

A  
Request for Proposal  
Hardware, Peripherals, Video Conferencing



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## NAAYA AAYAM MULTI-DISCIPLINARY INSTITUTE (NAMI)

JORPATI, KATHMANDU

# INVITATION FOR TENDER

(First Date of Publication: 29<sup>th</sup> July, 2013)

The Naaya Aayam Multi-disciplinary Institute is a newly established institution, only partner institute of an international, 1-tier university, The University of Northampton, and is decided to provide the top-notch academic services of the people in Nepal. The NAMI invites tender for the following items

SN	Particulars	Quantities	SN	Particulars	Quantities
1	Desktop Computer (First Phase)	175	11	Scanner	3
2	Desktop Computer / THIC PC VPCC Technology (e-Library) (First Phase)	50	12	Projector - Long Range	10
3	Academic Server	1	13	Projector -Mid Range	16
4	Application Server	1	14	Projector Screen	26
5	Laptop – Type L1	5	15	Attendance Devices	5
6	Laptop – Type L2	10	16	Audio System	10
7	Laser Printer	5	17	Barcode Reader	4
8	3 in one with combination of Printer, Photocopy, Scanner & FAX	2	18	Video Conferencing Devices	1
9	Fax	1	19	Wireless Access Points – Indoor (Passage, Room)	12
10	Copier	1	20	Interactive Board	10

- Technical Specification and other necessary information required for BID are provided in the tender document.
- The interested bidders can inspect and purchase the tender documents within the office hours beginning from 29 July 26, 2013 at the address stated below. The TOR will be made available with a bank voucher of **NPR 5,000.00** from the office and the procurement portal <http://proc.nami.edu.np> and the concerned account numbers are as follows
  - Name of Account : Naaya Aayam Multi-disciplinary Institute Ltd.**
    - Name of Bank : Nepal Investment Bank Ltd.
    - Account No: 03601040252447
    - Name of Bank: Sanima Bank Ltd.
    - Account No: 001-0010001100301
- The validity of the tender must be for 90 days after the deadline for submission of the Tender Document. The bid must be accompanied by a Bid Security for the amount not less than 2.5% of the bid amount (including VAT). The validity of the bid security shall be at least 120 days after the deadline of the submission of Tender Document.
- Key data for the tender submission:
  - Office of the stakeholder / using procurement portal (<http://proc.nami.edu.np>)
  - **Last Purchase Date: 6<sup>th</sup> August, 2013, 5:00 PM**
  - **Submission Dead Line: 7<sup>th</sup> August, 2013; 2:00 PM**
  - **Opening Date: 7<sup>th</sup> August, 2013; 3:00 PM**
- The tender documents will be opened immediately on the said time and date in the presence of the bidders / representatives who choose to attend and choose to attend the bid opening and the letter of authorization to attend the bid opening is must.
- NAMI reserves right to accept or reject any or all bids without assigning any reason whatsoever.

Address:

**NAAYA AAYAM MULTI-DISCIPLINARY INSTITUTE (NAMI)**

Narayantar, JORPATI, KATHMANDU, T: 977 1-4917444 E: [info@nami.edu.np](mailto:info@nami.edu.np)

## Section 1: LETTER OF INVITATION

NAMI has allocated fund towards the cost for the supply of Hardware and Peripheral Components with the college level ERP Software for the management and operation of NAMI activities and intends to apply a portion of this fund to eligible payments under this contract. The RFP does have a number of different components related to Hardware, Peripherals and application software and Power System.

NAMI now invites proposals from the bidders for the successful installation of the listed components in the premise of NAMI.

The RFP includes the following documents:

Section 1 - Letter of Invitation

Section 2 - Information to Consultants

Section 3 – Bill of Quantities (BOQ)

Section 4 – Technical Specifications

Section 5 – Authorized Certificate – Dealership / Distribution

Section 6 – Company Profile

- List of Corporate Clients only for the last 5 years
- Installation & Deployment Plan
- Terms and Conditions for the Support and Service

Yours sincerely,

.....  
Mr. Yog Raj Kandel Sharma  
CEO  
NAMI

**Section 2: INFORMATION to consultants**

2.1	The name of the Client is: Naaya Aayam Multi-disciplinary Institute (NAMI), Jorpati
2.2	List of the followings is mandatory: <ol style="list-style-type: none"> <li>1. Legal Documents [Registration, VAT/ PAN, TAX Clearance Certificate of 068/69]</li> <li>2. Authorized Dealership / Distribution Certificate</li> <li>3. List of Corporate Clients (Last 2 Years)</li> <li>4. Certificate issued by the clients for the successful completion of the supply, installation and service (Warranty)</li> </ol>
2.3	A pre-proposal conference will be held: No
2.4	The Client will provide the following inputs: Information available and possible data after the project is awarded to a consultant according to the site requirements
2.5	Clarification may be requested before <b>the submission of the tender documents before</b> the last submission date. <b>The address for requesting clarifications is:-</b> NAMI CEO <a href="mailto:ceo@nami.edu.np">ceo@nami.edu.np</a> <a href="mailto:info@nami.edu.np">info@nami.edu.np</a> T: 4917444
2.6	Proposals should be submitted in the following language(s): <b>English</b>
2.7	<ol style="list-style-type: none"> <li>I. 100 % successful installation, testing of the installed equipments and the reports must be approved by the consultant. This approved report must be signed by the procurement unit head for its verification.</li> <li>II. Performance Bond as 5% of the total will be retained for the duration of the warranty period</li> <li>III. The installed device must be serviced within 3 working days from its information conveyed to the concerned party otherwise, the party will be penalized according to the rule of penalty listed in the contract agreement.</li> <li>IV. Partial award of the listed items may be possible</li> <li>V. The service provider will have to demonstrate the listed items on site in case of its requirements</li> </ol>
2.8	Proposals must remain valid <b>90 days</b> after the last submission date
2.9	The proposal submission details: <b>It is requested to submit the proposal using the e-procurement portal of NAMI at the following URL:</b> <a href="http://www.proc.nami.edu.np">www.proc.nami.edu.np</a> <a href="http://www.nami.edu.np">www.nami.edu.np</a>  <b>Hints for using the eProcurement Portal of NAMI:</b> <ol style="list-style-type: none"> <li>1. Register Your Organization</li> <li>2. Complete the company Profile</li> <li>3. Upload the filled BOQ and the legal documents</li> <li>4. Upload the Technical Specifications and the certificates for the listed items</li> <li>5. Key data: <ul style="list-style-type: none"> <li>• Last Purchase Date: 6<sup>th</sup> August, 2013, 5:00 PM</li> <li>• Submission Dead Line: 7<sup>th</sup> August, 2013; 2:00 PM</li> <li>• Opening Date: 7<sup>th</sup> August, 2013; 3:00 PM</li> <li>• Cost of the RFP: NPR. 5,000.00</li> </ul> </li> </ol>

### Section 3. BOQ for Hardware equipments:

SN	Particulars	Quantities	Rate	Amount	In Words, (NPR)
1	Desktop Computer -Type A1	165			
	Desktop Computer -Type A2				
2	Desktop Computer -Type A3	50			
	PC Terminals – Thin Client System [Complete System]				
3	Academic Server	1			
4	Application Server	1			
5	Laptop – Type L1	5			
6	Laptop – Type L2	10			
7	Laser Printer	5			
8	3 in one with combination of Printer, Photocopy, Scanne & FAX	2			
9	Fax	1			
10	Copier	1			
11	Scanner	3			
12	Projector - Long Range	10			
13	Projector -Mid Range	16			
14	Projector Screen	26			
15	Attendance Devices	7			
16	Audio System	10			
17	Barcode Reader	4			
18	Video Conferencing Devices	1			
19	Wireless Access Points – Indoor (Passage, Room)	12			
20	Interactive Board	10			

RFP for NAMI Hardware and Peripherals

	Total in Figure		
	13% VAT		
	Net Total		
	Total in Words: (NPR)		
	Signature:		
	Name:		
	Company Seal:		

## Section 4: Technical Specifications

SN	Particulars	Technical Specifications	Remarks																																																																																
1	Desktop Computer - Type C1	<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"><b>Installed OS</b></td> <td>Windows® 7 Professional 64-bit</td> </tr> <tr> <td></td> <td><b>CPU</b></td> <td>Minimum: Intel® Core i5 processor With enhanced Intel Speed Step® technology</td> </tr> <tr> <td></td> <td><b>Clock speed (when Max turbo frequency)</b></td> <td>Greater or equivalent 3.60 GHz</td> </tr> <tr> <td></td> <td><b>Number of cores/threads</b></td> <td>4/4</td> </tr> <tr> <td></td> <td><b>L3 cache memory</b></td> <td>6 MB</td> </tr> <tr> <td></td> <td><b>Memory bus</b></td> <td>1,600 MHz</td> </tr> <tr> <td></td> <td><b>Chipset</b></td> <td>Intel® B75 Express chipset</td> </tr> <tr> <td></td> <td><b>Security chip</b></td> <td>TPM (TCG v1.2)(not provided on models sold in China)</td> </tr> <tr> <td></td> <td><b>Memory (main memory), maximum capacity</b></td> <td>DDR3-SDRAM PC3-12800 4 GB [DIMM slot x 4], 8 GB max.</td> </tr> <tr> <td></td> <td><b>Graphics accelerator</b></td> <td>Intel® HD Graphics 2500 (built into CPU)</td> </tr> <tr> <td></td> <td><b>Video RAM</b></td> <td>Max. 1550 MB</td> </tr> <tr> <td></td> <td><b>Audio source and sound</b></td> <td>Intel® High Definition Audio</td> </tr> <tr> <td></td> <td><b>Communication LAN</b></td> <td>1000BASE-T/100BASE-TX/10BASE-T, Remote Power On (Wake on LAN) functions supported</td> </tr> <tr> <td></td> <td><b>HDD</b></td> <td>500 GB, Serial ATA/600, 7200 rpm, SMART functions supported</td> </tr> <tr> <td></td> <td><b>Optical drive</b></td> <td>DVD super multi drive/DVD-ROM drive</td> </tr> <tr> <td></td> <td><b>Keyboard &amp; mouse</b></td> <td>English PS/2 104 keyboard &amp; USB optical sensor mouse PS/2 109 keyboard &amp; USB optical sensor mouse</td> </tr> <tr> <td></td> <td></td> <td><b>USB</b></td> <td>USB 3.0 × 2 (on rear), USB 2.0 × 4 (2 ports on front, 2 ports on rear)</td> </tr> <tr> <td></td> <td></td> <td><b>Serial</b></td> <td>RS-232C D-sub 9 pin × 1, up to 115.2 kbps</td> </tr> <tr> <td></td> <td></td> <td><b>Parallel</b></td> <td>-</td> </tr> <tr> <td></td> <td><b>Interfaces</b></td> <td><b>Display</b></td> <td>DVI-D 24 pin × 1 (HDCP compatible), mini-D-sub 15 pin × 1</td> </tr> <tr> <td></td> <td></td> <td><b>PS/2</b></td> <td>Mini DIN 6 pin × 2</td> </tr> <tr> <td></td> <td></td> <td><b>Communication</b></td> <td>RJ45 LAN connector × 1</td> </tr> <tr> <td></td> <td></td> <td><b>Sound</b></td> <td>Microphone input: stereo mini jack × 1, headphone/line output: stereo mini jack × 1, Line input: Stereo mini jack × 1</td> </tr> <tr> <td></td> <td><b>Bays</b></td> <td><b>Bays</b></td> <td>1 slot (taken by HDD) [0]</td> </tr> </table>		<b>Installed OS</b>	Windows® 7 Professional 64-bit		<b>CPU</b>	Minimum: Intel® Core i5 processor With enhanced Intel Speed Step® technology		<b>Clock speed (when Max turbo frequency)</b>	Greater or equivalent 3.60 GHz		<b>Number of cores/threads</b>	4/4		<b>L3 cache memory</b>	6 MB		<b>Memory bus</b>	1,600 MHz		<b>Chipset</b>	Intel® B75 Express chipset		<b>Security chip</b>	TPM (TCG v1.2)(not provided on models sold in China)		<b>Memory (main memory), maximum capacity</b>	DDR3-SDRAM PC3-12800 4 GB [DIMM slot x 4], 8 GB max.		<b>Graphics accelerator</b>	Intel® HD Graphics 2500 (built into CPU)		<b>Video RAM</b>	Max. 1550 MB		<b>Audio source and sound</b>	Intel® High Definition Audio		<b>Communication LAN</b>	1000BASE-T/100BASE-TX/10BASE-T, Remote Power On (Wake on LAN) functions supported		<b>HDD</b>	500 GB, Serial ATA/600, 7200 rpm, SMART functions supported		<b>Optical drive</b>	DVD super multi drive/DVD-ROM drive		<b>Keyboard &amp; mouse</b>	English PS/2 104 keyboard & USB optical sensor mouse PS/2 109 keyboard & USB optical sensor mouse			<b>USB</b>	USB 3.0 × 2 (on rear), USB 2.0 × 4 (2 ports on front, 2 ports on rear)			<b>Serial</b>	RS-232C D-sub 9 pin × 1, up to 115.2 kbps			<b>Parallel</b>	-		<b>Interfaces</b>	<b>Display</b>	DVI-D 24 pin × 1 (HDCP compatible), mini-D-sub 15 pin × 1			<b>PS/2</b>	Mini DIN 6 pin × 2			<b>Communication</b>	RJ45 LAN connector × 1			<b>Sound</b>	Microphone input: stereo mini jack × 1, headphone/line output: stereo mini jack × 1, Line input: Stereo mini jack × 1		<b>Bays</b>	<b>Bays</b>	1 slot (taken by HDD) [0]	<p><i>Note: Bidder can propose for Core i7/ i10</i></p> <p><i>If (Core i7 or higher) quote it as Type C1 else quote the price for Type C2 (Core i5)</i></p> <p><b>DVD in every PC is not required</b></p> <hr/> <p>3 Years of Warranty</p>
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RFP for NAMI Hardware and Peripherals

		<p><b>Expansion slots</b></p> <p>5" bay [empty] 1 slot (taken by optical drive) [0]</p> <p>PCI slot [empty] 1 slot (Low Profile) [1]</p> <p>PCI Express × 1 slot [empty] 1 slot (Low Profile) [1]</p> <p><b>Power supply</b></p> <p>100 to 240 VAC ±10%, 50/60 Hz (only sinusoidal waveform is supported as input waveform)</p> <p><b>Maximum power consumption</b></p> <p>Approx. 149 W</p> <p><b>Maximum apparent power</b></p> <p>Approx. 151 VA</p> <p><b>Dimensions (body only)</b></p> <p>98 (W) × 385 (D) × 343 (H) mm (excluding stabilizer), 220 (W) × 385 (D) × 343 (H) mm (including stabilizer)</p> <p><b>Weight (body only)</b></p> <p>Approx. 8.2 kg</p> <p><b>Temperature and humidity conditions</b></p> <p>10 to 35°C, 20 to 80% (non-condensing)</p> <p><b>OS for which drivers are supported</b></p> <p>Windows® 7 Professional / Ultimate 32-bit (SP1)</p> <p><b>Main accessories</b></p> <p>stabilizer, reinstallation media, etc.</p>	
	Desktop Computer - Type C2		Minimum Core i5 remaining the same
2	Desktop Computer - Type C3	<p><b>Installed OS</b></p> <p>Windows® 7 Professional 64-bit</p> <p><b>CPU</b></p> <p>Intel® Core™ i3-3220 processor</p> <p><b>Clock speed (when Max turbo frequency)</b></p> <p>Greater or equivalent 3.30 GHz</p> <p><b>Number of cores/threads</b></p> <p>2/4</p> <p><b>L3 cache memory</b></p> <p>3 MB</p> <p><b>Memory bus</b></p> <p>1,600 MHz</p> <p><b>Chipset</b></p> <p>Intel® B75 Express chipset</p> <p><b>Security chip</b></p> <p>TPM (TCG v1.2)(not provided on models sold in China)</p> <p><b>Memory (main memory), maximum capacity</b></p> <p>DDR3-SDRAM PC3-12800 4 GB [DIMM slot x 4], 8 GB max.</p> <p><b>Graphics accelerator</b></p> <p>Intel® HD Graphics 2500 (built into CPU)</p> <p><b>Video RAM</b></p> <p>Max. 1550 MB</p> <p><b>Audio source and sound</b></p> <p>Intel® High Definition Audio</p> <p><b>Communication</b></p> <p><b>LAN</b></p> <p>1000BASE-T/100BASE-TX/10BASE-T, Remote Power On (Wake on LAN) functions supported</p> <p><b>HDD</b></p> <p>Approx. 500 GB, Serial ATA/600, 7200 rpm, SMART functions supported</p>	<p>Minimum Core i3</p> <p>3 Years of Warranty</p> <p>DVD in each PC is not required</p>

RFP for NAMI Hardware and Peripherals

	<p><b>Optical drive</b> DVD super multi drive/DVD-ROM drive</p> <p><b>Keyboard &amp; mouse</b> English PS/2 104 keyboard &amp; USB optical sensor mouse PS/2 109 keyboard &amp; USB optical sensor mouse</p> <p><b>USB</b> USB 3.0 × 2 (on rear), USB 2.0 × 4 (2 ports on front, 2 ports on rear)</p> <p><b>Serial</b> RS-232C D-sub 9 pin × 1, up to 115.2 kbps</p> <p><b>Parallel</b> -</p> <p><b>Display</b> DVI-D 24 pin × 1 (HDCP compatible), mini-D-sub 15 pin × 1</p> <p><b>PS/2</b> Mini DIN 6 pin × 2</p> <p><b>Communication</b> RJ45 LAN connector × 1</p> <p><b>Sound</b> Microphone input: stereo mini jack × 1, headphone/line output: stereo mini jack × 1, Line input: Stereo mini jack × 1</p> <p><b>Bays</b> Bays 1 slot (taken by HDD) [0]</p> <p><b>5" bay [empty]</b> 1 slot (taken by optical drive) [0]</p> <p><b>PCI slot [empty]</b> 1 slot (Low Profile) [1]</p> <p><b>PCI Express × 1 slot [empty]</b> 1 slot (Low Profile) [1]</p> <p><b>Power supply</b> 100 to 240 VAC ± 10%, 50/60 Hz (only sinusoidal waveform is supported as input waveform)</p> <p><b>Maximum power consumption</b> Approx. 134 W</p> <p><b>Maximum apparent power</b> Approx. 137 VA</p> <p><b>Dimensions (body only)</b> 98 (W) × 385 (D) × 343 (H) mm (excluding stabilizer), 220 (W) × 385 (D) × 343 (H) mm (including stabilizer)</p> <p><b>Weight (body only)</b> Approx. 8.2 kg</p> <p><b>Temperature and humidity conditions</b> 10 to 35°C, 20 to 80% (non-condensing)</p> <p><b>OS for which drivers are supported</b> Windows® 7 Professional / Ultimate 32-bit (SP1)</p> <p><b>Main accessories</b> stabilizer, reinstallation media, etc.</p>	
<p>PC Terminals – Thin Client System [Complete System]</p>	<p style="text-align: center;"><b>US110c or Higher Capacity</b></p> <p><b>Key features</b> Secure and affordable terminal featuring dual monitor capability</p> <p><b>Processor</b> VIA Eden 1GHz</p> <p><b>Memory</b> 128MB Flash/512MB RAM DDR2</p>	<p>The rate for this should be quoted including the cost of the required</p>

RFP for NAMI Hardware and Peripherals

		<p>Network Interface      1000/100/10-Base-T IEEE802.11 b/g/n (for wireless LAN model*)</p> <p>Graphics                    Max. 1600 x 1200 Dual display available</p> <p>External Dimensions(W x D x H)                         177 x 121 x 34 mm (excluding the stand)</p> <p>Weight                        670g</p> <p>Power Consumption        Max. 14W</p> <p>Terminal Embedded OS     Windows CE 6.0</p> <p>Other                         Supported protocol RDP6.0 ICA10.17</p> <p>OS                             Windows XP SP3 in each terminal, must support Printer (Laser and Dot Matrix), Scanner</p>	<p>components {Server, Storage, RAM, Keyboard, Mouse, and Mounting Frame with installation and technology transfer}, No additional cost will be added. The proposed server must be featured with RAID 1 so that it can be upgraded according to the requirement. These terminals will be installed for the administrative purposes like teller counter, finance, RTE, reception, etc, and in the eLibrary VM Ware Installed</p>
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**3 Years of Warranty**

RFP for NAMI Hardware and Peripherals

3	Academic Server	<p><b>Form factor / height</b> 2U Rack</p> <p><b>Number of processors</b> 1 to 2 <b>(2)</b></p> <p><b>Processor</b> Intel® Xeon® Processor E5-2430 (2.20 GHz/6-core/15 MB)</p> <p><b>Memory type</b> DDR3-1333 ECC LV UDIMM DDR3-1600 ECC LV RDIMM</p> <p><b>Memory slots</b> 12</p> <p><b>Maximum memory</b> 384 GB <b>(32 GB Required)</b></p> <p><b>Storage type</b> Hot plug 2.5-inch SAS HDD Hot plug 2.5-inch SAS SSD</p> <p><b>Maximum internal drive bays</b> 24 to 26 2.5-inch with optional drive cage 12 3.5-inch plus 2 2.5-inch with optional 2.5-inch drive cage</p> <p><b>Maximum internal storage</b> 50.4 TB <b>(8 TB Required in RAID 1)</b></p> <p><b>Removable media bays</b> -</p> <p><b>Expansion slots</b> 1 PCIe x8 Gen 3 2 PCIe x4 Gen 3 1 PCIe x4 Gen 2 1 PCIe x1 Gen 2 1 PCIe x8 Gen 3 for a RAID</p> <p><b>Network interface</b> 4 1000BASE-T plus 1 100BASE-TX for management</p> <p><b>Redundant power supply</b> Optional, hot plug</p> <p><b>Redundant cooling</b> Optional, hot plug</p> <p><b>Power supplies</b> 800 Watt</p> <p><b>Server management</b> EXPRESSSCOPE Engine 3</p> <p><b>Interface</b> 2 VGA, 1 to 2 serial, 6 USB 2.0 (plus 3 internal USB 2.0), 4 LAN, 1 management LAN</p> <p><b>Dimensions (W x D x H) and maximum weight</b> 448.4 x 696.3 x 87.4 mm / 17.6 x 27.4 x 3.4 in 33 kg / 72.75 lbs.</p> <p><b>Temperature and humidity condition (non-condensing)</b> Operating: 10 to 40°C / 50 to 104°F<sup>1</sup>, 20 to 80% Non-operating: -10 to 55°C / 14 to 131°F, 20 to 80%</p> <p><b>Operating systems and virtualization software</b> Microsoft® Windows Server® 2008 Enterprise (x64)</p>	<p>IBM / NEC / DELL / Equivalent</p> <p><b>3 Years of Warranty</b></p>
4	Application Server	<p><b>Form factor / height</b> 1U Rack</p> <p><b>Number of processors</b> 2</p> <p><b>Processor</b> Intel® Xeon® Processor E5-2690 (2.90 GHz/8-core/20 MB)</p>	<p>IBM / DELL / NEC / equivalent</p>

RFP for NAMI Hardware and Peripherals

		<p><b>Memory type</b> DDR3-1333 ECC LV UDIMM DDR3-1600 ECC LV RDIMM DDR3-1333 ECC LV LRDIMM</p> <p><b>Memory slots</b> 24</p> <p><b>Maximum memory</b> (16GB) Up to 768 GB</p> <p><b>Storage type</b> Hot plug 2.5-inch SAS SSD</p> <p><b>Maximum internal drive bays</b> 6 to 8 with optional drive cage</p> <p><b>Maximum internal storage</b> 9.6 TB – <b>2 TB required in RAID 1</b></p> <p><b>Removable media bays</b> 1 bay for optical disk drive</p> <p><b>Expansion slots</b> 1 PCIe x16 Gen 3 1 PCIe x8 Gen 3 1 PCIe x8 Gen 3 for a RAID controller 1 PCIe x8 Gen 3 for a dedicated network controller</p> <p><b>Network interface</b> 2 1000BASE-T plus 1 100BASE-TX for management</p> <p><b>Redundant power supply</b> Optional, hot plug</p> <p><b>Redundant cooling</b> Standard , non-hot plug</p> <p><b>Power supplies</b> 450 Watt, 800 Watt</p> <p><b>Server management</b> EXPRESSSCOPE Engine 3</p> <p><b>Interface</b> 2 VGA, 1 to 2 serial, 6 USB 2.0 (plus 3 internal USB 2.0), 2 LAN, 1 management LAN</p> <p><b>Dimensions (W x D x H) and maximum weight</b> 440.0 x 720.0 x 43.4 mm / 17.3 x 28.3 x 1.7 in 23 kg / 50.70 lbs.</p> <p><b>Temperature and humidity condition (non-condensing)</b> Operating: 10 to 40°C / 50 to 104°F<sup>1</sup>, 20 to 80% Non-operating: -10 to 55°C / 14 to 131°F, 20 to 80%</p> <p><b>Operating systems and virtualization software</b> Microsoft® Windows Server® 2003 R2, Enterprise x64 Edition</p>	<b>3 Years of Warranty</b>
5	Laptop – Type L <sub>1</sub>	<p>Intel® Core™ i5 ≥ 3317U processor (1.7GHz/2.6GHz w/ Turbo Boost) ≥ 4GB DDR3 memory ≥ 128GB solid state drive 13.3" HD widescreen CineCrystal™ LED backlit display (1366 x 768) Intel® HD Graphics 4000 Mobile Intel® HM77 Express webcam</p>	Easy Portable

RFP for NAMI Hardware and Peripherals

		multi-gesture touchpad Wi-Fi - Bluetooth® 4.0 HDMI® USB 3. 0 Intel® Certified Thunderbolt™ card reader 3-cell battery Genuine Windows	
6	Laptop – Type L <sub>2</sub>	≥ 3rd Generation Intel® Core™ i3-3227U processor (1.9GHz), ≥ 4GB DDR3 memory, ≥ 128GB solid state drive, 13.3" HD widescreen CineCrystal™ LED backlit display (1366 x 768) Intel® HD Graphics 4000 Mobile Intel® HM77 Express - stereo speakers Webcam Multi-gesture touchpad Wi-Fi Bluetooth® 4.0 HDMI® USB 3.0 - card reader ≥6.5-hour battery Windows Genuine	
7	<b>Laser Printer</b>  Possible BRANDS:  HP / Canon / EPSON / BROTHER  -----3 Years of Warranty	Printing Speed Resolution Printer Language Memory Warm-up Time First Printout Time Paper Size Paper Input	Minimum 12ppm (A4) Enhanced True 600 x 600 dpi resolution Smoothing Technology (2400 x 600dpi equivalent with AIR Technology) Canon Advanced Printing Technology (CAPT) Uses PC memory (Standard 2MB on board), No additional memory required in this technology. 0 sec. On standby mode (Less than 10secs after power up) 9.3 seconds or less Cassette A4, B5, A5, LGL, LTR, Executive, Envelope C5/COM10/DL, Monarch, Manual Tray Custom Paper(width76.2-215.9mm,length127.0-355.6mm) Cassette 150 sheets

RFP for NAMI Hardware and Peripherals

		<p>(Standard) Manual Tray 10 sheets</p> <p>Paper Output Face down: 100 sheets</p> <p>Dimensions (W x D x H) 370 x 251 x 217 mm</p> <p>Weight Approx. 5.7kg excluding cartridge</p> <p>Operating Systems Supported Windows 98/Me/2000/XP, Linux(CUPS)</p> <p>Interface USB2.0 Hi-Speed</p> <p>Included as Standard LASER SHOT LBP2900, Cartridge 303, User Software CD-ROM, Getting Started Guide, Power Cord</p>	
8	3 in one with combination of Printer, Photocopy, Scanner & FAX	<p>Type Desktop (Reader Combined + Inner Output)</p> <p>Imaging System Laser Dry Electrostatic Transfer System</p> <p>Memory <b>Standard: 256MB, Maximum: 512MB</b></p> <p><b>Network Interface Ethernet (100Base-TX/10Base-T), USB 2.0</b></p> <p>Warm Up Time 30 seconds maximum after powering ON</p> <p>1 seconds maximum from the Sleep mode</p> <p>First Copy Output Time 6.4 seconds or less</p> <p>Multiple Copies 1 to 999 sheets</p> <p>Magnification 25% to 400% (1% increment)</p> <p>Maximum Original Size Max. A3/11"x17"</p> <p><b>Duplex Standard</b></p> <p><b>Copy/Print Speed 20 ppm</b></p> <p>Resolution Reading: 600 x 600 dpi</p> <p>Writing: 1200 x 1200 dpi</p> <p>Paper Sources Standard: 250 sheets paper capacity</p> <p>(A4, 80gsm) Maximum: 250 + 3 x 550 sheets paper capacity Standard:100 sheets Stack Bypass capacity</p> <p>Acceptable Paper Weights Paper Cassette: 64 to 90gsm, Stack Bypass: 64 to 128gsm</p> <p>(W x D x H) 565 mm x 680 mm x 681 mm (with the platen cover)</p> <p>565 mm x 693 mm x 771 mm (with the feeder)</p> <p>Weight Approx. 50.5 kg</p> <p>Power Source 220 - 240 V AC, 50/60 Hz</p> <p>Maximum Power Consumption Approx. 1.542kW</p> <p><b>Toner Yield Approx. 14,600 sheets (A4)</b></p> <p><b>(6% Coverage)</b></p> <p><b>Drum Yield Approx. 132,000 sheets (A4)</b></p>	<p>Canon / Brother / Equivalent</p> <hr/> <p><b>3 Years of Warranty</b></p>

RFP for NAMI Hardware and Peripherals

		<b>Print Specification</b> <b>PDL</b>  Network OS  <b>Network Scan Gear Specification</b> Supported OS Resolution	<b>Standard: UFR II LT</b> Optional: PCL 5e/6, PS3 Windows 2000/XP/Server2003/Vista/Server2008/Win7, Mac OSX (10.4.9 or later)  Windows 2000/XP/Server 2003/Vista/Server 2008/Win7 BW: Up to 600 x 600 dpi	
9	Fax ----- 3 Years of Warranty	Automatic Document Feeder Effective Scanning Width Scanning Speed  Fax Resolution Image Processing System Halftone <b>FAX PRINTING FEATURES</b> Printing Method Print Speed Print Resolution Paper Capacity Print Cartridge Yield  Toner/Ink Saver Mode Auto Image Reduction On Reception <b>TRANSMISSION/RECEPTION FEATURES</b> Transmission Speed Compression Method Memory Transmission/Reception Quick Memory Transmission Fax Memory	30 sheets (80 g/m2 paper) A4 208mm Approx. 3.5 sec. per minute Approx. 15.5 pages per minute Standard, Fine, Superfine, Photo UHQ (Ultra High Quality) 256 shades of grey  Mono Laser Beam Printing 12 pages per minute 600 x 600 dpi 150 sheets Auto Sheet Feeder FX-10 All-in-One cartridge Approx. 2,000 pages based on 5% coverage (Approx. 3,000 pages with Toner Save On)  YES YES  3 seconds per page with 33.6kbps (based on ITU-T Standard Chart No. 1) MH, MR, MMR YES YES Memory Transmission: 340 pages	Canon / Brother / Epson / Equivalent



RFP for NAMI Hardware and Peripherals

		(based on ITU-T Standard Chart No. 1), Memory Reception: 340 pages (based on ITU-T Standard Chart No. 1)	
	Memory Backup	NO	
	Optional Memory	NO	
	SECURITY AND MANAGEMENT FEATURES		
	Dual Access	YES	
	Error Correction Mode (ECM)	YES	
	TELEPHONE FEATURES		
	Delayed Transmission	YES (Max. 50 locations)	
	Sequential Broadcast	YES (Max. 131 locations)	
	Polling Transmission	YES	
	Reception	YES	
	Dept. ID Management	YES	
	System Administrator ID	YES	
	Reports	Activity Report, TX Report, RX Report, Lost Report, Memory Data/1 touch/Coded & Group Dial/Status List, Memory Image Print	
	One-touch Dials	15 (max. 50 locations)	
	Coded Dials	100 locations	
	Redial	YES (Automatic and Manual)	
	Built-in Answering Machine	NO	
	Fax/Tel. Auto Switch	YES	
	Answering Machine Hook-up	YES	
	Remote reception	YES	
	Telephone Handset	Option	
	Other Features		
	COPY FEATURE		
	Copy Speed (Mono)	12 pages per minute	
	Multiple Copy	Up to 99 copies	
	Reduction/Enlargement	YES (Zoom 50% 200%)	

RFP for NAMI Hardware and Peripherals

		<p><b>PC RELATED FEATURES</b></p> <p>PC Interface                                    USB 2.0 Hi-Speed</p> <p>Printer Function                                YES (UFRII-LT)</p> <p>Supported OS                                    Windows 2000/XP/Vista/ Mac OS X Version 10.2.x, 10.3.x, 10.4.x, 10.5.x (Available via web distribution only)</p> <p>Print Speed                                        14 pages per minute</p> <p>Print Resolution                                600 x 600 dpi (1,200 x 600dpi enhanced)</p> <p><b>NETWORK FEATURES</b></p> <p>Network Connectivity                        1650 Print server</p> <p>Functionality</p> <p>Type</p> <p>Network protocols</p> <p><b>GENERAL FEATURES</b></p> <p>Dimensions Without Trays (W x D x H)    400 x 386 x 221mm</p> <p>Weight    Approx. 8kg</p> <p>Power Consumption                            Max.: Approx. 700W, Standby: Approx. 8W Sleep: Approx. 3W</p>	
10	Copier	<p>Type    Desktop (Reader Combined + Inner Output)</p> <p>Imaging System                                Laser Dry Electrostatic Transfer System</p> <p>Memory    <b>Standard: 256MB, Maximum: 512MB</b></p> <p><b>Network Interface</b>                            <b>Ethernet (100Base-TX/10Base-T), USB 2.0</b></p> <p>Warm Up Time                                   30 seconds maximum after powering ON</p> <p>    1 seconds maximum from the Sleep mode</p> <p>First Copy Output Time                       6.4 seconds or less</p> <p>Multiple Copies                                1 to 999 sheets</p> <p>Magnification                                   25% to 400% (1% increment)</p> <p>Maximum Original Size                       Max. A3/11"x17"</p> <p><b>Duplex</b>    <b>Standard</b></p> <p><b>Copy/Print Speed</b>                            <b>20 ppm</b></p> <p>Resolution                                        Reading: 600 x 600 dpi Writing: 1200 x 1200 dpi</p>	Canon / Brother / equivalent

RFP for NAMI Hardware and Peripherals

		<p>Paper Sources (A4, 80gsm)</p> <p>Acceptable Paper Weights (W x D x H)</p> <p>Weight</p> <p>Power Source</p> <p>Maximum Power Consumption</p> <p><b>Toner Yield (6% Coverage)</b></p> <p><b>Drum Yield</b></p> <p><b>Print Specification</b></p> <p><b>PDL</b></p> <p>Network OS</p> <p><b>Network ScanGear Specification</b></p> <p>Supported OS</p> <p>Resolution</p>	<p>Standard: 250 sheets paper capacity Maximum: 250 + 3 x 550 sheets paper capacity Standard:100 sheets Stack Bypass capacity</p> <p>Paper Cassette: 64 to 90gsm, Stack Bypass: 64 to 128gsm 565 mm x 680 mm x 681 mm (with the platen cover) 565 mm x 693 mm x 771 mm (with the feeder)</p> <p>Approx. 50.5 kg</p> <p>220 - 240 V AC, 50/60 Hz</p> <p>Approx. 1.542kW</p> <p><b>Approx. 14,600 sheets (A4)</b></p> <p><b>Approx. 132,000 sheets (A4)</b></p> <p><b>Standard: UFR II LT</b> Optional: PCL 5e/6, PS3</p> <p>Windows 2000/XP/Server2003/Vista/Server2008/Win7, Mac OSX (10.4.9 or later)</p> <p>Windows 2000/XP/Server 2003/Vista/Server 2008/Win7 BW: Up to 600 x 600 dpi</p>	
11	Scanner  -- 3 Years of Warranty	<p>Scanner Type</p> <p><b>Scanner Element</b></p> <p>Light Source</p> <p><b>Optical Resolution</b></p> <p>Selectable Resolution</p> <p>Scanning Bit Depth</p> <p> </p> <p>Preview Speed</p> <p>Scan Speed</p> <p>Scanning Speed (Reflective)</p> <p> </p> <p>Max. Document Size</p>	<p>Flatbed</p> <p><b>CIS (Colour Contact Image Sensor)</b></p> <p>3-colour (RGB) LED</p> <p><b>2400 x 4800 dpi</b></p> <p>25 - 19200 dpi</p> <p>Colour:48-bit input (16-bit for each colour) 48-bit or 24-bit output (16-bit or 8-bit for each colour) Grayscale: 16-bit input 8-bit output</p> <p>Approx. 14 sec (Colour A4 300 dpi)</p> <p>Approx. 24 sec (Colour A4 300 dpi)</p> <p>Colour : 16.9 msec/line (2400 dpi), 8.7 msec/line (1200 dpi) 4.6 msec/line (600 dpi),5.5 msec/line (300 dpi) Grayscale, B&amp;W : 5.6 msec/line (2400 dpi), 2.9 msec/line (1200 dpi) 1.8 msec/line (600 dpi),3.7 msec/line (300 dpi)</p> <p>A4, LTR: 216 x 297 mm (8.5 x 11.7 in.)</p>	

RFP for NAMI Hardware and Peripherals

		<p>Scanner Driver  Scanner Buttons (EZ Buttons)  Other Features  <b>Interface</b>  Operating Range    <b>Power Supply</b>  Power Consumption    Environment (Plan)  Dimensions (W X D X H)  Weight</p>	<p>TWAIN / WIA (Windows XP / Windows Vista)  4 buttons (COPY, SCAN, PDF, E-MAIL)  Advanced Z-Lid (up to 20 mm)  <b>USB 2.0 Hi-Speed</b>  Temperature : 5°C to 35°C (41°F to 95°F)  Humidity : 10% to 90% RH without condensation formation  <b>Supplied via USB port</b>  Approx. 2.5 W max. (In operation),      Approx 1.4W (Standby)  Approx. 11 mW      (Switch-off, USB bus power model; Suspend)  Regulation : RoHS(EU), WEEE(EU),Eco-Label : Energy Star  250 x 370 x 40 mm  Approx. 1.6 kg</p>	
12	Projector - Long Range – for large number of students	<p>LCD Panel  Resolution  White light output (brightness)    Colour light output (colour brightness)    Contrast ratio  Lens  Lamp wattage    Lamp life    Diagonal display size  Number of Colours  Keystone Correction  Focus distance  Distance to width ratio (:1)  Computer Compatibility  Composite/S-Video  Component Video  HDMI Video</p>	<p>0.63" (1.6cm) P-Si TFT x 3  XGA (1024x768)  3200 ANSI Lumens (Normal Mode)  2100 ANSI Lumens (Eco Mode)    3200 ANSI Lumens (Normal Mode)  2100 ANSI Lumens (Eco Mode)    2000:1  Manual focus, manual zoom x 1.2  215W UHP    5000 hours (Normal Mode)  6000 hours (Eco Mode)*    30~300" (76~762cm)  8 Bits / colour, 16.7M colours  6:1 upward shift, fixed  0.8m~9.0m (Wide), 1.0~10.8m (Tele)  1.5 (Wide), 1.8 (Tele)    IBM Compatible VGA, SVGA, XGA, WXGA, WXGA+, SXGA, SXGA+, UXGA (compressed), MAC 16"  NTSC, PAL, SECAM, PAL-M, PAL-N, NTSC4.43  525i(480i), 525p(480p), 625i(576i), 1125i(1080i@50/60), 1125p(1080p@50/60), 750p(720p@50/60)  Signal: 525i(480i), 525p(480p), 625i(576i), 1125i(1080i@50/60), 750p(720p@50/60), 1125p(1080p@50/60)</p>	<p>3 Years of Warranty    EPSON / Canon / Hitachi / NEC</p>

RFP for NAMI Hardware and Peripherals

		<p>Plug &amp; Play DDC2B</p> <p>Digital input 1 x HDMI (HDCP compatible)</p> <p>Computer input 1 x 15-pin Mini D-sub (shared with analogue component video input) 1 x 15-pin Mini D-sub (shared with analogue component video input and Monitor Out)</p> <p>Monitor output 1 x 15-pin Mini D-sub (shared with analogue computer In 2 and analogue component video input)</p> <p>Video input 1 x 15-pin Mini D-sub (shared with analogue computer In 1 and analogue computer In 2) 1 x RCA for composite</p> <p>Audio input 1 x pair RCA (L/R)</p> <p>Audio output 1 x pair RCA (L/R)</p> <p>Control 1 x 9-pin for RS-232C control</p> <p>Dimensions (W x H x D) 320 x 85 x 245mm (excluding feet and extrusions)</p> <p>Weight 2.9Kg</p> <p>Noise level 29dB (Normal Mode)/37dB (Bright Mode)</p> <p>Air filter Urethane (Up to 2000 hours)</p> <p>Remote control with batteries (HL02881), Computer cable, Power cord, User manual (detail &amp; concise)</p> <p>lamp DT01433</p>																											
13	<p>Projector - Mid Range With TechMount TM-Tele Adjustable Drop</p>	<table border="1"> <tr> <td>Liquid Crystal Panel Structure</td> <td>: 0.63" polysilicon active-matrix TFT x 3</td> </tr> <tr> <td>Number of Pixels</td> <td>: 786,432 pixels</td> </tr> <tr> <td>Resolution - Video</td> <td>: 540 TV lines</td> </tr> <tr> <td>Resolution - RGB</td> <td>: 1024 Dots X 768 Lines</td> </tr> <tr> <td>Colors</td> <td>: 16.7 million colors</td> </tr> <tr> <td>Aspect Ratio</td> <td>: Native 4:3/16:9 compatible</td> </tr> <tr> <td>Lens</td> <td>: manual zoom x 1.2</td> </tr> <tr> <td>Throw Ratio (distance : width)</td> <td>: 1.5 - 1.8 : 1</td> </tr> <tr> <td>Lamp</td> <td>: 210W UHB</td> </tr> <tr> <td>Brightness</td> <td>: <b>2,700 ANSI Lumens</b></td> </tr> <tr> <td>Expected lamp Life</td> <td>: Approximately 3,000 hours (normal) 6,000 hours (Eco mode)</td> </tr> <tr> <td>Contrast Ratio</td> <td>: 2000 : 1 using Active Iris</td> </tr> <tr> <td>Speaker Output</td> <td>: 16W (2 x 8W speakers)</td> </tr> </table>	Liquid Crystal Panel Structure	: 0.63" polysilicon active-matrix TFT x 3	Number of Pixels	: 786,432 pixels	Resolution - Video	: 540 TV lines	Resolution - RGB	: 1024 Dots X 768 Lines	Colors	: 16.7 million colors	Aspect Ratio	: Native 4:3/16:9 compatible	Lens	: manual zoom x 1.2	Throw Ratio (distance : width)	: 1.5 - 1.8 : 1	Lamp	: 210W UHB	Brightness	: <b>2,700 ANSI Lumens</b>	Expected lamp Life	: Approximately 3,000 hours (normal) 6,000 hours (Eco mode)	Contrast Ratio	: 2000 : 1 using Active Iris	Speaker Output	: 16W (2 x 8W speakers)	<p>3 Years of Warranty</p> <p><b>Brands: EPSON / Canon / Hitachi / NEC</b></p>
Liquid Crystal Panel Structure	: 0.63" polysilicon active-matrix TFT x 3																												
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Speaker Output	: 16W (2 x 8W speakers)																												

RFP for NAMI Hardware and Peripherals

Power Supply	: AC100 - 120V / AC220 - 240V 50/60 Hz Power		
Power Consumption	: 330W		
Operating Temperature	: 5°C - 35°C (41°F - 95°F)		
Input Signals	: RGB : VGA, SVGA, XGA, SXGA, SXGA+, UXGA, MAC 13", MAC 16" Composite Video: NTSC, NTSC4.43, PAL, SECAM, PAL-M, PAL-N Component Video: 480i, 576i, 480p, 720p, 1080i, 1080p		
Acoustic Noise Level	: 35 dB (29 dB in Eco Mode)		
H-Sync	: 15 Hz - 106 Hz		
V-Sync	: 50 kHz - 120 kHz		
Vertical Keystone	: + / - 30°		
Approvals	: UL, C-UL, FCC, CE, RoHS		
RGB Input	: Analog RGB 15pin Mini-Dsub x 2		
RGB Output	: 15pin Mini-Dsub x 1		
Video Input	: S-Video Mini DIN 4-pin connector x 1 Composite Video RCA jack x 1 Component Video RCA jack x 3		
Audio	: Input 3.5 Stereo Mini jack Output RCA(L/R) x 1 pair		
Control Terminals	: 9-pin D-sub connector x 1 (RS-232 control)		
Other	: USB connector (USB mouse) x 1		
Dimensions (W x D x H)	: 12.5" x 3.9" x 11.3"		
Weight	: 8.2 lbs.		
Closed Caption	: CC1, CC2, CC3, CC4. T1, T2, T3, T4		
Additional Features	: Kensington Slot, Digital Gamma Correction, Whiteboard / Blackboard More, Input Source Naming,, MyMemory / MyScreen / MyButtons / MyText, Auto V Keystone, Serial Number on Side		
Supplied Accessories	: Remote Control, Batteries (AA), RGB cable, US Power Cord, Multiple language operator / Safety Manual		
Lamp	: CPX2010LAMP (DT01021)		
Remote Control	: HL02483		
Filter	: MU06481		

RFP for NAMI Hardware and Peripherals

		<b>Lamp Life</b>	2,500 to 3,000 hrs (4,500 hrs in Eco Mode)		
14	Projector Screen	List and provide according to your own choice / Propose the system with your own ease			
15	Attendance Devices	<p>Fingerprint Capacity 3000 templates Minimum</p> <p>Transaction Capacity 100,000</p> <p>Sensor Optical Sensor</p> <p>Communications RS232/485, TCP/IP,USB-host</p> <p>Standard Functions Workcode, SMS, DLST, Scheduled-bell, Self-Service Query, Automatic Status Switch</p> <p>Optional Functions ID/Mifare/HID,Webserver,printer,9 digit user ID</p> <p>Display 3 inches TFT Screen</p> <p>Power Supply 5V DC 2A</p> <p>Operating Temperature 0-45</p> <p>Operating Humidity 20%-80%</p> <p>Dimension 196.5X138.5X59 mm</p> <p>Net Weight 1.05 kg</p> <p>Input Fingers and RFID Card (Both)</p>			
16	Audio System	Specification, Propose your own system that should be audible to the students after the arrangement of all the equipments and the furniture and fixture			Quote the warranty period
17	Barcode Reader	<p>General</p> <p>Scanner Type Omnidirectional</p> <p>Sensor Wide-VGA CMOS Digital Imaging</p> <p>Light source LEDs</p> <p>Nominal working distance Depth of Field</p>		1 Years of Warranty and 3 Years of Service Warranty	

		<p>CODE 39                      5mil: 1.6" - 7.5" (4 - 19 cm)                      10mil: 0.4" - 11.8" (1.0 - 30 cm)                      20mil: up to 17.7" (45 cm)</p> <p>EAN/UPC                      13mil: 0.6" - 15.7" (1.5 - 40 cm)                      7.5mil: 0.5" - 10.6" (2.0 - 27cm)</p> <p>PDF-417                      6.6mil: 11.0" - 5.9" (2.5 - 15cm)                      10mil: 0.2" - 8.6" (0.5 - 22cm)                      15mil: 0.6" - 13.4" (1.5 - 34cm)</p> <p>DataMatrix                      10mil: 0.8" - 6.3" (2.0 - 16cm)                      15mil: 0 - 9.3" (0 - 23.6cm)</p> <p>QR Code                      10mil: 1.2" - 4.9" (3 - 12.5cm)                      15mil: 0 - 7.5" (1 - 19.0cm)</p> <p>Print contrast 25% minimum reflectance</p> <p><b>Roll</b> (tilt) ± 180°</p> <p>Pitch ± 40°</p> <p>Skew ± 40°</p> <p>1D/2D Decode Symbologies <b>Factory Default Barcodes</b></p> <p>CODE 128</p> <p>CODE 39</p> <p>CODE 93</p> <p>Data Matrix</p> <p>EAN-13</p> <p>EAN-8</p> <p>GS1 Data Bar Expanded</p> <p>GS1 Databar Omnidirectional</p> <p>PDF417</p> <p>QR Codes</p> <p>UPC-A</p>	
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RFP for NAMI Hardware and Peripherals

		<p>Mechanical                      <b>Dimensions</b> (LxWxH)                      4.9 x 2.8 x 7.1 (100 x 71 x 181 mm)</p> <p>Weight    Approximately 8.0 ounces (226.7g); Scanner 6.9 ounces (195.6g) + Cable 1.0 ounce (28.3g)</p> <p>Cable Length    6.5 ft (1.9 m)</p> <p>Color    HP Black</p> <p>Interface/Connection                      Cable    USB 2.0</p> <p>Power (voltage &amp; current)                      Input Current at 5V = 350 mA (max)  Idle Current at 5V = 65 mA max</p> <p>Drivers    Windows UBB HID-KB and OPOS &amp; JPOS (via USB-COM mode drivers)</p> <p>Operating Systems (Compatible with)    Genuine Windows Vista® Business 32  Genuine Windows XP Professional  Genuine Windows Embedded for Point of Service (WEPOS)  Genuine Windows Embedded POSReady 2009  Genuine Windows 7 Business 32  Genuine Windows 7 Business 64</p> <p>Agency Certifications                      C-Tick, KCC, BSMI, VCCI, CSA, CE, FCC</p>	
18	Video Conferencing Devices	<p>Features Summary:  <b>Design Features</b></p> <ul style="list-style-type: none"> <li>● Transforms a flat panel display into a 1080p high-definition meeting space</li> <li>● Intuitive connections make setup as easy as connecting a DVD player</li> <li>● Provides up to 1080p60 resolution - compatible with standards-based video without loss of features</li> <li>● Sleek, compact design</li> </ul> <p><b>Application Features</b></p> <ul style="list-style-type: none"> <li>● Multimedia and presentations can be shared at the touch of a button</li> <li>● Basic API available over IP (Telnet or Secure Shell Protocol [SSH])</li> <li>● Dual-display option available</li> <li>● High-definition content sharing up to 1080p15 resolution</li> <li>● One button to push (OBTP) to start a meeting</li> </ul> <p><b>Performance Features</b></p>	3 Years of Warranty and 5 Years of Service Warranty

		<ul style="list-style-type: none"> <li>● Optimal definition up to 1080p60</li> <li>● H.323/SIP calls up to 6 Mbps</li> <li>● Built-in individually transcoded multipoint conferencing offers ability to add three additional participants</li> <li>● Easy provisioning and self-configuration with Cisco Unified Communications Manager (CUCM), Cisco TelePresence Video Communications Server (VCS), or Cisco WebEx TelePresence</li> <li>● Takes advantage of the Cisco TelePresence Total Solution approach, including Cisco TelePresence Multiway features, recording and streaming and firewall traversal services</li> <li>● Cisco Unified Communications Manager native support (requires Cisco Unified Communications Manager Version 8.6 or higher)</li> </ul> <p>Product Specification</p> <p><b>Default components in SX20 Quickset:</b></p> <ul style="list-style-type: none"> <li>● SX20 Codec, Cisco TelePresence PrecisionHD Camera – (option of 1080p2.5, 1080p4xS2 or - 1080p12x) Cisco TelePresence Table Microphone 20, remote control, cables, and power supply</li> </ul> <p><b>Optional components</b></p> <ul style="list-style-type: none"> <li>● Cisco TelePresence Touch 8</li> <li>● Wall mount kit</li> <li>● Additional microphone</li> </ul> <p><b>Bandwidth</b></p> <ul style="list-style-type: none"> <li>● H.323 and SIP up to 6 Mbps</li> </ul> <p><b>Minimum bandwidth for resolution/frame rate</b></p> <ul style="list-style-type: none"> <li>● 720p30 from 768 kbps</li> <li>● 720p60 from 1152 kbps</li> <li>● 1080p30 from 1472 kbps</li> <li>● 1080p60 from 2560 kbps</li> </ul> <p><b>Firewall Traversal</b></p> <ul style="list-style-type: none"> <li>● Cisco TelePresence Expressway Technology</li> <li>● H.460.18, H.460.19 firewall traversal</li> </ul> <p><b>Video Standards</b></p> <ul style="list-style-type: none"> <li>● H.263, H.263+, H.264</li> </ul> <p><b>Video Features</b></p> <ul style="list-style-type: none"> <li>● Native 16:9 widescreen</li> <li>● Advanced screen layouts</li> <li>● Intelligent video management</li> <li>● Local auto-layout</li> </ul> <p><b>Video Inputs (Two Inputs) One HDMI and One DVI-I (Analog and Digital): Supported Formats:</b> Extended Display Identification Data (EDID)</p> <p><b>Video Outputs (Two Outputs)</b> <b>Two HDMI Outputs Supported Formats:</b></p>	
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	<p>VESA Monitor Power Management EDID</p> <p><b>Live Video Resolutions (Encode and Decode):</b></p> <p><b>Audio Standards</b> ● G.711, G.722, G.722.1, 64 kbps AAC-LD</p> <p><b>Audio Features</b></p> <ul style="list-style-type: none"> <li>● CD-quality 20 KHz mono</li> <li>● Two acoustic echo cancellers</li> <li>● Automatic Gain Control (AGC)</li> <li>● Automatic noise reduction</li> <li>● Active lip synchronization</li> </ul> <p><b>Audio Inputs (Four Inputs)</b></p> <ul style="list-style-type: none"> <li>● Two microphones, 4-pin minijack</li> <li>● One minijack for line-in (stereo)</li> <li>● One audio in from camera (HDMI)</li> </ul> <p><b>Audio Outputs (Two Outputs)</b></p> <ul style="list-style-type: none"> <li>● One minijack for line out (stereo)</li> <li>● One HDMI, (digital main audio)</li> </ul> <p><b>Dual Stream</b></p> <ul style="list-style-type: none"> <li>● H.239 (H.323) dual stream</li> <li>● BFCP (SIP) dual stream</li> <li>● Support resolutions up to 1080p (1920 x 1080)</li> </ul> <p><b>MultiPoint Support</b></p> <ul style="list-style-type: none"> <li>● Four-way embedded SIP/H.323 MultiPoint reference MultiSite</li> <li>● Cisco TelePresence Multiway support (requires Cisco TelePresence Video Communication Server [Cisco VCS] and Cisco TelePresence MCU)</li> <li>● Ability to natively join multipoint conferences hosted on Cisco Telepresence Multipoint Switch (CTMS)</li> </ul> <p><b>MultiSite Features (Embedded Multipoint Switch)</b></p> <ul style="list-style-type: none"> <li>● Adaptive SIP/H.323 MultiSite; resolution up to 576p30 3-way resolution up to 720p30 4-way resolution up to 576p30</li> <li>● Full individual audio and video transcoding</li> <li>● Individual layouts in multisite continuous presence</li> <li>● H.323/SIP/VoIP in the same conference</li> <li>● Support for Presentation (H.239/BFCP) from any participant at resolutions up to 1080p15/SXGA</li> <li>● Best Impression (automatic continuous presence layouts)</li> <li>● H.264, encryption and dual stream from any site</li> <li>● IP Downspeeding</li> <li>● Dial in and dial out</li> <li>● Conference rates up to 6 Mbps</li> </ul> <p><b>Protocols</b></p>	
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		<ul style="list-style-type: none"> <li>● H.323</li> <li>● SIP</li> </ul> <p><b>Embedded Encryption</b></p> <ul style="list-style-type: none"> <li>● H.323 and SIP point-to-point</li> <li>● Standards-based: H.235 v3 and Advanced Encryption Standard (AES)</li> <li>● Automatic key generation and exchange</li> <li>● Supported in dual stream</li> </ul> <p><b>IP Network Features</b></p> <ul style="list-style-type: none"> <li>● DNS lookup for service configuration</li> <li>● Differentiated services (quality of service [QoS])</li> <li>● IP-adaptive bandwidth management (including flow control)</li> <li>● Automatic gatekeeper discovery</li> <li>● Dynamic playout and lip-sync buffering</li> <li>● H.245 Dual Tone Multifrequency (DTMF) tones in H.323</li> <li>● Date and time support using Network Time Protocol (NTP)</li> <li>● Packet loss-based downspeeding</li> <li>● Uniform resource identifier (URI) dialing</li> <li>● TCP/IP</li> <li>● DHCP</li> <li>● 802.1x network authentication</li> <li>● 802.1Q Virtual LAN</li> <li>● 802.1p (QoS and class of service [QoS])</li> </ul> <p><b>Security Features</b></p> <ul style="list-style-type: none"> <li>● Management using HTTPS and SSH</li> <li>● IP administration password</li> <li>● Menu administration password</li> <li>● Disable IP services</li> <li>● Network settings protection</li> </ul> <p><b>Network Interfaces</b></p> <ul style="list-style-type: none"> <li>● One LAN and Ethernet (RJ-45) 10/100/1000 Mbit</li> </ul> <p><b>Other Interfaces</b></p> <ul style="list-style-type: none"> <li>● Two USB ports for future usage</li> </ul> <p><b>System management</b></p> <ul style="list-style-type: none"> <li>● Support for the Cisco TelePresence Management Suite</li> <li>● Total management using embedded SNMP, Telnet, SSH, XML, SOAP</li> <li>● Remote software upload: using web server, secure copy (SCP), HTTP, HTTPS</li> <li>● Cisco TelePresence Touch (optional)</li> <li>● Remote control and on-screen menu system</li> </ul>	
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	<p><b>Directory Services</b></p> <ul style="list-style-type: none"> <li>• Support for local directories (My Contacts)</li> <li>• Corporate directory</li> <li>• Unlimited entries using server directory supporting LDAP and H.350 (requires Cisco TelePresence Management Suite)</li> <li>• Unlimited number for corporate directory (through Cisco TelePresence Management Suite)</li> <li>• Received calls with date and time</li> <li>• Placed calls with date and time</li> <li>• Missed calls with date and time</li> </ul> <p><b>Power</b></p> <ul style="list-style-type: none"> <li>• Auto-sensing power supply</li> <li>• 100 - 240 VAC, 50/60 Hz</li> <li>• Maximum 40 watts for codec and main camera</li> </ul> <p><b>Operating Temperature and Humidity</b></p> <ul style="list-style-type: none"> <li>• 0° C to 35° C (32° F to 95° F) ambient temperature</li> <li>• 10% to 90% Relative Humidity (RH)</li> </ul> <table border="1" data-bbox="468 676 1897 1382"> <thead> <tr> <th colspan="3" data-bbox="468 676 1897 719">Camera Overview</th> </tr> </thead> <tbody> <tr> <td data-bbox="468 719 945 871"></td> <td data-bbox="945 719 1422 871"></td> <td data-bbox="1422 719 1897 871"></td> </tr> <tr> <td data-bbox="468 871 945 914">2.5x optical zoom (5x with digital*)</td> <td data-bbox="945 871 1422 914">4x optical zoom (8x with digital*)</td> <td data-bbox="1422 871 1897 914">12x optical zoom</td> </tr> <tr> <td data-bbox="468 914 945 957">Motorized +57-25° tilt, +/- 30° pan</td> <td data-bbox="945 914 1422 957">Motorized +157-25° tilt, +/- 90° pan</td> <td data-bbox="1422 914 1897 957">Motorized +157-25° tilt, +/- 90° pan</td> </tr> <tr> <td data-bbox="468 957 945 1000">51.5° vertical field of view</td> <td data-bbox="945 957 1422 1000">43.5° vertical field of view</td> <td data-bbox="1422 957 1897 1000">43.5° vertical field of view</td> </tr> <tr> <td data-bbox="468 1000 945 1043">83° horizontal field of view</td> <td data-bbox="945 1000 1422 1043">70° horizontal field of view</td> <td data-bbox="1422 1000 1897 1043">72° horizontal field of view</td> </tr> <tr> <td data-bbox="468 1043 945 1086">F 2.0</td> <td data-bbox="945 1043 1422 1086">F 1.7</td> <td data-bbox="1422 1043 1897 1086">F 1.7</td> </tr> <tr> <td colspan="3" data-bbox="468 1086 1897 1129">1920 x 1080 pixels progressive @ 60 fps</td> </tr> <tr> <td colspan="3" data-bbox="468 1129 1897 1173">Automatic or manual focus, brightness, and white balance</td> </tr> <tr> <td colspan="3" data-bbox="468 1173 1897 1216">Far-end camera control</td> </tr> <tr> <td data-bbox="468 1216 945 1259">Dual HDMI/Camera Control and USB output</td> <td data-bbox="945 1216 1422 1259">Dual HDMI/Camera control</td> <td data-bbox="1422 1216 1897 1259">HDMI, HD-SDI output, and daisy chain</td> </tr> <tr> <td data-bbox="468 1259 945 1337">Upside-down mounting, picture flips automatically</td> <td data-bbox="945 1259 1422 1337">Upside-down mounting, manual picture flip</td> <td data-bbox="1422 1259 1897 1337">Upside-down mounting, picture flips automatically</td> </tr> <tr> <td colspan="3" data-bbox="468 1337 1897 1382">Focus distance 0.3 m – infinity</td> </tr> </tbody> </table>	Camera Overview						2.5x optical zoom (5x with digital*)	4x optical zoom (8x with digital*)	12x optical zoom	Motorized +57-25° tilt, +/- 30° pan	Motorized +157-25° tilt, +/- 90° pan	Motorized +157-25° tilt, +/- 90° pan	51.5° vertical field of view	43.5° vertical field of view	43.5° vertical field of view	83° horizontal field of view	70° horizontal field of view	72° horizontal field of view	F 2.0	F 1.7	F 1.7	1920 x 1080 pixels progressive @ 60 fps			Automatic or manual focus, brightness, and white balance			Far-end camera control			Dual HDMI/Camera Control and USB output	Dual HDMI/Camera control	HDMI, HD-SDI output, and daisy chain	Upside-down mounting, picture flips automatically	Upside-down mounting, manual picture flip	Upside-down mounting, picture flips automatically	Focus distance 0.3 m – infinity			
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RFP for NAMI Hardware and Peripherals

19	Wireless Access Points	Cisco® 521 Wireless Express Access Point IEEE 802.11b and 802.11g	3 years of warranty
20	Interactive Board	Provide the technical Specifications with all of the features	3 years of warranty

## **Section 5. Authorized Certificate – Dealership / Distribution**

### **Section 6. Company Profile**

- List of Corporate Clients (Last 5 Years)
- Installation & Deployment Plan
- Terms and Conditions for the Support and Service

**Note:** The specified quantities may vary according to the need of the organization