



**UCO BANK**

**Department of Information Technology**

**Request for Proposal (RFP) For “Building of Data Centre Infrastructure for non-CBS Servers at 6<sup>th</sup> floor, HO DIT**

**RFP REF NO: DIT/BPR & BTB/OA/4158/2017-18 Date: 12/02/2018**

**Pre-Bid Responses/ Clarifications to Queries raised by the Bidder(s), Amendments, Addendums and Corrigendum's**

Sl. No.	Pg No	Section/Clause No.	Description	Description of Query/ Clarification sought by Bidder	Response from Bank
1	9	<b>Eligibility Criteria Point No. 2</b>	Bidder should be a profit making company in any two of the last financial years (2014-15, 2015-16 and 2016-17) OR Bidder should have maintained a positive net-worth in the last three financial years (2014-15, 2015-16 and 2016-17)	Request to change to: Bidder should be a profit making company in any two of the last 5 financial years (2012-13, 2013-14, 2014-15, 2015-16 and 2016-17) OR Bidder should have maintained a average positive net-worth in the last three financial years (2014-15, 2015-16 and 2016-17)	Clause stands as per RFP.
2	41	<b>Performance Bank Guarantee</b>	The successful bidder shall be required to provide a Bank Guarantee for 10% of the Total Order Value issued by any scheduled commercial bank (other than UCO Bank) valid for 63 months (60+3 months claim period), indemnifying any loss to the Bank, as per the format of Annexure –J.	Bidder is unable to provide 63 Months upfront Bank Guarantee. Instead of 63 Months upfront we will provide below: We can give a BG for 63 Months comprising of 36 Months and then extend that with a 27 months guarantee. Request you to please accept this.	Clause stands as per RFP.

3	9	<b>Eligibility Criteria</b>	Bidder must be a registered firm/company in India under Companies Act, 1956 and should have been in operation for at least 5 years as on date of RFP.	Request to change to- The bidder should be registered as a company in India either as per Company Act 1956 or As per Company Act 2013.	<b>The modified clause is to be read as:</b> Bidder must be a registered firm/company in India under Companies Act, 1956 or as per Company Act 2013 and should have been in operation for at least 5 years as on date of RFP.
4	31		Distribution Boxes. Power in the racks with two sockets with power coming from separate UPS in each of these sockets. The two UPS power shall be given Static Transfer Switch (STS). All the systems in the rack will be connected to this STS.	We request you to consider STS for only Network racks. As all server racks can't draw power from 2 different PDU at a time.	<b>The modified clause is to be read as:</b> The STS is considered only for Network racks. Kindly note that Number of network racks are 5.
5	31	<b>Part – IV: Scope of Work:</b>	<b>Racks</b>	Do we need to consider supply and installation of Racks - 25 Nos? Kindly clarify.	<b>The modified clause is to be read as:</b> Bidder need not supply the racks however movement of the racks, unmounting and mounting of the existing servers in the racks will be under the scope of the selected bidder.
6	37	<b><u>4.77 Existing DG:</u></b>	DG Set: Bank already two no of 500 KVA DG Set. Bidder should integrate same with proposed datacenter. All cabling for integration DG set should be done by bidder.	Kindly share make and model of DG set. Also confirm existing DG is compatible with BMS and it has all required controller already installed.	<b>Make &amp; Model is:</b> <b>Cummins 6C TAH.C G1-1</b>
7	43	<b>Part – V 3. Schedule of Implementation</b>	The Data Centre build project should be completed within 16 weeks, including civil work, from the date of purchase order. The	Request you to consider 24 weeks as project timeline.	<b>The modified clause is to be read as:</b> The Data Centre build project should be

			site for proposed Data Centre is ready.		completed within <b>20 weeks</b> , including civil work, from the date of purchase order.
8	22	4.2 Design of Data Center		Kindly furnish the details of Active components to be considered for Data Center.	<b>The details of the Active components for Data Centre is to be considered:</b> 4 points with each Rack
9		General		Kindly share details of power tapping/source points. Kindly share auto cad layout of proposed DC space.	Site visit is done.
10		General		Kindly clarify which are the areas to be covered with automatic fire suppression system in the DC.	Automatic fire Suppression system will be covering Zone A and Zone C.
11	41		Software application costs like BMS and any other management tool: 50% of the payment is to be made on delivery, 30% after successful running of the solution and remaining 20% to be paid after successful running of the solution for 3 months.	Bidder request: Software application costs like BMS and any other management tool: 80% of the payment is to be made on delivery, 10% after successful running of the solution and remaining 10% to be paid after successful running of the solution for 3 months.	Clause Stands as per RFP.
12	41		HVAC System 50% of the product contract value on delivery, 40% of the product contract value on successful completion of Acceptance testing of the product. 10% of the product contract value on successful completion of Six months from the date of completion of ATP and successful running of the facility.	Bidder request: HVAC System 80% of the product contract value on delivery, 10% of the product contract value on successful completion of Acceptance testing of the product. 10% of the product contract value on successful completion of Six months from the date of completion of ATP and successful running of the facility.	Clause Stands as per RFP.

13	42		Electrical Work (Electrical cabling, structured cabling, electrical lights) 50% payment of the contract value on delivery, 40% payment of the contract value would be payable on successful completion of Acceptance testing of the DC facility 10% payment of the contract value would be payable on successful completion of three (3) months post signoff on the Acceptance testing of the DC facility.	Bidder request: Electrical Work (Electrical cabling, structured cabling, electrical lights) 80% payment of the contract value on delivery, 10% payment of the contract value would be payable on successful completion of Acceptance testing of the DC facility 10% payment of the contract value would be payable on successful completion of three (3) months post signoff on the Acceptance testing of the DC facility.	Clause Stands as per RFP.
14	43		Electrical Devices: (UPS, Precession AC, Comfort AC, Fire Detection and control, Fire suppression system, Smoke Detection system, Access Control System, CCTV system, Camera, water leak detection system, Public address system ) 50% of the product contract value of delivery, 40% of the product contract value on successful completion of Acceptance testing of the product. 10% of the product contract value on successful completion of Six months from the date of completion of ATP and successful running of the facility. Such payment could be realised against a BG of equivalent value valid for the next 30 months.	Bidder request : Electrical Devices: (UPS, Precession AC, Comfort AC, Fire Detection and control, Fire suppression system, Smoke Detection system, Access Control System, CCTV system, Camera, water leak detection system, Public address system ) 80% of the product contract value of delivery, 10% of the product contract value on successful completion of Acceptance testing of the product. 10% of the product contract value on successful completion of Six months from the date of completion of ATP and successful running of the facility. Such payment could be realised against a BG of equivalent value valid for the next 30 months.	Clause Stands as per RFP.
15	NA	General Query	DC Location	As per RFP, we understand Proposed Data Center (Server room and electrical room, etc.) is on 6th Floor. Kindly share the following information: <ul style="list-style-type: none"> <li>• Floor loading capacity in kg / sqmtr</li> <li>• Total nos. of floors in DC Building</li> </ul>	<ul style="list-style-type: none"> <li>• 250 kg / sqmtr</li> <li>• 8 nos. of floors in DC Building (including Ground floor)</li> </ul>

				(including basement) <ul style="list-style-type: none"> <li>• Share the Auto cad layout plan with section detail</li> <li>• Total number of clear Physical access to the server room</li> <li>• Confirm the availability of service lift with capacity</li> <li>• Availability of water contents (Pantry room / Toilets) any side of server room wall.</li> </ul>	<ul style="list-style-type: none"> <li>• Bidder may visit the location</li> <li>• 2 number of clear Physical access to the server room</li> <li>• No service lift available</li> <li>• No Availability of water contents (Pantry room/Toilets)on the proposed data Centre side</li> </ul>
16	NA	General Query	Floor Plan with section details	Kindly share the following information; <ul style="list-style-type: none"> <li>• share the proposed DC layout plan with section details</li> <li>• Existing floor layout with dimensions (L x W x H)</li> <li>• Preferred / Proposed Data Center layout</li> <li>• Areas details of server room &amp; electrical room in sq ft with dimensions</li> <li>• True Floor to True ceiling height</li> </ul>	Bidder has to propose.
17	NA	General Query	HVAC	Kindly share the following information; <ul style="list-style-type: none"> <li>• Share the location of PAC &amp; CAC outdoor units</li> <li>• Piping distance of PAC &amp; AC out door unit from server room</li> <li>• Availability of water tap-off points near the data center</li> <li>• Proposed DC floor</li> <li>• Floor loading capacity of Data Center / DR Site</li> <li>• Availability of HVAC Panel if any with feeder capacity details in Amp</li> </ul>	<ul style="list-style-type: none"> <li>• on the roof top or side walls</li> <li>• Bidder may visit the site for Piping distance of PAC &amp; AC out door unit</li> <li>• No Availability of water tap-off points on the proposed data Centre side.</li> <li>• Proposed DC floor is 6<sup>th</sup> floor</li> <li>• 250 kg/sqmtr</li> <li>• Bidder has to provide all electrical work for commissioning of the</li> </ul>

					DC. Bank will provide input raw power
18	23	4.7	AMC of existing UPS System or implementation of new UPS	<p>Page no 65 commercial format asks for Buy back up prices of existing UPS while here asking for AMC of existing UPS or implementation of new UPS. There is a conflict in clause and we need more clarity?</p> <p>In case of existing UPS Kindly provide the UPS detailed i.e. KVA rating, make &amp; model year of installation and AMC / warranty status.</p> <p>In case of 5 years or more old UPS, We recommend for suitable capacity of new UPS system with considering the future scalability up to 5 years in N+1 redundancy to run your new Data Center trouble free and smoothly.</p>	<p><b>Bank's Response:</b> Bidder has to quote for buy back of existing UPS and new UPS. Kindly refer point no 4.72 of RFP.</p>
19	23	4.7	Electrical works – All major electrical work	<p>Need more clarity on electrical system. As per the standard following should be covered:</p> <ul style="list-style-type: none"> <li>- Data Center Main LT Panel with Redundancy</li> <li>- Redundant PAC Panels with ATS</li> <li>- Redundant UPS DB for Server Racks</li> <li>- Aux UPS DB</li> <li>- Raw Power DB</li> <li>- Lighting DB</li> <li>- Earthing Pit - existing or new with quantity</li> <li>- Required Lighting with lux level in server room and other areas</li> </ul>	<p><b>Banks response:</b> To include,</p> <ul style="list-style-type: none"> <li>• Data Center Main LT Panel with Redundancy</li> <li>• Redundant PAC Panels with ATS and 5 free MCB points for future use.</li> <li>• Redundant UPS DB for Server Racks</li> <li>• Aux UPS DB</li> <li>• Raw Power DB for AC and other utilities</li> <li>• Lighting DB</li> <li>• Earthing Pit - 4 new pits</li> <li>• Required Lighting with</li> </ul>

					<p>lux level in server room and other areas.</p> <ul style="list-style-type: none"> <li>• 3 phase point in the UPS DB with at least 2 (3 phase) in each DB</li> <li>• Separate DB for emergency power and BMS systems.</li> </ul>
20	23	4.7	Integration with existing DG Sets	Kindly share the existing DG details with Capacity, make, model, synchronization panel, availability of electronic fuel gauge etc.	<p>Make &amp; Model is: Cummins 6C TAH.C G1-1</p> <p>Capacity – 500 KVA</p> <p>Synchronization panel – Yes</p> <p>Electric fuel gauge – Yes</p>
21	24	4.11	Infrastructure Availability: Data Centre environmental infrastructure operations on a 24*7 basis thereby ensuring <b>99.95%</b> availability on monthly basis.	<p>As per the ask availability minimum one electrical distribution path would be required.</p> <p>We recommended dual electrical distribution path for each racks of the data center. Kindly change it to 99.982% availability on quarterly basis.</p>	Clause Stands as per RFP.
22	24	4.16	<p><b>Humidity, Ventilation and Air Conditioning Systems (HVAC) -</b></p> <p>The PAC solution will be in N+N configuration with best rating as per proposal submitted. The DC should be precision environment controlled. The temperature inside Server Farm area should be maintained at 20 degree centigrade with a precision of <math>\pm 2</math> degrees</p>	<p>Since RFP asks for 25 Racks Solutions, which will require at least 2 working PACs and in N+N configuration the system will be oversized and less efficient. Kindly change it to N+1 redundancy.</p> <p>Kindly clarify where temperature 20 degree <math>\pm 2</math> degree is required. Either it should maintain at Rack inlet or should maintain at room level. We recommend to maintain this temperature at rack inlet in cold aisle.</p>	Clause Stands as per RFP.
23	24	4.16	<p><b>Humidity, Ventilation and Air Conditioning Systems (HVAC) -</b></p> <p>Conflict of availability in Zone A cooling (PAC)</p>	One place RFP is asking <b>99.95% availability</b> which is Rated II (Tier II) configuration while second statement on same page is asking PAC should be operation on 24*7 basis to meet at least	<p><b>The modified Clause to be read as:</b></p> <p>Infrastructure Availability: Data Centre environmental</p>

				Tier III (Rated III) architecture. In <b>Tier III architecture availability is required 99.982%</b> <b>Kindly clarify whether it would be Tier II &amp; Tier III?</b>	infrastructure operations on a 24*7 basis thereby ensuring <b>99.95%</b> availability on monthly basis.
24	24	4.16	<b>Humidity, Ventilation and Air Conditioning Systems (HVAC) - PAC Sizing</b>	Kindly provide the Rack density / Rack (Rack load) to finalize the PAC sizing.	<b>Bank's response:</b> 25 nos. of 42 U Rack with fully loaded.
25	25	4.16	<b>Humidity, Ventilation and Air Conditioning Systems (HVAC) - N+N Redundancy in Zone B &amp; Zone C Cooling</b>	Few areas may require 2 working units (like UPS room & Battery room). We recommended for N+1 redundancy in Zone B&C cooling for better energy efficiency.	Clause stands as per RFP
26	37	4.88	<b>System Capabilities - DVR &amp; CCTV</b>	RFP is asking DVR in that case analogue Cameras to be required. We recommended for IP Cameras with NVR instead of DVR for better performance.	<b>The Modified clause is to be read as:</b> For the analogue camera – NVR IP camera can be considered for the CCTV monitoring.
27	37	4.91	<b>Building Management System (BMS)</b>	Kindly Provide the I/O summary for BMS System. Also share the nos. of PACs UPSs, Energy meters and other equipments details which will be integrated to BMS	<b>The Modified clause is to be read as:</b> Nos. will be proposed by the bidders. However sufficient number of BMS I/Os to be provided.
28	NA	<b>General Query</b>	Electrical Works	Kindly provide the following details:  - Availability of Main feeder with Breaker capacity in Amp - Server Room & Electrical Room floor plan with dimensions - Cable distance between server & electrical room from main power source - Piping distance for PAC Indoor & Outdoor units - Total Nos. of Racks - Maximum Load / Power consumption of each racks	<b>The modified clause is to be read as:</b> <ul style="list-style-type: none"> <li>• 400 amp breaker</li> <li>• Bidder has to propose Server Room &amp; Electrical Room floor plan</li> <li>• Depends on final plan layout the Cable distance between server &amp; electrical room will be informed to the bidder latter.</li> <li>• Depends on final plan</li> </ul>



				- No of power sources available at site	layout the Piping distance for PAC Indoor & Outdoor units will be informed to the bidder latter. • Total Nos of Racks is 25 • 2.5 KW per rack. • Single power source backed by 2 500 KV DG. (
29	32	General Query	BOM	Kindly Provide the BOM of each components for better understanding the requirement and also it will help in evaluation to all bidders on same page	Bidder has to propose Bill of Material (BOM)
30	32	General Query	Product specifications	Kindly incorporate the minimum product specifications thus UCO Bank will get competitive offer with Best solution.	Bidder has to propose the product specifications.
31	NA	General Query	Existing Equipments details	Kindly provide the existing equipments details which will be reused and will be integrated to BMS. (Make, model, qty., capacity, date of installation, etc.)	Bidder has to quote for buy back of existing UPS and new UPS
32	9	Eligibility Criteria Point No. 4	The bidder should have successfully executed build of at least 2 Data Centres comprising of 1000 Sq. ft. or more area out of which one should be tier – III. Out of these two Data Centres, the bidder should have successfully built and is maintaining & managing one Data Centre having more than 1000 sq. ft. which is primarily consisting of Precision Air-conditioning, UPS System, Electrical Distribution and Lighting, Fire Detection and suppression, Access control and CCTV, Building Management System, intelligent Smoke & Fire	Request you to change to - The bidder should have successfully executed build / Maintained at least 2 Data Centre comprising of 1000 Sq. ft. or more out of which 1 (One) should be a tier – III DC/DR. The bidder should have successfully built and is maintaining & managing the Data Centre having more than 1000 sq. ft. which is primarily consisting of Precision Air-conditioning, UPS System, Electrical Distribution and Lighting, Fire Detection and suppression, Access control and CCTV, Building Management System, intelligent Smoke & Fire Detection, Rodent repellent System, Structured cabling, Civil and Interiors, D.G Set etc.	Clause Stands as per RFP.

			<p>Detection, Rodent repellent System, Structured cabling, Civil and Interiors, D.G Set etc. and all the allied works for more than two years.</p> <p>Note:</p> <p>a. Bidder's in house Data Centres shall not be considered.</p> <p>b. Bidders who have built their own Internet Data Centre (IDC) for commercial use will be considered.</p>	<p>and all the allied works for more than two years</p> <p>Note:</p> <p>a. Bidder's in house Data Centres shall not be considered.</p> <p>b. Bidders who have built their own Internet Data Centre (IDC) for commercial use will be considered.</p>	
33		<b>Eligibility Criteria Point No. 4</b>	<ul style="list-style-type: none"> <li>· Copy of Client Certification for successful completion and commissioning</li> <li>· For IDC bidder certificate from client mentioning area of Data Centre occupied.</li> <li>· PO &amp; Installation report</li> <li>· Valid certificate for Tier III data Centre.</li> </ul>	<p>Kindly clarify if the understanding is as below</p> <ul style="list-style-type: none"> <li>• Copy of Client Certification for successful completion and commissioning or</li> <li>• For IDC bidder certificate from client mentioning area of Data Centre occupied. Or</li> <li>• PO &amp; Installation report or</li> <li>• Valid certificate for Tier III data Centre.</li> </ul>	<p><b>The modified Clause is to be read as:</b></p> <ul style="list-style-type: none"> <li>• PO &amp; Installation report and</li> <li>• For IDC bidder certificate from client mentioning area of Data Centre occupied and</li> <li>• Copy of Client Certification for successful completion and commissioning and</li> <li>• Valid certificate for Tier III data Centre.</li> </ul>
34	48	<b>18 – Indemnity</b>	<p>The selected Bidder agrees to indemnify and keep indemnified the Bank against all losses, damages, costs, charges and expenses incurred or suffered by the Bank due to or on account of any breach of the terms and conditions contained in this RFP or Service Level Agreement to be executed.</p>	<p>This clause needs to be deleted as this shall construe an unlimited liability for the Vendor. For any breach of the terms and conditions of the RFP, clause on limitation of liability is mentioned. Accepting this would be accepting an unlimited liability.</p>	<p>Clause Stands as per RFP.</p>

35	48	18 – Indemnity	Selected Bidder is required to furnish a separate Letter of Indemnity (Format whereof to be supplied by the Bank) in Bank's favour in this respect before or at the time of execution of the Service Level Agreement.	The format for "Indemnity" to be submitted, to be checked and confirm.	Clause Stands as per RFP.
36	52	26 – Termination		Termination clause to be added for the Vendor as, "The Vendor may terminate this Agreement and / or any SOW upon written notice to the Bank if the Bank commits a default or material breach and does not remedy the default or material breach within 30 days of notice from the Vendor.	Clause Stands as per RFP.
37	54	33 – Limitation of liability	c. Bidder shall be liable for any indirect, consequential, incidental or special damages under the agreement/ purchase order.	Bidder should not be made liable for "Indirect liability". Please remove this clause.	Clause Stands as per RFP.
38	81	7- Fall clause	7.1 The BIDDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PS U and if it is found at any stage that similar product/systems or sub systems was supplied by the BIDDER to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to the BUYER, if the contract has already been	Request Bank to remove this clause	Clause Stands as per RFP.

			concluded.		
39	41	point 6	The bank shall have the right to withhold any payment in case of delays and default by the vendor	Request Bank to remove this clause	Clause Stands as per RFP.
40	41	Point 6.1	50% of the payment is to be made on delivery, 30% after successful running of the solution and remaining 20% to be paid after successful running of the solution for 3 months	Request Bank to change the clause as below: - 80% on delivery and 10% on installation and 10% on acceptance	Clause Stands as per RFP.
41	50		The Bank will reserve a right to re-negotiate the price and terms of the entire contract with the Selected Bidder at more favorable terms in case such terms are offered in the industry at that time for projects of similar and comparable size, scope and quality.	Request Bank to remove this clause. This being the L1 Bid, the bid price will be highly optimum and there will not be any scope to reduce price further	Clause Stands as per RFP.
42	50	Part – V 24. Exit Option and Contract Re-Negotiation	The Bank shall have the option of purchasing the equipment from third-party suppliers, in case such equipment is available at a lower price and the Selected Bidder's offer does not match such lower price. Notwithstanding the foregoing, the Selected Bidder shall continue to have the same obligations as contained in this scope document in relation to such equipment procured from third-party suppliers.	Request Bank to remove this clause.	Clause Stands as per RFP.
43	26	4.22 Air quality levels	Air filters to provide up-to 5 Micron particulate shall be deployed.	Is dedicated Air filter to be deployed in Server Farm?	Yes dedicated Air filter to be deployed in server farm.
44	27	4.26	Supply & Fixing of Antistatic Laminate skirting matching with floor tiles with thick MDF Board / Bison Board.	MDF Board is not recommended in DC as it is not Fire retardant.	<b>The clause is to be read as:</b> Supply & Fixing of Antistatic Laminate

					skirting matching with floor tiles with fire retardant Board.
45	30	4.59 Structured cabling	All cables, jack panels should support 1 Gbps data transmission. The cable & jack panels should of CAT 6 or more.	Regarding Rack to Rack Backbone (in OFC) and no of Fiber connectivity per Rack is not mentioned in the RFP.	Clause Stands as per RFP.
46				How many Network Points to be done in DC Support area?	One no. of 24 port patch panel in each rack,
47	32	4.68 Fixing of the Conduits		Is the Conduit to be concealed or fixed on surface?	Clause Stands as per RFP.
48	34	4.80 Fire Detection and Control Mechanism	FM200 or equivalent gaseous fire suppression	FM200 is obsolete now. So, it must be replaced as NOVEC1230 Gas	<b>The modified clause is to be read as:</b> FM200 or NOVEC1230 gaseous fire suppression
49	59	Annexure-C : Technical Bill of Materials	Water Sprinkler	Where water based fire suppression would be installed	Water Sprinklers not required. Kindly refer Annexure – C (Bill of Material.)
50	59	Annexure-C : Technical Bill of Materials	Monitoring Software	BMS already mentioned in the BOQ. Which Monitoring Software is stated for?	Bidder has to provide/propose the monitoring software.
51		General		Provision for Site visit. Please clarify.	Site visit already done by bidders.
52	22	4.6	Total DC area would be approximately 1020 sq. ft. The DC hosting space should house-in 25 standard racks	Require Architectural Layouts for preparing Layouts & accessing Feasibility of solution	Bidder has to provide the architecture layout covering all the Zones (A, B, C & D)
53			5'th Floor	Structural Strength of the slab need to be adequate for data center 800KG/Sq-mtr	Structural strength of data centre is 250 kg/sqmtr
54	23	4.7	Integration with existing DG details	Need the details of existing DG / Controller	<b>Make &amp; Model is:</b> <b>Cummins 6C TAH.C G1-1</b> Capacity – 500 KVA Synchronization panel – Yes Electric fuel gauge – Yes

55	24	4.16	The PAC solution will be in N+N configuration	For Tier-3 configuration, required PAV redundancy N+1	Clause Stands as per RFP.
56			It is proposed to have air supply through false floor	In Row Cooling system with front air discharge with cold aisle containment operating in smart aisle mode to deliver better cooling efficiency. The In Row Cooling systems shall have modulating capacity type Digital scroll compressor & EC Fan This system would not require any False flooring work.	Clause Stands as per RFP.
57	25	4.18	The return air flow shall be through ducts on false ceiling	In row cooling system with front air discharge with cold aisle containment operating in smart aisle mode to deliver better cooling efficiency	Clause Stands as per RFP.
58	26	4.23	The top false ceiling would have approx. 12-15 Inches of space from the true ceiling of the floor. This false ceiling will house AC ducting,	The system shall work with cold aisle containment. AC ducting is not required for Hot air return	Clause Stands as per RFP.
59	26	4.24	The false flooring would have approx. 12-15 inches of space from the actual floor level	In Row Cooling system works with front air discharge with cold aisle containment operating in smart aisle mode to deliver better cooling efficiency. This system would not require any False flooring work	Clause Stands as per RFP.
60	31	4.62	Fire retardant cables	The Cables shall be with outer sheath as FRLS	Clause Stands as per RFP.
61	32	4.72	Bank already has 2 nos. of 80 KVA UPS (Make MGE and Model No Galaxy PW) which was procured in year of 2006. Bidder can use this UPS with AMC support service or may supply new 80 KVA UPS with buy back agreement with old UPS	Existing UPS systems are already more than 10 Years in service & need replacement for reliability & better efficiency	The Bidder has to supply new 80 KVA UPS with buy back agreement with old UPS.
62	39	4.96	The Prime Vendor will provide 24x7 operating and maintaining services for a period of 5 years from the date of final acceptance	Consumables shall be excluded from scope of bidder	Clause Stands as per RFP.

			test		
63			Site Details	1. Required Location of the proposed data center (Floor & total building height) 2. Required details for existing Shafts, Doors, Partition walls, windows, available flooring / Floor finish	Location and site visit already done.
64			Electrical System	Required Main Input power details --- Location of DG AMF Panel Rating & No. of Feeders available for Data center use	Location and site visit already done. However bidder may visit the site accordingly.
65			Cooling System	1. Need Location for placement of Outdoor Condenser Units 2. Location of Drain point with respect to DC Room 3. Fresh Water tapping Location with distance (Meter.) With respect to DC Room	1. Rooftop 2. Distance is 5 meters 3. With respect to DC Room, distance is 7 Meter.
66	22	<b>Part-IV Scope of Work</b>	The selected bidder i.e. Prime Vendor shall build, operate, and maintain the DC for a period of 5 years from the date of successful completion of Final Acceptance Test (FAT). i) Design, Supply, Installation, and Commissioning Phase ii) Operation and Maintenance phase	Whether 5years is inclusive of Both the Phase? Please confirm.	<b>The clause is to be read as:</b> 5 years is inclusive of Both the Phase.
67	22	<b>PART –IV 4.5 SCOPE OF WORK</b>	Bank shall provide the space of 1020 sq. ft. (approx.) for building the proposed DC. The Bank shall arrange for necessary clearances for building the proposed DC.	We understand it as, Total of 1020 sqft area only will be our scope for DC space? Please confirm. Other than 1020 sqft, Is there any area as part of this RFP Scope? Please confirm.	<b>The clause to be read as:</b> 1020 sqft is total scope of area covering all the zones mentioned in the RFP.

68	23	<b>PART –IV SCOPE OF WORK</b>	<p>Zone A – This DC Server room area would host server racks, storage racks and Networking component. The area required for Zone A should be sufficient enough to accommodate 25 racks.</p> <p>Zone B – Comprises of BMS &amp; Management room.</p> <p>Zone C – Comprises of room for power panels, AHU, UPS, Fire suppressions, etc.</p> <p>Zone D- Store Room (without Air Condition)</p>	Can you please provide Tentative/Indicative Layout with every room dimensions or Area measurement for this Zone-wise segregation of Rooms? According we can design & propose IBMS as per DC standard.	Bidder has to provide the same.
69		<b>PART –IV SCOPE OF WORK</b>	General	As per tender, IBMS scope is for, FAS, FSS, ACS, CCTV, VESDA, WLD, RRS, BMS only.	As per RFP Part – IV Scope of Work is Self Explanatory.
70	37, 38	<b>PART –IV SCOPE OF WORK</b>	<ul style="list-style-type: none"> <li>· Air Conditioning Management &amp; Control</li> <li>· HVAC Units.</li> <li>· Temperature monitoring and controls at all specified positions/locations</li> <li>· Energy Management</li> <li>· LT Panel Energy Monitoring</li> <li>· UPS Monitoring</li> <li>· Safety &amp; Security Systems Integration.</li> <li>· Fire Alarm System Integration.</li> <li>· HSSD (High Sensitivity Smoke Detection System) System Integration.</li> <li>· Access Control System integration</li> <li>· Gas System Integration.</li> <li>· CCTV &amp; recording</li> <li>· Water leakage Detection System</li> <li>· Diesel Generator Integration</li> <li>· Fuel Consumption</li> </ul>	<p>1. Given is of huge integration that can integrate with BMS. Whereas for this Tender scope, which are components are required for Integration with BMS with relevant mode of integration like Hard or Soft integration would be considered/proposed.</p> <p>2. Please elaborate/clarify, what does - Safety &amp; Security Systems Integration asked for? Because Security systems include ACS &amp; CCTV are separately asked in integration list in same clause. Hence is there any other system from security system that required for integration? Please list out or clarify.</p>	Please refer RFP clause no. 4.91



71	39	<b>PART –IV SCOPE OF WORK</b>	<b>4.92 Water Leak Detection System:</b> An automatic alarm notification is sent via alarm messages in case of leakages and should have separate cooling equipment zone and separation of water piping routes.	Not clear with this specification. Please elaborate?  OR Is that mean, SMS alert required as notification to DC operator/User? Its not Possible  And What do you mean by - To have separate Cooling equipment zone and separation of water piping routes? Please clarify the requirement/specifications.	<b>The clause is to be read as:</b> <ul style="list-style-type: none"> <li>• An automatic alarm should blow when there is water leakage in <b>Zone A and Zone C.</b></li> <li>• Water piping routes for different zones should be separate and distinct.</li> </ul>
72	39	<b>PART –IV SCOPE OF WORK</b>	An automatic alarm notification is sent via alarm messages and Email in case of water leakages, fire or smoke detection.	We understand it as, Does these systems to be sent notification via BMS system? Because, only BMS can have the facility to Send SMS & Email Alert options. Please check & confirm.	<b>The modified clause to be read as:</b> An automatic alarm notification is sent via SMS and e-mail through BMS in case of water leakages, fire or smoke detection.
73		<b>Annexure-C TECHNICAL BILL OF MATERIALS</b>	General	ACS BOQ calls for Proximity type Readers? Is there any specific reason to go for Proximity types? Else we can recommend for Smartcard type ACS equipments which are more feasible & standard for DC applications in security perspective. Please confirm.	<b>The clause is to be read as:</b> For Zone A - Biometric access system will be provided and for the remaining the proximity smart card will be provided.
74		<b>Annexure-C TECHNICAL BILL OF MATERIALS</b>	General	We shall propose for Manual Fire extinguishers wherever necessary. Please confirm.	The fire extinguisher system should be in accordance with RFP clause no. 4.80
75	30	<b>Part-IV, Scope of Work, 4.59 Structured Cabling</b>	Minimum 20 points cabling per rack to be done by the Prime Vendor	Shall we propose 12 + 12 (24) copper port from two different network rack to each Server Rack. Please confirm.	Selected bidder has to propose 12 + 12 (24) copper port from two different network rack to each Server Rack.

76	30	Part-IV ,Scope of Work, 4.59 Structured Cabling	General	Not found any fiber port requirement for Rack to rack connectivity. Please specify if any requirement for same as well as type of fiber cabling.	Fibre Port is not required for Rack to Rack connectivity.
77	30	Part-IV ,Scope of Work, 4.59 Structured Cabling	General	Is there any preferred make for LAN cabling? If yes please share the same.	Clause is Self-Explanatory.
78	23	Part-IV, Scope of Work, 4.8 Structured Cabling	The Prime Vendor must design thereby considering hosting space for 25 racks (server and network),	Shall we get bifurcation of total network and Server Racks.	Hosting of server & network room should be in a single area.
79	41	6.1 Payment terms	50% of the payment is to be made on delivery, 30% after successful running of the solution and remaining 20% to be paid after successful running of the solution for 3 months.	70% on delivery, 30% on installation and acceptance test	Clause Stands as per RFP.
80	54	33. Limitation of Liability	Bidder's aggregate liability under the contract shall be limited to a maximum of the contract value. This limit shall not apply to third party claims for a. IP Infringement indemnity. b. Bodily injury (including Death) and damage to real property and tangible property caused by Bidder/s' gross negligence. For the purpose of this section, contract value at any given point of time, means the aggregate value of the purchase orders placed by Bank on the Bidder that gave rise to claim, under this RFP. c. Bidder shall be liable for any indirect, consequential, incidental	Bidder cannot be liable for direct and indirect incidents pertaining to the contract . Please delete.	Clause Stands as per RFP.

			or special damages under the agreement/ purchase order.		
81	52	26. Termination		90 days but no payment protection for services rendered till date of termination. Risk purchase included which is uncapped. Capping has to be there or deletion of G, H & I	Clause Stands as per RFP.
82	53	28. Effect of termination		Payment protection needed for Bidder.	Clause Stands as per RFP.
83	15	15. Acceptance of Terms and conditions		Deviations should be allowed with respect to responses stated and not accepted as deemed due to response and submission of bid.	Clause Stands as per RFP.
84	45	12. Liquidated Damage		Capping at 5% of TCV	Clause Stands as per RFP.
85	50	24. Exit Option and Contract Re-Negotiation	Contract Renegotiation	Not acceptable. Needs to be deleted.	Clause Stands as per RFP.
86	47	17. Order Cancellation	Order Cancellation	Liability uncapped in case penalty exceeds 10% of TCO	Clause Stands as per RFP.
87	4.16	Racks	Total DC area would be approximately 1020 sq. ft. The DC hosting space should house-in 25 standard racks. The Prime Vendor is expected to size the infrastructure and lay it out accordingly.	Provide Rack density in kW	25 fully loaded 42 U racks, 2.5 kw stable power.
88	4.16	PAC Control	The units should be able to switch the air conditioner on and off automatically and alternately for effective usage.	Individual PAC compressor and Fan blower speed reduction will happen automatically according to load. However, Alternative ON/OFF means PAC sequencing required? We need to design separate <b>PAC controller</b> for Run Hour based and Requirement based sequencing of units. <b>Pls. clarify</b>	Clause Stands as per RFP.

89	4.18	Supply air	Cool air feed to the DC shall be bottom-charged or downward flow type using ducts below the raised floor in the cold aisle and using perforated aluminum tiles for Air flow distribution.	Usually ducts will not be provided below raised floor. If required Please confirm.	Clause Stands as per RFP.
90	4.18	Return air	The return air flow shall be through ducts on false ceiling to cater to the natural upwardly movement of hot air.	PAC top to till false ceiling ducts will be provided like Return air Plenum.	Clause Stands as per RFP.
91	4.18	Grills	The air is to be distributed evenly by providing grills with VCDs (Volume Control Dampers) in the floor tiles.	We will consider 600x600 Grilles with VFD, Return air grilles with no VCD. <b>NO ACTIVE TILES (Fans)</b>	Clause Stands as per RFP.
92	4.19	Temperature control	The necessary alarms for variation in temperatures shall be monitored on a 24x7 basis and logged for providing reports.	This will be done from PAC level. However, for Monitoring through BMS require additional SERIAL CARD RS-485 and cable (Also require entire BMS system). <b>Pls. provide details.</b>	Clause Stands as per RFP. Bidder has to propose the solution to achieve the requirement of the scope of the RFP.
93	4.16	PAC Control	The units should be able to switch the air conditioner on and off automatically and alternately for effective usage.	Individual PAC compressor and Fan blower speed reduction will happen automatically according to load. However, Alternative ON/OFF means PAC sequencing required? We need to design separate <b>PAC controller</b> for Run Hour based and Requirement based sequencing of units. <b>Pls. clarify</b>	Clause Stands as per RFP.
94	4.18	Return air	The return air flow shall be through ducts on false ceiling to cater to the natural upwardly movement of hot air.	PAC top to till false ceiling ducts will be provided like Return air Plenum.	Clause Stands as per RFP.
95	4.16	Area SFT	Not available	Pls. provide details	1020 sq. feet
96	4.16	Equipment Rating	Not available	Pls. provide details	Not available
97	4.16	Temperature Policy	Not Specified	we will consider 25 Degree C and No humidity control	Already mentioned in RFP Clause no. 4.16 under Part – IV, Scope of Work.

98	4.16	Unit control	Not Specified	Manual	Bidder has to propose.
99		Floor / ceiling insulations	Not Specified	Pls. specify if any insulation need to be considered	It should be fire radiant.
100		Fresh air exhaust	Not Specified	Any zones require Fresh air and exhaust air? If required Pls. specify	Not required.
101		Toilet/Pantry exhaust	Not Specified	Pls. provide details, If required	Not required.
102			General	Kindly provide the Electrical SLD of the existing Building where data Centre is planned. Same is required to plan and develop Electrical distribution scheme for Data Centre.	Electrical control panel is located at 6 <sup>th</sup> floor of the building from where both utility power & DG power can be drawn for proposed data centre.
103			General	Kindly confirm if data center needs to be Tier-3 compliant. If yes, Tier-3 certification is required or not?	Tier-3 Certification is not required.
104	4.56	Rising Main	Whenever the rising mains pass through the floor they shall be provided with a built-in fire proof barrier so that this barrier restricts the spread of fire through the rising mains from one section to the other adjacent section.	As per the Document shared, we don't envisaged rising main for Data Centre distribution. Kindly clarify where we are intending to use Rising main for Electrical distribution.	Clause is Self Explanatory (Wherever required rising main will be used).
105	4.72		The solution should be automatic with power supply from the transformer as the primary source and automatic switchover to DG set as a secondary source for the data Centre. Earthing should be provided from the electrical room control panel to the Earthing pits. All electrical cabling for integration of DG, UPS and row power should be done by successful bidder.	Our understanding is our scope will start for Main Datacenter panel. Customer will provide the incomer feeders from EB and DG panel. Kindly confirm	Scope of the bidder will start from Electrical Control Panel at 6 <sup>th</sup> Floor.
106		scope of work, pg-22		slab to slab Height of the floor, location of the floor is required	Site visit already done.

107	4.6	scope of work, pg-21		In what physical condition the 1020 sq. ft. of area will be provided. Is the area available in finished building or in building with shell structure only and needs to undergo complete finishing	Bidder may visit the site and ascertain the proposed solution.
108		scope of work, pg-23		Building slabs are flat slab or beam based. If beams are there please provide the height of the beam	Building slabs are beam based.
109		general		Scope of does not say anything about floor strengthening. Floor strengthening required or not if yes under whom scope.	Strengthening of the floor is not included in the scope or work.
110		general		Please provide the AutoCAD drawing of the existing building with elevation section so as to understand the proper scenario and design accordingly.	Site visit of the 6th floor has already been done where proposed Data Centre will be built. There is no requirement of the AutoCAD drawing.
111	4.27	scope of work, pg-27		Specification mentions about gypsum or metal false ceiling. Please confirm which to be go ahead with, as the price difference between the products is much.	The false ceiling will be of gypsum made.
112	4.27	scope of work, pg-27		Wooden members are mentioned in specification. As the data Centre will be of tier III standard where 1 hour fire rating is suggested. Please confirm.	The selected bidder should use fire resistant members.
113	4.2	Design of Data Centre.	Physical Infrastructure comprising of Civil, Electrical & Mechanical works required to build a Data Centre. This shall also include site preparation to make it suitable for setting up a tier III Data Centre.	Kindly elaborate on scope of Site preparation for Datacenter, Electrical and Mechanical works. Do we need to comply tier-3 requirements for civil, Electrical and mechanical systems. Kindly confirm.	For the Site preparation for Datacenter, Electrical and Mechanical works, the selected bidder should comply tier-3 requirements for civil, Electrical and mechanical systems.

**Addendum / Corrigendum Request for Proposal (RFP) For “Building of Data Centre Infrastructure for non CBS Servers at 6<sup>th</sup> floor, HO DIT**

**RFP REF NO: DIT/BPR & BTD/OA/4158/2017-18 Date: 12/02/2018**

**Addendum:**

- In the scope of work, it has been included that Shifting of Server from 5<sup>th</sup> Floor to 6<sup>th</sup> Floor including 25 nos. of Racks approx. nos. of server and network equipment is 250 will be done by the selected bidder.
- For dimension purpose, the length of the DC is 60 feet, breadth is 17 feet and the height is 12 feet.

**Corrigendum:**

Sl. No.	RFP Page No. / Clause No.	Existing Clauses	Modified Clauses
1	32	Part – IV: Scope of Work 4.72 Bank already has 2 nos. of 80 KVA UPS (Make MGE and Model No Galaxy PW) which was procured in year of 2006. Bidder can use this UPS with AMC support service or may supply new 80 KVA UPS with buy back agreement with old UPS	Part – IV: Scope of Work 4.72 Bank already has 2 nos. of 80 KVA UPS (Make MGE and Model No Galaxy PW) which was procured in year of 2006. Bidder should supply new 80 KVA UPS with buy back agreement with old UPS.
2	9	Bidder must be a registered firm/company in India under Companies Act, 1956 and should have been in operation for at least 5 years as on date of RFP.	Bidder must be a registered firm/company in India under Companies Act, 1956 or as per Company Act 2013 and should have been in operation for at least 5 years as on date of RFP.
3	31	Distribution Boxes. Power in the racks with two sockets with power coming from separate UPS in each of these sockets. The two UPS power shall be given Static Transfer Switch (STS). All the systems in the rack will be connected to this STS.	The STS is considered only for Network racks. Kindly note that Number of network racks are 5.
4	31	Racks	Bidder need not supply the racks however movement of the racks, unmounting and mounting of the existing servers in the racks will be under the scope of the selected bidder.
5	43	The Data Centre build project	The Data Centre build project should be

		should be completed within 16 weeks, including civil work, from the date of purchase order. The site for proposed Data Centre is ready.	completed within <b>20 weeks</b> , including civil work, from the date of purchase order.
<b>6</b>	<b>22</b>	Details of Active components	<b>The details of the Active components for Data Centre is to be considered:</b> 4 points with each Rack
<b>7</b>	<b>23</b>	AMC of existing UPS System or implementation of new UPS	Bidder has to quote for buy back of existing UPS and new UPS. Kindly refer point no 4.72 of RFP.
<b>8</b>		Last date of Technical bid submission was 12/03/2018 at 03:00 PM.	Last date of Technical bid is extended up to 04/04/2018 at 03:00 PM.



**TECHNICAL BILL OF MATERIALS**

Sl. No	Component Name	Item / work Description, Make, Model No.	Technical details	Qty
1	HVAC			
a.	Precision AC			
b.	Comfort AC			
c.	Others (Elaborate description of item)			
2	Rodent Control			
3	Hardware and Software of BMS			
a.	Hardware			
b.	Software			
4	UPS			
5	Monitoring Software			
6	Civil , Interior and Furnishing Work			
a.	Data Centre Development (All Civil Work including Interior & Furnishing)			
b.	Electrical Work Cabling			
c.	Lighting			
d.	Network cabling			
e.	Others (Elaborate description of item)			
7	Smoke, Fire Detection & Control			
a.	Intelligent Smoke and Fire Detection System			
b.	Heat Detectors			
c.	PA System			
d.	Fire Suppression system			
e.	Water Leak detection System			
f.	Others (Elaborate Description of Item)			
8	Access Control			
a.	CCTV System			
b.	Camera			
c.	Electro-magnetic door lock			
d.	Proximity card Reader and Access Cards			
e.	Management Server and Software for access control			
f.	Others (Elaborate description of item)			
9	Any other devices/work related to the project			

**Product / UNIT Installation Charges**

Sl. No	Component Name	Item Description	Number of Man days
1	Data Centre Development (All Civil Work including Interior & Furnishing)		
2	Electrical Work		
3	DG Set Integration		
4	HVAC Installation		
5	Rodent Control Installation		
6	Smoke, Fire detection & Control Installation		
7	Access Control Installation		
8	Network Cabling Installation		
9	Monitoring Software Installation		
10	Hardware and software for BMS Installation		
11	UPS Installation		
12	Others (Elaborate description of item)		
13	DC Facility Management		Manpower
a.	Resource allocation on 24*7 window for BMS		

Bill of MaterialCommercial FormatTABLE-A (Product Procurement)

Sl. No.	Component Name	Item Description	Product Cost with three year warranty			Total Amount	% Tax	Total tax	Aggregate Cost
			Qty	Unit Rate	Amount				
<b>1</b>	<b>HVAC</b>								
1.1	Precision AC								
1.2	Comfort AC								
1.3	Others (Elaborate description of item)								
<b>2</b>	<b>Rodent Control</b>								
<b>3</b>	<b>Hardware and Software of BMS</b>								
3.1	Hardware								
3.2	Software								
<b>4</b>	<b>UPS</b>								
<b>5</b>	<b>Monitoring Software</b>								
								<b>Sub Total A</b>	
<b>6</b>	<b>Civil , Interior and Furnishing Work</b>								
6.1	Data Centre Development Cost								
6.2	Electrical Work Cabling								
6.3	Lighting								
6.4	Network cabling								
6.5	Others (Elaborate description of item)								
								<b>Sub Total B</b>	
<b>7</b>	<b>Smoke, Fire Detection &amp; Control</b>								
7.1	Intelligent Smoke and Fire Detection System								

<b>7.2</b>	Heat Detectors								
<b>7.3</b>	PA System								
<b>7.4</b>	Fire Suppression system								
<b>7.5</b>	Water Leak detection System								
<b>7.6</b>	Others (Elaborate Description of Item)								
								<b>Sub Total C</b>	
<b>8</b>	<b>Access Control</b>								
<b>8.1</b>	CCTV System								
<b>8.2</b>	Camera								
<b>8.3</b>	Electro-magnetic door lock								
<b>8.4</b>	Proximity card Reader and Access Cards								
<b>8.5</b>	Management Server and Software for access control								
<b>8.6</b>	Others (Elaborate description of item)								
								<b>Sub Total D</b>	
<b>9</b>	Any other devices/work related to the project								
								<b>Sub Total E</b>	
<b>10</b>	Buyback cost for Old UPS								
								<b>Sub Total F</b>	
<b>Total items Cost (A+B+C+D+E-F)</b>									

**Table-B****Implementation Cost**

Sl. No	Component Name	Item Description	Product Cost			% Tax	Total Tax	Aggregate Cost
			Number of Man days	Unit Rate	Amount			
1	Data Centre Development (All Civil Work including Interior & Furnishing)							
2	Electrical Work							
3	Integration cost existing DG Set							
4	HVAC Installation							
5	Rodent Control Installation							
6	Smoke, Fire detection & Control Installation							
7	Access Control Installation							
8	Network Cabling Installation							
9	Monitoring Software Installation							
10	Hardware and software for BMS Installation							
11	UPS Installation							
12	Others (Elaborate description of item)							
<b>Total Implementation Cost</b>								

**Table-C**

**AMC & ATS COMMERCIAL FORMAT**

SL No.	Component Name	Year 4			Year 5			2 Years AMC & ATS Cost			
		Qty	Unit rate	Amount	Qty	Unit rate	Amount	Total 2 Years AMC & ATS Cost	% TAX	Total Tax	Aggregate Cost
<b>1</b>	<b>HVAC-AMC</b>										
1.1	Precision AC										
1.2	Comfort AC										
1.3	Others (Elaborate description of item)										
<b>2</b>	<b>Rodent Control-AMC</b>										
<b>3</b>	<b>Hardware and Software of BMS-AMC &amp; ATS</b>										
3.1	Hardware -AMC										
3.2	Software - ATS										
<b>4</b>	<b>Monitoring Software-ATS</b>										
<b>5</b>	<b>Civil , Interior and Furnishing (Maintenance)</b>										
5.1	Data Centre Development										
5.2	Electrical Work Cabling										
5.3	Lighting-AMC										
5.4	Network cabling										
5.5	Others (Elaborate description of item)										
<b>6</b>	<b>Fire Detection &amp; Control- AMC cost</b>										
6.1	Intelligent Smoke and Fire Detection System										
6.2	Heat Detectors										
6.3	PA System										
6.4	Fire Suppression system										
6.5	Water Leak detection System										
6.6	Others (Elaborate Description										

	of Item)										
<b>7</b>	<b>Access Control AMC Cost</b>										
<b>7.1</b>	CCTV System										
<b>7.2</b>	Camera										
<b>7.3</b>	Electromagnetic door lock										
<b>7.4</b>	Proximity card Reader and Access Cards										
<b>7.5</b>	Management Server and Software for access control										
<b>7.6</b>	Others (Elaborate description of item)										
<b>8</b>	<b>Any other devices/work related to the project</b>										
<b>Total 2 years AMC &amp; ATS Cost</b>											

**Table-D**  
**FACILITY MANAGEMENT CHARGES**

Facility Management Cost																					
Sl. No		DC Facility Management	Year 1			Year 2			Year 3			Year 4			Year 5			Total 5 years FM Cost			
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Total Amount	% Tax	Total Tax	Aggregate Cost
1		DC Facility Management																			
1.1		Resource allocation on 24*7 window for BMS																			
1.2		FM 200 periodic refilling																			
1.3		Periodic Pest control																			
1.4		Others (Include complete description)																			
DC Facility Management cost																					

**Total Cost of Ownership**

<b>SL No.</b>	<b>Description</b>	<b>Total Cost ( in Figure)</b>	<b>Total Cost( in words)</b>
1	Product Procurement( TABLE-A)		
2	Implementation Cost (TABLE-B)		
3	AMC & ATS (TABLE-C)		
4	Facility Management Charges (TABLE D)		
<b>Total Cost of Ownership(TCO)</b>			