## Corrigendum dated 06.07.2016

## Last Date of Bid Submission has been extended from 05.07.2016 to 21.07.2016

**Name of work: Selection of Concessionaire for Design, Development, Implementation, Operation and Maintenance of Wi-Fi, Smart LED Street Light, City Surveillance, Command and Control Center in NDMC area in lieu of use of Street Light Poles for hosting Telecom Services and use of Right of Way (Row) for Laying Optical Fiber for Telecom Services. Replies to the further queries / clarification raised**

**M/s Reliance Jio**

| l. No | RFP Clause No/ Corrigendum Sl. No. | Clause Description | Clarifications Sought/suggestion | Reply of the NDMC |
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| 1 | Clause 3.5.16 / Corrigendum-2 Sl. No. 1 | Four pair of optical fiber will become property of NDMC on termination of agreement or end of concession period whichever is earlier. | At the outset, optical fiber network are built by infrastructure service providers/Telecommunication License holders pursuant to receipt of relevant Registration/licenses (respectively) from the Department of Telecommunications, Government of India.<br><br>Such licensees alone can therefore own the fiber. Licensees enter into a "Right to Use or RTU" arrangement with buyers for dedicated use in multiple pairs. Again, RTU will be given for fixed number of years based on monthly, quarterly or annual rent.<br><br>NDMC cannot own the fiber unless it also holds an infrastructure service provider registration or a telecommunication licence.<br>For the purpose of this RFP, a RTU with respect to 4 pairs on dedicated basis can be considered to be given to NDMC for the RFP period of fifteen years or its termination, whichever is earlier. Any subsequent right towards RTU by NDMC must be subject to mutual agreement on commercial terms between concessionaire and NDMC. | Clause 3.5.16 will be read as follows:<br>"All the assets created as per Bill of Quantity (BoQ), except (a) optical fibre and (b) telecom equipments of Concessionaire, will become property of NDMC on date of termination of the concession agreement, or fifteen years from the date of signing of the concession agreement, whichever is earlier. With respect to such equipments/assets, which will become property of the NDMC as mentioned above, the concessionaire shall not: (a) mortgage such equipment/asset, or (b) raise/create any finances/obligations over such equipment/asset, or (c) remove such equipment/asset during concession period, however, the concessionaire may replace such equipment/asset which will become defective with |

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| | | | RTU can also be considered to run coterminous with concessionaire's right to use the NDMC poles and ROW during the entire RFP period of fifteen years and any further extended period. | equivalent or better specification equipment/asset." |
| 2 | Modified clause 3.5.30 as per Sl. No. 2 in Corrigendum-2 | The modified clause restricts concessionaire to install maximum of one telecom equipment on an existing pole. In case more than one equipment is desired to be installed, concessionaire will have to replace the pole. | Concessionaire should be granted the flexibility to optimally use existing poles/masts subject to structural stability and aesthetics.<br>Considering concessionaire's inability to assess all of the poles, for its suitability to accommodate multiple equipment, a blanket requirement to replace the pole, apart from being inefficient, also makes it uncertain to estimate the cost implications, which goes to the root of making the bid. | Clause 3.5.30 will be read as follows:<br><br>"The Concessionaire may install one telecom equipment of its own or of other telecom service provider on a pole, considering the aesthetics and structural stability of the pole and surrounding areas. In case, the concessionaire wants to install more than one telecom equipments of its own on a pole or of other telecom service provider, insuch case, the concessionaire shall (i)replace such pole with a Pole (having features like telecom equipments fully concealed withthe pole structure, etc.),or (ii) camouflage such telecom equipments with pole to maintain the aesthetics and structural stability after instalment/replacement/maintenance of such telecom equipments. The concessionaire shall get the design of such Pole approved from the NDMC considering the aesthetics and structural stability of the pole. The concessionaire is not allowed to install any telecom equipment on a pole, except (a) its own telecom equipments, (b) telecom equipments of other telecom service providers and (c) equipments for NDMC. |

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| | | | | NDMC reserves the right to use such poles for any purpose, except installation of telecom equipments for commercial usage by private telecom service providers."<br><br>The other replies furnished in response to the queries raised in the pre-bid meeting held on 10.05.2016, and subsequent corrigendums dated 10.06.2016 and 27.06.2016may be read in accordance with the amended clause 3.5.30 as mentioned above. |
| 3 | Corrigendum-2<br>Sl. No. 10 | To replace mast with greater height, concessionaire is required to take permission/approval from **a) NDMC; b) DUAC; c) Security clearances from Delhi Police** | It may not be practical or efficient for the concessionaire to obtain multiple permissions / approvals. The existing high masts should be made available to the concessionaire in a time-bound manner once the agreement is signed, without any further need for additional permissions.<br><br>The concessionaire's business case to participate in the RFP rests on the opportunity to augment its network coverage via these high masts. Hence, it is very crucial that NDMC facilitates a single window clearance for all statutory and security clearances once all technical specifications are satisfied by the concessionaire.<br>Post the award of the contract pursuant to the RFP process, if uncertainties still remain, that too in relation to the rights under the RFP, resulting in significant limitations, it will adversely impact on the concessionaire's ability to fulfil its commitment and obligations, vitiating the entire RFP process itself.<br><br>This also dilutes and negates the NDMC's obligations to provide single window clearance under Clause | For permissions other than in purview of NDMC, the concessionaire has to arrange such permissions at their own. NDMC may act as a facilitator for obtaining such permissions by the Concessionaire. However, this will not create any right in favour of the concessionaire for getting such permission through NDMC.DUAC permission will be required, if applicable. |

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| | | | 3.4.12. | |
| 4 | Clause 3.5.3 – Captive Network for NDMC / Sl no. 11 in Corrigendum-2 | NDMC has sought a Captive Network (IP MPLS based 3 Tier Architecture) exclusively for NDMC services. This will lead to duplication of infrastructure and complexity of O&M | It is commercially infeasible to create a dedicated 3 Tier **physical network** exclusively for NDMC. Instead, a **logical partition** can be created within the concessionaire's infrastructure **exclusively for NDMC services – both present and future.**<br>It is felt that there is an imminent need to discuss and understand NDMC's point of view regarding the necessity of a captive network and a considered solution reached. Any commitments made by the concessionaire without a proper understanding on this will in all likelihood lead to impossibility of performance leading to subsequent unwarranted stalemate in project implementation.<br>Suitable network architecture using L2VPN and L3VPN services which is secured as per IT standards and which can be managed as a separate network can take care of all concerns regarding the proposed logical separation instead of the captive network requirement.<br>With this, a dedicated virtual private network solution will have been deployed. This solution will also ensure seamless services for the entire network meeting the desired SLAs. | No change. |

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| 5 | Modified clause 3.4.5 as per Corrigendum-2 Sl. No. 13 | Minimum space required for installation of UPS for electric power back-up for services under this project may be provided by the NDMC free of cost**, subject to availability of space**.<br>However, such enabling provision for providing space for UPS **will not create any right in any manner in favour of the concessionaire for getting such space from NDMC**. | Space being made subject to availability and not as a matter of right leads to vagueness and causes uncertainty for concessionaire's to fulfil its performance obligations as mandated by RFP.<br>NDMC should make available the minimum required space required for installation of Gateways, Switches, Routers etc., including space for installation of UPS for power back-up **for NDMC and other telecom services.**<br>Without this support from NDMC, the concessionaire will be unable to execute the scope of work under the RFP in its entirety, and this by itself will impact the commercial feasibility of the project implementation. The concessionaire cannot genuinely commit amidst such uncertainties. | No change. |
| 6 | Corrigendum-2 Sl. No. 14 | NDMC has listed certain existing services and futuristic services for which standard APIs are sought as per the RFP | While APIs can be developed for the existing services, we require more details on the futuristic services envisaged in the latest corrigendum in order to develop any specific APIs for such services.<br><br>A completely different network architecture and connectivity may and will be required to enable such futuristic services.<br><br>It may please be appreciated that the current specifications in the RFP will not include any additional IT HW, storage and software for future applications and also any field network / equipment upgradation, other than the infra being supplied as part of this RFP.<br><br>The additional scope for the future would therefore necessarily involve additional efforts and costs, based on the customization needs relevant for each of the relevant services, from time to time, and this is open ended, and cannot be determined at this point in time. | APIs for the following existing services/futuristic services (in form of a single project, part projects or multiple projects) to be provided by the concessionaire free of cost:<br>(i) Services related to City Surveillance, City Wi-Fi, Smart LED Street Lights, Central Command &Control Centre, optical fibre and data centre, as envisaged in this RFP document;<br><br>(ii) Smart Parking solutionfor 12000 ECSin whole of the NDMC area;<br><br>(iii) 311 Citizens App, NDMC 311 Officers App, Smart information kiosks, Inventory and Assets Management App (by any name and all future versions of theseapps); |

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| | | | Hence, we request that the RFP be restricted to the presently defined services only while APIs for any other futuristic services including those mentioned in the corrigendum can be dealt with as per clause 3.5.6 based on competitive commercial principles.<br><br>In any event, it is impossible to make a commercial bid based on an unspecified futuristic requirement, which means it would imminently vitiate the RFP process right from its inception. | (iv) Application for tracking of vehicles of NDMC and vehicles used for NDMC on real-time basis (250 vehicles);<br><br>(v) Applications for Smart Public Toilet Units (PTU) /Community Public Units (CTUs) /Bus Queue Shelters (BQS) /Pollution Monitors (700 PTUs/CTUs/BQS/Pollution Monitors);<br><br>(vi) 3000 CCTVs other than as mentioned in the scope of work of this RFP.<br><br>APIs requirement for initiatives / services proposed in future by the NDMC, which are not mentioned above, will be dealt as per clause 3.5.6. Clause 3.1.5 and reply to pre-bid queries to be read as per modifications as mentioned above.<br><br>NDMC also reserves the right to get the initiatives / services covered in clause 3.5.6 implemented through open market instead of getting it done through the concessionaire only. |
| 7 | Modified clause 15.5.2.2 as per Corrigendum-2 Sl no. 15 | | Since camera specifications are already defined, concessionaire should have the flexibility to choose vendors along with AMC to optimize technical and commercial requirements. Any restrictions on which OEM can be selected will compromise on the commercial implications and the quality of execution. | No change. Concessionaire will be free to choose the OEM subject to the requisite specifications of the Camera. Cameras shall be from single OEM and OEM should have registration in India minimum from 10 Years. |
| 8 | Various clauses | NDMC already has an established | The concessionaire's scope of O&M responsibilities | There is no conflict in roles, |

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| | pertaining to O&M | network of divisional and zonal offices and technical personnel in place for services like Lighting, CCTV maintenance control & Command centre.<br><br>It is suggested that concessionaire should have only subject matter experts for services provided to assist the NDMC O&M team. | vis-à-vis NDMC's scope of day-to-day operations for the services enabled through the RFP needs further clarity especially in terms of manpower to avoid any confusion and enable the concessionaire to prepare its bid appropriately.<br><br>While clause 4.27 (ii) states that the concessionaire is responsible for on and off field resources for operations and maintenance, whereas 4.27 (iii) states that day to day operations vests with NDMC. This leads to a lot of uncertainty especially in the case of command and control center. Considering the sensitivity of the purpose and objectives of the command and control center, it is best for NDMC to take complete charge and control.<br><br>Concessionaire's role must be limited to providing and replacing equipment through a structured AMC arrangement with vendors and timely IT support, subject to agreed SLAs. Anything beyond this will lead to conflict in roles, responsibilities and obligations between concessionaire and NDMC. | responsibilities and obligations between the concessionaire and NDMC. |
| 9 | Clause 3.4.3 – Electricity for Wi-Fi equipment | The Wi-Fi equipment are being installed to provide free of cost service to the citizens.<br><br>The cost of establishing consumption of electricity for the Wi-Fi equipment and its recovery would probably be more than the consumption charge itself. | It is requested that un-metered electricity for Wi-Fi APs be provided by NDMC in the same way as the electricity connection for LEDs and CCTVs. Metering of individual Wi-Fi APs will be very inefficient.<br>If this clause is relaxed, as we have been requesting, the same will apply to all participating bidders, who can then adjust this cost saving into the Concession fee, thereby making it efficient for both NDMC and the concessionaire. | No change.<br><br>Electricity will be provided by the NDMC for Wi-Fi APs connected through the PoE cable, which will be used for providing free Wi-Fi services to the public. The electricity consumption charges will be borne by the concessionaire on the basis of rated capacity of such equipment round the clock, as per electricity tariff applicable from time to time. |

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| 10 | Corrigendum-1<br>Sl. No. 22<br>Corrigendum-2<br>Sl. No. 18 | There will be continuous expansion of the telecom services as well increase in bandwidth which is to be given to NDMC with an increase in 10% on YoY basis; hence this shall require augmenting the fibre network as well during the entire concession period on regular basis. | Since cost of restoration is to be borne by the concessionaire as per the terms of this RFP, any additional ROW charges makes the RFP less attractive.<br><br>It is requested that NDMC should increase the Free ROW to at least 200-250 Kms after the free 3 year period to maintain the network requirements and desired services during the entire concession period and consequently increase the bandwidth in compliance with the RFP. | No change. |
| 11 | RFP Clause No 3.5.16 and Corrigendum-1 Sl. No 9 | We envisage that the installation of Wi-Fi APs only on existing street light poles may not suffice the Wi-Fi Coverage requirement and desired throughput based on footfalls in certain areas. | We request that the concessionaire should be allowed to put additional poles (including the fiber network to connect with other existing and new poles) at its own cost to provide adequate Wi-Fi coverage in the designated areas without disturbing aesthetics and after consultation and approval of NDMC.<br><br>This will help the concessionaire improve WiFi network in NDMC area and in the process will extend meaningful benefits to the general public also. | No change.<br><br>Clause 3.4.10 will be read as follows:<br>"For installation of CCTV(s), if there is any requirement of additional poles, the same will be provided by NDMC at its own cost.Hosting of telecom equipments will not be allowed on such additional poles by the Concessionaire." |
| 12 | Corrigendum-2 sl no. 24 / Clause 15.4.1 | *"Applicant has to ensure that the proposed Wi-Fi infrastructure is for NDMC services only, SP Wi-Fi data offload is not allowed on the same. Only the paid wi-fi plan can be created and sold to citizen over and above the free Wi-Fi SLA."* | We propose to offer dual-SSIDs through the same WiFi infrastructure -<br>1. A dedicated SSID for citizen WiFi which will be free up to 1 GB/Month (inclusive of 50 MB per day) as per the RFP.<br>2. Separate SSID for concessionaire's own customers on which data off-load should be allowed.<br><br>This will ensure optimal use of resources while also helping the concessionaire improve the commercial feasibility of the project without impacting NDMC services. | No change. |

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| 13 | Clause 3.4.8 | *"After Concession period the optical fibre laid by the Concessionaire can be used by the Concessionaire **as per NDMC policy in force at that time** and as applicable to other service providers."* | Our understanding is that the concessionaire can continue its own services through its telecom equipment and optical fiber even after the concession period without being additionally charged by NDMC. Any uncertainty on this would mean that the concessionaire may be constrained to consider exiting the entire NDMC area and look at alternate coverage means for its network, which may significantly and adversely impact on the provision of communication services to the general public and other users. Having factored the entire cost of the optical fiber and telecom equipment, it cannot be left open at the end of the RFP period. Without a firm understanding on this, it would be difficult to assess the commercial impact and factor into the bid at this juncture. | No change. |
| 14 | Clause 3.4.9 | *"At the end of the concession period, all rights given to the Concessionaire, including right to use the electric poles, shall be terminated automatically."* | Please refer to response given to Clause 3.4.8 and the same will apply to this concern as well. | No change. |
| 15 | Clause 3.5.7 | *"It is the responsibility of the Concessionaire for the watch and ward of the assets / services created in this project except luminaries. The Concessionaire has to replace the material(s) / equipment(s) in case of any theft or loss due to any other reasons, which affects the services / assets provided for the NDMC under this project."* | The responsibility of watch and ward should rest with NDMC for all assets/services including luminaries, CCTV cameras, and all related accessories, network gateways, switches, power backup etc., installed for the exclusive use of NDMC and citizens.<br><br>The concessionaire cannot be held responsible for any theft/loss/damage to the equipment and accessories which is beyond the control of the concessionaire.<br><br>The concessionaire's responsibility may be limited to maintaining appropriate insurance. | No change. |
| 16 | Annexure A to the Corrigendum<br><br>9.4 & 9.6 | *SLAs* | The concessionaire will endeavour to meet all SLAs on best-efforts basis.<br>The proposed penalties are very stringent and disproportionate. | Reference to the reply at Sr. No. 25 of Corrigendum dated 10-6-2016, the SLA for operation and maintenance of CCTVs will be |

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| | | | There is no justification for penalising the concessionaire on at same levels for both CCTV cameras and LED luminaries.<br>More so, while the SLA's for CCTV are reckoned based on per hour basis, there's no such factor mentioned for LED luminaries. This may result in the penalties exceeding the cost of replacement of LED luminaries itself.<br>Overall, NDMC must provide a rationalized and reasonable penalty framework, after taking into consideration the relevant industry standards for warranties and replacements for such equipment and implements.<br>Also, disputes regarding SLA deviations, if any, must be resolved through an arbitration process as per Arbitration and Conciliation Act, 1996. This will ensure that the process is fair to both the concessionaire and NDMC. | applicable only for the O&M period of seven years from the date of Go-Live.<br><br>In case, if there is a power failure continuously for more than one hour due to no power supply by NDMC as an electricity DISCOM, the time of such electric power failure time beyond one hour will be excluded while calculating the penalties for not meeting the SLAs for all services under this project except services of Command & Control Centre and Data Centre.<br><br>SLA for Basic and Semi-Advanced LED Luminaries has been further modified as provided at Annexure to this corrigendum. |
| **M/s Indus** | | | | |
| 17 | Eligibility Condition | Include IP-1 License holder as an eligible bidder | Objective is to offer services to multiple telecom service provider in non-discriminatory manner.<br>Hence, a IP-1 should be eligible to bid on its own. | No change. |
| 18 | Technical Evaluation | Teaming Agreement should also be allowed and their experience should be counted for technical evaluation.<br><br>Obligations for meeting the RFP requirements remains with the bidder / lead member. | Consortium partner with defined stakes and 5% of total project costs brings in challenges:<br><br>Difficult to find willing consortium / solution partners. | No change. |
| 19 | Advanced LED Nodes (2.5%) | To be excluded from the scope. Semi Advanced or Basic LED | 1. Single Vendor<br>2. Not implemented and not tested. | Number of Advanced LED Nodes will be read as 305 (~1.50% of total |

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| | | Nodes can be provided | 3. No System Integrator has worked on such solution in India<br>4. Prohibitive costing | LEDs) instead of 508 (~2.50% of total LEDs).<br><br>Number of Semi-Advanced Nodes will be read as 2285 (~11.00% of total LEDs) instead of 2082 (~10.0% of total LEDs).<br><br>The other replies furnished in response to the queries raised in the pre-bid meeting held on 10.05.2016, and subsequent corrigendums dated 10.06.2016 and 27.06.2016 may be read in accordance with this change. |
| 20 | CCTV Cameras | 24x7 Availability of Power for Camera should be NDMC responsibility.<br><br>Non availability of power of NDMC should be excluded from SLAs computation for concessionaire. | Any power backup in form of UPS is not practically sustainable solution as they are prone to frequent theft and damages.<br><br>It also leads to requirement for special canopy / cabinets in outdoor environment. | Refer reply to Sl. No. 16 above. |
| 21 | CCTV Cameras | Audio Analytics to be excluded from the scope | No solution deployed and tested in India. Ineffective Solution. | No change. |
| 22 | MPLS Network | The equipment provisioned for NDMC should be allowed to be used by concessionaire beyond the requirement of NDMC without affecting the services. | Concessionaire obligation to create Captive MPLS network - however the same should be allowed to be used by concessionaire without affective NDMC services.<br><br>This will allow services to be offered in non-discriminatory manner while maintaining aesthetics of NDMC. | No change. |
| 23 | MPLS Network - Space Availability | At 13 aggregation PoP locations specified by NDMC, NDMC should provision for secure equipment room (75-100 Sq. ft.) | A controlled environment is pre-requisite for optimal system performance.<br><br>Safety of equipment | Refer reply to Sl. No. 9 above.<br><br>Refer reply to Sl. No. 13 of Corrigendum dated 10.06.16. |

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| | | and power availability. | | |
| 24 | MPLS Network - Space Availability | Request NDMC to provide secured and covered space for 90 Pre-aggregation locations and power availability. | A controlled environment is pre-requisite for optimal system performance.<br><br>Safety of equipment | Refer reply at Sr. No.13 of Corrigendum dated 10.06.16. |
| 25 | Future API Integration | All future costs associated with integration of future smart services (additional hardwares, Storage, Softwares, additional licenses of command center softwares, Integration efforts, Manpower for O&M) to be borne by future selected bidder for such projects.<br><br>The concessionaire deployed command and control center vendor is obligated to support future bidders for such integration. | Open Ended Liability - Difficult to assess the total impact to concessionaire.<br><br>Non Commitment from Integration Partners | Refer reply to Sl. No. 6 above. |
| 26 | O&M | O&M should be mutual responsibility of NDMC and Concessionaire. | There would be several dependencies between NDMC and Concessionaire and the best way to operate and maintain the same should be done jointly. | No change. |
| 27 | Public Wi-Fi | Recommended inter-distance between Access Points in a hotsport is 50 meters which should be removed and kept as per requirement based on surveys. | Redundancy in terms of extraneous Access Points. | No change. |
| 28 | General / Financial Bid | Financial bid should also include "Viability Gap Funding" | Better Sustainabilty and PPP model. | No change. |
| 29 | General | NDMC should offer pre-agreed energy savings on account of LED to the concessionaire. | Better Sustainabilty and PPP model. | No change. |
| 30 | Public Wi-Fi | Permission to use multiple SSID for other services without hampering the NDMC Wi-Fi services | Non-discriminatory for all customers.<br><br>Not enough opportunity to recover investments in Wi-Fi | No change. |

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| 31 | Public Wi-Fi | Flexibility in choosing locations of Wi-Fi deployment from feasibility perspective (Co-located with MPLS / Fiber network) | Cost Ineffective solution | No change. |
| 32 | SLA | If Operation and maintenance is joint responsibility of concessionaire and NDMC, the SLA should not be in the RFP scope.<br><br>SLA should not be considered for non-availability of power in NDMC area.<br><br>Penalties to be waived off. It should be used for governance purposes.<br><br>SLA should not be applicable for 12 months from Go-Live date for network stabilization. | Since there are penalties, there should rewards as well. | Refer reply to Sl. No. 16 above. |
| 33 | General | First right of refusal for future poles / high mast | Sustainability | No change. |
| 34 | General | No Termination Clause basis SLAs dilution which are solely attributable to concessionaire.<br><br>2 Quarter of cure period to be provided in such a case. | Cure period is a standard industry practice. | No change. |
| 35 | High Mast Poles & Street Poles | Clarification sought:<br><br>It is understood that concessionaire has permissions to | Telecom network requirement will be staggered. | Right to use poles / high mast poles by the concessionaire, as envisaged in the 'RFP document read with pre-bid replies and subsequent |

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| | | install High Mast Poles and street Poles in NDMC for the concession period. | | corrigendums' (RFP documents), is for entire concession period subject to the conditions mentioned in the RFP documents. |
| **L&T** | | | | |
| 36 | Page No.17 Clause No.3.17 | ROJECT OBJECTIVE & SCOPE | The Concessionaire has to Design, Develop, Implement, Manage Operations<br>& Maintenance the complete solution at its own cost. The revenue incomes /<br>outgoes will inter-alia include –<br><br>We request you to please consider Capex & Opex payment model. | No change. |
| **M/s Wipro** | | | | |
| 37 | NDMC reply to queries Sl no. 3, 4 & 10<br>It has been mentioned that API's are to be provided by the concessionaire free<br>of cost. Since the futuristic services are not defined in the RFP, it will not be possible for the concessionaire to incorporate the cost | Therefore the request of providing API's free of costmay kindly be modified/deleted as in clause No 3.5.6 of the RFP. | | Refer reply to Sl. No. 6 above. |
| | | (i) Services related to City Surveillance, City Wi-Fi, Smart LED Street Lights, Central Command & Control Centre, optical fibre and data centre, as envisaged in this RFP document; | The devices as per the current scope of the RFP i.e. the number of APs, Cameras and Smart LED lights provided in the bill of materials will be managed and on-boarded into the central dashboard of command and control center as part of the bidder's proposal. | |
| | | (ii) Smart Parking solution in whole of the NDMC area; | The Central Command and Control Center platform is capable of integrating into smart parking solutions in future. But , the total number of parking sensors used to manage the Smart parking needs to be identified so | |

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| | arising due to this in the financial model. | | that the effort estimation and the platform cost can be worked out. We seek clarification on the number of parking slots or sensors. | |
| | | (iii) Smart Grid & Energy Management Project, including Smart electric metering; | The Central Command and Control Center platform is capable of integrating into smart energy metering solutions in future. But , the total number of smart meters needs to be identified so that the effort estimation and the platform cost can be worked out. We seek clarification on the number of energy meters.<br><br>Also, for Smart grid and energy management the scope is not known. It is possible for us to plot Different sub-stations on the central command and control platform based on their GIS co-ordinates if provided by NDMC and basic SCADA alerts/alarms from those Sub-stations may be made visible in the central command and control platform. For this the respective SCADA platforms should expose their APIs to do such integration and the number of such sub-stations also needs to be known. We seek clarification on the same. | |
| | | (iv) 24 x 7 Water Supply & Management Project, including Smart water meters; | The water management solution typically uses Flow/Leakage detection meters with their application platform to manage the infrastructure. The Central Command and Control Center platform is capable of integrating into water management solutions in future if APIs from the platform be exposed/shared. The total number of water meters needs to be identified so that the effort estimation and the platform cost can be worked out. We seek clarification on the number of meters. | |
| | | (v) e-Hospital Management System, and integrated public medical facilities; | It is possible to show the Hospitals/public medical facilities in the central command and control Platform based on their GIS coordinates if provided by NDMC. It is possible that on clicking any of them the system can redirect the user to the E-Hospital management | |

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| | | | System. | |
| | | (vi) NDMC 311 Citizens App, NDMC 311 Officers App, Smart information kiosks, Inventory and Assets Management App (by any name and all future versions of this app); | If NDMC has any specific asset management application, it may be possible to create a container in the Dashboard to redirect an user to the Asset Management Application. Similarly the Kiosks can be made visible to the Central Command and Control based on their GIS locations. However the 311 App does not have much relevance from Central Command and Control perspective. We request to remove the 311 App from the scope. | |
| | | (vii) Smart Classroom project in all classes, labs, 360 degree monitoring & healthcare of staff/students in NDMC and Navyug Schools, including virtual labs; | We could not derive much relevance or integration use case of Smart classroom project, 360 degree monitoring and healthcare of staffs/students in NDMC and Navyug schools with to the central command and control perspective. We request to remove this scope. | |
| | | (viii) Application for tracking of vehicles of NDMC and vehicles used for NDMC on real-time basis; | It is possible to show the vehicles location data in central command and control platform if the Application platform being used by NDMC can expose their APIs. For doing the same we request NDMC to share the number of vehicles that needs to be shown in Central Command and Control platform. | |
| | | (ix) Applications for Smart Public Toilet Units/Community Public Units/Bus Queue Shelters/Pollution Monitors; | It is possible to show Smart Public Toilet Units/Community Public Units/Bus Queue Shelters/Pollution Monitors in the Central command and Control platform based on their GIS co-ordinates. For that it is necessary to know the quantity of each item i.e. Smart Public Toilet Units, Community Public Units, Bus Queue Shelters, Pollution Monitoring sensors. | |
| | | (x) CCTVs other than as mentioned in the scope of work of this RFP. | As per the corrigendum published on 27.06.2016, 2000 nos. of additional CCTV cameras are expected to be integrated into the central command and control platform. It is possible to get any alerts from those cameras to the central command and control platform. | |
| 38 | 5.2 (OEM-Eligibility) | You are suggested to OEM minimum pre-qualification | OEM should not have been blacklisted by any sovereign government and barred from participating | Refer reply to Sl. No. 219 of replies to the queries raised in the pre-bid |

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| | | criteria for Active products OEM | in government projects due to security reasons in the last five years.<br><br>The deployed network will carry important traffic which can be used by various agencies for city Planning administration and other critical activity. The data will be of very high importance and can be used for any mischievous activity if not protected. The OEM whose equipment whose equipment are being used should be of high trust to ensure that such activities are not allowed and prohibited. | meeting held on 10.05.2016. |
| 39 | 15.2.3.1 & 15.2.3.2, Data Center Switching, 146, 148 | The switch should be minimum EAL2 / Applicable Protection Profile (NDPP) certified under the Common Criteria Evaluation Program | While we agree that Common Criteria Evaluation Program certification is important criteria for the assessment of product, but please note the Data Center switching platform as going through technology evolution with the introduction of many technologies such as SDN, VXLAN, programmability etc, so most of the OEM have these platform under evaluation with relevant agencies for Common criteria certification, so for DC switching platforms your are request to allow product under evaluation as well, subject to that OEM can be asked to submit undertaking that product is in evaluation as well confirmation of the same from evaluation agencies can also be asked. | The switch should be minimum EAL2 / Applicable Protection Profile (NDPP) certified(or applied for certification) under the Common Criteria Evaluation Program. In case, the OEM has applied for the certificate, then either such OEM shall get the certificate for such switches before the date of Go-Live, or such switches has to be replaced from switches of an OEM having such certificate. |
| **M/s EMC** | | | | |
| 40 | 15.2.3.9 Server/Storage requirement for Video Management, point 1 Architecture, page#161 Vendor may propose external SAN/NAS or Local Compute Disk Storage to store | As NDMC is building surveillance solution for more than 2200 cameras, so there is huge capacity, performance& availability requirement and server based solution would be inadequate to meet these requirement but adding complexity to overall solution. Therefore suggesting to change | Server based solution will be inadequate to provide require availability, performance. Therefore requesting to change the requirement to enterprise class storage solution meeting the required RAS to meet SLAs. The solution is being deployed in highly sensitive area and we feel there would not be any compromise in loosing any video stream. | No change. |

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| | Video. | the clause as,<br>" **Vendor may propose external SAN/NAS solution with enterprise class architecture, resiliency & availability with no single point of failure to store Video.The solution should deliver atleast 2400 Gbps of sequantial throughput.The storage system should be certified with VMS soluiton and certificate should be provided by OEM alongwith performance numbers**" | | |
| 41 | 15.2.3.9 Server/Storage requirement for Video Management, point 3 Processor, page#161 Each node/controller shall have a minimum of 12 cores<br>with dual Intel E5 based CPUs. | This is server based specification, requesting to change the clause as below for wider participation in the bid, **"Each node/controller shall have a minimum of 4 coreswith Intel E5 or higher CPUs.**" | | No change. |
| 42 | 15.2.3.9 Server/Storage requirement for Video Management, point 4 Memory, page#161 Each node/controller node | The memory requirement is very high and would add to the cost of overall solution, requesting to change the clause as,<br>**" Each node/controller node should provide 48 GB ormore memory. The solution should be** | | No change. |

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| | should provide 128 GB or more memory. | **proposed with atleast 384 GB of memory"** | | |
| 43 | 15.2.3.9 Server/Storage requirement for Video Management, point 6 Storage, page#161 Should support JBOD, RAID 0, 1, 5, 6, 10 , 50 and 60 raid Levels. Should configure for minimum double disk failure and one hotspare with each storage node. | As the requirement is for surveillance solution, so the raid level type 0,5, 10 or JBOD is not the best solution. Requesting to ask for adequate protection and change the clause as, **"The capacity should be configured with protection against minimum duble disk failure or higher."** | | No change. |
| 44 | 15.2.3.9 Server/Storage requirement for Video Management, point 8 , page#161 | Requesting to change the clause as, " **Should use 8 TB or less capacity SAS/NL-SAS 7.2K RPM drives. Vendor should provide estimated time of rebuild for the solution to ensure high resiliency "** | Today all vendors are having higher capacity disks and it would reduce the DC footprint and help in reducing the OPEX in terms of power , cooling requirement. As the solution require large number of high capacity disks to cater to 2200 cameras, it is imperative to ask "re-build time" to ensure the resiliency of the solution. | No change. |
| 45 | 15.2.3.9 Server/Storage requirement for Video Management, point 9 , page#161 | This is server based specification, requesting to remove this | | No change. |

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| | Support onboard Flash Backed Write Cache of up to 4 GB | | | |
| 46 | 15.2.3.9 Server/Storage requirement for Video Management, additional , page#161 NA | The storage solution should be offered with single file-system/Namespace for entire capacity. The file-system must be optimized for storage services owned by storage OEM and should not be based on general purpose OS. | This clause will help in simplified the overall solution due to single file system and provide best supportability , integration & performance. | No change. |

**In addition to the above, the following two changes have also been made in the RFP document:**

1. Clause 3.2.1.2 will be read as follows:

"3.2.1.2 Hotspots should cover entire area of places given in RFP document. Applicants will be responsible for design and engineering of all the network components to meet coverage and capacity requirements of hotspots based on following parameters:

- Area of Wi-Fi hotspot
- Peak load
- Density of user devices/ concurrent users/Connections required in the area

Based on the hotspots capacity requirements, applicant shall determine and provide number of Access points per Hotspot as per the-

(a) required Internet bandwidth (both per Hotspot and per user);

(b) aggregated total bandwidth per hotspot.

Applicant can consider the contention ratio of 1:10 per user from day 1 of implementation of the project;

The Applicants are required to conduct a site survey to address coverage and capacity requirements throughout the areas where hotspots are to be created at their own cost. The coverage maps, where hotspot is to be created, shall be prepared by the Concessionaire and shall be approved by NDMC. In future if Wi-Fi technology is changed during concession period to any other technology, the same has to be provided by the concessionaire."

2 Clause 5.1A.1(k) will be read as follows:

"Bids withduly signed integrity pact; and".

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**ANNEXURE TO THE CORRIGENDUM DATED 06.7.2016**

1. SLA mentioned in clause 9.6 has been revised as follows:

**"9.6 (A)SLAs for basic and semi-Advanced LED controller(s) and its connectivity with command and control centre**

| Sr. No | Uptime SLA (Quarterly) | Penalty values per qtr |
|---|---|---|
| 1 | Uptime up to 99% | No Deduction |
| 2 | Between 99% to 98% | Rs. 9Lacs |
| 3 | Between 98% to 97% | Rs. 18Lacs |
| 4 | Between 97 % to 96% | Rs. 27 Lacs |
| 5 | Between 96% to 95% | Rs. 36Lacs |
| 6 | Below 95% | Not acceptable. NDMC can terminate the Concession Agreement. |

Note: For controller and connectivity of LED luminaries:

- Downtime means non-working/ non-availability of controller and connectivity of LED luminaries at all locations. Uptime shall be calculated as [1- (no. of controller and connectivity of LED luminaries hours not available)/(Total no. of controller and connectivity of LED luminaries* Half of the total hours in one quarter)]. For ex, if 600 nos. of controller and connectivity of LED luminaries are deployed at various locations, and 20 controller and connectivity of LED luminaries do not work for 1 hour, the total non-working controller and connectivity of LED luminaries hours will be 20 and the uptime would be {1- (20/(600*90*12)}, 600 being the number of controller and connectivity of LED luminaries, for 90 days on 12 hours basis. This down time will be used for penalty calculations on quarterly basis and necessary penalty calculated have to be deposited by the concessionaire. The penalties would be levied for every controller and connectivity of LED luminaries down time, be it for non-availability of network, theft, or damage or non-availability of power etc., because the Concessionaire is responsible for supply of all enabling components on end-to-end basis.

**9.6 (B) SLAs for basic and semi-Advanced LED luminaries**

- The Concessionaire has to maintain atleast 1.5% inventory of these LED luminaries and its controller all the time. At suitable frequency of time (of not more than one week), the Concessionaire has to replace the defective inventory is such a manner that 1.5% inventory will remain in store all the times. For any delay in providing timely replacement a penalty of Rs.100/- per LED luminary per day will be charger from the Concessionaire.".

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