phase 2 (Corridor 3,4&5)corridors, sites, stations, OCC & BCC, Depots and Operational administrative offices both for OCC, BCC & Depots. Additionally, one stand by server for each corridor shall be installed as a stand by which shall ensure seamless functionality in case of communication link failure between OCC/BCC & stations.	Please confirm the central access control server Qty. Our understanding is as follows OCC- 1no BCC- 1no Corridors-3nos	Please refer revised bid condition and additional clause 1.7.1, Section VI-B, Part-2 in Addendum 1.



<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
<b>S. No.</b>	<b>Part</b>	<b>Section</b>	<b>Clause</b>	<b>Original Bid Condition</b>	<b>Bidder's Query</b>	<b>Response</b>
287	Part-2	Section–VI B	7.5.11.1	The ACIDS HMI at the stations, OCC BCC and at other sites will be integrated with ISMS and shall, as a minimum, support the following functions, as appropriate to each specific site:	ISMS vendor has to confirm this, ACIDS alarms are available via OPC protocol	Please follow tender conditions. ISMS can be integrated via OPC and any other standard protocol with ACIDS System.
288	Part-2	Section–VI B	7.5.11.1	The ACIDS HMI at the stations, OCC BCC and at other sites will be integrated with ISMS and shall, as a minimum, support the following functions, as appropriate to each specific site:	ACIDS alarms are available via OPC protocol	Please follow tender conditions. ISMS can be integrated via OPC and any other standard protocol with ACIDS System.
289	Part-2	Section–VI B	7.5.11.5	System deactivation For the sake of providing operational flexibility, the Operators to deactivate the following facilities at certain periods of time, if required, to avoid unnecessary alarms being generated: (a) Intrusion Detection facilities within designated areas (b) Specific access control points	System deactivation flexibility is like breach in security system and might be misused in future.We recommended it should be the device deactivation for operational flexibility.Pls consider.	Tender Condition prevails
290	Part-2	Section–VI B	7.5.2.2	The access point controllers shall: (a) Operate in conjunction with central ISMS server. Central ISMS Server shall be provided in OCC & BCC along with NMS. HMI clients hardware shall be provided at station level for local operation. Telecom shall comply with functional and RAMS requirement.	Access point controller will operate in conjunction with ACIDS server, ISMS can be integrated via OPC with ACIDS server	Please follow tender conditions.ISMS can be integrated via OPC and any other standard method with ACIDS System. Refer Clause 18.10.14 Technical Specifications) Scope of Allocation matrix SL.No.2 for more details
291	Part-2	Section–VI B	7.5.4.2	The contractor shall provide the following at RSS Building. i.Fiber Optic Intrusion Detection System around the boundary wall with accuracy of +/- 10 m. ii.Intrusion detection cameras suitable for day/night operation, with associated special software and software licenses iii.Beam interruption sensors for main gates	Are all 3 options needed, or 2 options are needed? Cameras are to be considered as part of ACIDS requirement of CCTV requirement	All three are mandatory where the Compound wall is protected by Fiber Optic Intrusion Detection System and gates with beam sensor. Cameras will monitor the Boundary in addition to the above for intrusion detection and also works in conjunction with trigger from the above.
292	Part-2	Section–VI B	7.6.1.1	The system shall be immune to be hacked and shall provide end to end security and authentication of data	Access controller should support the AES 256 bit encryption along with biometric readers. Access control software should carryout Vulnerability Assessment and Penetration Testing (VAPT) as per Cyber Security guidelines Grey Web Box Web Penetration tetsing as per ISSAF;OWASP Top 10 2013 and 2017;SANS TOP 25;OWASP Top 10 2021 and CER In standards.Pls consider the same.	Please follow the tender conditions.

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
293	Part-2	Section–VI B	7.6.1.2	Suitable encryption and associated electronic safeguards shall be provided to prevent any cloned Proximity ID Cards gaining access to the system and entry to controlled locations.	Complete system should be highly encrypted as follows 1) Server to browser SSL(HTTPS) 2)access to software VPAT certified 3) Controller to server TLS encryption or AES 256 encryption. Please consider the same.	S.NO 1 and 2 are already covered as part of ISS&Cyber security. 3. Controller to Server TLS/AES256 or better  Better encrypted system to prevent any unauthorized access can be proposed.
294	Part-2	Section–VI B	7.6.2.1	The system shall be suitably responsive, in consideration of the average human response speed, so as not to frustrate operators and users of the system. Typically, the response time shall not exceed 2 seconds for each of the following functions: (a) Display to HMI operators on initiation of a request requiring a system response, such as those associated with operator related actions and database functions;(b) Opening of the door locking mechanism at access point locations following presentation of the ID card to the card reader, or initiated remotely by the HMI operator.	Response time depends on multiple factors such as network architecture, system architecture,distance,wiring,network server and switches. Hence, please consider upto 5 sec.	Tender condition prevails.
295	Part-2	Section–VI B	7.7	Reliability and Availability 1. For the purpose of availability objectives laid down, the chain will consist of: a) The Access Control equipment shall have Equipment MTBF (Hours) in excess of 100,000 hours. 2. System Expansion and Spare Capacity	a) MTBF define the system reliability and stability.Higher the MTBF then higher the reliability of the product.So kindly set a MTBF for access controller threshold limit at least >150,000 hrs.Pls consider the same. b) ACIDS software will be integration with Integrated Security Management system (ISMS) via API and SDK. sleamesessly.It's architecture already deployed in various Metro projects.Pls consider the same.	Please follow tender conditions.
296	Part-2	Section–VI B	7.7 (2.c)	Access point controllers and card/biometric readers shall be integrated with ISMS.	Please consider that ACIDS software will be integrated with Integrated Security Management system (ISMS) via API and SDK seamlessly. Kindly amend clause accordingly.	ACIDS and CCTV for all corridors will be integrated with ISMS system at OCC/BCC via SDK,API and any other application interfaces. Refer Clause 18.10.14 Technical Specifications) Scope of Allocation matrix SL.No.2
297	Part-2	Section–VI B	8.2	to be provided under Telecom Contract shall consist of following major component	We understand that the redundant Masterclock system in 1+1 configuration optically linked to each other shall be kept at OCC as a main unit and another hot standby unit in same configuration shall be kept at BCC so that Master Clock services are uninterruptible available and survive during any one failure of hardware, cabling and software.Please confirm our understanding.	Please refer additional clause 1.7.1 , Section VI-B, Part-2 in Addendum 1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
298	Part-2	Section–VI B	8.3.3.1	Contractor shall propose design, manufacturing, testing and commissioning of 1.5 meter to 3 meters dia.of dial, self-illuminated analogue façade clock with hour and minutes hands.	We request to determine the dial diameter to propose exact model.	Please refer Addendum-1
299	Part-2	Section–VI B	8.3.3.1	Contractor shall propose design, manufacturing, testing and commissioning of 1.5 meter to 3 meters dia.of dial, self-illuminated analogue façade clock with hour and minutes hands.	<p>1. Please share minimum specification for façade clock.  We undertand that the façade clock design shall be as per location architecture and aesthetics, as such we request below, minimum technical specification for facade clock:</p> <ol style="list-style-type: none"> <li>1. Synchronised Motor Movement</li> <li>2. Illumination tube or LED in background</li> <li>3. Hands driven by power supply 240V AC, consumption less than 25VA.</li> <li>4. Temperature Range: -30 to +55 deg. C</li> <li>5. Internal battery to keep internal time.</li> <li>6. Skeleton dials.</li> <li>7. Should be from same OEM Make as Master Clock System.</li> </ol> <p>Please confirm our understanding.</p> <p>2. We request to determine the dial diameter to propose exact model</p>	Please refer Addendum-1
300	Part-2	Section–VI B	8.3.3.1	Contractor shall propose design, manufacturing, testing and commissioning of 1.5 meter to 3 meters dia.of dial, self-illuminated analogue façade clock with hour and minutes hands.	It is requested to please clarify the no. of Facade Clocks required at Metro Bhawan/ HQ	Please refer Addendum-1
301	Part-2	Section–VI B	8.3.3.1	Contractor shall propose design, manufacturing, testing and commissioning of 1.5meter to 3 meters dia.of dial, self-illuminated analogue façade clock with hour and minutes hands.	Request to share technical specification of façade clock in detail.	Please refer Addendum-1
302	Part-2	Section–VI B	8.7.3.4	The master clock system shall work from 230V AC UPS with an internal battery backup of at least 4 hours.	<p>We request to modify the clause as below:  The master clock system shall work from 230V AC UPS.</p> <p>N.B: As the Master clock comes with redundant power supply facility and the input power is further backed by UPS, battery back up for 4 hours is not needed. So, kindly delete the requirement of 4 hrs battery back up.</p>	Please refer Addendum-1
303	Part-2	Section–VI B	8.7.3.5	The design of the slave clocks shall be of high quality and blend into the architecture of the area in which they are located. Digital slave clocks shall be programmable both for 12 hours and 24 hours. Clocks shall be provided as follows: a) One wall mounted synchronized digital clock in each Station Control Rooms, OCC & BCC, SSR,	<p>We request to modify the clause as below:  The design of the slave clocks shall be of high quality and blend into the architecture of the area in which they are located. Digital slave clocks shall be programmable both for 12 hours and 24 hours. Clocks shall be provided as follows:</p> <p>a) One wall mounted synchronized digital clock in each Station Control Rooms, OCC &amp; BCC, SSR, small offices. The character height of the display shall not be less than 70 mm for indoor clocks and the character height of the display</p>	Please refer Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				DCC, TOM, RSS, small offices. The character height of the display shall not be less than 75 mm for indoor clocks and the character height of the display shall not be less than 100mm for outdoor clocks. b) Display digital clock at various locations shall display 4 characters viz.time in HH:MM format c)The numbers of clocks are to be worked as per the above requirement.	shall not be less than 100mm for outdoor clocks. b) Display digital clock at various locations shall display 4 characters viz.time in HH:MM format The numbers of clocks are to be worked as per the above requirement. N.B: The digit height given in the tender is proprietary in nature and made by a specific manufacturer. By changing the minimum height digit from 75 mm to 70 mm will not affect or hamper the operational activity of Metro. Furthermore, it will give entry to more manufacturer and help for better negotiation.	
304	Part-2	Section–VI B	8.7.3.5	a) One wall mounted synchronized digital clock in each Station Control Rooms, OCC & BCC, SSR, DCC, TOM, RSS, small offices. The character height of the display shall not be less than 75 mm for indoor clocks and the character height of the display shall not be less than 100mm for outdoor clocks.	Request to kindly amend the following: the character height of the display to minimum <b>70 mm</b> for indoor clocks for wider OEM Participation.	Please refer Addendum-1
305	Part-2	Section–VI B	8.7.3.5	The design of the slave clocks shall be of high quality and blend into the architecture of the area in which they are located. Digital slave clocks shall be programmable both for 12 hours and 24 hours. Clocks shall be provided as follows: a) One wall mounted synchronized digital clock in each Station Control Rooms, OCC & BCC, SSR, DCC, TOM, RSS, small offices. The character height of the display shall not be less than 75 mm for indoor clocks and the character height of the display shall not be less than 100mm for outdoor clocks. b) Display digital clock at various locations shall display 4 characters viz.time in HH:MM format c)The numbers of clocks are to be worked as per the above requirement.	The digit height given in the tender is proprietary in nature and made by a specific manufacturer. By changing the minimum height digit from 75 mm to 70 mm will not affect or hamper the operational activity of Metro. Furthermore, it will give entry to more manufacturer	Please refer Addendum-1
306	Part-2	Section–VI B	9.1.1.3	The FOTS shall be a highly reliable system since it shall be the primary means of voice, data and video communications between OCC & BCC, stations, RSSs and the depots, on which a number of other operationally critical systems rely.	As per requirement, FOTS equipment will be located at every station, depot, OCC, BCC and RSS. Kindly confirm the RSS locations with its count in ASA06.	"Following RSS /TSS are planned in this section 1.Mannapakkam. 2. Perumbakkam 3. Siruseri

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
307	Part-2	Section–VI B	9.1.3	(q) Network equipment to provide LAN connectivity for OA/IT at Stations ,RSS and ASS.	It is requested to Kindly provide number & Drawings for RSS locations along with number of switch port requirement.	"Following RSS /TSS are planned in this section 1.Mannapakkam. 2. Perumbakkam 3. Siruseri
308	Part-2	Section–VI B	9.1.3	(q) Network equipment to provide LAN connectivity for OA/IT at Stations ,RSS and ASS.	Kindly provide details for RSS & ASS locations along with their number of port requirement.	"Following RSS /TSS are planned in this section 1.Mannapakkam. 2. Perumbakkam 3. Siruseri ASS will be at each station
309	Part-2	Section–VI B	9.1.4.3	Branching outdoor optical Fiber cables shall be provided for equipments in all RSSs, and other locations, requiring optical access from the nearest station Telecom Equipment Room (TER). Connectivity of OFC to all RSSs, and other locations will be responsibility of the Telecom contractor. The core count of the branching optical Fiber cables to RSSs shall be of min 24 Fibers, determined from the design of the related Subsystems or interfacing requirements with relevant Designated Contractors.	We understand that 24 Fibre cable shall be armoured type with single mode G.652.D fibre. other features like mechanical, environmental and fire properties will be same as that of 144F. Kindly Confirm.	Please refer revised bid condition for clauses 9.2.4.11 and 15.2.9.1
310	Part-2	Section–VI B	9.2.2.4	FOTS system should be transparent to the network requirements PCI-DSS compliance of the AFC System.	Kindly provide exact requirement of AFC w.r.t PCI-DSS from FOTS Network	Please refer Addendum-1
311	Part-2	Section–VI B	9.2.4.5	intra connectivity of stations, RSS's, OCC & BCC location for CCTV, PIDS etc. shall be done by 12 Core Armored SM / MM fiber for FOTS	We understand that 12 core armoured cable shall consist of single mode G.652.D fibre and other features like mechanical, environmental and fire properties will be same as that of 144F. Kindly Confirm.	Please refer revised bid condition for clauses 9.2.4.11 and 15.2.9.1
312	Part-2	Section–VI B	9.2.5.11	The Active – Active clustering technology should have the ability to handle a “Split brain” situation especially at the station level distribution switches and clear explanation must be provided on the mechanism available in the proposed system to avoid such catastrophic failures across the network back bone.	We would like to bring to your notice that by using L2 & L3 protocols, split brain scenarios can be avoided and is one of the efficient way of handling node and inter link failures. We request to amend the clause as "The Active – Active clustering technology should have the ability to handle a “Split brain or equivalent ” situation especially at the station level distribution switches and clear explanation must be provided on the mechanism available in the proposed system to avoid such catastrophic failures across the network back bone." Kindly confirm.	Please refer Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
313	Part-2	Section–VI B	9.2.5.5	The Access Switches proposed for various sub systems including outdoor / rugged Enterprise Gigabit switches should support Ring resiliency based on Open standards and must ensure seamless interoperability with the FOTS WAN system to adopt a flexible Ring architecture between the Station Level Distribution and various Access switches within the stationOCC, BCC and other locations of CMRL Phase II	We understand operating temperature withstand range of 0 deg to 60 deg of 8 ports and 24 ports in envisaged in the tender for outdoor application. Kindly confirm.	Kindly refer clauses 1.8.6.6 and 9.2.6.2 for details
314	Part-2	Section–VI B	9.2.5.7	The Proposed Core switches and Distribution switches design must be adopted using the latest Active – Active clustering technologies like VSS (Virtual Supervisor switching) or equivalent providing high reliability for seamless service switch over of various sub systems during any disaster.	Please share the minimum specification of Port & Technical Details of Core Switch at OCC & BCC if the Core switches are part of ASA06	This is Design and Built contract. Contractor needs to propose design with quantity complying all tender conditions. Please refer clauses 9.9.3.2,9.9.3 and 18.10.14 scope of allocation matrix(S.no 5 FOTS/OAIT)
315	Part-2	Section–VI B	9.2.5.8	Core Switch at OCC and BCC shall be Common for all 3 Corridors of CMRL phase II shall be provided by Contractor.	Please share the minimum specification of Port & Technical Details of Core Switch at OCC & BCC if the Core switches are part of ASA06	This is Design and Built contract. Contractor needs to propose design with quantity complying all tender conditions. Please refer clauses 9.9.3.2,9.9.3 and 18.10.14 scope of allocation matrix(S.no 5 FOTS/OAIT)
316	Part-2	Section–VI B	9.2.6.1	(a) The WAN shall connect all sites in ring topologies via WAN Nodes which shall be provided at all main sites including stations, RSS,OCC & BCC /HQ	Kindly confirm HQ location in ASA-06.	HQ location is Nandanam Metros
317	Part-2	Section–VI B	9.2.6.1	(a) The WAN shall connect all sites in ring topologies via WAN Nodes which shall be provided at all main sites including stations, RSS,OCC & BCC /HQ.	It is requested to Kindly confirm if HQ/Metro Bhavan/BCC is same building at Nandnam. Kindly confirm the required switch ports in HQ and Metro Bhavan and admin Building.	Please refer additional clause 1.4.1.2 in Addendum-1
318	Part-2	Section–VI B	9.2.6.2	(d) The switches to be deployed in the outdoor environment must be gigabit Industrial Grade switches with seamless capability to integrate the FOTS WAN backbone on open standards	We understand operating temperature withstand range of 0 deg to 60 deg of 8 ports and 24 ports in envisaged in the tender for outdoor application. Kindly confirm.	Kindly refer clauses 1.8.6.6 and 9.2.6.2 for details

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
319	Part-2	Section–VI B	9.2.9.1.11	The Layer 3 switch in OCC & BCC, stations, and Head Quarters shall be modular chassis based switch.with swappable cards/powersupply /Fan etc while WAN switch shall be modular based with hot swapable minimum PSU&SFP's. Bidders shall provide FCAPS certified NMS Solution which can support & manage multiple vendor devices.	Normally in metro environment, OCC & BCC core switches are of modular chassis based switches in which multiple Network Interface cards are inserted as per requirement and these chassis are of multiple RU size. But WAN/ Distribution switches at Stations & Depots should be 1 RU fixed port chassis only and at these locations modular Network interface card chassis (Having multiple RU size) is not required. Modular chassis requirement should be excluded for Stations and Depots. Kindly confirm for it.	Please refer revised bid condition in Addendum-1
320	Part-2	Section–VI B	9.2.9.1.11	The Layer 3 switch in OCC & BCC, stations, and Head Quarters shall be modular chassis based switch. With swappable cards/power supply /Fan etc. while WAN switch shall be modular based with hot swapable minimum PSU&SFP's. Bidders shall provide FCAPS certified NMS Solution which can support & manage multiple vendor devices.	As the OCC & BCC core switches are of modular chassis based switches in which multiple Network Interface cards are inserted as per requirement and these chassis are of multiple RU size. But WAN/ Distribution switches at Stations & Depots may be 1 RU fixed port chassis only and at these locations modular Network interface card chassis (Having multiple RU size) might not be required. Modular chassis requirement may be excluded for Stations and Depots. Request to amend the clause by removing "Stations" from this clause	Please refer revised bid condition in Addendum-1
321	Part-2	Section–VI B	9.2.9.1.11	The Layer 3 switch in OCC & BCC, stations, and Head Quarters shall be modular chassis based switch.with swappable cards/powersupply /Fan etc while WAN switch shall be modular based with hot swapable minimum PSU&SFP's. Bidders shall provide FCAPS certified NMS Solution which can support & manage multiple vendor devices.	Today most of the large scale networks solutions are running on 1U /2U or stackable options.Moreover all the OEMs are moving away from Chassi based concept to 1U form factors with terabites switching capacity.Hence we are requesting to amend the same for wider OEM participations as follows: 9.2.9.1.11 The Layer 3 switch in OCC & BCC, stations, depots and Head Quarters shall be modular chassis-based / stackable switch swappable cards /power supply/Fan etc while WAN switch shall be modular based with hot swappable minimum PSU & SFP's. Bidders shall provide FCAPS certified NMS Solution which can support & manage multiple vendor devices.	Please refer revised bid condition in Addendum-1
322	Part-2	Section–VI B	9.2.9.1.13	The NMS shall have license to manage upto 2000 managed devices as a minimum. The NMS software shall have the capability to extend the node limit in future by purchasing the additional node licenses.	It is requested to Kindly confirm if 2000 node licenses is inclusive of C-3,4,5.	Tender condition prevails
323	Part-2	Section–VI B	9.2.9.1.20	Shall provide flexible reporting capabilities including pre-defined and custom reports with scheduled and flexible delivery options. NMS should support Software Defined Network Management including Open Flow devices.	NMS will be used to manage , monitor, performance measures and configuration of the network switches and doesn't not required SDN feature. It is requested to kindly amend the clause.	Please refer revised bid condition in Addendum-1
324	Part-2	Section–VI B	9.2.9.1.5	The Telecom Contractor shall be responsible to interface with other designated telecom contractors of other packages/corridors by providing common NMS to monitor the entire Network by receiving control and alarms from	Requested to amend the clause as follow: " The Telecom Contractor shall be responsible to interface with other designated telecom contractors of other packages/corridors by providing common NMS to monitor the entire Network by receiving control and alarms from <b>sub-system equipment/NMS of all 3 contractors. Integration of alarms monitoring shall be provided to T SCADA system also. "</b>	Please refer revised bid condition in Addendum-1.

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				other NMS. Integration of alarms monitoring shall be provided to T SCADA system also.		
325	Part-2	Section–VI B	9.9.10	(f) Support for features like Unit-Directional Link Detection. In case of one of the core’s Fiber cut, the switch should detect unit-directional transmission and shut down the port to avoid loops and help bring up the backup links.	UDLD is proprietary protocol and limiting other OEMs from bidding process.Kindly amend the same for wider OEM participations.	Please refer Addendum-1
326	Part-2	Section–VI B	9.9.10	(g) The Distribution switch must have the in-built capability to handle “Split brain “situation to avoid a total network downtime during such catastrophic failure situations	We would like to bring to your notice that by using L2 & L3 protocols, split brain scenarios can be avoided and is one of the efficient way of handling node and inter link failures. We request to amend the tender clause as " The Distribution switch must have the in-built capability to handle “Split brain or equivalent “situation to avoid a total network downtime during such catastrophic failure situations"	Please refer Addendum-1
327	Part-2	Section–VI B	9.9.11	(w) Multicast Source Discovery Protocol (MSDP)	We can achieve inter-domain multicast using the appropriate PIM Protocols . We request to amend the clause as Multicast Source Discovery Protocol (MSDP)/PIM	Tender condition prevails
328	Part-2	Section–VI B	9.9.2.9	Further the NMS shall have the following features: (a) Web based UI interface (b) Telnet and TFTP access (c) RMON - Remote Monitoring (RMON) with 4 RMON groups (history, statistics, alarms, and events). (d) SNMP agent - • SNMPv1, SNMPv2c, SNMPv3 or latest	Requesting to amend the clause by removing " <del>(c) RMON – Remote Monitoring (RMON) with 4 RMON groups (history, statistics, alarms, and events).</del> " considering RMON is obsolete and no longer supported by large number of NMS OEMs.	Bidder may consider RMON or equivalent protocol to fulfil the tender requirements.
329	Part-2	Section–VI B	9.9.3.2	Redundant Core Switches shall be provided in each OCC and BCC. These Core switches at OCC & BCC shall be chassis based and shall have redundant critical modules like supervisor/control/management card & power supply card etc.	As per our understanding we need to supply one Core Switches at each OCC and BCC which will work in High Availability for each other.Core switch will be chassis based and will have redundant critical modules like supervisor/control/management card & power supply card etc. Kindly confirm	Please refer additional clause 1.7.1, Section VI B, Part-2 in Addendum-1.
330	Part-2	Section–VI B	9.9.3.2	Redundant Core Switches shall be provided in each OCC and BCC. These Core switches at OCC & BCC shall be chassis based and shall have redundant critical modules like supervisor/control/management card & power supply card etc.	Today most of the large scale networks solutions are running on 1U /2U or stackable options.Moreover all the OEMs are moving away from Chassi based concept to 1U form factors with terabites switching capacity.Hence we are requesting to amend the same for wider OEM participations as follows: Redundant Core Switches shall be provided in each OCC and BCC. These Core switches at OCC & BCC shall be chassis based <b>or equivalent</b> and shall have redundant critical modules like <del>supervisor/control/management card</del> & power supply card etc.	Please refer revised bid condition in Addendum-1



**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
331	Part-2	Section–VI B	9.9.4.3	Redundant Management Modules with stateful failover. Failure of one switch shall not cause any disruption of Traffic.	Different OEM's have different hardware design and we request to amend the clause as "Failure of one switch shall not cause any disruption of Traffic."	Tender Condition shall prevail.
332	Part-2	Section–VI B	9.9.6	(j) Dynamic (time of day)	Mentioned tender clause is for access switches and we request to delete the clause	Please refer Addendum-1
333	Part-2	Section–VI B	APPENDIX -B	Contract spares	Please share the Contract spare Details for all sub systems.	Please refer Part-3, Section - VIII Particular Conditions 27 for details and LRU Definition in chapter 1 of Part-2, Section – VI B (Technical Specifications)
334	Part-2	Section–VI B	APPENDIX -B	Contract spares	Kindly confirm, there is no contract spares required in FOTS and OAIT system under this package.	Please refer Part-3, Section - VIII Particular Conditions 27 for details and LRU Definition in chapter 1 of Part-2, Section – VI B (Technical Specifications)
335	Part-2	Section–VI B	APPENDIX -E	Contract spares	It is requested to Kindly confirm specification to be followed for this mentioned switch.	Refer clause 9.9.10 Layer-2 switch features. Please refer revised Annexure-D in Addendum-1.
336	Part-2	Section–VI B	Appendix-B	Contract spares	Pls confirm, there is no contract spares required in Telephone system system, under this package.	Please refer Part-3, Section - VIII Particular Conditions 27 for details and LRU Definition in chapter 1 of Part-2, Section – VI B (Technical Specifications)
337	Part-2	Section–VI B	Appendix-G	HMI Positions	As per the RFP, Bidder has to supply "one number of workstation per SCR" only. No. of OAIT PC given in HMI position table, we need not to supply. Kindly confirm.	One OAIT workstation Is required at each station and also one as per HMI positions. Please refer Appendix G, Section VI B, Part-2.
338	Part-2	Section–VI B	General	Minimum specification of racks & MDF/ODF/DDF is not available.	It is requested to Please provide minimum specification of racks & MDF/ODF/DDF.	This is Design and built contract. Bidder needs to propose based on design and get it approved by the Engineer
339	Part-2	Section–VI B	General	Minimum BOQ is not available.	It is requested to Please provide minimum BOQ of passive cables, rack, infra & etc.	This tender is based on Design and Build. Bidders need to propose quantities for complying all tender requirements.

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
340	Part-2	Section–VI B	General	General	Speakers have to be considered for the entire platform or for 3 coach train area coverage only.	Speakers to be considered for entire platform length.
341	Part-2	Section–VI B	General	Integration between Radio and Voice Recording System (CDRS)	It is requested to Kindly provide no. of channels for Radio System that needs to be integrated to CDRS.	Radio recording is part of ASA-07 contract. However refer CDRS chapter and its related interfaces 17.5.1.3
342	Part-2	Section–VI B	General	Detailed Core switch specifications	Detailed specifications are missing. Request to provide the same in tabular format	Please refer section 9.9, Section-VI B and it's related amendments in Addendum 1. Contractor shall propose equipment complying all tender conditions.
343	Part-2	Section–VI B	General	Detailed distribution switch specifications	Detailed specifications are missing. Request to provide the same in tabular format	Please refer section 9.9, Section-VI B and it's related amendments in Addendum 1. Contractor shall propose equipment complying all tender conditions.
344	Part-2	Section–VI B	General	Detailed access switch specifications	Detailed specifications are missing for <b>Industrial grade</b> switches, Request to provide the same in tabular format	Please refer section 9.9, Section-VI B and it's related amendments in Addendum 1. Contractor shall propose equipment complying all tender conditions.
345	Part-2	Section–VI B	General	Detailed access switch specifications	Detailed specifications are missing for <b>Carrier grade</b> switches, Request to provide the same in tabular format	Please refer section 9.9, Section-VI B and it's related amendments in Addendum 1. Contractor shall propose equipment complying all tender conditions.
346	Part-2	Section–VI B	General	Spare ports count on Access and Distribution switch	Spare ports required Per station with respect to access and distribution switch is missing, please share the spare ports percentage required with respect to each station.	Please refer revised bid condition 9.9.2.7 in Addendum-1
347	Part-2	Section–VI C		List of total no. of RSS/TSS.	Please provide the total no. of RSS/TSS details.	Following RSS /TSS are planned in this section 1.Mannapakkam. 2. Perumbakkam 3. Siruseri
348	Part-2	Section–VI C		List of total no. of cross tunnel passages and area/size of the tunnel.	Please provide the details of cross tunnel passages.	Cross passages in tunnels: 1. Corridor-03: TU01 – 8 Nos TU02 – 7 Nos

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
						2. Corridor-04: UG01 – 3 Nos UG02 – 4 Nos 3. Corridor-05: UG06 – 2 Nos For all the above corridors tunnel internal diameter is 5.8m & outer diameter is 6.35m
349	Part-2	Section–VI C		List of total no. of signal crossing points at each stations.	Details required as list of total number of signal point crossing at each station is not mentioned.	Location shall be finalized during signaling detail design stage. However, as of now tentative location are mentioned below which are subject to change. Bidder shall note that number of locations may increase or decrease during design stage. <b>Corridor-4(ECV01,ECV02,UG01 and UG02):</b> 1.Poonamalle bypass metro & Poonamalle metro (ECV02) 2.Thelliyaragaram & Porur Bypass(ECV02) 3.Karambakkam& Valasaravakkam (ECV01) 4.Avichi School & Saligramam (ECV01) 5.Panagal Park & Kodambakkam (UG02) 6..kutchery Road & Light House (UG01) <b>Corridor-3(UG01 to UG05 and EV01,ECV01):</b> 1.Murari hospital(Madhavaram high road metro) & Moolakkadai (UG01) 2.Ayanavaram & Otteri (UG02) 3.Purasaiwakkam & Kellys metro (UG02) 4.Thousand lights metro & Royapettah (UG03)

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
						5.Mettukuppam & PTC colony(EV01) 6.Okkiyam Thoraipakkam & Shollinganallur(EV01) 7.Sholinganallur& Shollingnallur lake 1 (ECV01) 8.Semmancheri Metro 1 & Semmancheri Metro 2 (ECV01) 9.Siruseri Sipcot 1 & Siruseri Sipcot2 (ECV01) 10. Siruseri Sipcot 2 & Stabling Lines <b>Corridor-5 (UG06 ,ECV02,ECV03 and EV03):</b> 1.Madhavaram Depot Metro & Assissi Nagar(EV03) 2.Koyembedu Market &Natesan Nagar (ECV02) 3.Mogalivakkam & Ramapuram (ECV02) 4.Manappakkam & CTC (ECV02) 5.CTC & Butt Road (ECV02) 6..Ullagaram & Madipakkam(ECV03) 7.Medavakkam II & Perumbakkam (ECV03) 8.Classic tamil Institute & Elcot Park Metro(ECV03)
350	Part-2	Section–VI C		List of total no. of RAMP at each stations/Depot.	Details required as list of total number of RAMP at each station/Depot is not mentioned.	Depot is not under scope of this tender.There are no RAMPS in this section Corridor-4: One ramp is at Kodambakkam Metro (UG02) and the other ramp is at Poonamalle Depot (ECV02) Corridot-3: 1. Tharamani Metro to Nehru Nagar (B/W UG06 & EV01) Corridor-5: 1.Madhavaram Depot to Assissi Nagar (EV03) 2.Retteri junction to Kolathur

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
						junction (B/W EV03 & UG06) 3.Villivakam MTH Road to Anna Nagar West Metro (B/W EV03 & UG06)
351	Part-2	Section–VI C		Arinagar Anna Allandur metro station Architecture drawing is not clear. Marking of the room along with room schedule is missing.	Please provide the details as required for the better understanding.	Please refer drawings for more details. (Common concourse will be used for Phase 1 & 2)
352	Part-2	Section–VI C		St. Thomas Mount metro station Architecture drawing is not clear and not visible properly	Please provide the details as required for the better understanding.	Refer Annexure - C St. Thomas Mount drawing attached with Addendum. Area from Grid K-K' onwards to be considered under scope of ASA-06. CMRL-STM-MRTS-PF Level is reserved for future MRTS station which is not consider this scope of ASA-06.
353	Part-2	Section–VI C		Please confirm the number of lifts at Ramapuram Metro & Manapakkam Metro station	In lift schedule at Ramapuram Metro station & Manapakkam Metro station 4 lifts are mentioned but for the same in architecture drawing 5 lifts are visible. Also station name is not inline with the station name given in the drawing. for e.gfor Ramapuram metro station nameis given SATHYA NAGAR STATION in drawing	At Ramapuram Metro station(DLF IT SEZ) - Lifts quantity as follows: Ground to Concourse-2 Concourse to Platform-2 At Manapakkam Metro station(Satya Nagar) - Lifts quantity as follows: Ground to Concourse-3 Concourse to Platform-2 Please refer section VIC drawings for station name deatils.
354	Part-2	Section–VI C	General	List of total no. of RSS/TSS.	It is Request to provide provide the total no. of RSS/TSS details along with perimeter length.	Following RSS /TSS are planned in this section 1.Mannapakkam. 2. Perumbakkam 3. Siruseri Manappakam Perimeter - Approx.370m Length 77.75m Siruseri Perimeter-Approx.459m Length-147m Perumbakkam-Approx.462m Length -115m

<p style="text-align: center;"><b>Prebid Queries and Responses</b>  <b>CMRL/PHASE-II/SYS/ C3&amp;5 ASA06/2023</b>  <b>20-05-2023</b></p>						
S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
355	Part-2	Section–VI C	General	Number of RSS & It's location is not available.	It is requested to Please provide the number of RSS & it's location.	Following RSS /TSS are planned in this section 1.Mannapakkam. 2. Perumbakkam 3. Siruseri
356	Part-2	Section–VI C	General	List of total no. of parking at each stations.	Details required as list of total number of Parking at each station is not mentioned.	Please refer Annexure - B in addendum for parking details of C5 - ECV-02, C5 - ECV-03 There is no parking in C3 - ECV-01. Please refer drawing for Parking details of remaining stations of other packages i.e. ASA-05 & ASA-08.
357	Part-2	Section–VI C	General	ASA-06 chainage details is not available.	It is requested to Please provide the chainage details of ASA-06.	Please refer Annexure-A in Addendum-1.
358	Part-2	Section–VI C	General	General	Request to provide the no. of RSS/TSS and their locations.	Following RSS /TSS are planned in this section 1.Mannapakkam. 2.Perumbakkam 3. Siruseri
359	Part-2	Section–VI C	General :DDC		As per the drawings downloaded from the link provided in the Tender document, the Platform length of St. Thomas Mount Suburban Metro Station is given as <b>280 meter</b> . Kindly confirm whether the same drawing has to be referred and the Platform length will be 280 meter or is there is any updated drawing available for this station.	Platform length of 140meter (6-Car length) of which 3-car length will be passenger area and balance will be non passenger area .For each non passenger area of platform (where no other functional rooms like SCR or Equipment rooms are not planned) other than operational 3 Car length of platform, Telecom Contractor shall consider one CCTV Fixed Bullet Camera and 2 speakers with suitable wattage for each side along with required cabling & fixtures according to the Platform area. PAS STI requirement shall not be applicable for this Platform area. CMRL-STM-MRTS-PF Level is reserved for future MRTS station which is not consider this scope of ASA-06. Refer Annexure-C St Thomas Mount

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
						drawing attached with Addendum in view of above clarification. Area from Grid K-K' onwards to be considered under scope of ASA-06.
360	Part-2	Section–VI D	25.13.13 First aid rooms	A properly constructed and equipped first aid room shall be provided as per BOCW Central Rules 1998 to be used for treatment and rest. It should be in the charge of a person trained in first aid and should be available during all working hours.	As No of Workmen is very less, this condition shall be waived off. The requirement will be met by entering into an MOU with nearest hospital and provisioning of First Aid Boxes in sufficient numbers.	Please refer Addendum-1
361	Part-2	Section–VI D	25.13.16 Ambulances	Ambulance services BOCW Central Rules 1998 should be notified of the location of the site and the nature of the work to be carried out. All employees shall be made aware of the procedure for calling an ambulance during the site specific induction.	The Bidder shall be allowed to have an arrangement with Nearest Hospital through MOU for providing ambulance services on priority	Please refer Addendum-1
362	Part-2	Section–VI D	33.3 Occupational Health Centre	The contractor shall ensure the provision of a site occupational health center. This may be mobile or static however, both must be maintained in good order and complete with facilities as per the Schedule IX, Schedule-X of TBOCWR 2006	As No of Workmen is very less, this condition could be waived off. The requirement will be met by entering into an MOU with nearest hospital and arranging regular doctor visits.	Please refer Addendum-1
363	Part-2	Section–VI D	33.4 First Aid Base	The Contractor shall establish a First Aid Base, in accordance with the Employer Requirements, at each of his principal work areas. If during the life of the contract the Contractor's principal work area moves from one location to another, the Contractor shall be required to move his First Aid Base	As No of Workmen is very less, this condition shall be waived off. The requirement will be met by entering into an MOU with nearest hospital and provisioning of First Aid Boxes in sufficient numbers.	Please refer Addendum-1
364	Part-2	Section–VI D	33.5 Medical Staff	A qualified Doctor, Nurse and assistant Nurse shall be in attendance at the first aid base during all times when work is being undertaken on the site.	As No of Workmen is very less, this condition could be waived off. The requirement will be met by entering into an MOU with nearest hospital and arranging regular doctor visits.	Please refer Addendum-1
365	Part-2	Section–VI D	33.6 Ambulance	A fully equipped ambulance and driver shall be provided at the first aid base during all working hours. The ambulance shall be equipped with the articles specified in Schedule-IV of TBOCWR 2006.	The Bidder shall be allowed to have an arrangement with Nearest Hospital through MOU for providing ambulance services on priority	Please refer Addendum-1

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
366	Part-2	Section–VI D	4.4.1 Resources, roles, responsibility, accountability and authority	The Chief OHS&E Manager (Safety Manager)- Key Staff shall be a professional and experienced manager with at least fifteen (12) years’ experience in the construction of underground metro rail Projects with at least 10 year’s direct relevant experience in administering of OHS&E. The Chief OHS&E Manager should have minimum five years’ experience in similar position of similar works .	As telecommunication contractors are not executing any major civil infrastructure works and their activities are also of low risk nature, bidder should be provided with relief and must be allowed to hire key safety staff as per PART - 1 : BIDDING PROCEDURES SECTION - III : EVALUATION AND QUALIFICATION CRITERIA (EQC), clause 1.1.1. <b>"Personnel - OHSE Manager (Accident Prevention Officer) must have minimum 8 year experience and 4 years of relevant experience"</b> .	Please refer Addendum-1 and refer EQC clause 1.1.1. "Personnel - OHSE Manager (Accident Prevention Officer) must have minimum 8 year experience and 4 years of relevant experience".
367	Part-2	Section–VI D	4.4.1 Resources, roles, responsibility, accountability and authority	No contractor shall engage OHS&E manpower from any outsourcing agencies in which case the effectiveness would be lost. All OHS&E manpower shall be on the payroll of the main contractor only and not on the payroll of any subcontractor or outsourcing manpower agencies etc. This condition does not apply to positions like traffic marshals who are engaged almost on a daily requirement basis.	It is requested to amend the clause as follows : No contractor shall engage OHS&E manpower from any outsourcing agencies in which case the effectiveness would be lost. All OHS&E manpower shall be on the payroll of the main contractor only and not on the payroll of any subcontractor or outsourcing manpower agencies etc. This condition does not apply to positions like traffic marshals, <b>safety stewards</b> who are engaged almost on a daily requirement basis.	Tender condition prevails
368	Part-2	Section–VI D	4.4.1 Resources, roles, responsibility, accountability and authority	Note 2: Qualified Junior OHS&E Manager as per table 2 OHS&E Personnel Qualifications & Experience to be deployed at each worksite at each shift.	As telecommunication contractors are not executing any major civil infrastructure works and their activities are also of low risk nature. Bidder could be exempted from this requirement.	Please refer Addendum-1
369	Part-2	Section–VI D	4.4.1 Resources, roles, responsibility, accountability and authority	Note 3: Qualified Safety Steward as per table 2 OHS&E Personnel Qualifications & Experience to be deployed at each worksite at each shift.	As telecommunication contractors are not executing any major civil infrastructure works and their activities are also of low risk nature. We propose following changes in clause - "Qualified Safety Steward as per table 2 OHS&E Personnel Qualifications & Experience to be deployed at work site based on Workfront availability"	Tender condition prevails
370	Part-2	Section–VI D	4.5.1	No loose electrical connections or tapped joints shall be allowed any where in the work site, office area, stores and other areas. Penalty as per relevant clause shall be put in case of observation of any tapped joints.	It is requested to amend the clause as :  "No loose electrical connections or tapped joints shall be allowed any where in the work site, office area, stores and other areas. <del>Penalty as per relevant clause shall be put in case of observation of any tapped joints.</del>	Tender condition prevails
371	Part-2	Section–VI D	8.3 OSH&E Coordination Meeting	The Contractor shall conduct weekly OSHE co-ordination meetings with his sub-contractors and Interfacing Contractors to ensure that works are carried out on Site with minimum risk to workers and to the public	This requirement shall be waived off as telecommunication projects do not employ huge number of sub-contractors and sub- contractor representative are already part of the OHS Committee Meeting.	Please refer Addendum-1



**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
372	Part-3	General	BOCW	General	As mandated by GOI BOCW cess will be charged @ 1 % of the construction amount which will be excluding supplies. Hence BOCW will be calculated on the Installation & Site Testing for Telecommunications Systems Milestone only excluding design, procurement, integration with OCC/BCC, system acceptance testing and commissioning milestones. Kindly confirm	Tender Condition Prevails.The Bidder is responsible for payment of all applicable statutory duties & cess. Re-imbursement will be made upto the ceiling amount quoted, under that particular head of Tax/Cess in the Bid.
373	Part-3	General	Integration responsibility of individual ASA Package contractor	General	It is requested to add the clause as follow: Since ASA 05, ASA 08 are executed by other contractors, the delay due to other contracts shall impact the progress of the ASA 06 package. LD / Penalty associated with other contracts delay shall not be levied on ASA 06 contractor. However, the associated delay shall be compensated as per the Sub Clause - 2.1 of Part-3, Section - VIII - Particular Conditions (Part B: Specific Provisions)	Refer GCC in conjunction with PCC . ASA-06 Contractor will be responsible for timely completion of all activities under their scope/responsibility , till the completion of various stages of the Project. Delays for which ASA-06 Contractor is not responsible, will be compensated, as per Contract provisions.
374	Part-3	Section-VIII	1.1.3.3	Time for completion is 1330 days from the commencement date.	The completion date is mentioned as 1330 from the commencement date but in the table 1 :summary of section (Key dates), maximum time for completion is mentioned as 2224 days. Kindly request you to confirm the overall completion Period of ASA 06 Package.	Please refer Addendum-1
375	Part-3	Section-VIII	1.1.3.3	Summary of section(Key dates)	1) Time completion for Stage 4B & Stage 5 & Stage 7A is going beyond the 1330 days (Project completion date). As per the PART- A – CONTRACT DATA - Clause 1.1.3.3 , The completion time is 1330 days. Both the clauses are contradicting and we need clarity on the DLP for the above mentioned stages. 2) We understand that there is no DLP applicable for the interfacing activities.	1.Please refer Addendum-1 2.Tender condition prevails.
376	Part-3	Section-VIII	12.4	The Engineer/The Employer will assess the non-performance damages for this failure based on the loss / reduction of performance incurred by the employer on case-to-case basis and this cost shall be levied to the Contractor. Maximum value of this non-performance damages shall be limited up to the value of Performance Security + Retention amount	It is requested to add the clause as follow : "The Engineer/The Employer will assess the non-performance damages for this failure based on the loss / reduction of performance incurred by the employer on case-to-case basis and this cost shall be levied to the Contractor. Maximum value of this non-performance damages shall be limited up to the value of Performance Security + <del>Retention amount</del> ".	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
377	Part-3	Section-VIII	13.9	<p>Add new sub-clause 13.9 (Optional Additional order):</p> <p>13.9.1 The Optional additional order for 5 Stations including integration with OCC/BCC (combined for various directions) and additionally Integration of 10 Stations of other Contracts with OCC/BCC due to corridor extension of Phase II.</p> <p>13.9.1.1 The Employer may take up extension of the corridor covered by the scope of work in any directions during the contract period. In such event, the Employer/ the Engineer reserves the right to instruct the Contractor, to execute the corresponding additional Works prior to issuance of the Taking over Certificate for Last Stage of the commissioning (Refer Cl. 9.4 (Brief Description of Stages) of Part 1 – Section IV, Bidding Forms). The Works shall include but not limited to, Telecommunication works of the extension section and necessary augmentation in OCC/BCC, respective stations and other central Equipments if any.</p> <p>13.9.1.2 The variation cost for the above additional requirement, up to maximum of 5 Stations including integration with OCC/BCC (combined for various directions) and additionally Integration of 10 Stations of other Contracts with OCC/BCC, shall be derived on prorated basis from Price Centre A1 (Preliminaries &amp; General Requirements), Price Centre A2 (Preliminary Design), Price Centre B/Price Centre C/Price Centre D1 &amp; D2, Price Centre E1&amp; E2, Price Centre F/ Price Centre G, Price Centre H1 &amp; H2 as applicable (Associated to Stage 1 to Stage 7). The total Contract Price will be adjusted accordingly and no additional payment on any other account whatsoever shall be payable to the Contractor.</p> <p>However, Price Adjustment as per Cl. 13.8 of</p>	<p>Request you to kindly include the below mentioned point :</p> <p>1. In case the project schedule is delayed and TOC for the last section is not achieved within specified contractual duration i.e. 1330 days, then the bidder shall reserve the right to revise the prices, since the 5 years time line is quite high and prices are rising for semiconductors &amp; minerals.</p>	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				Particular Conditions of Contract shall be applicable for this quantity variation &13.9.1.3 clause.		
378	Part-3	Section-VIII	13.9.1.3	In case this quantity variation exceeds beyond 5 Stations including integration with OCC/BCC (combined for various directions) and additionally Integration of 10 Stations of other Contracts with OCC/BCC, the cost for the additional quantity (only for the portion which exceeds beyond 5 Stations/Integration of additional 10 stations) shall be mutually agreed.	Since , there is no cap to variation in value, Kindly request you to add the following clause : <b>"The overall variation cost is capped at 10% of Total Contract Value (excluding GST and Customer Duty).</b> <b>Any variation exceeds beyond 10% of TCV, shall be mutually agreed".</b>	Tender condition prevails.
379	Part-3	Section-VIII	14. Performance Security	The Performance Security shall be in the form of a Bank guarantee, in the amounts of 10% of the Accepted Contract Amount, and in the same currency(is) of the Accepted Contract Amount.	With reference to the Notification No. F.9/4/42020-PPD dated Nov 2020 with subject "Performance Security" from the Ministry of Finance, we request you to kindly limit the <b>Performance Security to 3% of contract value.</b>	Tender condition prevails.
380	Part-3	Section-VIII	14.2(b)	25% of each IPC amount as per GC 14.2 (b)	In ASA05, as per clause 14.2 (b), the Repayment amortization rate of advance payment is 17%. In this current tender, the Repayment amortization rate of advance payment is 25% which is very high comparatively and it is impacting the cash flow.  Hence, kindly request you to amend the clause as follows  <del>25%</del> <b>15%</b> of each IPC amount as per GC 14.2 (b).	Please refer Addendum-1.
381	Part-3	Section-VIII	14.2(b)	25% of each IPC amount as per GC 14.2 (b)	We understand the Recovery shall start after IPC exceeds 30% of the Accepted Contract Value and shall be recovered before 90% of the Accepted contract value. Please confirm.	Tender condition prevails and refer GCC
382	Part-3	Section-VIII	14.7 (c)	The amount certified in each Interim Payment Certificate within 56 days after the Engineer receives the Statement and supporting documents or, within 15 days after the Employer receives the Interim Payment Certificate from the Engineer.	Kindly request you to release the payment after preliminary scrutiny and certification by the Engineer, payment of 80% of the certified interim amount shall be made by the Employer within 14 days. The amount certified shall account for all deductions, including statutory deductions, recoveries for advances and any amounts due from the Contractor. The balance 20% shall be paid within 28 days, from the date of the preliminary certification of the bill by the Engineer	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
383	Part-3	Section-VIII	14.9	Payment of Retention Money - Upon the request of the Contractor, the Employer after issuance of Taking-Over certificate of every Stage commissioning (Refer Cl. 9.4 (Brief Description of Stages) of Part 1 – Section IV, Bidding Forms) may release proportionate share of the withheld retention money specific to that Stage, on submission of Bank Guarantee for an equivalent amount in respective currencies from a Public sector bank (PSB) or Scheduled Commercial Banks in India or from a Foreign Bank which has tie up with the PSU Bank in India, in the format annexed to the Particular Conditions.	As you would be aware, the payment terms is not inline with ASA05 as the recovery of the advance is comparatively High and we are facing Cash flow issues for the project execution. Hence, kindly request you to allow the bidder to produce the Bank Guarantee in lieu of retention amount during interim stage. Kindly request to amend the clause as follows "Upon the request of the Contractor, the Employer <del>after issuance of Taking-Over certificate of every Stage commissioning (Refer Cl. 9.4 (Brief Description of Stages) of Part 1 – Section IV, Bidding Forms)</del> may release proportionate share of the withheld retention money <del>specific to that Stage</del> <u>during the interim stage</u> , on submission of Bank Guarantee"	Tender condition prevails.
384	Part-3	Section-VIII	2.1	Cost compensation for the delay period Cost compensation for the delay period - Hardware warranty extension cost for deferment of DNP obligations, at actuals	It is requested to amend the clause as follow: " Hardware and <b>Software</b> warranty extension cost for deferment of DNP obligations, at actuals"	Please refer Addendum-1.
385	Part-3	Section-VIII	2.2 Permits, Licenses or Approvals	(iv) for the shipment of components/ equipment/ spares for repair and replacement during the period of contract including DNP which were shipped/delivered in the name of the Employer. Add the following at the end of Sub-clause 2.2: The rendering of such assistance by the Employer shall not be interpreted as a pretext by the Contractor as condoning of any delay or non-performance of any of the Contractor's obligations. The following-up of all such requirements shall be the responsibility of the Contractor.	We understand that the DLP shall start at the end of each stage. DLP start date of one stage has not dependency of other stages. Kindly confirm.	DLP of each stage is independent, commencing from respective Completion dates.
386	Part-3	Section-VIII	2.4	if the Bank has notified to the Borrower that the Bank has suspended disbursements under its loan, which finances in whole or in part the execution of the Works, the Employer shall give notice of such suspension to the Contractor with detailed particulars, including the date of such notification, with a copy to the Engineer, within 7 days of the Borrower having received	We understand that for the said situation, outstanding payments, Services rendered & items supplied for which the invoice not submitted shall also be released to the bidder as per payments terms & conditions. It is requested to kindly confirm.	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				the suspension notification from the Bank. If alternative funds will be available in appropriate currencies to the Employer to continue making payments to the Contractor beyond a date 60 days after the date of Bank notification of the suspension, the Employer shall provide reasonable evidence in his notice of the extent to which such funds will be available.		
387	Part-3	Section-VIII	4.1	<p><b>4.1.1 Spares, Test, Measuring Instruments, Maintenance tools &amp; Plant:</b></p> <p>The Contractor agrees to provide all necessary spares for a period of five (5) years, from the end of DLP Period of the last stage, at the request of CMRL, at the prices quoted in the tender documents (following detailed design finalization) subject to the Price Adjustment clause specified in Part 1 –Bidding Forms – ‘Instructions for completing the Pricing document’. After acceptance of detailed design, the Contractor shall submit to the Engineer the revised list of spares, constituting 10% of actually used quantity of every item used in the Project, with details of unit prices of each item of Line Replaceable unit (LRU) used in the Project, plus additional bulk spares specifically required by the Employer as per Part 2 – Employer’s Requirements, with details of unit prices of each item, technical description, drawing/part number details, supplier details, with the total cost of entire quantity of spares not exceeding the amount quoted in the Bid under the heading “Spares”. An identical procedure shall apply in respect of Test &amp; Measuring instruments, maintenance tools &amp; plant, viz-a-viz the lumpsum indicated in the Bid against this head.</p> <p>The Contractor shall carry sufficient inventories to ensure an ex- stock supply of consumable</p>	<p>It is requested to amend the clause since the semiconductor crisis is increasing due to which the price validity till 11 years =<b>5 years</b> (spares supply period)+ <b>5.7</b> Years (3.7 Year - Project Schedule + 02 Year - DLP) from the date of commencement cannot be maintained. Therefore, request to reduce the price validity period till end of project schedule (incl. DLP) which is <b>5.7 years</b> only instead of 11 years.</p> <p>It is requested to consider individual stage wise DLP instead of last stage.</p>	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				spares, testing & commissioning spares, DLP spares for the plant and equipment. Other spare parts and components shall be supplied as promptly as possible, but at the most within six (6) months of placing the order. In addition, in the event of termination of the production of any spare parts, advance notification of 2 years should be given to the Employer of the pending termination, to give sufficient time to permit the Employer to procure the needed requirements. Following such termination, the Contractor will furnish to the extent possible and at no cost to the Employer the blueprints, drawings and specifications of the spare parts, if requested.		
388	Part-3	Section-VIII	4.19	The contractor shall coordinate with the interfacing contractors for these services as may be available on the site and may be obtained on mutually agreed terms. At the time of Power-on of the Equipments and during testing & commissioning, UPS Power arrangement will be made available along with temporary/permanent Air-conditioning, as the case may be.	We understand that the power sources are available at the site and the bidder need to interface with the other existing contractors for taping the power and there is no additional power charges to be paid separately. Kindly confirm.	Please follow tender conditions. Temporary power supply is in the scope of the ASA-06 contractor.
389	Part-3	Section-VIII	4.8 Safety Procedures	Within 56 days of the date of LoA, the Contractor shall submit a detailed and comprehensive contract-specific Site Safety Plan based on the Employer's Occupational, Health, Safety and Environmental (OHSE) requirements given in Part 2 – Employer's Requirements and shall include such further material, which are necessary and relevant.	In line with the clause 4.18, wherein the terminology used is "Commencement Date".Pl. amend the clause as - "Within 56 days of the <b>Commencement Date</b> , the Contractor shall submit a detailed and comprehensive contract-specific Site Safety Plan based on the Employer's Occupational, Health, Safety and Environmental (OHSE) requirements given in Part 2 – Employer's Requirements and shall include such further material, which are necessary and relevant."	Tender condition prevails.
390	Part-3	Section-VIII	6.7 Health and Safety	Within 28 days of the Commencement Date the Contractor shall submit a detailed Site Specific Health and Safety Management Plan (SSHSM) for the Engineer's no objection showing how he/she intends to comply with the local Health and Safety laws and regulations and other specific requirements prescribed in the	In clause 4.18, same requirements are to be met within 56 days of LOA as per RFP. It is requested to Kindly advice which would take precedence in case of conflict.	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				Contract, taking into account the Supplementary Information in Section 6- Employer's Requirements		
391	Part-3	Section-VIII	64) 11.1 Defects Liability	Add the following at the end of Sub-clause 11.1: If the works or sections not available for usage by the Employer for more than 1 hour due to the Contractor's default, then the penalty of INR 25,000 shall be paid by the contractor for each hour till the works or sections made ready by him. The cumulative amount shall be deducted by the Employer from the subsequent bills submitted by contractor.	We understand there is no Cap to penalty. Hence, kindly request you to clarify and define the Capping on the Penalty during the DLP period.	Please refer Addendum-1
392	Part-3	Section-VIII	8.4	<b>Add the following to the end of Sub-Clause 8.4:</b> However, the Contractor shall not be entitled to any extension of time where any delay is due to: (a) non-availability, or shortage of Contractor's equipment, labour, utility services, Plant and Materials caused by factors other than epidemic, governmental actions or reasons attributable to the Employer, the Employer's Personnel, or the Employer's other contractors, or (b) inclement weather conditions, frequency of occurrence is less than 1 in 50 year cycle.	Request you to kindly remove " <b>b. inclement weather conditions, other than 1 in 50 year cycle</b> " as from past experiences we have learnt that excessive rainfalls in Chennai lead to disruption of works which are beyond the Bidder's control.	Tender condition prevails
393	Part-3	Section-VIII	8.7.1	If the Contractor fails to provide access, occupation or handover in accordance with the Contract to an Interfacing Contractor for any part of the Works which is subject to a Key Date or If the Contractor fails to substantially achieve any Key Date within the time so prescribed, subject to any extension granted under GCC Clause 8.4, the Engineer shall recover Delay Damage from the Contractor's IPC, as stated in 'Table 1 -Summary of Sections' of PCC Part-A Contract Data, for every day which elapses or any damages likely to be suffered by him in that	LD applies for missing Key dates for ASA06 tender only. In the absence of any handing over dates to the Interfacing contractor, it is not possible for the Bidder to agree in general now. Request to delete this clause.	Tender condition prevails.

**Prebid Queries and Responses**  
**CMRL/PHASE-II/SYS/ C3&5 ASA06/2023**  
**20-05-2023**

S. No.	Part	Section	Clause	Original Bid Condition	Bidder's Query	Response
				part of the Works. However, the total amount of Delay Damages on all Key Dates summed up including Key Date related to taking over on completion of entire work shall not exceed 10% of the total Contract Price.		
394	Part-3	Section-VIII	8.7.4	If the Contractor achieve the Key Date related to 'Taking Over Certificate' by the date specified therein, or within the time extended as per Clause 8.4/ of the General Conditions of the Contract, the Engineer may recommend release of Delay Damages recovered due to non-achievement of other preceding Key Dates (except the Key Dates associated to Interfacing Contractor / System Wide Contractors or any other consequential damages like extended stay of the Engineer's team, operational delay etc.). The Employer, at its sole discretion, may release such Delay Damages based on the recommendation of the Engineer. The Employer's decision in this regard shall be final and binding.	We understand , any LD deducted for non achievement of interim milestones shall be reimbursed on achieving subsequent milestones / TOC or within the time extended as per Clause 8.4/ of the General Conditions of the Contract. Kindly confirm	Tender condition prevails