



भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली  
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**INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI**

(Established by Ministry of Human Resource Development, Govt. of India)  
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*CPPP/Institute Website*

IISERM (1029-2)18/19-Pur

Dated : 05<sup>th</sup> February 2019

## Corrigendum/Addendum-I

In continuation of our E-tender Ref. no. IISERM(1029-2)18/19Pur dated 10/01/2019 for **supply and installation of Network based biometric lock systems and surveillance** at IISER Mohali, Sector-81, Knowledge City, PO-Manauli, SAS Nagar Mohali, Punjab. Due date for the online submission is further extended with some revised/modified/ specification- clarification as placed below:-

### Revised Date and Time

Sr.no.	Description	Extended Due date/Time
01	Closing Date & Time (Online)	14/02/2019 up to 11:00 AM
02	Opening Date & Time of Technical Bid	15/02/2019 at 11:30 AM

All the other terms & conditions will remain same as contained in the NIT.

### Revised/modified/ specification-clarification of Tender no IISERM (1029-2) 18/19 Pur

As per the requests and queries received, we provide clarifications and additional information through this document. Bidder must comply all our conditions and specs as per this document as well as with our original NIT document. Technical evaluation shall be made strictly based on the original terms and conditions of NIQ as well as this document. The replies to the questions will also form the part of NIQ.

#### • **Item - A. Biometric Lock Systems and Surveillance**

- Point (5): - Qty of Finger based reader is given: 5 No.'s but in additional information it is given 8 No.'s qty. Kindly clarify the => **Quantities of Finger based reader = 8 nos.**
- Point (6): - Please clarify total no. of users in [Application software if any with licenses for at least 300 users and expandable to 500 users] => **user's support should be for 500 users**
- Point (7) - Other accessories please clarify "Qty of Battery Backup is given: 3 No.'s but in additional information it is given 4 No.'s qty. Kindly clarify the total qty" => **Quantities of battery backup = 4 nos.**

- Point (9) - *PoE Switch 16 Port POE Switch (10/100/1000): 2PCs => 2 x 24 Ports PoE managed Switches (10/100/1000) Gigabit solution. (Should Supports 24 802.3at/af-compliant power over internet-plus ports with a total power supply of 320W; IP-MAC-Port-VID Binding, ACL, Port Security)*
- Point (10) - *Additional Information*
  - (a) *2 x 8TB SATA Hard disk must be surveillance-grade and of 7.2 K RPM.*
  - (J) *Racks to mount Server and PoE switches are not within the scope of vender... => Racks to mount servers and racks to mount PoE Switches are not within the scope of vendors.*
  - (m) (n) and (o): *bidder must quote batten/channel/GI pipes for 200 meters and ethernet cable (Cat6e) for the 600M meters (However, the payment will be made as per actual usage on prorata basis). A separate breakup may be asked during placing of PO.*
- **Item - B. Control and Management Node:**
  - Both in B1 and B2: *Hard disk: 2 x 4TB => 2x8TB 7.2 K Enterprise SATA*
  - Both in B1 and B2: *No Operating system;*
  - Both in B1 and B2: *1U/2U => 1U/2U/4U*
- **Item - E. Display and storage Controller**
  - *Item No - E 2 Display and storage Controller - (QNAP - TVS-1282T3: is not available as per the OEM): Since the product is not available or near to the end of life, we are adding an alternate solution. Vendor must quote all the items in alternate solutions. The alternate solution is:*
    - *2big Dock Thunderbolt™ 3, 20TB, Seagate IronWolf® Pro enterprise-class hard drives, must have 2 x Thunderbolt 3, 1 x USB 3.1, 1 x DisplayPort, 1 x USB 3.0 (type A), 1 x SD card, 1 x CF card ports;*
    - *Twin10G Thunderbolt 3 edition - Blazing-Fast 10GBASE-T Connectivity Over Thunderbolt 3 for Mac and Windows; 2 x thunderbolt 3 port; 2 x 10G baseT RJ45 ports. Must provide with 2 x 1m Thunderbolt 3 cables (40G), 2 x 1m USB-C cable; 1 x Thunderbolt 3 (USB-C) to Thunderbolt 2 adapter.*

SR.	Specification	Quantity	Compliance
<b>A. Biometric Lock Systems and Surveillance</b>		<b>Entire Solution</b>	
A.1	<p>Need a complete integrated network based biometric locking and management system. (A schematic is attached to this document with labels)</p> <ol style="list-style-type: none"> <li>1. Number of doors (both side sensors, in and out): 4</li> <li>2. Number of doors (One-side sensor): 4</li> <li>3. Number of Glass Doors: 1</li> <li>4. Fingerprint based Door Controller: 8               <ol style="list-style-type: none"> <li>a. Must have touch screen</li> <li>b. POE and WIFI based IP65 weather Rating, should be interface and communicate to control/management server for syncing data.</li> <li>c. Should be capable of time-attendance and access control</li> <li>d. Should log at least 400,000 events and should hold more than 6000 biometric templates</li> <li>e. It should interface with door lock, door sense, door exit reader, and exit switch, Ethernet, RS485 etc.</li> <li>f. Should have temper detection feature</li> </ol> </li> <li>5. Fingerprint based Reader: 5Pcs               <ol style="list-style-type: none"> <li>a. Optical fingerprint-based reader</li> <li>b. Should support RS-232/RS0485, and Power should be Drawn through PoE, communication and template transfer must be</li> </ol> </li> </ol>		

done through PoE Ethernet protocol to communicate to main server.

- c. Should be capable of time-attendance and access control.
  - d. Should be compatible with above door controller
  - e. Should have temper detection feature
6. Relevant Software and Modules
- a. Application software if any with licenses for at least 300 users and expandable to 500 users => **license for 500 users**
  - b. Time & Attendance software module
  - c. All the software should be compatible to entire solutions
7. Other Accessories
- a. Enrolment station – 2pcs
  - b. Battery backup for door controller – 3Pcs => **4Pcs**
8. Locks
- a. EM Lock for double glass door: 1pc
  - b. EM lock for double aluminum door: 7pcs
9. POE Switch, Cables and Installation
- a. 16 Port POE Switch (10/100/1000): 2PCs => 2x24 Ports switches[2 x 24 Ports PoE managed Switches (10/100/1000) Gigabit solution. (Should Supports 24 802.3at/af-compliant power over internet-plus ports with a total power supply of 320W; IP-MAC-Port-VID Binding, ACL, Port Security)]
  - b. Ethernet cables as per requirement (Schematic is attached with approximate dimension) => **Cat6a for 600meters**
  - c. Cables and installation are the scope of vender
10. 32 Channel NVR with 4k: 1 PCS
- a. Should support at least 4 x 8 TB SATA HDDs (2 x 8TB HDD should be added during tendering), should also have raid0, 1, 5 and 10 redundancy support.
  - b. Should support 12MP, 8MP, 5MP, 3MP 1080P, D1 and CIF recording resolutions
  - c. Should have at least 512 Mbps throughput [256up link+256d down link]
11. IR Bullet Camera at least 3MP or more: 5PCs
- a. Must have PoE support, Direct mountable NAS, SD Card supports
  - b. Must have intrusion and motion detection capabilities
  - c. Field of view 82 degrees/52 degrees or wider
  - d. IP66, BIS, CE, FCC and RoHS compatible
12. IR DOME Camera at least 3MP or more: 15 PCS
- a. Must have PoE support, Direct mountable NAS, SD Card supports
  - b. Must have intrusion and motion detection capabilities
  - c. Field of view 82 degrees/52 degrees or wider
  - d. IP66, BIS, CE, FCC and RoHS compatible
13. Additional Information
- a. Total Number of PUF Doors – 7 (seven)
  - b. Total Number of Glass Doors – 1 (one)
  - c. Total Finger Print Based Door Controller – 8 (eight)
  - d. Total Fingerprint based Reader - 8 (eight)
  - e. Thus, No Exit Switch
  - f. Total Compatible local Battery Backup – 4 (four)

	<p>g. Number of Dome Camera – 15 (fifteen)</p> <p>h. Number of Bullet Camera – 5 (five)</p> <p>i. Compatible rechargeable battery for above battery backups.</p> <p>j. Racks to mount Server and PoE switches are not within the scope of vender, however, bidders/vendors must provide rack-rail kits to mount switches and servers in the existing racks.</p> <p>k. Patch panels are within the scope of vendors/bidders.</p> <p>l. A tentative positioning of the cameras and doors (biometric locks) are shown in the schematics – however, there might be slight changes during the actual installations.</p> <p>m. Vendor must provide appropriate shielding through different type of batten/channel/GI pipes etc. to protect Ethernet cables. And all these materials are in the scope of vendor.</p> <p>n. The plans for routing cables are shown in the schematic. The blue arrows depict the existing channels, red arrows illustrate the channels to be laid down and orange arrows show the channels to be laid down in open air (outside the room area). Vendors must ensure that the appropriate channels/battens/GI pipes to install in as per requirement to make the installation more secure. Dimensions are shown in schematics; thus, vendor must calculate the total distances to decide the quantity of cables, battens, channels, GI pipes etc.</p> <p>o. Outside building, the routing must be done using GI pipes to protect cables, as they are required to be secure lines to the devices.</p> <p><i>Bidder must quote batten/channel/GI pipes for 200 meters and ethernet cable (Cat6e) for the 600M meters (However, the payment will be made as per actual usage on prorata basis). A separate breakup may be asked during placing of PO.</i></p>		
<b>B. Control and Management Node</b>			
B.1	<ol style="list-style-type: none"> <li>1. Rack Mountable (1U/2U) =&gt; 1U/2U/4U</li> <li>2. Xeon E5; 8 or more Cores processor 2.40Ghz or more, 20MB or more Cache</li> <li>3. 64GB or more RAM</li> <li>4. At least 256 GB NVMe;</li> <li>5. 2 x 4TB SATA HDD =&gt; <b>2x8TB 7.2 K Enterprise SATA</b></li> <li>6. 2 x 1G Ethernet cards</li> <li>7. 2 x 10G Base-T Ethernet cards.</li> <li>8. No Operating System is Needed</li> <li>9. Rail Kits must be provided along with the severs</li> <li>10. Appropriate power cables must be provided.</li> <li>11. Raid Controller must be there with 0,1,5,6,10</li> </ol>	1	
B.2	<ol style="list-style-type: none"> <li>1. Rack Mountable (1U/2U) =&gt; 1U/2U/4U</li> <li>2. Xeon E5; 8 or more Cores processor 2.40Ghz or more, 20MB or more Cache</li> <li>3. 64GB or more RAM</li> <li>4. At least 256 GB NVMe;</li> <li>5. 2 x 4TB SATA HDD =&gt; <b>2x8TB 7.2 K Enterprise SATA</b></li> <li>6. 2 x 1G Ethernet cards</li> <li>7. 2 x 10G Base-T Ethernet cards.</li> <li>12. Windows Professional 64bit =&gt; <b>No Operating System is Needed</b></li> <li>8. Rail Kits must be provided along with the severs</li> </ol>	1	

	9. Appropriate power cables must be provided. 10. Raid Controller must be there with 0,1,5,6,		
<b>C. Monitoring and Display Panels</b>			
<b>E. Display and storage Controller</b>			
E.1	Mac mini, 3.2GHz, 6 cores 8 <sup>th</sup> Gen Intel i7, 32GB RAM, 1TB SSD, 10G Ethernet	1	
E.2	QNAP - TVS-1282T3-i7-64G, 3.6 GHz Intel Core i7-7700; Quad-Core; 64GB of 2133 MHz DDR4 RAM; 2 x 10GbE   4 x Gigabit Ethernet; Thunderbolt 3; USB 3.0 Type-A; HDMI; Company-installed 2 x 256GB M.2 SATA;  <b><u>Or</u></b>  <ul style="list-style-type: none"> <li>• <i>2big Dock Thunderbolt™ 3, 20TB, Seagate IronWolf® Pro enterprise-class hard drives, must have 2 × Thunderbolt 3, 1 × USB 3.1, 1 × DisplayPort, 1 × USB 3.0 (type A), 1 × SD card, 1 × CF card;</i></li> <li>• <i>Twin10G Thunderbolt 3 edition - Blazing-Fast 10GBASE-T Connectivity Over Thunderbolt 3 for Mac and Windows; 2 x thunderbolt 3 port; 2 x 10G baseT RJ45 ports. Must provide with 2 x 1m Thunderbolt 3 cables (40G), 2 x 1m USB-C cable; 1 x Thunderbolt 3 (USB-C) to Thunderbolt 2 adapter</i></li> </ul>	1	

Sd/-  
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