

The Corrigendum/ Addendum/ Clarification to Queries raised in Pre-Bid Meeting held on 20.05.2022 at 03.30 PM at Confernece Hall of Bhubaneswar
Smart City Limited(BSCL).

RFP No.916

RFP Name:- RFP for Supply Installation, Testing, Commissioning and O&M of CCTV and Video Management System in Bhubaneswar.

**Last Date of Submission of Tender is extended upto 06.06.2022 at 17.00 PM
and Date and Time of opening of Technical Bid is on 07.06.2022 at 15.30 PM**

S.No.	RFP Clause No. / Page No.	Content of RFP requiring clarification	Points of clarification required	Reply
1	2.2.3. / Page 11	<u>ELIGIBILITY OF BIDDERS: SI -4</u> Bidder must have experience in Supply Installation, Testing, Commissioning, O&M for Video Management System/Cameras/Analytics in single order of minimum value of Rs. 50 crore and value for Video Management System & Cameras & Analytics should be 10 crores in the same order	<u>The criteria may be modified as -</u> "Bidder must have experience in Supply Installation, Testing, Commissioning, O&M for Video Management System/Cameras/Analytics in single order of minimum value of Rs. 30 crore ". Also, partially completed projects may be considered.	As per RFP
2	2.2.3. / Page 11	<u>ELIGIBILITY OF BIDDERS: SI -5</u> Bidder must have experience in supply, installation, Testing, Commissioning & O&M of City IP Surveillance system of at least 1000 cameras and its integration in single order	<u>The criteria may be modified as -</u> "Bidder must have experience in supply, installation, Testing, Commissioning & O&M of City IP Surveillance system of at least 500 cameras and its integration in single order"	As per RFP
3	2.2.3. / Page 12		<u>The criteria may be modified as -</u> The Sole bidder should have experience in executing projects of Supply, Installation testing, commissioning & maintenance of all types of surveillance Camera's network in Safe City/ Smart City/ City-Wide Projects for State Government/ Central Government/ PSU/ ULB in India during last five financial years (project in Single order). (a) ≥350 Cameras - <500 Cameras = 10 marks (b) ≥500 Cameras = 15 marks	As per RFP

4	2.2.3. / Page 12	<p><u>ELIGIBILITY OF BIDDERS-Technical Qualification: SI -3</u> The Sole bidder should have experience in executing projects of Supply, Installation commissioning & maintenance of all types of surveillance Camera's network in Safe City/Smart City/ City-Wide Projects for State Government/ Central Government/ PSU/ ULB in India during last five financial years (project in Single order). (a) ≥50 locations - < 70 locations = 5 marks (b) ≥ 70 locations - < 150 locations = 10 marks (c) ≥150 locations = 15 marks</p>	<p>We request to clarify the interpretation of "location" mentioned in this criteria. It would be very difficult to establish the location count from the Work Order/ Completion Certificate. Hence, we would like to request to remove this clause.</p>	As per RFP
5	2.2.3. / 12	<p><u>ELIGIBILITY OF BIDDERS-Technical Qualification: SI -4</u> The Sole bidder should have experience in implementation of at least 200 Cameras network in Safe City/Smart City/ City-Wide Projects for State Government/ Central Government/ PSU/ ULB in India during last five financial years (a) ≥1 project - < 3 projects = 5 marks (b) ≥3 projects = 10 marks</p>	<p>Partially completed projects may be considered.</p>	As per RFP
6	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION/ Page 47	<p><u>A. Video Management System: SI-12</u> For incidents that are flagged by the Police, BSCL or any court order, the video of the relevant portion from all relevant cameras should be stored/archived separately for investigation purposes and a committee at Authority can decide when this video feed can be deleted.</p>	<p>Please clarify the retention days and percentage which needs to consider for flagged data.</p>	It will case to case basis
7	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION/ Page 47	<p><u>A. Video Management System: SI-10</u> VMS shall be sized to provide minimum 30 days storage assuming recording of 24hrs a day, 7 days a week and 30 days a month at 4 CIF resolution. All NVRs shall be provided in an N+N configuration.</p>	<p><u>Please amend this clause to -</u> " MS shall be sized to provide minimum 30 days storage assuming recording of 24hrs a day, 7 days a week and 30 days a month at Full HD resolution,25 Fps . All NVRs shall be provided in an N+1 configuration. " As cameras required in the project should support minimum 2 MP & 4 MP Resolution .</p>	As per RFP
8	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION/ Page 47	<p><u>A. Video Management System: SI-13</u> The system shall support H.264 or better, MPEG-4 and MJPEG compression formats for all IP cameras connected to the system.</p>	<p><u>Currently all cameras available in the market supports H.265/H.265+ codec ,which is the latest and greatest codec available .To save storage and bandwidth we request to amend this clause to -</u> "The system shall support H.264 ,H.265 or better, MPEG-4 and MJPEG compression formats for all IP cameras connected to the system."</p>	As per RFP

9	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION/ Page 49	<u>A. Video Management System: SI-44</u> Recording failover shall be standard without need for additional license and/or hardware.	<u>As failover needs an additional server and licenses ,so request to please amend this clause to -</u> "Recording failover shall be standard with/without need for additional license and /or hardware."	As per RFP
10	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION/ Page 58	<u>A. Video Management System: SI-151</u> The Video Management System shall support an audit trail that can log user actions to an industry standard database e.g. SQL Server.	<u>As different OEM support different software for DB ,So request to amend this clause to -</u> "The Video Management System shall support an audit trail that can log user actions to an industry standard database e.g. SQL Server/ MySQL/ PostgreSQL ."	RFP is clear about the same
11	BOQ for Capital Expenditure (CAPEX) /Page 70	Additional Clause	VMS Server ,Client Workstation Specification and Quantities are missing, So request to please define the server and workstation quantities. So that OEM can size the hardware accordingly.	The sizing needs to be as per the number of cameras, its specification and required functionalities
12	BOQ for Capital Expenditure (CAPEX) /Page 74	<u>D. Integrations: SI-43</u> Integration - Integration with existing Smart city platform etc.	Please share the details of existing setup ,Accordingly OEM/Bidders can consider the cost of integration.	Existing Smart City Platform that has been deployed is CISCO CDP, for more details RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.

13	Annexure IV.B.7 / Page 63	<p><u>B. CCTV -Fixed Camera (Functional Requirements): SI-7</u> The surveillance system shall support following Built-in-Analytics for the Cameras or using central analytics: • AutoTracker: To detect and track movement in the field of view. • Adaptive Motion Detection: To detect and track object that enter a scene and then triggers an alarm when the object enter a user-defined zone. • Camera Sabotage: Triggers an alarm if the lens is obstructed. • Directional Motion: Generates an alarm in a high traffic area when a person or object moves in a specified direction. • Object Counting: To count the number of objects that enter a defined zone. • Stopped Vehicle: To detect vehicles stopped near a sensitive area longer than the user-defined time allows.</p>	<p>Need clarification on this point - A fixed type camera's mounting type & viewing direction is fixed. Kindly help to understand with the Auto Tracker function what kind of object wanted to track by movement ? In CCTV system, when any motion based activity movement detects by Camera, it starts recording & triggers alarm notification on the pre-defined user rules. Thus requesting you to remove 'Auto Tracker' and 'Stopped Vehicle' function from camera's specification and add tech point in VMS Software features.</p>	As per RFP
14	Annexure IV.B.7 / Page 63	<p><u>B. CCTV -Fixed Camera (Functional Requirements): SI-7</u> The surveillance system shall support following Built-in-Analytics for the Cameras or using central analytics: • AutoTracker: To detect and track movement in the field of view. • Adaptive Motion Detection: To detect and track object that enter a scene and then triggers an alarm when the object enter a user-defined zone. • Camera Sabotage: Triggers an alarm if the lens is obstructed. • Directional Motion: Generates an alarm in a high traffic area when a person or object moves in a specified direction. • Object Counting: To count the number of objects that enter a defined zone. • Stopped Vehicle: To detect vehicles stopped near a sensitive area longer than the user-defined time allows.</p>	<p>A Camera captures image/video which is visible through its lens & field-of-view and transmit it to backend devices for further recording cum analytics purpose. So, Directional motion, object counting, stopped vehicle these are function of camera, for such requirement need help of Analytics server. Thus requesting you to remove those clause (Directional Motion, Object Counting, Stopped Vehicle) from camera's specification.</p>	As per RFP

15	Annexure IV.B.8 / Page 63	<p><u>B. CCTV -Fixed Camera (Functional Requirements): SI-8</u> Event (alarm) Handling: • The camera shall be capable of recording an event as pre and post event images to on-board SD Media Card and on NVR. Events may be triggered using camera motion detection or from an external device input such as a relay. • When triggered from an external input or the camera's motion detector, the camera shall be capable of sending JPEG images via e-mail and/or sequences of images to an FTP server or on-board compact flash and NVR. • A relay output shall be available upon the activation of the camera's motion detector or external relay input. The relay output may also be manually activated from the live view screen.</p>	It is recommended not to place any FTP server as this may lead to security compromise. Hence, FTP option may please be dropped.	As per RFP
16	Annexure IV.B.17 / Page 64	<p><u>B. CCTV -Fixed Camera (Functional Requirements): SI-17</u> All cameras shall capture high definition video, compress the video using H.264 technique and transmit real-time using fibre optic based communications system.</p>	In CCTV industry, whether the network camera will be installed at indoor/outdoor scenario comes with in-built Ethernet network communication interface. Depending upon the site requirement if we planned to transmit real-time captured data to central location through fibre optic based communication then we need to arrange external device (media converter or similar) for connectivity purpose. Thus requesting you to remove fibre optic part from Camera's specification.	Refer BOQ SL. No. E
17	Annexure IV.B.18 / Page 64	<p><u>B. CCTV -Fixed Camera (Functional Requirements): SI-18</u> The cameras shall capture audio and compress using G.711 technique and transmit real-time using fibre optic based communications system.</p>	In CCTV industry, the network camera can be installed at indoor/outdoor scenario but it comes with in-built Ethernet network communication interface. Depending upon the site requirement if we planned to transmit real-time captured data to central location through fibre optic based communication then we need to arrange external device (media converter or similar) for connectivity purpose. Thus requesting you to remove fibre optic part from Camera's specification.	Refer BOQ SL. No. E
18	Annexure IV.B.28 / Page 64	<p><u>B. CCTV -Fixed Camera (Functional Requirements): SI-28</u> All cameras shall provide user control, with remote configuration for functions including streaming and compression settings, exposure, white balance, flicker control, picture size, cropping/privacy, brightness, sharpness, saturation, day-night switching point, frame rate, image rotation, snapshot, dynamic bandwidth allocation and motion detection.</p>	Need clarification on this point for better understanding- in term of 'Picture size' - what actually mean to say, is it higher to lower resolution size of camera's image ? Please clarify.	The functionality should be retain/decrease the picture size as per end users needs.

19	Annexure IV.B.32 / Page 65	<u>B. CCTV -Fixed Camera (Functional Requirements): SI-32</u> The cameras shall have, at a minimum, the following configurable feature	Every network cameras has a in-built network communication interface, a user can assign a IP address to camera for communication purpose, so we can treat asa source IP address of camera, but a camera transmit the captured video feed to multiple backend device (NVR/SAN/ VMS/ recording server/ analytics server etc.) for further multiple purpose, so it's not possible to set a single destination IP address in camera. Thus requesting you to remove this point.	As per RFP
20	Annexure IV.B.37 / Page 65	<u>B. CCTV -Fixed Camera (Functional Requirements): SI-37</u> The housing, mounting arm and the dome camera installed assembly shall be suited to withstand wind gusts of 150 km/h.	Need clarification on this point - from clause no. 1 - we understand that the fixed camera will be installed at outdoor scenario. But in clause no. 37 - menioned dome camera. By form-factor Dome camera mainly designed for indoor surveillance where as bullet used for outdoor surveillance purpose. So, requesting you to kindly clarify on this point.	As per RFP
21	Annexure IV.B.39 / Page 68	<u>B. CCTV -PTZ Camera (Functional Requirements): SI-39</u> The housing, mounting arm and the dome camera installed assembly shall be suited to withstand wind gusts of 150 km/h.	Need Clarification exactly what is the uses ?	As per RFP
22	Annexure IV.B.40 / Page 65	<u>B. CCTV -Fixed Camera (Functional Requirements): SI-40</u> Cameras along with related software needs to be integrated with the existing surveillance maintained by BSCL at Datacentre	Need clarification on this point for better understanding - We wanted to know what kind of integration required with existing system & also interested to know about the existing backend system thata will help us to understand as well as to propose suitable solution with smooth integration procedure.	Existing Smart City Platform that has been deployed is CISCO KINETIC FOR CITIES, for more details RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.

23	Annexure IV.B.28 / Page 67	<u>B. CCTV -PTZ Camera (Functional Requirements) SI-28</u> There shall be a minimum of 8 definable privacy zones	Requesting to modify as - 4 privacy zones	As per RFP
24	SECTION – 7: PROJECT DETAILS AND CONDITIONS 7.1.1. OVERVIEW / Page 29	The scope is consisting of Supply, Installation, Testing, Commissioning and Operation & Maintenance of the following components: <ul style="list-style-type: none"> • Fixed Camera • PTZ Camera • PTZ camera Joystick • Network video recorder (NVR) etc...	With the ref. Clause no. we come to know that along with CCTV Cameras, VMS & related accessories NVR also required for Recording purpose. But in BoQ & technical specification part there is no such separate specification available for NVR, not even mentioned Number of channel supported NVR or NVR qty. Thus requesting you to clarify on this point & also requesting to include a separate specification for NVR which will be helpful to design a proper solution against the requirement.	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.
25	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -PTZ Camera (Functional Requirements) / Page 66	<u>B. CCTV -PTZ Camera (Functional Requirements) SI-17</u> All cameras shall capture high definition video, compress the video using H.264 technique and transmit real-time using fibre optic based communications system.	In CCTV industry, whether the network camera will be installed at indoor/outdoor scenario comes with in-built Ethernet network communication interface. Depending upon the site requirement if we planned to transmit real-time captured data to central location through fibre optic based communication then we need to arrange external device (media converter or similar) for connectivity purpose. Thus requesting you to remove fibre optic part from Camera's specification.	Refer BOQ SL. No. E

26	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -PTZ Camera (Functional Requirements) / Page 66	<u>B. CCTV -PTZ Camera (Functional Requirements) SI-18</u> The cameras shall capture audio and compress using G.711 technique and transmit real-time using fibre optic based communications system.	In CCTV industry, the network camera can be installed at indoor/outdoor scenario but it comes with in-built Ethernet network communication interface. Depending upon the site requirement if we planned to transmit real-time captured data to central location through fibre optic based communication then we need to arrange external device (media converter or similar) for connectivity purpose. Thus requesting you to remove fibre optic part from Camera's specification.	Refer BOQ SL. No. E
27	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -PTZ Camera (Functional Requirements) / Page 67	<u>B. CCTV -PTZ Camera (Functional Requirements) SI-26</u> For PTZ Cameras:	Requesting you to amend this point as - " Camera shall have capabilities of Tilt range 0° ~ 90° (Auto-flip) " which is total 180°	As per RFP
28	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -PTZ Camera (Functional Requirements) / Page 67	<u>B. CCTV -PTZ Camera (Functional Requirements) SI-26</u> For PTZ Cameras:	Every CCTV OEM has a wide-range of PTZ Camera but by series/ product category the minimum starting focal length may vary. So requesting you to give some tolerance range in focal length or just mentioned minimum 20x optical zoom or higher.	As per RFP

29	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -PTZ Camera (Functional Requirements) / Page 67	<u>B. CCTV -PTZ Camera (Functional Requirements) SI-30</u> All cameras shall provide user control, with remote configuration for functions including streaming and compression settings, exposure, white balance, flicker control, picture size, cropping/privacy, brightness, sharpness, saturation, day-night switching point, frame rate, image rotation, snapshot, dynamic bandwidth allocation and motion detection.	Need clarification on this point for better understanding- in term of 'Picture size' - what actually mean to say, is it higher to lower resolution size of camera's image ? Please clarify.	The functionality should be retain/decrease the picture size as per end users needs.
30	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -PTZ Camera (Functional Requirements) / Page 67	<u>B. CCTV -PTZ Camera (Functional Requirements) SI-34</u> The cameras shall have, at a minimum, the following configurable features:	Every network cameras has a in-built network communication interface, a user can assign a IP address to camera for communication purpose, so we can treat asa source IP address of camera, but a camera transmit the captured video feed to multiple backend device (NVR/SAN/ VMS/ recording server/ analytics server etc.) for further multiple purpose, so it's not possible to set a single destination IP address in camera. Thus requesting you to remove this point.	As per RFP

31	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>B. CCTV</p> <p>CCTV -PTZ Camera (Functional Requirements) / Page 68</p>	<p><u>B. CCTV -PTZ Camera (Functional Requirements) SI-42</u> Cameras along with related software needs to be integrated with the existing surveillance maintained by BSCL at Datacentre</p>	<p>Need clarification on this point for better understanding - We wanted to know what kind of integration required with existing system & also interested to know about the existing backend system thata will help us to understand as well as to propose suitable solution with smooth integration procedure.</p>	<p>Exisiting Smart City Platform that has been deployed is CISCO CDP, for more details RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.</p>
32	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>B. CCTV</p> <p>CCTV -PTZ Joystick (Functional Requirements) / Page 68</p>	<p><u>B. CCTV -PTZ Joystick (Functional Requirements) SI-2</u> PTZ Keyboard with Joystick should be configured in VMS</p>	<p>In VMS, Network Camera / NVR / DVR/ SAN / Recording server/ Encoder / Decoder / Alarm panel - can added & configurable and managable through the platform. Whereas Keyboard-Joystick is a hardware tool which is mainly deisgned to control the PTZ camera by doing PAN /Tilt / zoom. Configuration can be done by itself, VMS level intervention not required. Thus requesting you to remove this clause from Joystick.</p>	<p>As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.</p>

33	<p>APPENDIX - VIII: FINANCIAL BID FORM</p> <p>BOQ for Capital Expenditure (CAPEX)</p> <p>B. Data centre / Page 71</p>	<p><u>B. Data centre: SI-7</u> 7) Data centre : Network Video recorder for DC and Video DRC (Set -1)</p>	<p>With the ref. Clause / Boq no. we come to know that along with CCTV Cameras, VMS & related accessories NVR also required for Recording purpose. But in BoQ & technical specification part there is no such separate specification available for NVR, not even mentioned Number of channel supported NVR or NVR qty. Thus requesting you to clarify on this point & also requesting to include a separate specification for NVR which will be helpful to design a proper solution against the requirement.</p>	<p>As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCCL website.</p>
34	<p>APPENDIX - VIII: FINANCIAL BID FORM</p> <p>BOQ for Capital Expenditure (CAPEX)</p> <p>B. Data centre / Page 71</p>	<p><u>B. Data centre: SI- 8 & 9</u> 8) Data centre : Primary Storage (Set-1) 9) Data centre : Secondary Storage (Set-1)</p>	<p>Need Clarification on this point for better understanding - Apart from the NVR based recording storage, is there any other type storage requirement with Failover redundancy - Primary/secondary ? (like - SAN / Software based recording server)</p> <p>Under Section 'A. Video Management System' (PageNo 47) - Sr.No.8 it is mentioned that "The NVR shall have failover and redundancy built in with seamless playback without manual intervention."</p> <p>so ref. to this above point whether Primary & secondary storage system is NVR or other type storage device.</p> <p>Kindly clarify this point.</p> <p>Please share the details of secondary storage like i. Retention time ii. Resolution iii. FPS iv. Codec</p>	<p>It will case to case basis</p>

35	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>A. Video Management System</p> <p>Video Management System- Network Video Recorder & Recording Schedules / Page 47</p>	<p><u>A. Video Management System: SI-9</u></p> <p>The NVR shall support a minimum of 200 recorded video streams and 20 playback streams with minimum playback of 400 Mbps.</p>	<p>In CCTV industry, every OEM has their different version of dedicated backend Viewing VMS platform which support a huge number of device/camera connectivity But while we try to decode & playback multiple camera simultaneously, it consume a huge hardware resource. Majority of CCTV OEM has option to playback 16-ch playback at same time. Thus requesting you to amend this point as " 16 playback streams with minimum playback" which will be more generic than before.</p>	As per RFP
36	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>A. Video Management System</p> <p>Video Management System- Network Video Recorder & Recording Schedules / Page 53</p>	<p><u>A. Video Management System: SI-78</u></p> <p>The Video Management System shall automatically failover when a primary NVR is down.</p>	<p>The function/purpose of both devices are different . VMS/CMS used for viewing/managing purpose, NVR is mainly used for recording purpose. For recording failover - if primary NVR is down then secondary/standby NVR will take responsibility (N+1 failover). Kindly cross-check once this point.</p>	As per RFP

37	Annexure IV.B.30 / Page 64	<p><u>B. CCTV -Fixed Camera (Functional Requirements): SI-30</u> The camera and the associated equipment shall support communication protocols IPv4, IPv6, TCP, UDP, HTTP, HTTPS, DHCP, IGMP, ICMP, ARP, SNMP, Telnet, FTP, NTP, RTSP, and RTP as a minimum.</p>	<p>Most of Indian cctv industries OEM uses HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; SNMP;QoS; UPnP; NTP; ONVIF (Profile S/Profile G); CGI; P2P these Protocol , and IGMP & ICMP is similar to UDP, in that it handles messages that fit in one packet. However it is even simpler than UDP. It doesn't even have port numbers in its header . Talent is an application that operates using the TCP protocol.So kindly consider the above mentioned Protcol .</p>	As per RFP
38	Annexure IV.B.32 / Page 67	<p><u>B. CCTV -PTZ Camera (Functional Requirements): SI-32</u> The camera and the associated equipment shall support communication protocols IPv4, IPv6, TCP, UDP, HTTP, HTTPS, DHCP, IGMP, ICMP, ARP, SNMP, Telnet, FTP, NTP, RTSP, and RTP as a minimum.</p>	<p>Most of Indian cctv industries OEM uses HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; SNMP; QoS; UPnP; NTP; ONVIF (Profile S/Profile G); CGI; P2P these Protocol , Talent is an application that operates using the TCP protocol.So kindly consider the above mentioned Protcol .</p>	As per RFP

S.No.	RFP Clause No. / Page No.	Content of RFP requiring clarification	Points of clarification required	Reply
1	B.CCTV / 63	<p>The surveillance system shall support following Built-in-Analytics for the Cameras or using central analytics:</p> <ul style="list-style-type: none"> • AutoTracker: To detect and track movement in the field of view. • Adaptive Motion Detection: To detect and track object that enter a scene and then triggers an alarm when the object enter a user-defined zone. • Camera Sabotage: Triggers an alarm if the lens is obstructed. • Directional Motion: Generates an alarm in a high traffic area when a person or object moves in a specified direction. • Object Counting: To count the number of objects that enter a defined zone. • Stopped Vehicle: To detect vehicles stopped near a sensitive area longer than the user-defined time allows. 	<p>Please calrify the following points.</p> <p>Directional Motion: Please elaborate the point. At what point do you want the trigger/alarm to happen.</p> <p>Object Counting: Please clarify the definition of objects that need count Eg. People, Vehicle, Animals etc</p>	As per RFP
2	B.CCTV / 63	GENERAL	<p>This eminent project demands better video analytics to be showcased for city safety and in-time action. Please add the following VA to the already ready list</p> <ol style="list-style-type: none"> 1. Vandalism Detection: Alerts when a group or individual destroys public property 2. Weapon Detection : Alerts when weapons are detected in field of view. 3. Violence against woman: Alerts when potential cases of eve-teasing or harm against woman is detetcted. 4. Facial Recognition: Should able to recognise people from the database. OEM must be NIST Certified 5. People Attributes: Detects person of interst from age, color, clothing and other attributes. 	As per RFP
3	BOQ for Capital Expenditure (CAPEX)	Video Management System with video analytics (QTY-1)	Please clarify on the number of license required for Video Analytics or number of analytics to run per camera.	It is as per requirement of RFP
4		GENERAL	Please add this point: VMS and VA must be from different OEMs with tight integration	As per RFP

S.no	Site location of CCTV camera (LAT, LONG Detail).	Reference page no	Tender	Clarification Sought	Justification	Reply
1	GPS Position of different sites where cctv cameras need to install must be share with LAT & LONG detail		No such information is provided in tender	LONG & LAT coordinates are required for planning of complete passive work.	LONG & LAT coordinates are required for planning of complete passive work	Will be uploded in the BSCL Website.
2	VMS shall be sized to provide minimum 30 days storage assuming recording of 24hrs a day, 7 days a week and 30 days a month at 4 CIF resolution	47 - 48	We request that recording resolution and frame rate will be at least HD quality, i.e. 720P (1280*720) @ 25 FPS.	4 CIF resolution is less resolution w.r.to any forensic job.	HD resolution will help several civil and administrative agency during forensic job.	As per RFP
3	43 - Integration Integration with existing Smart city platform etc.	74 - 75	We request that kindly share the details of existing setup, Accordingly OEM/Bidders can consider the cost of integration.	Existing setup detail is required for both way integration, kindly share use cases regarding integration.		Exisiting Smart City Platform that has been deployed is CISCO CDP, for more details RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.
4	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION/ Page 47 or 80	47 - 48	12.For incidents that are flagged by the Police, BSCL or any court order, the video of the relevant portion from all relevant cameras should be stored/archived separately for investigation purposes and a committee at Authority can decide when this video feed can be deleted.	Please clarify the retention days and percentage which needs to consider for flagged data.	Flagged data percentage (assumption) required for, compute, network, and storage requirement.	It will case to case basis

5	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION/ Page 47 or 80	47 - 48	13.The system shall support H.264 or better, MPEG-4 and MJPEG compression formats for all IP cameras connected to the system.	Currently all cameras available in the market supports H.265/H.265+ codec ,which is the latest and greatest codec available .To save storage and bandwidth we request to amend this clause to "13.The system shall support H.264 ,H.265 or better, MPEG-4 and MJPEG compression formats for all IP cameras connected to the system."	H.265/H.265+ codec ,which is the latest and greatest codec available .To save storage and bandwidth kindly take under consideration.	As per RFP
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. No.	RFP Volume	RFP Page no.	Content in the RFP	Clarification sought	Reply
	Section				
1	RFP No.916 issued on 30.04.2022 for SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND O&M OF CCTV AND VIDEO MANAGEMENT SYSTEM	63	CCTV -Fixed Camera 7. Object Counting: To count the number of objects that enter a defined zone.	Request you to change the Object counting to People counting.	As per RFP
2	RFP No.916 issued on 30.04.2022 for SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND O&M OF CCTV AND VIDEO MANAGEMENT SYSTEM	64	CCTV -Fixed Camera 31. The camera shall incorporate a built-in web server, built-in FTP server, and a built-in FTP client.	Request you to remove FTP Server as all the OEMs doesn't have FTP server support.	As per RFP
3	RFP No.916 issued on 30.04.2022 for SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND O&M OF CCTV AND VIDEO MANAGEMENT SYSTEM	64	CCTV -Fixed Camera 17 All cameras shall capture high definition video, compress the video using H.264 technique and transmit real-time using fibre optic based communications system.	All cameras shall capture high definition video, compress the video using H.264 technique and transmit real-time using fibre optic based communications system. Request you to change video compression from H.264 to H.265+ to achive better storage space.	As per RFP
4	RFP No.916 issued on 30.04.2022 for SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND O&M OF CCTV AND VIDEO MANAGEMENT SYSTEM	66	CCTV -Fixed Camera 17 All cameras shall capture high definition video, compress the video using H.264 technique and transmit real-time using fibre optic based communications system.	Request you to change video compression from H.264 to H.265+ to achive better storage space.	As per RFP

5	RFP No.916 issued on 30.04.2022 for SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND O&M OF CCTV AND VIDEO MANAGEMENT SYSTEM	67	CCTV -PTZ Camera 31. The camera shall incorporate a built-in web server, built-in FTP server, and a built-in FTP client.	Request you to remove FTP Server as all the OEMs doesn't have FTP server support.	As per RFP
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S.No.	RFP Clause	Page No	RFP Content	Query/clarification	Change request	Reply
1	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	47	The Network Video Recorder (NVR) will be connected via a Gigabit Ethernet network.	NVR based solution is not a scalable solution & comes with limitation no of camera added in NVR. We suggest to consider Server based recorder solution which is scalable to support unlimited cameras.	We request the authorities to please amend this clause as "The Network Video Recorder (NVR)/video recorder system will be connected via a Gigabit Ethernet network".	As per RFP
2	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	47	The NVRs/Windows tools shall have a self-diagnostic feature including disk status, CPU usage and network status.	NVR based solution is not a scalable solution & comes with limitation no of camera added in NVR. We suggest to consider Server based recorder solution which is scalable to support unlimited cameras.	We request the authorities to please amend this clause as "The NVRs/ video recorder systems shall have a self-diagnostic feature including disk status, CPU usage and network status".	As per RFP
3	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	47	The NVRs shall be support interface using 10/100/1000BaseTX. It shall support a total throughput of at least 512 Mbps.	NVR based solution is not a scalable solution & comes with limitation no of camera added in NVR. We suggest to consider Server based recorder solution which is scalable to support unlimited cameras.	We request the authorities to please amend this clause as "The NVRs/video recorder system shall be support interface using 10/100/1000BaseTX".	As per RFP
4	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	47	The NVR shall be powered using 100-240VAC/50Hz.	NVR based solution is not a scalable solution & comes with limitation no of camera added in NVR. We suggest to consider Server based recorder solution which is scalable to support unlimited cameras.	We request the authorities to please amend this clause as "The NVR/Video recorder server shall be powered using 100-240VAC/50Hz".	As per RFP
5	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	47	Each NVR unit shall be maximum of 2U height.	NVR based solution is not a scalable solution & comes with limitation no of camera added in NVR. We suggest to consider Server based recorder solution which is scalable to support unlimited cameras.	We request the authorities to please amend this clause as "The video recorder server should be minimum 2U or more height".	As per RFP
6	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	47	The NVR shall support Linux or Windows platform.	NVR based solution is not a scalable solution & comes with limitation no of camera added in NVR. We suggest to consider Server based recorder solution which is scalable to support unlimited cameras.	We request the authorities to please amend this clause as "The Video recorder system should be OS agnostic".	As per RFP
7	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	47	The NVR shall be capable of digitally sign exporB9:B10ted video to ensure chain of trust.	This is an single OEM specific point and also NVR based solution is not a scalable solution & comes with limitation no of camera added in NVR. We suggest to consider Server based recorder solution which is scalable to support unlimited cameras.	We request the authorities to please amend this clause as "The video recorder system must be able to download videos from the system and be watermarked, with the option to export in non-tampering format".	As per RFP

8	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	47	The NVR shall have failover and redundancy built in with seamless playback without manual intervention.	NVR based solution is not a scalable solution & comes with limitation no of camera added in NVR. We suggest to consider Server based recorder solution which is scalable to support unlimited cameras.	We request the authorities to please amend this clause as "The Video Recorder server should support failover with N+0, N+1,N+N redundancy".	As per RFP
9	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	47	The NVR shall support a minimum of 200 recorded video streams and 20 playback streams with minimum playback of 400 Mbps.	NVR based solution is not a scalable solution & comes with limitation no of camera added in NVR. We suggest to consider Server based recorder solution which is scalable to support unlimited cameras.	We request the authorities to please amend this clause as "The video recorder system should be scalable to unlimited cameras".	As per RFP
10	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	47	VMS shall be sized to provide minimum 30 days storage assuming recording of 24hrs a day, 7 days a week and 30 days a month at 4 CIF resolution. All NVRs shall be provided in an N+N configuration.	NVR based solution is not a scalable solution & comes with limitation no of camera added in NVR. We suggest to consider Server based recorder solution which is scalable to support unlimited cameras.	We request the authorities to please amend this clause as "VMS shall be sized to provide minimum 30 days storage assuming recording of 24hrs a day, 7 days a week and 30 days a month at 4 CIF resolution. All NVRs/Video recorder server shall be provided in an N+N configuration".	As per RFP
11	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Network Video Recorder & Recording Schedules)	48	Failover Support - The system shall support automatic failover for Recording Servers. This functionality shall be accomplished by Failover Server as a standby unit that shall take over in the event that one of a group of designated Recording Servers fails. Recordings shall be synchronized back to the original Recording Server once it is back online. The system shall support multiple Failover Servers for a group of Recording Servers.	This is an OEM specific point , we request the authorities to please relax this clause for wider OEM participation.	The system shall support automatic failover and load balancing for recording servers. This functionality shall be accomplished by an additional failover server that shall take the load of the cameras in case any other recorder server fails. Recordings shall be available to the users immaterial of the location of the storage, provided the provisioned storage is network attached type.	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.

12	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Functional Requirements)	48	VMS Unit(s) shall provide fully configurable recording options to include, but not limited to: <ul style="list-style-type: none"> • Full record • Record on motion only • Variable frame rate • Variable resolution • Change of recording configurations on receipt of an alarm globally and/or per camera 	This is an OEM specific point , we request the authorities to please relax this clause for wider OEM participation.	We request the authorities to please explain the funtional requirement of Change of recording configurations on receipt of an alarm globally and/or per camera	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.
13	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Functional Requirements)	49	Central software application to be installed at the ICOMC shall be able to run on any PC based on standard operating systems.	The software requirements are OEM specific and very exhaustive. These are highly restrictive to participation of the other VMS OEM's.	We request the authorities to please amend this clause as " The software should work on Commercially off the shelf hardware and should be agnostic to operating system".	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.
14	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Functional Requirements)	49	Video Management System (VMS) shall be non-proprietary and open-ended to support integration with ICOMC platform.	General query	As we understand that there is requirement of ICCC platform or ICOMC platform for integration purpose. Request you to please confirm if our understnading is correct.	It may be read as "Video Management System (VMS) shall be non-proprietary and open-ended to support integration with BSCL's existing ICOMC platform.
15	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Functional Requirements)	49	Software shall consist of a single client application and the client software shall not be dependent on, require any connection to, a central management or configuration server for security reasons.	The software requirements are OEM specific and very exhaustive. These are highly restrictive to participation of the other VMS OEM's.	We request the authorities to please amend this clause as " The Video Management Software should be enterprise class application based on client-server architecture and should have an independent media streaming service which can be installed on a separate server to support scaling up of the clients without affecting the recorder server performance".	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.

16	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Functional Requirements)	56	The Video Management System shall notify users of problems with NVRs. The notifications will be those supported by each NVR.	The software requirements are OEM specific and very exhaustive. These are highly restrictive to participation of the other VMS OEM's.	We request the authorities to please amend this clause as " The video Management system shall display an indicator of health status for components such as database, media server, local workstation, storage system and camera with different level status indication for warnings and errors".	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.
17	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION (Video Management System-Functional Requirements)	57	The Video Management System shall provide a support information tool, which gathers together log files and site database into a zip file.	The software requirements are OEM specific and very exhaustive. These are highly restrictive to participation of the other VMS OEM's.	Every OEM has its own way of fulfilling the functional requirement and in proposed VMS software there is package manager tool by which we can take back up of configuration's and database. Additionally there is provision to update the software from remote location". We request you to please confirm if our understanding is correct.	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.

18	B. CCTV	63	<p>The surveillance system shall support following Built-in-Analytics for the Cameras or using central analytics:</p> <ul style="list-style-type: none"> • AutoTracker: To detect and track movement in the field of view. • Adaptive Motion Detection: To detect and track object that enter a scene and then triggers an alarm when the object enter a user-defined zone. • Camera Sabotage: Triggers an alarm if the lens is obstructed. • Directional Motion: Generates an alarm in a high traffic area when a person or object moves in a specified direction. • Object Counting: To count the number of objects that enter a defined zone. • Stopped Vehicle: To detect vehicles stopped near a sensitive area longer than the user-defined time allows. 	<p>The software requirements are OEM specific and very exhaustive. These are highly restrictive to participation of the other VMS OEM's.</p>	<p>Kindly confirm the video analytics quantities with use cases so that compute power can be calculated and optimized accordingly.</p>	<p>As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.</p>
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19	B. CCTV	63	<p>The surveillance system shall support following Built-in-Analytics for the Cameras or using central analytics:</p> <ul style="list-style-type: none"> • AutoTracker: To detect and track movement in the field of view. • Adaptive Motion Detection: To detect and track object that enter a scene and then triggers an alarm when the object enter a user-defined zone. • Camera Sabotage: Triggers an alarm if the lens is obstructed. • Directional Motion: Generates an alarm in a high traffic area when a person or object moves in a specified direction. • Object Counting: To count the number of objects that enter a defined zone. • Stopped Vehicle: To detect vehicles stopped near a sensitive area longer than the user-defined time allows. 	<p>The software requirements are OEM specific and very exhaustive. These are highly restrictive to participation of the other VMS OEM's.</p>	<p>Considering the poor accuracy of the analytics on camera-edge, we request the authorities to kindly consider the analytics under central servers which offer better accuracy and the facility to improve the data set by training.</p>	<p>As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.</p>
20	Indicative - Bill of Material	70		General Query	<p>From a VMS Point of view, Kindly clarify on Camera resolution and frame rate required to be considered for the complete solution</p>	<p>As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.</p>

21	Indicative - Bill of Material	70		General Query	Video analytics quantity missing from the BOQ. We request the authorities to please clarify on video analytics requirement.	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.
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Sl. No.	RFP Clause No. / Page No.	Content of RFP requiring clarification	Points of clarification required	Reply																																																																																																																								
1	2.2. ELIGIBILITY OF BIDDERS, page 10 of RFP	2.2.3. Pre-Qualification 4) Bidder must have experience in Supply Installation, Testing, Commissioning, O&M for Video Management System/Cameras/Analytics in single order of minimum value of Rs. 50 crore and value for Video Management System & Cameras & Analytics should be 10 crores in the same order	Request to modify as follows: Bidder must have experience in Supply Installation, Testing, Commissioning and maintenance for Video Surveillance Project in single order of minimum value of Rs. 100 crore and value for Video Management System, Cameras, Analytics should be 15 crore in the same order	As per RFP																																																																																																																								
2	2.2. ELIGIBILITY OF BIDDERS, page 10 of RFP	2.2.3. Pre-Qualification 5) Bidder must have experience in supply, installation, Testing, Commissioning & O&M of City IP Surveillance system of at least 1000 cameras and its integration in single order	Request to add this point in Pre-Qualification: Bidder must have experience in supply, installation, Testing, Commissioning & maintenance of City IP Surveillance system of at least 1000 cameras and its integration in single order	As per RFP																																																																																																																								
3	2.2. ELIGIBILITY OF BIDDERS, Technical Qualification, page 11 of RFP	1) Annual turnover (TO) in each year during the last 3 financial Years of the Sole bidder/Lead bidder (in case of consortium) should have been engaged in Supply, Installation, Testing, Commissioning, and O&M for IT/ITES/ICT system integration services). (a) ≥ 100 Crore - < 150 Crore = 10 marks (b) ≥ 150 Crore - <200 Crore =15 marks (c) ≥200 Crore = 20 marks	Request to modify as follows: Annual turnover (TO) in each year during the last 3 financial Years of the Sole bidder/Lead bidder (in case of consortium) should have been engaged in Supply, Installation, Testing, Commissioning, and O&M for IT/ITES/ICT system integration services). (a) ≥ 200 Crore - < 250 Crore = 10 marks (b) ≥ 250 Crore - <300 Crore =15 marks (c) ≥300 Crore = 20 marks	As per RFP																																																																																																																								
4	2.2. ELIGIBILITY OF BIDDERS, Technical Qualification, page 13 of RFP	8) Understanding of Scope of Work and Detailed Approach & Methodology (a) Understanding of the project and the proposed Architecture to meet the functionalities as given in RFP - 3 Marks (b) Detailed approach & methodology for project execution and implementation plan with resource deployment plan - 3 Marks (c) Functional prototype of the requirement given RFP - 3 marks (d) Identification of major risks & their mitigation plan along with proposed solution for Security and Cyber Threat - 3 Marks (e) Transition Plan & Exit Management Plan – 3 Marks	Request to modify as follows: 8) Understanding of Scope of Work and Detailed Approach & Methodology (a) Understanding of the project and the proposed Architecture to meet the functionalities as given in RFP - 3 Marks (b) Detailed approach & methodology for project execution and implementation plan with resource deployment plan - 3 Marks (c) Functional prototype of the requirement given RFP - 3 marks (d) Identification of major risks & their mitigation plan along with proposed solution for Security and Cyber Threat - 3 Marks (e) Transition Plan & Exit Management Plan – 1 Mark Understanding of existing system and its integration methodology- 2 Marks	As per RFP																																																																																																																								
5	7.4. PAYMENTS SCHEDULE, page 30 of RFP	<table border="0"> <thead> <tr> <th>SN</th> <th>Milestones</th> <th>Capex</th> <th>Opex</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Project Plan</td> <td>2%</td> <td>NA</td> </tr> <tr> <td>2</td> <td>Design</td> <td>3%</td> <td></td> </tr> <tr> <td>3</td> <td>Supply of equipment</td> <td>30%</td> <td></td> </tr> <tr> <td>4</td> <td>Installation completion</td> <td>20%</td> <td></td> </tr> <tr> <td>5</td> <td>System Acceptance</td> <td>5%</td> <td></td> </tr> <tr> <td>6</td> <td>Go-live and Commissioning</td> <td></td> <td></td> </tr> <tr> <td></td> <td>- 90% of the system</td> <td>7%</td> <td></td> </tr> <tr> <td></td> <td>- 100% of the system</td> <td>3%</td> <td></td> </tr> <tr> <td>7</td> <td>Go-live at integration with ICOMC</td> <td></td> <td></td> </tr> <tr> <td></td> <td>- 90% of system</td> <td>10%</td> <td></td> </tr> <tr> <td></td> <td>- 100% of the system</td> <td>5%</td> <td></td> </tr> <tr> <td>8</td> <td>AMC period (6 Years)</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>(Quarterly payment for 6 Years) 100% quarterly payment for 6 years</td> <td></td> </tr> <tr> <td></td> <td>AMC for that year</td> <td></td> <td>based on quoted particular</td> </tr> </tbody> </table>	SN	Milestones	Capex	Opex	1	Project Plan	2%	NA	2	Design	3%		3	Supply of equipment	30%		4	Installation completion	20%		5	System Acceptance	5%		6	Go-live and Commissioning				- 90% of the system	7%			- 100% of the system	3%		7	Go-live at integration with ICOMC				- 90% of system	10%			- 100% of the system	5%		8	AMC period (6 Years)					(Quarterly payment for 6 Years) 100% quarterly payment for 6 years			AMC for that year		based on quoted particular	<table border="0"> <thead> <tr> <th>SN</th> <th>Milestones</th> <th>Capex</th> <th>Opex</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Project Plan</td> <td>2%</td> <td>NA</td> </tr> <tr> <td>2</td> <td>Design</td> <td>3%</td> <td></td> </tr> <tr> <td>3</td> <td>Supply of equipment</td> <td>40%</td> <td></td> </tr> <tr> <td>4</td> <td>Installation completion</td> <td>25%</td> <td></td> </tr> <tr> <td>5</td> <td>System Acceptance</td> <td>5%</td> <td></td> </tr> <tr> <td>6</td> <td>Go-live and Commissioning</td> <td></td> <td></td> </tr> <tr> <td></td> <td>- 90% of the system</td> <td>7%</td> <td></td> </tr> <tr> <td></td> <td>- 100% of the system</td> <td>3%</td> <td></td> </tr> <tr> <td>7</td> <td>Go-live at integration with ICOMC</td> <td></td> <td></td> </tr> <tr> <td></td> <td>- 90% of system</td> <td>10%</td> <td></td> </tr> <tr> <td></td> <td>- 100% of the system</td> <td>5%</td> <td></td> </tr> <tr> <td>8</td> <td>AMC period (6 Years)</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>(Quarterly payment for 6 Years) 100% quarterly payment for 6 years</td> <td></td> </tr> <tr> <td></td> <td>for that year</td> <td></td> <td>based on quoted AMC particular</td> </tr> </tbody> </table>	SN	Milestones	Capex	Opex	1	Project Plan	2%	NA	2	Design	3%		3	Supply of equipment	40%		4	Installation completion	25%		5	System Acceptance	5%		6	Go-live and Commissioning				- 90% of the system	7%			- 100% of the system	3%		7	Go-live at integration with ICOMC				- 90% of system	10%			- 100% of the system	5%		8	AMC period (6 Years)					(Quarterly payment for 6 Years) 100% quarterly payment for 6 years			for that year		based on quoted AMC particular	As per RFP
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6		Additional	General requirement: Bidder can use existing infrastructure/Software Platform of BSCL or can provide new solution with seamless integration with existing platform.	As per RFP																																																																																																																								
7	Clause 7.2/ Page 30	RIGHT TO SUB-CONTRACT The selected bidder shall have no right to sub-contract the work to any other third party.	Kindly allow Subcontracting for field maintenance and O&M scope	As per RFP																																																																																																																								

8	APPENDIX VII /Page 69	SERVICE LEVEL AGREEMENT Fixed CCTV/ CCTV PTZ For every decrease of 0.50% in availability of each device & its associated component in a quarter, a penalty of 10000 shall be imposed	Request to modify as: Penalty of 2000 INR for Respective O & M Quarter	As per RFP
9	APPENDIX VII /Page 69	SERVICE LEVEL AGREEMENT PTZ Keyboard with Joystick For every decrease of 0.50% in availability of each device & its associated component in a quarter, a penalty of 5000 shall be imposed.	Request to modify as: Penalty of 1000 INR for Respective O & M Quarter	As per RFP
10	APPENDIX VII /Page 69	SERVICE LEVEL AGREEMENT NVR For every decrease of 0.50% in availability of each device & its associated component in a quarter, a penalty of 500000 shall be imposed	Request to remove this clause OR Kindly modify as follows: Penalty capping 10% for respective quarter for O & M.	As per RFP
11	Clause 7.3.1/ Page 30	The duration of the contract period as prescribed in this RFP will be for the period of 7 Years for supply, installation, testing and commissioning and O&M from the date of signing of Contract Agreement with an extension based on mutually agreed terms and conditions.	Kindly provide clarity for minimum Manpower requirement.	Query unclear
12		Additional	Please clarify Insurance scope to be considered by Bidder	As per RFP
13		General	Kindly share specifications for field equipments	Query unclear
14	Clause No 1.2.5. /Page no 5	An EMD of INR 25,00,000 (Indian Rupees Twenty-Five Lakhs Only) in the form of a demand draft or bank guarantee from any Nationalise Bank in India and drawn in favour of the "Bhubaneswar Smart City Limited" and payable at "Bhubaneswar", must be submitted along with the Proposal	Request you to allow us to Submit EMD BG Issued by Scheduled commercial Bank	As per RFP
15	Clause No 1.2.5. /Page no 5	An EMD of INR 25,00,000 (Indian Rupees Twenty-Five Lakhs Only) in the form of a demand draft or bank guarantee from any Nationalise Bank in India and drawn in favour of the "Bhubaneswar Smart City Limited" and payable at "Bhubaneswar", must be submitted along with the Proposal	Request you to share the format of EMD BG or else confirm whether we can furnish this BG as per Bidder/ Bank standard format	As per RFP
16	Clause no 2.20./Page no21	The selected bidder shall, for the performance of its obligations as defined hereunder shall prior to the date of execution of agreement, provide to BSCL, an interest free irrevocable and unconditional guarantee from a Bank for a sum equivalent to 10 percent of the contract value (the "Security Deposit / Performance Guarantee/ Performance Security") issued in favour of Bhubaneswar Smart City Limited drawn from any Nationalized Banks in India.	Request you to allow us to Submit Performance security Issued by Scheduled commercial Bank	As per RFP
17	Clause no 2.20./Page no21	The selected bidder shall, for the performance of its obligations as defined hereunder shall prior to the date of execution of agreement, provide to BSCL, an interest free irrevocable and unconditional guarantee from a Bank for a sum equivalent to 10 percent of the contract value (the "Security Deposit / Performance Guarantee/ Performance Security") issued in favour of Bhubaneswar Smart City Limited drawn from any Nationalized Banks in India.	We hereby request you to allow us to submit performance Security for an amount equivalent to 3% of contract Value by way of issuing corrigendum	As per RFP
18	Clause no 2.20.1. /Page 21	The security deposit shall remain valid for period of 7 years (beyond 6 months from the contract's expiry period).	Request you to confirm whether initially we can provide Performance Security Bank Guarantee for period of 3.5 years along with the letter mentioning that New Performance Security Bank Guarantee will be issued for future required period before expiring this BG	As per RFP
19	Clause no 7.5.7./Page no 21	Any type of statutory taxes applicable on services under this RFP and contract agreement (either in force at present or may be applicable in future by a competent order/notification) will be borne by the Agency and the BSCL would not make any payment on this account.	Does it mean statutory variation clause is not applicable for this tender . Moreover it is also mentioned in Note on page no 80 that "The contract value quote above shall be inclusive of all charges except GST which will be paid extra above the quoted contract value " . it seems clause no 7.5.7 is in contradiction with the clause mentioned above . Moreover the above clause also do not support for introduction of any new taxes by any government or local bodies . it is only mentioned that " GST which will paid extra . In view of this request you to include below mentioned clause by way of corrigendum " our contract price would be amended if there is any amendment of existing taxes /duties/levies or there is introduction of any new taxes /duties/ levies by any state Government or central Government "	As per RFP
20		General query	Request you to confirm that Labour cess (BOCW) would not be deducted from our payments	As per RFP
21		General query	Request you to confirm that whether any concessional Rate of GST or custom duty is applicable to BSCL - Request you to provide the document if any concessional rate of taxes or duties is applicable to BSCL	As per RFP
22	SL 31, P- 64	The camera shall incorporate a built-in web server, built-in FTP server, and a built-in FTP client	Kindly remove this clause- Telnet & FTP should be closed due to Cyber security threat.	As per RFP

23	SL 38, P- 65	The housing for CCTV shall meet the IP66 for protection	Kindly modify as IK10 & IP67 should be minimum protection of Housing in coastal area.	As per RFP
24	SL 39 , P-65	The cameras shall have a Mean Time Between Failure (MTBF) of at least 100,000 hours	Kindly remove this clause. MTBF certificate is not available with all the industry standard OEMs	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.
25	SL 22, P-66	The camera shall support video compression up to 6Mbps	Request to modify as follows: The camera shall support video compression up to 6- 12 Mbps	As per RFP
26	SL-25, P-66	All cameras shall have integral in-built or external adaptive IR technology. For PTZ it shall support a range of at least 200m moving with zoom (adaptive).	Request to modify as follows: For PTZ it shall support a range of at least 150m moving with zoom (adaptive).	As per RFP
27	Page 71	Additional	We understand following line items are missing in the RFP BOQ .Request to add following line items in the BOQ under the Data Center Heading i. Firewalls : 1 Lot	Refer BOQ SL. No. E
28		General	We understand UPS and Rack Space at the DC and DR shall be provided by client.	Refer Data Hosting Page 66
29	Page 71	6. Video Management System with video analytics : 1 Nos	Request to kindly modify description as " Seamless Integration with existing BSCL VMS Platform : 1 Nos Additional Line Item : " Development Cost for SDK and API for new System " : 1 Nos Additional Line Item : " Development Cost for SDK and API for existing System " : 1 Nos	As per RFP
30	Page 74	44. "Integration with existing Fibre Asset Management System (FAMS)"	Request to kindly modify the description as "Integration and expansion of existing Fibre Asset Management System (FAMS)"	As per RFP
31	Page 74	45. "Integration with existing Network Management System (NMS)"	Request to kindly modify the description as "Integration and expansion of existing Network Management System (NMS)"	As per RFP
32	Page 74	46. "Integration with existing Enterprise Management System (EMS) including Helpdesk"	Request to kindly modify the description as "Integration with existing Enterprise Management System (EMS) including Helpdesk"	As per RFP
33		General	We understand both DC and DR shall be at Bhubaneswar only. Please confirm if our understanding is correct.	Refer Data Hosting Page 66
34		Additional	Request to kindly include additional line item under of Field UPS " As per Bidder's Design" under the heading Communication Network	As per RFP

S.No.	RFP Clause No. / Page No	Content of RFP requiring clarification	Points of clarification required	Reply
1	65 & 67	CCTV -Fixed Camera & CCTV -PTZ Camera : The cameras shall support at the minimum three individually configured video streams. The cameras shall be capable of three or more simultaneous streams with one of the streams being in H.264 format.	Kindly consider- The cameras shall support minimum 3 nos. simultaneous and individually configurable Streams @ H.264,H.265 with Maximum frame rate and Maximum Resolution and shall be user configurable or better	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.
2	65 & 68	CCTV -Fixed Camera & CCTV -PTZ Camera : Additional clause	Kindly consider- The Camera must be in compliance with CE, FCC, UL, BIS & NDAA certifications- NDAA certificate(new addition) because quality of camera chipsets are verified by NDAA along with cyber security complied. Now other Indian Govt. Projects are following NDAA certificates for quality Camera Chipset- https://ipvm.com/reports/ndaa-compliant-list (NDAA certified global OEMs are Bosch, Axis, Honeywell, Hanwha, Tyco, Pelco etc.)	As per RFP
3	65 & 68	CCTV -Fixed Camera & CCTV -PTZ Camera : Additional clause	Kindly consider- The camera OEM Should be a genuine manufacturer and should be an official valid H.264/ H.265 HEVC Certificate and should be listed on both HEVC website at the time of submitting bid . They should be paying the licensed fee for using the genuine HVEC Compression legally. The same will be checked on following official website https://www.mpegla.com/programs/hevc/licensees/ https://accessadvance.com/hevc-advance-patent-pool-licensees/	As per RFP

Sr.	RFP Document Reference			Content of the RFP requiring clarification	Clarification Sought	Reply
	Section No.	Clause No.	Page No.			
1	SECTION – 7: PROJECT DETAILS AND CONDITIONS 7.1.1. OVERVIEW	The scope is consisting of Supply, Installation, Testing, Commissioning and Operation & Maintenance of the following components: • Fixed Camera • PTZ Camera • PTZ camera Joystick • Network video recorder (NVR) etc...	Page No. 29	• Network video recorder (NVR)	With the ref. Clause no. we come to know that along with CCTV Cameras, VMS & related accessories NVR also required for Recording purpose. But in BoQ & technical specification part there is no such separate specification available for NVR, not even mentioned Number of channel supported NVR or NVR qty. Thus requesting you to clarify on this point & also requesting to include a separate specification for NVR which will be helpful to design a proper solution against the requirement.	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.
2	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -Fixed Camera (Functional Requirements)	7) The surveillance system shall support following Built-in-Analytics for the Cameras or using central analytics:	Page No. 63	• AutoTracker: To detect and track movement in the field of view.	Need clarification on this point - A fixed type camera's mounting type & viewing direction is fixed. Kindly help to understand with the Auto Tracker function what kind of object wanted to track by movement ? In CCTV system, when any motion based activity movement detects by Camera, it starts recording & triggers alarm notification on the pre-defined user rules. Thus requesting you to remove 'Auto Tracker' function from camera's specification.	As per RFP
3	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -Fixed Camera (Functional Requirements)	7) The surveillance system shall support following Built-in-Analytics for the Cameras or using central analytics:	Page No. 63	• Directional Motion: • Object Counting: • Stopped Vehicle:	A Camera captures image/video which is visible through its lens & field-of-view and transmit it to backend devices for further recording cum analytics purpose. So, Directional motion, object counting, stopped vehicle these are function of camera, for such requirement need help of Analytics server. Thus requesting you to remove those clause (Directional Motion, Object Counting, Stopped Vehicle) from camera's specification.	As per RFP
4	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -Fixed Camera (Functional Requirements)	17) All cameras shall capture high definition video, compress the video using H.264 technique and transmit real-time using fibre optic based communications system.	Page No. 64	transmit real-time using fibre optic based communications system.	In CCTV industry, whether the network camera will be installed at indoor/outdoor scenario comes with in-built Ethernet network communication interface. Depending upon the site requirement if we planned to transmit real-time captured data to central location through fibre optic based communication then we need to arrange external device (media converter or similar) for connectivity purpose. Thus requesting you to remove fibre optic part from Camera's specification.	Refer BOQ SL. No. E

5	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -Fixed Camera (Functional Requirements)	18) The cameras shall capture audio and compress using G.711 technique and transmit real-time using fibre optic based communications system.	Page No. 64	transmit real-time using fibre optic based communications system.	In CCTV industry, the network camera can be installed at indoor/outdoor scenario but it comes with in-built Ethernet network communication interface. Depending upon the site requirement if we planned to transmit real-time captured data to central location through fibre optic based communication then we need to arrange external device (media converter or similar) for connectivity purpose. Thus requesting you to remove fibre optic part from Camera's specification.	Refer BOQ SL. No. E
6	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -Fixed Camera (Functional Requirements)	28) All cameras shall provide user control, with remote configuration for functions including streaming and compression settings, exposure, white balance, flicker control, picture size, cropping/privacy, brightness, sharpness, saturation, day-night switching point, frame rate, image rotation, snapshot, dynamic bandwidth allocation and motion detection.	Page No. 64	picture size	Need clarification on this point for better understanding- in term of 'Picture size' - what actually mean to say, is it higher to lower resolution size of camera's image ? Please clarify.	The functionality should be retain/decrease the picture size as per end users needs.
7	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -Fixed Camera (Functional Requirements)	32) The cameras shall have, at a minimum, the following configurable features:	Page No. 65	• Source and destination IP address settings	Every network cameras has a in-built network communication interface, a user can assign a IP address to camera for communication purpose, so we can treat asa source IP address of camera, but a camera transmit the captured video feed to multiple backend device (NVR/SAN/ VMS/ recording server/ analytics server etc.) for further multiple purpose, so it's not possible to set a single destination IP address in camera. Thus requesting you to remove this point.	As per RFP
8	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -Fixed Camera (Functional Requirements)	40) Cameras along with related software needs to be integrated with the existing surveillance maintained by BSCL at Datacentre	Page No. 65	Cameras along with related software needs to be integrated with the existing surveillance maintained by BSCL at Datacentre	Need clarification on this point for better understanding - We wanted to know what kind of integration required with existing system & also interested to know about the existing backend system thata will help us to understand as well as to propose suitable solution with smooth integration procedure.	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.

9	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>B. CCTV</p> <p>CCTV -Fixed Camera (Functional Requirements)</p>	<p>37) The housing, mounting arm and the dome camera installed assembly shall be suited to withstand wind gusts of 150 km/h.</p>	<p>Page No. 65</p>	<p>1) The cameras implemented as part of this Project shall be rated for operations in outdoor environment (for outdoor installations) and depending on the objective/application, shall be of different configurations including PTZ or fixed cameras.</p> <p>37) The housing, mounting arm and the dome camera installed assembly shall be suited to withstand wind gusts of 150 km/h.</p>	<p>Need clarification on this point - from clause no. 1 - we understand that the fixed camera will be installed at outdoor scenario. But in clause no. 37 - mentioned dome camera. By form-factor Dome camera mainly designed for indoor surveillance where as bullet used for outdoor surveillance purpose. So, requesting you to kindly clarify on this point.</p>	<p>As per RFP</p>
10	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>B. CCTV</p> <p>CCTV -PTZ Camera (Functional Requirements)</p>	<p>17) All cameras shall capture high definition video, compress the video using H.264 technique and transmit real-time using fibre optic based communications system.</p>	<p>Page No. 66</p>	<p>transmit real-time using fibre optic based communications system.</p>	<p>In CCTV industry, whether the network camera will be installed at indoor/outdoor scenario comes with in-built Ethernet network communication interface. Depending upon the site requirement if we planned to transmit real-time captured data to central location through fibre optic based communication then we need to arrange external device (media converter or similar) for connectivity purpose. Thus requesting you to remove fibre optic part from Camera's specification.</p>	<p>As per RFP</p>
11	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>B. CCTV</p> <p>CCTV -PTZ Camera (Functional Requirements)</p>	<p>18) The cameras shall capture audio and compress using G.711 technique and transmit real-time using fibre optic based communications system.</p>	<p>Page No. 66</p>	<p>transmit real-time using fibre optic based communications system.</p>	<p>In CCTV industry, the network camera can be installed at indoor/outdoor scenario but it comes with in-built Ethernet network communication interface. Depending upon the site requirement if we planned to transmit real-time captured data to central location through fibre optic based communication then we need to arrange external device (media converter or similar) for connectivity purpose. Thus requesting you to remove fibre optic part from Camera's specification.</p>	<p>As per RFP</p>
12	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>B. CCTV</p> <p>CCTV -PTZ Camera (Functional Requirements)</p>	<p>26) For PTZ Cameras:</p>	<p>Page No. 67</p>	<p>Camera shall have capabilities of Tilt of 180°.</p>	<p>Requesting you to amend this point as - " Camera shall have capabilities of Tilt range 0° ~ 90° (Auto-flip) " which is total 180°</p>	<p>As per RFP</p>

13	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -PTZ Camera (Functional Requirements)	26) For PTZ Cameras:	Page No. 67	Lens of 6mm-129mm with minimum 20X optical and 12X digital zoom	Every CCTV OEM has a wide-range of PTZ Camera but by series/ product category the minimum starting focal length may vary. So requesting you to give some tolerance range in focal length or just mentioned minimum 20x optical zoom or higher.	As per RFP
14	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -PTZ Camera (Functional Requirements)	30) All cameras shall provide user control, with remote configuration for functions including streaming and compression settings, exposure, white balance, flicker control, picture size, cropping/privacy, brightness, sharpness, saturation, day- night switching point, frame rate, image rotation, snapshot, dynamic bandwidth allocation and motion detection.	Page No. 67	picture size	Need clarification on this point for better understanding- in term of 'Picture size' - what actually mean to say, is it higher to lower resolution size of camera's image ? Please clarify.	The functionality should be retain/decrease the picture size as per end users needs.
15	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -PTZ Camera (Functional Requirements)	34) The cameras shall have, at a minimum, the following configurable features:	Page No. 67	• Source and destination IP address settings	Every network cameras has a in-built network communication interface, a user can assign a IP address to camera for communication purpose, so we can treat asa source IP address of camera, but a camera transmit the captured video feed to multiple backend device (NVR/SAN/ VMS/ recording server/ analytics server etc.) for further multiple purpose, so it's not possible to set a single destination IP address in camera. Thus requesting you to remove this point.	As per RFP
16	APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION B. CCTV CCTV -PTZ Camera (Functional Requirements)	42) Cameras along with related software needs to be integrated with the existing surveillance maintained by BSCL at Datacentre	Page No. 68	Cameras along with related software needs to be integrated with the existing surveillance maintained by BSCL at Datacentre	Need clarification on this point for better understanding - We wanted to know what kind of integration required with existing system & also interested to know about the existing backend system thata will help us to understand as well as to propose suitable solution with smooth integration procedure.	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.

17	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>B. CCTV</p> <p>CCTV -PTZ Joystick (Functional Requirements)</p>	2) PTZ Keyboard with Joystick should be configured in VMS	Page No. 68	PTZ Keyboard with Joystick should be configured in VMS	<p>In VMS, Network Camera / NVR / DVR/ SAN / Recording server/ Encoder / Decoder / Alarm panel - can added & configurable and managable through the platform. Whereas Keyboard-Joystick is a hardware tool which is mainly deisgned to control the PTZ camera by doing PAN /Tilt / zoom. Configuration can be done by itself, VMS level intervention not required. Thus requesting you to remove this clause from Joystick.</p>	As per RFP
18	<p>APPENDIX - VIII: FINANCIAL BID FORM</p> <p>BOQ for Capital Expenditure (CAPEX)</p> <p>B. Data centre</p>	7) Data centre : Network Video recorder for DC and Video DRC (Set -1)	Page No. 71	Network Video recorder for DC and Video	<p>With the ref. Clause / Boq no. we come to know that along with CCTV Cameras, VMS & related accessories NVR also required for Recording purpose. But in BoQ & technical specification part there is no such separate specification available for NVR, not even mentioned Number of channel supported NVR or NVR qty. Thus requesting you to clarify on this point & also requestng to include a separate specification for NVR which will be helpful to design a proper solution against the requirement.</p>	As per RFP, for further clarification RFP for Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City, Selection of Master System Integrator for Implementation of Smart Solutions in Bhubaneswar City may be referred from BSCL website.
19	<p>APPENDIX - VIII: FINANCIAL BID FORM</p> <p>BOQ for Capital Expenditure (CAPEX)</p> <p>B. Data centre</p>	<p>8) Data centre : Primary Storage (Set-1)</p> <p>9) Data centre : Secondary Storage (Set-1)</p>	Page No. 71	<p>Data centre : Primary Storage (Set-1)</p> <p>Data centre : Secondary Storage (Set-1)</p>	<p>Need Clarification on this point for better understanding - Apart from the NVR based recording storage, is there any other type storage requirement with Failover redundancy - Primary/secondary ? (like - SAN / Software based recording server)</p> <p>Under Section 'A. Video Management System' (PageNo 47) - Sr.No.8 it is menioned that "The NVR shall have failover and redundancy built in with seamless playback without manual intervention."</p> <p>so ref. to this above point whether Primary & secondary storage system is NVR or other type storage device.</p> <p>Kindly clarify this point.</p>	Refer BOQ SL. No. E
20	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>A. Video Management System</p> <p>Video Management System- Network Video Recorder & Recording Schedules</p>	9) The NVR shall support a minimum of 200 recorded video streams and 20 playback streams with minimum playback of 400 Mbps.	Page No. 47	20 playback streams with minimum playback of 400 Mbps.	<p>In CCTV industry, every OEM has their different version of dedicated backend Viewing VMS platform which support a huge number of device/camera connectivity But while we try to decode & playback multiple camera simultaneously, it consume a huge hardware resource. Majority of CCTV OEM has option to playback 16-ch playback at same time. Thus requesting you to amend this point as " 16 playback streams with minimum playback" which will be more generic than before.</p>	

21	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>A. Video Management System</p> <p>Video Management System- Network Video Recorder & Recording Schedules</p>	<p>10) VMS shall be sized to provide minimum 30 days storage assuming recording of 24hrs a day, 7 days a week and 30 days a month at 4 CIF resolution. All NVRs shall be provided in an N+N configuration.</p>	Page No. 47	All NVRs shall be provided in an N+N configuration.	<p>If the requirement - in case of Primary NVR/recording server goes offline & the secondary NVR as a standby unit that shall take over in the event that one or of a group of designated Primary Recording NVR/ Servers fails. Recordings shall be synchronized back to the original Recording Server once it is back online. For such case, NVR with supporting N+1 failover redundancy function is more than sufficient & cost effective solution.</p> <p>This requesting you to amend this point by mentioning N+1 instead of N+N configuration.</p>	As per RFP
22	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>A. Video Management System</p> <p>Video Management System- Network Video Recorder & Recording Schedules</p>	<p>44) Recording failover shall be standard without need for additional license and/or hardware.</p>	Page No. 49	Recording failover shall be standard without need for additional license and/or hardware.	Recording server / NVR - it self a Hardware storage device, if it get damaged by any reason then there will no failover redundancy over single device. Kindly cross-check once this point.	As per RFP
23	<p>APPENDIX – VI: DETAILED TECHNICAL SPECIFICATION</p> <p>A. Video Management System</p> <p>Video Management System- Network Video Recorder & Recording Schedules</p>	<p>78) The Video Management System shall automatically failover when a primary NVR is down.</p>	Page No. 53	The Video Management System shall automatically failover when a primary NVR is down.	The function/purpose of both devices are different . VMS/CMS used for viewing/managing purpose, NVR is mainly used for recording purpose. For recording failover - if primary NVR is down then secondary/standby NVR will take responsibility (N+1 failover). Kindly cross-check once this point.	As per RFP