



**Surat  
Municipal  
Corporation**

**ADDENDUM & CORRIGENDUM-3**

**REQUEST FOR PROPOSAL**

**FOR**

**SELECTION OF IMPLEMENTATION AGENCY FOR  
INTEGRATED COMMAND AND CONTROL CENTER  
(ICCC) IN SURAT CITY**

**RFP No.: SSCDL-ICCC-RFP-01-2020**

**Last date for Price Bid Submission: 06.10.2020**



Invited by

Surat Smart City Development Limited

1st Floor, South Zone Office, Surat Municipal  
Corporation, Opp. Satyanagar, Udhna, Surat-  
394210, Gujarat, India

**Surat Smart City Development Limited**

**ADDENDUM AND CORRIGENDUM-1**

**RFP Notification No.: SSCDL-ICCC-RFP-01-2020**

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The Bidder are requested to take note of the following changes made in the RFP documents, which are to be taken in to account while submitting the RFP. They shall be presumed to have done so and submitted the RFP accordingly.

- This Addendum and Corrigendum shall be the part of the RFP documents.
- All items specified in this Addendum and Corrigendum supersede relevant items to that effect as provided in the original RFP documents. All other specifications, terms and conditions of the original RFP document shall remain unchanged.
- Bidder shall read and consider following points, which shall be a part of the RFP documents.
- All the changes mentioned in this document should be read across the RFP, Addendum & Corrigendum, wherever applicable.
- **The queries raised and given by bidders, but the clarifications are not made in this Addendum and Corrigendum shall be considered to remain unchanged as per the terms and conditions mentioned in the original RFP documents.**

**Changes**

#	Section	Page No.	Tender /Addendum & Corrigendum Reference	Existing Clause	Amended/New Clause
1.	15-38	37	Addendum & Corrigendum 2	Storage	Please refer to <b>Annexure I</b> for revised Technical Specifications

## ANNEXURE-I

### 15.38 Storage

**Note: Hyperconverged Solution will not be considered.**

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Remarks, if any
1.	Controllers	<ul style="list-style-type: none"> <li>At least 2 hot pluggable Controllers in active/active mode (for all required protocols) with automatic failover to each other in case of one controller failure.</li> <li>The controllers / Storage nodes should be upgradable seamlessly, without any disruptions / downtime to production workflow for performance, capacity enhancement and software / firmware upgrades.</li> <li>Minimum four Xeon 8 Core CPU across storage controllers</li> <li>Controller must support Multipath I/O Architecture.</li> </ul>		
2.	Storage Operating System	<ul style="list-style-type: none"> <li>Storage offered must be with the latest operating system</li> </ul>		
3.	Cache	<ul style="list-style-type: none"> <li>Minimum 512 GB of useable cache across controllers, out of which minimum 384 GB Cache must be controller cache and rest can be flash based cache.</li> <li>Cache shall be used only for data and control operations and should not handle any overhead of operating system</li> </ul>		
4.	Host Interface Port	<p><b>Minimum 16 nos. of 16 Gbps Fibre Channel Ports (in high availability) across Controller shall be available.</b> Ports must be active and populated with SFP+ from day one.</p>		
5.	Back and front port	The storage should support 8/16 Gbps on FC to connect SAN Switch, 10Gbps on iSCSI (SFP+/Base-T) to Connect on LAN switch within same controller pair.		
6.	Scalability	System should support a minimum of 500 drives or more within the same set of controllers.		
7.	Disk Drive Support	System should have support for <ul style="list-style-type: none"> <li>SSD/Flash drives</li> <li>SAS drives</li> <li>Near-line SAS drives</li> </ul>		
8.	RAID support	Should support various RAID Levels (RAID 0 / 1 / 5 / 6 / 10 or any combination of RAID level on single Storage system)		
9.	Solution/ Type	Bidder is required to offer corresponding ports both in server as well as storage controller based on the solution proposed (FC/iSCSI).		

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#	Parameter	Minimum Specifications	Compliance (Yes/No)	Remarks, if any
10.	Storage	<p>The proposed storage should be supplied with 1000 TB usable capacity (with no compression and de-duplication) with at least 200 TB usable capacity using SSD drive, 400 TB usable capacity using SAS drives and 400 TB usable capacity using NL-SAS drives. Bidder is required to use RAID 5 / RAID 6 / RAID 10 as per best practises and to maximise the performance of entire software solution proposed. Each LUN created should not have more than 10 drives. 1 Global Hot Spare per 20 drives with equivalent or higher capacity should be considered.</p> <ul style="list-style-type: none"> <li>Capacity of SSD drive proposed should not be more than 4 TB.</li> <li>Capacity of SAS drive proposed should not be more than 2 TB.</li> <li>Capacity of NL-SAS drive proposed should not be more than 10 TB</li> </ul>		
11.	Global Hot Spare	<ul style="list-style-type: none"> <li>System should have the capability to designate global hot spares that can be automatically be used to replace a failed drive anywhere in the system.</li> <li>Storage system should be configured and offered with required Global Hot-spares for the different type and no. of disks configured, as per the system architecture best practices.</li> </ul>		
12.	Minimum LUNs	<ul style="list-style-type: none"> <li>Capacity to create minimum 2000 numbers of LUNs</li> </ul>		
13.	Thin Provisioning	<ul style="list-style-type: none"> <li>Offered Storage System should have Thin Provisioning and Thin Reclamation.</li> </ul>		
14.	Hardware Platform	<ul style="list-style-type: none"> <li>Rack mounted form-factor</li> <li>Modular design to support controllers and disk drives expansion</li> </ul>		
15.	On-line Expansion/RAID Group creation/ Expansion	<ul style="list-style-type: none"> <li>System should have online expansion and shrinking of RAID Group or addition and deletion of new RAID Group. Must be able to add and delete additional disks on the fly to expand or reduce the RAID group capacity or create new RAID Group.</li> </ul>		
16.	Redundancy and High Availability	<ul style="list-style-type: none"> <li>The Storage System should be able to protect the data against single point of failure with respect to hard disks, Cache memory, Controller card, connectivity interfaces, fans and power supplies</li> </ul>		
17.	Management software	<ul style="list-style-type: none"> <li>All the necessary software (GUI Based) to configure and manage the storage space, RAID configuration, logical drives allocation, snapshots, Deduplication, Compression, Thin Provisioning, Virtualization</li> </ul>		

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#	Parameter	Minimum Specifications	Compliance (Yes/No)	Remarks, if any
		<p>integration, etc. are to be provided for the entire system proposed from day-1.</p> <ul style="list-style-type: none"> <li>• Licenses for the storage management software should include disc capacity/count of the complete solution and any additional disks to be plugged in in the future, upto max capacity of the existing controller/units.</li> <li>• A single command console for entire storage system.</li> <li>• Should also include storage performance monitoring and management software. This should provide detail of performance like IOPs utilization, response time and also provide capacity detail like amount of capacity allocated, capacity used and capacity free.</li> <li>• Should provide the functionality of proactive monitoring of Disk drive and Storage system for all possible disk failures</li> <li>• Should be able to take "snapshots" of the stored data to another logical drive for backup purposes</li> <li>• There should be a dedicated Ethernet port for management and it should not use the iSCSI host ports for management.</li> </ul>		
18.	Data Protection	The storage array must have complete cache protection mechanism either by de-staging data to disk or providing complete cache data protection with battery backup for up to 4 hours		
19.	Server Operating System Support	Must be completely supported by the server operating system offered by the bidder for all the features and technology		
20.	Virtualization Support	Storage System must be completely supported by the virtualization technology offered by the bidder for all the features and technology		
21.	Accessories	All the necessary tools & tackles licenses, cables/ connectors for Ethernet/ Fibre/USB/ Power etc. required for making the system operational shall be provided by the bidder.		
22.	SAN Switch	<ul style="list-style-type: none"> <li>• Standard 24 Port 16Gbps SAN Switches x 2 Nos.</li> <li>• Each SAN switch with all 24 Activated ports from day one or if more active ports require as per proposed application architecture, bidder has to provide the same.</li> </ul>		

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#	Parameter	Minimum Specifications	Compliance (Yes/No)	Remarks, if any
		<ul style="list-style-type: none"> <li>Necessary SFP modules, patch cables and other required accessories has to be provided.</li> </ul> <p>Bidder will have to ensure that all the hardware; i.e. servers, storage, backup or any other devices connecting to SAN switch shall be in redundant mode for controllers, ports as well as cables.</p>		
23.	Warranty	<ul style="list-style-type: none"> <li>24 x 7 five (5) years on-site back to back comprehensive warranty from the date of Golive</li> <li>Minimum 7 years OEM's product support guarantee (Vendor has to give the same on OEM letterhead)</li> </ul>		
24.	Specify the proposed Make			
25.	Specify the proposed Model No			