"Selection of agency to operationalise IP CCTV And Automatic Vehicle Tracking System in DTC and Cluster Scheme Buses on Infrastructure as a service model"

Corrigendum 1

Tender Ref. No. – E-TenderNoticeNo. 2018_TD_161270_1 – Dated 01.11.2018

Date of Corrigendum: 22.11.2018

Issued by:

Transport Department

Government of NCT of Delhi

5/9, Under Hill Road, Delhi-110054

S. No.	RFP Reference (s)	Original Content of RFP	Revised Content of RFP
1.	Page No. 9, Important Dates S. NO. 4	Last date and time for Bid Submission (30/11/2018 at 15.00 hours)	The due date and time for bid submission is being extended till 10/12/2018 at 1500 hours
2.	Page No. 9, Important Dates S. NO. 5	Date and time of opening of bids (30/11/2018 at 15.30 hours)	The due date and time of opening of bid is 10/12/1018 at 1530 hours
3.	Page No. 20, Clause 6.26.1, a) Pre-Qualification for Bidder, S. No. 3	The Bidder shall have annual turnover of minimum INR 500 crores for last three financial years 2015-16, 2016-17 and 2017-18	To be read as "The Bidder shall have average turnover of minimum INR 500 crores for last three financial years 2015-16, 2016-17 and 2017-18"
4.	Page No. 22, Clause 6.26.1, b) Pre-qualification criteria for Key Products/Solutions, S. No. 2	The OEM of Camera and mNVR should have installed minimum 5000 IP Cameras in India as on bid submission date	To be read as "The OEM of Camera and mNVR should have supplied minimum 5000 IP Cameras in India as on bid submission date"
5.	Page No. 29, Clause 7, Payment Terms, sub clause 7.1.1	Table of Payment Terms	**To be replaced as Annexure 8 of corrigendum**
6.	Page No. 64, Clause 10.3 Overview, sub clause (i)	Inside all buses, three (3) IP CCTV Cameras, one (1) 9" Display, one (1) mNVR with housing & storage, four (4) Panic Buttons, one (1) Sounder cum Strobe, one (1) Audio console with all other required accessories will be installed.	To be read as "Inside all buses, three (3) IP CCTV Cameras, one (1) 7" Display, one (1) mNVR with housing & storage, four (4) Panic Buttons, one (1) Sounder cum Strobe, one (1) Audio console with all other required accessories will be installed", refer specification and compliance in Annexure 2 of corrigendum
7.	Page No. 74, Clause 10.8 Solution Architecture Requirements, sub clause 10.8.4	Additional Information	List of DTC and Cluster Depot details, Refer Annexure 4 of corrigendum
8.	Page No. 83, Clause 13.1 Bill of Quantities, S. No. 8	Set of Panic Button (1 in each bus)	To be read as "Set of Panic Button (4 panic buttons in each bus)"
9.	Page No. 84, Clause 13.1 Bill of Quantities, S. No. 40 and 52	See table below	See table below
10.	Page No. 125, Section 16.8: Annexure 8 Financial Proposal Formats	Annexure 8 Financial Proposal Formats	Bidder needs to mandatory upload the revised Financial Proposal Formats as per Annexure 1 of corrigendum including the following:

S. No. 9 — Original Content:

Description	UoM	BoM QTY
Firewall License as per Specification	No(s)	1

S. No. 9 — Revised Content (To be read as):

Description	UoM	BoM QTY
Firewall License as per Specification	No(s)	2

S. No.	RFP Reference (s)	Original Content of RFP	Revised Content of RFP
			• Financial Bid Letter • Breakdown of Cost Components • Financial Bid Format - Opex
11.	Page No. 154, Clause Annexure 11.1 Technical Specification and Compliance of VMS Application and Vehicle Tracking Software, S. No. 5.00 and S. No. 8.00	Additional Specification added under S. No. 5.00 Video recording Software and S. No. 8.00 Vehicle tracking Software	Refer Annexure 5 of corrigendum
12.	Page No. 156, Clause Annexure 11.2 Specification and Compliance of Firewall cum L3 Switch for Command Centre, S. No. 4	Firewall appliance should have at least 30x 1GE SFP interface, 6x 10G SFP+ interfaces and 2 GE RJ45 Management ports	Shall be read as "Firewall appliance should have at least 30x 1G copper interface, 6x 10G SFP+ interfaces and 2 GE RJ45 Management ports"
13.	Page No. 159, Clause Annexure 11.3 Specification and Compliance of IP camera, S. No. 10	Video Compression: H.265+ / H.265 / H.264 / H.264+, MPEG-4, M-JPEG	To be read as "Video Compression: H.265+/H.265, H.264+/H.264, MPEG-4, MJPEG"
14.	Page No. 159, Clause Annexure 11.3 Specification and Compliance of IP camera, S. No. 16	IR Distance: Distance up to 30m or more	To be read as "IR Distance: Distance 10m or more"
15.	Page No. 159, Clause Annexure 11.3 Specification and Compliance of IP camera, S. No. 28	Camera Ruggedness: Rugged, vibration and shock proof housing vibration resistance as per EN 50155, EN 50121, AIS004	To be read as "Camera Ruggedness: Rugged, Vibration and shock proof housing vibration resistance as per EN 50155, AIS004"
16.	Page No. 161, Clause Annexure 11.4 Specification and compliance of Mobile NVR, S. No. 10	Video Compression Standards Supported: H.265+/ H.265, H.264, H.264+, MPEG-4, MJPEG	To be read as "Video Compression: H.265+/H.265, H.264+/H.264, MPEG-4, MJPEG"
17.	Page No. 161, Clause Annexure 11.4 Specification and compliance of	Event Based Recording and Tagging: Pre-recording – 1 to 15 minutes (Secondary Stream)	Event Based Recording and Tagging: Pre-recording – 1 to 30 minutes (Secondary Stream), Post-recording – 1 to 30 minutes (Secondary Stream)

S. No.	RFP Reference (s)	Original Content of RFP	Revised Content of RFP
	Mobile NVR, S. No. 20	Post-recording – 1 to 60 minutes (Secondary Stream)	
18.	Page No. 162, Clause Annexure 11.4 Specification and compliance of Mobile NVR, S. No. 36	Shock resistance: EN 50121 or equivalent	This parameter stands deleted
19.	Page No. 163, Clause Annexure 11.4 Specification and compliance of Mobile NVR, S. No. 43	Certification: UL, CE, FCC, EN50155, BIS, EN 61000, AIS004	To be read as "Certification: UL, CE, FCC, EN50155, BIS, AIS004"
20.	Page No. 188, Clause Annexure 11.18 Specification and compliance of Passive Component, S. No. 1.06	CAT 6 FTP with Aluminium Foil and Armoured (Steel Tape) with double HDPE sheath.	This parameter stands deleted
21.	Page No. 188, Clause Annexure 11.18 Specification and compliance of Passive Component, S. No. 1.10	Cable should have Drain wire and outer sheath must be anti-termite.	This parameter stands deleted
22.	Page No. 188, Clause Annexure 11.18 Specification and compliance of Passive Component, S. No. 2.06	FR-PVC Blue Jacket 4 Pair 23 AWG Copper Cable with integral cross member pair separator and should support bandwidth of 600 MHz	To be read as "LSZH PVC White Jacket 4 Pair 23 AWG Copper Cable with integral cross member pair separator and should support bandwidth of 600 MHz"
23.	Page No. 188, Clause Annexure 11.18 Specification and compliance of Passive Component, S. No. 2.10	The Cable Should be UL/ETL certified with Zero Bit error (certificate required)	To be read as "The Cable Should be UL/ETL certified (certificate required)"
24.	Page No. 189, Clause Annexure 11.18 Specification and compliance of Passive Component, S. No. 3.09	It should have a Dust cover to cover the keystone.	To be read as "It should have a Dust cover in the Face Plate".

S. No.	RFP Reference (s)	Original Content of RFP	Revised Content of RFP
25.	Page No. 189, Clause Annexure 11.18 Specification and compliance of Passive Component, S. No. 5.06 and 5.07	High Impact Plastic Body ABS FR Grade 86 x 86 mm for single & dual port High Impact Plastic Body ABS FR Grade 86 x 147 mm for Quad	To be read as "High Impact Plastic Body ABS FR Grade of suitable size for single, dual and Quad port"
26.	Page No. 214, Clause Annexure 11.23 Specification and compliance of Command Centre Design, S. No. 4.03	Monitors shall be mounted on Slat wall. All arms shall be articulating Die cast aluminium arm and must not be fixed on the table top. The desk shall be able to house computer equipment, Ethernet Points, Power Distribution Unit. The workstation CPUs shall be mounted on Heavy-duty Slide out CPU trays for ease in maintenance, all equipment and its wiring shall be concealed from direct human view. Console must have exhaust fan for cooling arrangement.	To be read as "Monitors shall be mounted on Slat wall. All arms shall be articulating Die cast aluminium arm and must not be fixed on the table top. The desk shall be able to house computer equipment, Ethernet Points, Power Distribution Unit. The workstation CPUs shall be mounted on Heavy-duty Slide out CPU trays for ease in maintenance, all equipment and its wiring shall be concealed from direct human view. Console must have exhaust fan for cooling arrangement. Monitor Arm Assembly shall have auto-lock, push & add/remove extendible arms with tool less addition/ deletion feature to cater future requirements"
27.	Page No. 161, Clause Annexure 11.4 Specification and compliance of mobile NVR	Additional Parameter (Additional Specification point no. 46)	Refer Annexure 3 of corrigendum
28.	Page No. 175, Annexure 11.11	Specification and compliance of video wall	To be replaced as Annexure 6 of corrigendum
29.	Page no. 213, Annexure 11.22	Specification and compliance of Network Storage for DC and DR (100TB usable)	To be replaced as Annexure 7 of corrigendum

Annexure 1

Annexure 8: Financial Proposal Formats

Annexure: 8.1 Financial Bid Letter

To
{Procurement Entity}

Sir,

Sub**: Request for Proposal for Selection of agency to operationalise IP CCTV and Automatic Vehicle Tracking System (AVTS) in DTC and cluster scheme buses on Infrastructure as a service model.**

Ref: RFP No. **<<>> dated <<DD/MM/2018>>**

We, <<name of the undersigned Bidder and consortium members>>, having read and examined in detail all the bidding documents in respect of set up of **Selection of agency to operationalise IP CCTV and Automatic Vehicle Tracking System (AVTS) in DTC and cluster scheme buses on Infrastructure as a service model.** I do hereby propose to provide our services as specified in the bidding proposal submitted by us.

All the prices mentioned in our bid are in accordance with the terms as specified in the bidding documents. This bid is valid for a period of 180 calendar days from the date of submission of RFP to the bidder.

We have studied the relevant clause(s) in Indian Tax Laws and hereby declare that if any taxes, surcharge, Professional and any other corporate Tax in altercated under the laws, we shall pay the same.

We have indicated in the relevant annexure enclosed, the unit rates on account of payment as well as for price adjustment in case of any increase or decrease from the scope of work under the contract.

We declare that our bid prices are for the entire scope of work as specified in the Scope of Work and bid documents. These prices are attached with our bid as part of the bid.
We hereby declare that in case the contract is awarded to us, we shall submit the contract Performance Bank Guarantee in the form prescribed in Section 6.34 of RFP within 15 days of issue of LOI.
We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.
We understand that our bid is binding on us during the validity period or the extensions thereof and that you are not bound to accept a Bid you receive.

We confirm that no deviations are attached here with this financial offer.

Thanking you,
Yours sincerely,

(Signature of the Authorized Bidder)

Name
Designation
Seal

Date:
Place:
Business Address:

Annexure 8.2 - Breakdown of Cost Components

Note:

- Bidder should provide all prices, quantities as per the prescribed format under this Annexure. Bidder should not leave any field blank. In case the field is not applicable, Bidder must indicate "0" (Zero) in all such fields.
- The Bidder shall take the quantities mentioned as minimum quantities. However, for proper functioning of the system, the bidder may include components which may not have been mentioned or increased quantities.
- It is mandatory to provide breakup of all Taxes, Duties and Levies wherever applicable and or payable.
- Purchaser reserves the right to ask the Agency to submit proof of payment against any of the taxes, duties, levies indicated.
- Purchaser shall take into account all Taxes, Duties and Levies for the purpose of Evaluation.

Annexure: 8.2.1 Financial Bid Format-OPEX

S No.	SOR Description	UoM	Contract Period	QTY per Month	Contract QTY	Unit Rate Per Month	Cost per Month	Total Cost for 60 months (5 Years)
			A	B	C = A x B	D	E = D x B	F = D x C
1	Providing services for IP based CCTV Surveillance in buses of DTC and Cluster Scheme under Transport Department of NCT. The SOW defines the Operationalize and Maintenance job of IP CCTV System in Buses, Command & Control Centre, Viewing Centre, Data centre and Viewing Centre at depot. Reference SOW (SOW No) of IP CCTV Surveillance System.							
1.01	Providing services of CCTV System in every Bus of DTC and cluster Scheme as per SOW (Line 1 of Implementation Scheme)	Month(s)	60	5,000	3,00,000		-	-
1.02	Providing services of Viewing Centre for CCTV Footage at depot level as per SOW (Line 2 of Implementation Scheme)	Month(s)	60	66	3,960		-	-
1.03	Providing services of Command & Control Centre for GPS based Vehicle Tracking System, CCTV and Alarm monitoring as per SOW (Line 3 of Implementation Scheme)	Month(s)	60	1	60		-	-
1.04	Providing services of Viewing Centre for CCTV Footage investigation as per SOW (Line 4 of Implementation Scheme)	Month(s)	60	1	60		-	-

S No.	SOR Description	UoM	Contract Period	QTY per Month	Contract QTY	Unit Rate Per Month	Cost per Month	Total Cost for 60 months (5 Years)
			A	B	C = A x B	D	E = D x B	F = D x C
1.05	Providing services of dedicated Data Centre as per SOW (Line 5 of Implementation Scheme)	Month(s)	60	1	60		-	-
1.06	Providing services of dedicated Disaster Recovery Centre as per SOW (Line 6 of Implementation Scheme)	Month(s)	60	1	60		-	-
1.07	Channel license cost of Analytics (refer Annexure 11 for specification) per camera as one-time Unit Rate	No(s)	NA	NA	15000			-
1.08	Lump sum cost of all required Hardware for Analytics shall be quoted as a set of 50 cameras per set	Set(s)	NA	NA	100			-
1.09	Cost of Integration of the proposed solution with the additional buses pre-fitted with the system component for bus. The integration shall include all level of integration with required set of licenses and soft or SDK level integration*.	No(s)	NA	NA	1000			-
2	Providing services for monitoring, operation and troubleshooting tackles as per the requirement at Command and Control Centre. Reference SOW (SOW No) of Monitoring of IP CCTV Surveillance System.							
2.01	CCTV operator for 24/7	Resource(s)	60		0		-	-
2.02	Technical Resource 24/7	Resource(s)	60		0		-	-
2.03	Helpdesk	Resource(s)	60		0		-	-
2.04	Assignment Manager	Resource(s)	60	1	60		-	-
2.05	Operations Manager	Resource(s)	60	1	60		-	-

S. No.	SOR Description	UoM	QTY	Unit Rate	Total Cost
			A	B	C = A x B
3.00	Cost of Re-installation of the system component on the bus (like installa-tion of the system on another bus after dismantling the	Per Bus(s)	1000		

S. No.	SOR Description	UoM	QTY A	Unit Rate B	Total Cost C = A x B
	system components from the old/ scrapped bus). **				
	Total Amount before GST				
	GST @18%				
	Total Amount inclusive of GST				
	INR in word:				

*The purchaser reserves the right to change the quantity based on the actual requirement.

** The above cost will be paid on actuals depending upon the number of buses on which the system has been reinstalled.

Note:

i. Above breakup of rates is only for determining the total bid value for shortlisting the successful bidder for work award. However, actual payments shall be regulated based on the actual number of locations/buses where services as per SOW were delivered during the billing period.

ii. The number of locations mentioned above are indicative only and Purchaser reserves the right to increase or decrease the number of actual locations/buses intended to be covered under the contract.

iii. In addition, Purchaser reserves the right to increase or decrease the quantities of items indicated in the above BOQ and the payments shall be based on the actual quantity of items.

iv. I/We do hereby confirm that my/ our bid price includes all statutory taxes/ levies but excluding GST (as applicable on the services). I/ We also declare that any tax, surcharge on tax and / or any other levies, if altered in future and payable under the law, the same shall be borne by me/ us.

v. The quoted rates for all items shall remain unchanged for entire term of the Contract Agreement. In case there is increase or decrease in any item(s) to be installed, then the payment to the Service Provider shall be made as per actuals, as the case may be, in reference to the quoted price in the financial bid and/or as assessed by the Purchaser in case item is not mentioned in the financial bid

vi. Bidder needs to provide cost of analytics license per camera as a separate line item. Bidder is required to the cost for this item for future purposes. Purchaser reserves the right to consider deployment of Analytics at any point of time within the project contract period)

Annexure 2

Specification and compliance of Display (7"):

S. No.	Parameter	Specification	Compliance (Yes/No)	Deviation (if any)
1	Size	Minimum 7" TFT LCD with arrow keys and number buttons		
2	Luminance	400cd/m2		
3	Viewing angle	70/70/50/70 (L/R/U/D)		
4	Resolution	800 × 480 or better		
5	Back-light Type	LED		
6	Video Inputs	Two		
7	Functionality	Live view and play back		
8	Power Source	mNVR		

Annexure 3

S. No.	Parameter	Specification	Compliance (Yes/No)	Deviation (if any)
46	Hardware	The mobile NVR shall be equipped with inbuilt module for 4G/LTE, GPS and Wi-Fi (refer Specification 11.5,11.6 and 11.7), Sim card is considered in MNVR, same sim will be used for the AVTS.		

Annexure 4

DTC BUS DEPOT		CLUSTER BUS DEPOT	
S. No.	**Name of Depot**	**S. No.**	**Name of Depot**
1	B.B.M. Depot	1	Sunheri Pullha Depot
2	Rohini - I	2	kushak nallah Depot
3	Rohini - II	3	Okhla Depot
4	Rohini - III	4	Kair Depot
5	Rohini - IV	5	Kanjhawala Depot
6	Wazir Pur	6	BBM-I Depot
7	Subhash Place	7	Rajghat Depot
8	G.T.K. Depot	8	Dilshad Garden Depot
9	Bawani	9	Seemapuri Depot
10	Nangloi	10	Dichaone Kalan Depot
11	Kanjhawla	11	Rani Khera - I
12	Narela	12	Rani Khera -II
13	Kalka Ji	13	Rani Khera - III
14	SNDP	14	Dwarka Sector-22
15	Ambedkar Nagar	15	Revla Khanpur
16	Vasant Vihar	16	Kharkari Nahar
17	Tehkhand	17	Bawana Sector-1
18	Sukhdev Vihar	18	Bawana Sector-5
19	Sarojini Nagar	19	East Vinod Nagar
20	Nand Nagri	20	Rohini Sector-37 I
21	NOIDA	21	Rohini Sector-37 II
22	East Vinod Nagar	22	Burari
23	Hasan Pur	23	BBM-II
24	Inderprastha		
25	Yamuna Vihar		
26	Gazi Pur		
27	Raj Ghat - I		
28	Raj Ghat - II		
29	Hari Nagar - I		
30	Hari Nagar - II		
31	Hari Nagar - III		
32	Kesho Pur		
33	Naraina		
34	Shadi Pur		
35	BAGDOLA		
36	Dwarka Sector - 2		
37	Maya Puri		
38	Dichaon Kalan		
39	Peera Garhi		
40	Ghuman Hera Depot-I		
41	Ghuman Hera Depot-II		
42	Ghuman Hera Depot-III		
43	Mundela Kalan		

Annexure 5

Technical Specification and Compliance of VMS Application and Vehicle Tracking Software

S.No.	VMS Specification	Compliance (Yes/No)	Deviations (if any)
5.00	**Video Recording Software:**		
5.12	VMS should provide the option to access the number of cameras in the bus, based on the user requirement.		
8.00	**Vehicle Tracking Software:**		
8.14	GIS Integration:		
a	Implementation Agency shall undertake detail assessment for integration of the Surveillance System with the Geographical Information System (GIS) so that physical location of Depots, GPS fitted buses (Vehicle Tracking) and cameras are brought out on the GIS map. Implementation Agency is required to carry out the seamless integration to ensure ease of use of GIS in the Surveillance System Applications/Dashboards in Command Control Centre, Viewing Centre, Depot and by other authorized senior officials. GIS Base Map shall be developed or procured, supplied and integrated by the Implementation Agency at 1:1000 scale or better with all depots and buses plotted on the map apart from the updated map of all buildings, utilities and roads. If this requires field survey, it needs to be done by Successful Bidder. Implementation Agency is required to update GIS maps from time to time. Different layers to be covered under GIS are as follows:		
i.	Depots with geographical area		
ii.	Roads		
iii.	Buses		
iv.	Bus routes		
v.	Command Centre		
8.15	GPS integration with GIS is required to locate all buses of DTC and Cluster Scheme (on which GPS units are fitted) on GIS Map. Vehicle tracking should happen even while any vehicle is parked/stationary/ignition-off.		
8.14	The bidder to consider all the required features for map data and GIS software including quarterly updates.		
8.15	The proposed map should have feature to select a bus from which the panic alert is received.		
8.16	It shall show the status of the bus with different colours for health and alarm monitoring.		
8.17	The map should provide the feature to select a bus in alarm state (activated panic alert) for continuous tracking with auto panning of map.		
8.18	The map should provide the feature to select a bus to provide following details on click of bus icon:		
a	On demand live feed of in-vehicle camera		
b	Health status of device		
c	Alarm history		
d	Health log		
e	Bus license plate number		
f	GPS coordinate (dynamic) of bus		

S.No.	VMS Specification	Compliance (Yes/No)	Deviations (if any)
g	Crew member's phone number of the bus		
8.19	SMS Gateway Integration		
a	Implementation Agency shall carry out SMS Gateway Integration with the VMS and develop necessary applications to receive all SMS alerts from the buses with GPS location, panic alert and health status information, which will be system generated from each mNVR. Any external/third party SMS gateway can be used, but this needs to be specified in the Technical Bid, and approved during Bid evaluation.		

Annexure 6

Specification and compliance of Video wall:

S. No	Parameter	Specifications	Compliance (Yes/No)	Deviations (if any)
1.00	**Specifications of LCD display Panel:**			
1.01	Product details-			
1.02	Please mention Make Model No. or Part Code			
1.03	Display Wall Screen Size	70"		
1.04	Projection Technology	DLP Rear Projection		
1.05	Native Resolution per cube	1920x1080		
1.06	Aspect Ratio	16:9		
1.07	Light Source	Laser		
1.08	Brightness	on screen brightness Minimum 500 cd/m2		
1.09	Brightness Uniformity	98%		
1.10	Contrast ratio	Typical 1600:1		
1.11	Colour Calibration	Automatic inbuilt sensors for colour and brightness management mechanism to be provided.		
1.12	Connectivity	Each display Module shall support 4HD @ 30Hz inputs		
1.13	Full viewing angle	180°		
1.14	Lifetime	Normal mode: 60 000h		
		Eco mode: 80 000h		
1.15	Inputs	DVI-D in/out		
1.16	Power	100 - 240 VAC, 60 - 50Hz, (below values are for 230V; 110V +5%)		
1.17	Eco mode	Less than 350 Watt		
1.18	Heat Dissipation	As per OEM		
1.19	Environment conditions			
a	Operating Humidity	Up to 80% non-condensing		
b	Operating Temperature	10°C-40°C | 50°F-105°F		
c	Storage Temperature	0°C-40°C | 32°F-105°F		
1.20	Access	As per OEM		
1.21	Pixel clock	Minimum162 MHz or higher		
1.22	Signal Processing	Each cube should have cropping/scaling capability		
1.23	Screen Half-Gain Viewing Angle	Horizontal: 28 degrees +/- 3 or better		
		Vertical: 13 degrees +/- 3 or better		
1.24	Operating Hours	24x7x365		
2.00	**Specifications of Display Wall Controllers**			
2.01	Product details-			

S. No	Parameter	Specifications	Compliance (Yes/No)	Deviations (if any)
2.02	Please mention Make Model No. or Part Code			
2.03	Display controller	Controller shall be able to control all display cubes		
2.04	Redundant Controller	The controller shall be based on the latest architecture.		
2.05	Platform	Windows Xeon Quad core 3 GHz or Core i7 3 GHz or above		
2.06	Processor	Intel Xeon		
2.07	RAM	32 GB or higher		
2.08	Chassis Type	19" Rack mount industrial chassis		
2.09	Network	2 Network Ports or more		
2.10	Output Resolution Support	Minimum1920 x 1080 or higher		
2.11	Ticker	There should be a possibility in the controller to create user defined multiple tickers. It should also be possible to place these tickers anywhere on the wall		
2.12	Scalability	The system shall be able to add additional inputs as required in future.		
2.13	Control	The system shall be capable to interact (Monitoring & Control) with various applications on different network through the single Operator Workstation. It shall be possible to launch layouts, change layouts in real time using Tablet		
2.14	Storage Redundancy	Redundant Hot Swappable HDD in RAID 1 Configuration		
2.15	Power Redundancy	Redundant Hot Swappable Power Supply		
2.16	Input devices	Keyboard and Mouse along with mechanism to extend up to 20 Mtrs. from display controller shall be provided		
2.17	Seamless operation	The controller shall be designed for 24 x 7 operation		
2.18	OEM Certification	The OEM should certify all features and functionality. The Display Modules, Display Controller & Software shall be from a single OEM.		
3.00	**Specifications of Video Wall Management Software**			
3.01	Product details-			
3.02	Please mention Make Model No. or Part Code			
3.03	Layouts	The software should be able to pre-configure various display layouts and access them at any time with a simple mouse click or schedule/timer based.		

S. No	Parameter	Specifications	Compliance (Yes/No)	Deviations (if any)
3.04	Sources	The software should be able display multiple sources anywhere on video wall in any size.		
3.05	Remote Viewing	The video wall content will be able to show live on any remote display Mobile with IE. Viewing these streams should not require any specific application (app) on mobile phones, users should simply be using stand-ard mobile internet network (3G/4G/LTE). The display solution as well as the complete control ware including Display Controller, Central management SW & Web-streaming hardware as well as software should be of same Make/OEM		
3.06	User management	Key features of Video Wall management Software • Central configuration database • Browser based user interface • Auto-detection of network sources • Online configuration of sources, displays and system variables		
3.07	Software features	Video Wall Control Software shall allow commands on wall level or cube level or a selection of cubes: • Switching the entire display wall on or off. • Setting all projection modules to a common brightness target, which can be either static (fixed) or dynamic to always achieve maximum (or minimum) common brightness between projection modules. • Fine-tune colour of each cube		
3.08	Client & Server basedArchitecture	Should support Multiple clients / Consoles to control the Wall layouts		
3.09	Collaboration	The Software should be able to share layouts comprising of sources with workstations / Displays over LAN for remote monitoring		
3.10	Scaling	Software should enable the user to display multiple sources (both local & remote) up to any size and anywhere on the display walls (both local & remote).		
3.11	Display	The software should be able to create lay-outs and launch them as and when desired		
3.12	Remote Control	The Display Wall and sources (both local & remote) should be controlled from Remote PC through LAN without the use of KVM Hardware.		
3.13	Support of Meta Data	Software should support display of Alarms		

S. No	Parameter	Specifications	Compliance (Yes/No)	Deviations (if any)
3.14	Authentication	The software should provide at least 2 layers of authentication		
3.15	Scenarios	Software should able to Save and Load desktop layouts from Local or remote machines		
3.16	Layout Scheduler	All the Layouts can be scheduled as per user convince.		
3.17	Layout Scheduler	Software should support auto launch of Layouts according to specified time event by user		
3.18	Layout Management	It should be possible to create layouts comprising of screen scrapped content of Workstations, DVI inputs, Web sources, URLs configured as sources. Layouts can be pre-configured or changed in real time		
3.19	Layouts Configuration	Can be pre-configured or changed in real time		
3.20	Scheduling	It should be possible to schedule specific Layout based on time range		
3.21	Sharing & Collaboration	It should be possible to share the layouts over LAN.		
3.22	OEM Certification	All features and functionality should be certified by the OEM.		
		The Display Modules, Display Controller & Software should be from a single OEM.		

Annexure 7
Specification and compliance of Network Storage for DC and DR (100TB usable):

S. No.	Parameter	Description	Compliance (Yes/No)	Deviations (if any)
1.00	Product details-			
2.00	Please mention Make Model No. or Part Code			
3.00	Storage Capacity	Proposed Storage System shall be Minimum 100 TB Usable Capacity		
4.00	Storage Type	Hybrid Storage System with concurrent support for native NAS, iSCSI and Fibre Channel protocols		
5.00	Controller	Dual redundant Active-Active Controllers		
6.00	Cache	The Storage System shall have minimum 48 GB memory spread across both controllers. SSDs will not be considered as Cache.		
7.00	RAID	Storage System shall be configured with RAID6 protection and Global Hot Spares.		
8.00	HDD	Proposed Storage System shall be capable to be configured with required usable storage capacity using following type of drives: - NL-SAS Drives with 7.2K RPM; - SAS Drives with 10K RPM; - SAS Drives with 15K RPM;		
9.00	Scalability	Proposed Solution should be scalable up-to 150 Drives in the same Storage Array without upgrading the controllers.		
10.00	Host Connectivity	8 x 16Gbps FC ports & 4 x 10G copper Ethernet ports & 4 x 10G SFP+ Ethernet ports		
11.00	Backend Connectivity	Minimum of 4nos x 12Gbps SAS backend ports per Array		
12.00	Total Aggregate Storage Bandwidth	Proposed Storage System shall ensure a minimum total aggregate bandwidth of 1000 Mbps on a scalable Write and Read capacity of Video Management Application Workload.		
13.00	Storage Software Licenses	1. All the standard Storage Software Licenses for File, Block & vVOLs, Snapshots, Remote Replication, Performance Optimization, Thin provisioning, QOS, Proactive Remote Support shall be included. 2. Entire storage capacity shall be protected with encryption techniques, required software and hardware shall be configured. 3. All the licenses shall be provided for entire supported storage capacity of the proposed Array.		
14.00	System Monitoring and Diagnostics	The Storage array should support continuous system monitoring, call-home notification, advanced remote diagnostics and proactive hot sparing to enhance system robustness, availability and reliability.		
15.00	Power Supply	Dual Redundant Power Supply		

Annexure 8

7.1.1 The total project cost shall be divided into two billing entities:

    i. Transport Department:
- No. of Depots: 23
- No. of Buses: 2001

    ii. Delhi Transport Corporation
- No. of Depots: 43
- No. of Buses: 2999

The below is the cost calculation details for the two components:

    i. **Manpower Cost:** The manpower cost shall be calculated based on the cost provided by the bidder in the serial no. 2 of the Annexure: 8.2.1 Financial Bid Format

	D = Date of contract signing with the IA			
S. No.	**Activity**	**Timeline (in months)**	**Payment**	**Billing Entities**
1.	Supply, installation, testing and commissioning (SITC) of Command Centre, Viewing Centre, Data Centre and Disaster Recovery Centre including connectivity as per scope of the RFP	D+3	**P1 = 20% of total cost at s. no. 1.03, 1.04, 1.05 & 1.06 at Annexure: 8.2.1 Financial Bid Format**	TD
2.	SITC of IT, Non-IT system and required infrastructure in 30 Depots including connectivity	D+3	**P2 = (Unit Cost for Depot * number of depots commissioned successfully * 20%)**	TD and DTC
3.	SITC of CCTV surveillance system in 2000 buses including connectivity	D+3	**P3 = (Unit Cost for Bus * number of buses commissioned successfully * 20%)**	TD and DTC
4.	SITC of IT, Non-IT system and required infrastructure in 36 Depots including connectivity	D+5	**P4 = (Unit Cost Depot * number of depots commissioned successfully * 20%)**	TD and DTC
5.	SITC of CCTV surveillance system in 3000 buses including connectivity	D+5	**P5 = (Unit Cost for Bus * number of buses commissioned successfully * 20%)**	TD and DTC
6.	Operations & Maintenance (O&M) for Command Centre, Viewing Centre, Data Centre, Disaster Recovery Centre	For 60 months after D+5	**80% of total cost at s. no. 1.03, 1.04, 1.05 & 1.06 at Annexure: 8.2.1 Financial Bid Format**	TD
7.	Operations & Maintenance (O&M) for Buses and Depots under Cluster Scheme	For 60 months after D+5	**80% of the ((Unit Cost for Depot * depot commissioned successfully) and (Unit Cost for Bus ***	TD

			number of buses commissioned successfully)) in equated quarterly instalments (20 quarters)	
8.	Operations & Maintenance (O&M) for Buses and Depots under DTC	For 60 months after D+5	**80% of the ((Unit Cost for Depot * depot commissioned successfully) and (Unit Cost for Bus * number of buses commissioned successfully)) in equated quarterly instalments (20 quarters)**	DTC
9.	Manpower Cost (at Command Centre)	Monthly (for 60 months after D+5)	Based on SLAs	TD

Note 1: The Purchaser will identify the Depots and buses for initial commissioning of the project

Note 2: Time is the essence of the Agreement and the delivery dates are binding on the IA. In the event of delay or any gross negligence in implementation of the project before Go-Live, for causes solely attributable to the IA, in meeting the deliverables, the Purchaser shall be entitled at its option to recover from the IA as agreed, penalty as calculated at point (a) below subject to a limit of 10% of the total project value.

    a. If the bidder is unable to commission the IP CCTV and automatic vehicle tracking system in 5000 buses and 66 depots at the end of D+5 months, then the penalty shall be calculated as below:

Penalty = (No. of buses on which IP CCTV and automatic vehicle tracking system and number of depots on which the required system not commissioned till that period * 10% of the Unit Cost * **X**)

S. No.	Timeline (in months)	X
1.	D + 5	0.10
2.	D + 6	0.20
3.	D + 7	0.30
4.	D + 8	0.40
5.	D + 9	0.50

Note 3: Any delay beyond D + 9 months in commissioning of the buses and depots for reasons attributable to the bidder, may lead to termination of the agreement as per section 9.10

Note 4: The O&M payment shall be calculated based on the number of buses, depots, data centre, disaster recovery centre, viewing centre and command centre successfully commissioned. It will be calculated on Quarterly basis at the end of each Quarter with adjustment of SLA based penalty etc.

Note 5: The milestone may be re-defined at the time of awarding the contract based on the availability of the buses or considering the other factors.

	Note 6: The payment of manpower shall be made from D + 4 based on the date of deployment.	
	Note 7: The payment for number of successfully commissioned buses and depots after D + 5 shall be made quarterly on proportional ratio basis. The successful commissioning of the buses and depot will be accepted on the 1st day of the month after D+5 for any billing purpose.	