

Tele : 01992-282000

General Staff Branch (Systems)
HQ Northern Command
C/O 56 APO

41721/IT/Data wall/GS/Sys

20

Jul 2009

To,

**TENDER ENQUIRY FOR UPGRADATION OF MODERNIZATION OF HQ NORTHERN COMD
OPS ROOM INCLUDING INSTALLATION OF A DATA WALL**

1. Headquarters Northern Comd, hereinafter referred to as Customer, is interested in implementation of a turnkey project for Modernization of HQ Northern Comd Ops Room including Installation of a Data Wall at Udampur. Please give your final technical and commercial offers as per appendices attached. The following points may please be adhered to while filling up the forms:-

- (a) Only the enclosed formats (**Appendix `A` and Appendix `B`**) in original will be used. All sheets will be filled in ink in original duly affixed with the Company's stamp and signature of the authorised signatory of the Company. Additional sheets, duly authenticated, may be attached to elucidate specifications or clarify specific issues.
- (b) Compliance statement in respect of each item of the qualitative requirements will be indicated in ink as "Complied" or "Not Complied" as per format given at **Appendix `A`** attached. The word "Complied" or "Not Complied" shall be written against every Paragraph / Sub Paragraph / Sub Paragraph of **Appendix `A`**. **Ditto will not be used.**
- (c) The costs to be indicated for each item should be the landed cost of the item inclusive of Taxes/levies, Service Taxes etc.
- (d) Total costs for the full quantity to be supplied will be indicated in figures and words. Incomplete quotations are liable to be rejected.
- (e) The commercial bid will be valid upto **31 Dec 2009**.
- (f) Only OEMs or their associates authorized to quote on behalf of the OEM will respond to this tender enquiry. The products being quoted will only be OEM's product except where specifically stated in the tender enquiry.
- (g) Technical and Commercial bids filled incorrectly or not filled specified format will be **Summarily Rejected**.

2. You are requested to indicate your ability to supply the same based on the terms and conditions as given out in succeeding paragraphs.

3. **Delivery and Implementation Schedule.** Details of delivery and implementation of project are as under:-

- (a) Delivery of all hardware and associated software as given in this tender enquiry will be completed within **four weeks** of placement of the Supply Order.
- (b) The equipment will be subjected to Acceptance Test Procedure (ATP) to test the individual components and successful integration of all components after their installation. The free warranty period for the corresponding system at each location will start only from the day the ATP is completed successfully and the complete system is accepted by the customer for operational purpose.
- (c) The installation of the equipments will be done at Udhampur within **two weeks** of acceptance of items supplied by the users.
- (d) The training will be conducted at Udhampur.

4. **Acceptance Testing.** The system will be subjected to detailed acceptance testing procedure to test individual components and successful integration of all components. The details of the procedure will be worked out jointly by the vendor and the users. The specification of the equipment should be in conformity with the details provided by the vendor and as per the given specifications finalized by the Technical Evaluation Committee (TEC) convened for this project. The vendor will provide the necessary diagnostic software to check the hardware. The user would issue an acceptance certificate on successful completion of acceptance testing. The date of issuing the acceptance certificate would be deemed to be the date on which the warranty will commence.

5. **Training.** Vendor will be required to provide free training to 12 persons, for five working days at Udhampur about the use equipments installed and its effective management. The training will include basic administration (installation, configuring of services, operation and trouble shooting) and activities related to their effective management. The exact syllabi will be worked out between the customer and the vendor prior to the training. High quality of the training will be ensured by the vendor and if need be services of another suitable vendor may be hired by the vendor. This training will be completed within one week of installation of the complete system along with the associated Hardware/Software. Suitable training material such as books, manuals etc will be issued to the students by vendor.

6. **Performance Bank Guarantee.** 10% of the total cost project shall remain under bank guarantee for twelve months after the expiry of the warranty as performance warranty. The vendor shall furnish a performance bank guarantee equal to ten percent (10%) of the total value of the contract within seven days of the receipt of supply order. In case of non adherence to the delivery schedule for all deliverables of the project as given above in Para 3 above liquidated damages as given in Para 9 and 10 below will be deducted from the amount. **Bank guarantee will be valid for twelve weeks after expiry of the warranty.**

7. **Payment Terms.** Payment will be made as under:-

- (a) 40% of the total project cost may be paid on delivery of the hardware and commercial off the shelf (COTS) software.
- (b) 30% of the total project may be paid on satisfactory acceptance of the hardware and commercial off the shelf (COTS) software.
- (c) 20% of the total project will be paid on satisfactory performance of all the components of the project and on rendering of satisfactory installation report (s) by the user.

(d) 10% of the cost of project will be paid on the successful completion of training and acceptance as specified in the tender.

8. **Payment Authority.** CDA Northern Command, Narwal Pain, Satwari, Jammu Tawi-180001.

9. **Liquidated Damages.** If the vendor fails to complete in full, all deliveries of hardware and commercial software within the stipulated period, in accordance with this supply order, the vendor shall pay to the Customer- Headquarters Northern Comd, GS (Sys) Branch, liquidated damages, at the rate of one percent (1%) of the total value, for each complete week or part thereof, of delay up to a maximum of ten percent (10%) of the value of supply order. Thereafter, the CUSTOMER will have right to terminate the supply order and to buy the hardware, software from the market at the vendor's risk and cost. The mode and method of such risk purchase would be at the total discretion of the Customer.

10. **Method of Payment of Liquidated Damage.** The amount charged as liquidated damages shall be deducted by the Customer from the amount due for payment to the vendor. If the amount of such LD exceeds the payments due to the vendor, the vendor shall within 30 (thirty) days make payment to the customer in full and final settlement of claims failing which the Bank Guarantee will be en-cashed to make good the amount exceeding the payments due to the vendor.

Warranty and Maintenance Backup

11. **Warranty.** Vendor will provide **three years** free on site comprehensive warranty for the complete system, to include the items supplied less expendables like cables, bulbs etc and software components provided as part of this project commencing from the date of acceptance. During warranty, the vendor will repair/ replace without any cost any equipment/ part /accessory, which becomes defective except items of a consumable nature. During the warranty period all warranty benefits received by you from the OEMs, for any equipments pertaining to third parties will be passed on in to the Customer. The Customer may invoke the Bank Guarantee in case vendor fails to ensure rectification of defects within one week of the defect being intimated. Vendor will ensure 95% systems availability during the warranty period.

12. **Conditions During Warranty.** The system should fulfill the following conditions during the warranty:-

(a) Any failure in the system or a sub system there of should be rectified within a maximum period of 48 hours of lodging a complaint

(b) If the system is down beyond 48 hrs, penalty at the rate of Rs 250/- (Rupees two hundred fifty only) per day per system will be charged or recovered out of the Bank Guarantee held towards warranty. In case of any system/subsystem being down for more than 7 working days, user has the option to get it repaired from any suitable agency at the risk and cost of vendor which will be deducted from the Bank Guarantee due to vendor.

(c) Any System failing at sub system level three times within a period of three months or displaying chronic faulty behavior of manufacturing defects or quality control problems will be totally replaced by the vendor at his risk and cost within 30 days of being intimated.

13. **Annual Maintenance Contract (AMC).** After expiry of the warranty AMC for **seven years** will be undertaken by the vendor at the option of the customer. All maintenance will be provided on site. The terms and conditions during AMC will be as per **Annexure-I to Appendix `A`**. You are required to give the rates for AMC in the Commercial offer in terms of percentage of the Contract Value.

Submission of Offers

14. Vendors are requested to put their offers in two separate parts, i.e., **Technical and Commercial. Technical and Commercial offers will be submitted in separate envelopes marked “Technical Offer” and “Commercial Offer” respectively.** Certificate to be signed and stamped by Authorized signatory of the company is also attached at **Appendix `C`**. The vendor offering a complete turnkey solution shall only be considered for further negotiations. Vendors are requested to put their offers as follows:-

- (a) Technical and commercial offers will be submitted in separate envelopes.
- (b) Cover-I super scribed **“Technical Bid”** should comprise of all documents pertaining to the technical specifications including Tender form for technical offer, qualitative requirements, confirmation to all Terms & Conditions of the Tender Form. Certificate to be signed and stamped by Authorised Signatory of Company as per **Appendix ‘C’** and DD for Earnest Money Deposit (EMD) should be included along with “Technical Bid”.
- (c) The cover-II super scribed **“Commercial Bid”** should contain only Price Schedule as per **Appendix ‘B’**.
- (d) Both covers/Sealed Envelopes (Cover I & II) should be put in a bigger envelope on which tender enquiry No and full address is written at the end. All envelopes should bear the company stamp.

15. Vendors should ensure that their bids are complete in all respects. **Vendors should clearly mention the need for any additional component required for a workable solution in their Technical and Commercial offers in case it has not been included in the specifications.** Any deviations in hardware/software components will be clearly indicated.

16. Once the supply order is placed, it will be the Vendor's responsibility to make the project functional. **Any additional cost incurred in components required for completing the integrated turnkey project and for which the vendor has not bid at the time of submission of the final offer will be borne by the vendor.**

17. Make, model and version (Latest) will be specified for all items. Complete technical specifications and literature for hardware, will be attached with the Technical Bid. It is reiterated that only the original literature from the OEM will be attached.

18. An offer received incomplete or ambiguous is likely to be rejected at the discretion of the GS (Sys) Branch, Headquarters Northern Comd without recourse to further clarifications. GS (Sys) Branch, Headquarters Northern Comd also reserves the right to seek clarifications with one or more vendors if considered necessary and also not accept any offer at all in case they are not reasonably priced.

19. **Each page of Technical/ Commercial bids should be duly stamped and signed by vendor at time of submission. Vendor representative must be present at the time of opening the Technical and Commercial bids. If representative cannot be present, it will be intimated in writing to GS (Sys) Branch, Headquarters Northern Comd failing which the**

bids may not be opened. Final discretion on opening of bids will be of GS (Sys) Branch, Headquarters Northern Comd.

20. Any conditions/terms given in the technical or commercial bids by vendors will not be binding on GS (Sys) Branch, Headquarters Northern Comd. All terms and conditions for the supply, delivery, testing and acceptance, payment, warranty, penalty will be as given herein and no change in any term or condition by the vendors will be acceptable. Alterations, if any in the tender documents should be attested properly by the vendor, failing which the tender will be rejected. Vendors will not make any assumptions while submitting their bids. If required, clarifications will be sought in writing prior to submission of bids.

21. All hardware items, for which custom/ excise duty, Service Tax, Entry Tax is applicable, will be specified in the commercial bid. Vendor will be responsible to produce excise duty certificate in respect of all such items, whether manufactured by the vendor or otherwise.

22. **Earnest Money Deposit (EMD)**. In case you are in a position to quote for supply in accordance with the requirements stated in this tender enquiry, an amount of **Rs 10, 00,000/-** (Rupees Ten Lakhs only) will be required to be deposited at the time of submission of bids. **If the supply order is not placed on your firm due to any reason, your EMD draft will be returned to your firm immediately.** In case supply order is placed on you, the EMD will be returned to your firm only on receipt of the Assurance cum Performance Bank Guarantee of 10% of the contract value. EMD shall be in the form of an **Accounts Payee Bank Draft of any Nationalized Bank** as under:-

- | | | | |
|-----|--------------|---|-------------------------|
| (a) | Amount | : | Rs 10,00,000/- |
| (b) | In favour of | : | PCDA (NC) , Jammu (J&K) |
| (c) | Payable at | : | Jammu |

23. Terms and conditions for the procurement are attached as **Appendix 'D'**. This will be signed by the authorized company representative and stamped with the company stamp. The same will be enclosed along with the Technical Bid.

24. You are requested to send your best offer in the office of the undersigned by 1200hrs on **11 Aug 2009**. Any offer received after due date will not be entertained and may be rejected at the discretion of the HQ Northern Comd.

25. **Address on Bids**. The envelope will be marked with Tender Number and the nature of Bid, i.e. whether it contains TECHNICAL BID or COMMERCIAL BID. Reference to our letter will also be given on the envelope. Address on Bids should be as **`Tender Purchase Committee (Ops/Data Wall), GS Systems Branch, HQ Northern Comd, PIN 908 545, C/O 56 APO'**.

26. **Please ensure that this is your best and final offer.** Quotes once received will not be changed at any circumstances during any stage of the TEC or PNC. If there is any doubt that must be clarified from this Headquarters before submission of the final bids. All items stated in the tender enquiry will be quoted. Failure to do so would lead to rejection of both technical and commercial bids. Vendors will also supply the Technical manual along with equipment supplied.

27. **Return of TE**. Original TE shall be returned by vendor along with the technical bid by all vendors. In case your firm is not a position to respond to the TE, please return the tender document in original specifying the reasons for not quoting. In the event of non-return of TE or non-quoting of reasons for your inability to participate, penal action may be taken by office of DDG IT, Integrated HQ of MoD (Army), West Block III, RK Puram, New Delhi-110066 on the recommendation of HQ Northern Command.

28. **Acknowledgement.** Please acknowledge the receipt of the letter on the given Performa attached at **Appendix 'F'**. The same should be posted/sent to this Headquarter in the envelope attached at the earliest. You may also return the TE along with reasons as brought out in Para 27 above.

Important: Vendors will submit their technical and commercial bids on the original tender document (including its appendices and annexures). Photocopies will not be accepted. Only additional material attached as annexure to original Technical bid, to clarify any technical issue will be accepted.

Yours faithfully,



**Colonel
Col GS (Sys)
for GOC-in-C**

Enclosures.

1. Appendix 'A' : Technical Bid.
2. Appendix 'B' : Commercial Bid.
3. Annexure I : Terms and conditions for AMC.
4. Appendix 'C' : Certificate of acceptance of terms and conditions of tender enquiry.
5. Appendix 'D' : Terms and conditions.
6. Appendix 'E' : Calculation of system availability.
7. Appendix 'F' : Acknowledgement.

Appendix 'A'

(Refers to Para 1 of Tender Enquiry)

TECHNICAL BID**MODERNIZATION OF HQ NORTHERN COMD OPS ROOM AND
INSTALLATION OF DATA WALL****Note:-**

1. Provide details of OEM, make and models of all items. Failure to provide details will render the bid invalid. Deviation statement will be provided along with the bid for each item of specification, for all items.
2. Equivalent or better technology may be offered in lieu of items quoted below:-

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
	<u>Seamless Projection System (Data Wall)</u> <u>IMPORTANT</u> 1. EQUIPMENT OF ONLY REPUTED OEMs WILL BE ACCEPTED. 2. OEM AND COUNTRY OF ORIGIN OF HARDWARE AND SOFTWARE WILL BE MENTIONED CLEARLY IN THE TECHNICAL BID. 3. SATISFACTORY INSTALLATION CERTIFICATE AND CONTACT DETAILS OF SIMILAR INSTALLATIONS CARRIED OUT BY VENDOR WILL BE FURNISHED ALONG WITH TECHNICAL BID.			
1.	<u>DATA/VIDEO WALL</u>			
	Size	67" diagonal.		
	Projection technology	Single chip DLP Rear projection.		
	Resolution	SXGA+ (1400x1050) or above.		
	Brightness	Minimum 400 cd/m2.		
	Contrast Ratio	Minimum 1800:1.		
	Brightness Uniformity across data wall	More than 95%.		
	Color depth	16.7 Million Colours or above.		
	Aspect ratio	4:3		
	Lamp	High pressure, Dual with lamp changer with dual brightness mode.		
	Life	Minimum 10,000 hrs each lamp.		
	Lamp Change	Automatic		
	Maintenance Capability	Front Maintenance		
	Analog RGB	HD D-Sub		
	Digital RGB	DVI-D (TMDS DVI (XGA/SXGA) – Connector.		
	Out put	DVI-D Connector.		
	Control	RS-232C: D-sub 9 pins IR Remote/Wire Control.		
	Mirror	Very High Reflective Rate, first surface glasses mirror.		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
	Screen	Burn free, high contrast, low reflection version, wide viewing, Angle-Half gain at +/- 60 deg Horizontal & Vertical.		
	(Input Voltage & Frequency Range)	100 to 240 V AC +/- 10%, 50/60 Hz +/- 1 Hz		
	Environmental specs	Temp 0 deg C to 40 deg C, Humidity -60 to 90% non-condensing.		
	Lamp Switching time	Max 10 sec		
	Interactivity	Data wall should be integrated with wireless touch pad with interactive software to exploit full features of cubes like presentations, annotations etc. Data wall cubes should have the capability to be daisy chained, where in the data/graphics can be placed/divided/scaled in various patterns without the use of external controller.		
	OEM Certification	All features and functionality should be certified by OEM.		
2.	<u>Data Wall Controller with wall management software</u>			
	<u>Control Unit</u>			
	Operating System	Windows NT/ 2000/ XP/2003 Server edition		
	Processor	Intel Core 2 Duo 1.8 Ghz or better, with 64 bit per channel capacity.		
	Hard Disk	Min 160 GB, 7200rpm.		
	Random Access Memory	Min 2GB expandable to 8GB.		
	Graphic Accelerator	4 x 64 bit graphic processors.		
	Color depth	32 bit		
	Resolution	1600 x 1200, should be able to accept all resolutions from 640 x 480 upto 1920 x 1080		
	Input	Video (4) RGB (4).		
	Output	VGA / RGB / DVI (suitable bandwidth so that there is no distortion).		
	LAN	Ethernet with TCP / IP		
	Interface	Min two USB ports & DVD combo Drive.		
	Power Supply	Dual Hot Swap		
	Scalar type	Multi source/multi factor		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
	<u>Signal Interface</u>			
	Type of input supported	4 RGB sources		
	Frequency	Upto 140 kHz frequency, upto 280 MHz pixel frequency.		
	<u>SDI Interface Card</u>			
	Type of input	Support for multi digital display of four sources with BNC connectors		
	Format	Support for PAL/NTSC / SECAM		
	<u>Video Card</u>			
	Channels	Min 8 Channels / interface processing system		
	Formats	MPEG2, MPEG4, MJPEG, DIVX .		
	Protocols	TCP/ IP, UDP, IGMP, RTP		
	Inputs	10/100 Base T Ethernet, RJ 45		
	<u>Analog Interface</u>			
	Inputs	S-Video, Component (1), Composite min 8 per card.		
	Type	Supports 4 Analog Signal Inputs per card		
	Format	PAL, NTSE, SECAM		
	FPS	Min 30 FPS.		
	Scalability	Min 4 cards.		
	<u>Special features</u>			
	Outputs	Can be scalable upto 160 Screens.		
	Inputs	RGB and Video inputs increased as per user's demand due to excellent stack ability features available with the product.		
	<u>Software</u>			
	Layout Management	To be able to pre-configure various display layouts and access them at any time with a simple mouse click or based on the timer.		
	Brightness & Contrast Values	Control these values for each individual window on the display wall.		
	Hot keys	It should be possible to launch windows with the help of single key on the keyboard.		
	OEM Certification	All features and functionality should be certified by the OEM.		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
3.	<u>Interactive panels</u>			
	Platform Support	Windows 98/2000/ME/XP/Linux		
	Screen Size	Minimum 17" Diagonal.		
	Resolution	Minimum 1024 x 768 (XGA).		
	Active Area	12" x 9" (304mm x 228mm)		
	Response Time	Maximum 30 ms.		
	Pressure Sensitivity	Minimum 512 Levels.		
	Accuracy	+/- 0.5 mm.		
	Incline	20 degree to 80 degree.		
	Number of Colors	Minimum 16.7 Million.		
	Contrast Ration	Minimum 1000:1		
	Chassis type,	Mini tower, rack-mountable		
	Brightness	Minimum 400 (cd/m2)		
	Tablet Resolution	700 lines per inch		
	I/O Connectors	DC Power In VGA 15 Pin D-Sub (IN/OUT) USB Connector		
	Data Report Rate	125 reports per second.		
	Built in Speakers	2W		
	Operating Temperature	5 degree to 35 degree C.		
	Power Supply	AC 100-240V Universal		
	Application	Interactive – Panel should be capable of the following applications :- 1. Spot Light, Curtain, Zoom. 2. Screen Capture and audio recording. 3. Transparency level of screen can be varied. 4. Import Picture. 5. Save, Print, E-mail, Export image. 6. Text annotations. 7. Multi-keyboard capability: Bilingual.		
OEM Certification		All features and functionality should be certified by the OEM		
4.	<u>Map Dispenser for 8 Maps with Controller</u>			
	Motor for Map rollers	Min 8 Nos.		
	Operation	Through Remote		
	Size of Maps	Min 8 x 8 ft.		
	Torque	40 Nm.		
	RPM	Min 17.		
	Rating	Continuous.		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
5.	<u>Integrated Presentation Lectern</u>			
	Platform support	Windows 98/2000/ME/XP / Linux		
	Screen Size	Minimum 17" Diagonal		
	Glass Panel	Toughened & Scratch Resistant		
	Housing	Elegant/Primer based finish stain resistant		
	Panel Resolution	Minimum 1280 x 1024		
	Response Time	Maximum 6 ms		
	Incline	20 degree to 80 degree		
	Number of Colors	Minimum 16.7 Million		
	Contrast Ration	Minimum 1000:1		
	Brightness	Minimum 400 (cd/m ²)		
	Tablet Resolution	Minimum 700 lines per inches		
	I/O Connectors	DC Power In VGA 15 Pin D-Sub (IN/OUT) USB Connector		
	Power Supply	AC 100-240V Universal		
	Connectivity	Wired/Wireless Connectivity		
	PC Cabinet	Powder coated SS based with cooling fan, louvers for heat dissipation.		
	PC	CPU: Intel Dual Core Processor 1.6 Ghz or above Motherboard: Intel original with 945 Chipset or nVidia/VIA original. Integrated Intel 950 Graphics Media Accelerator. Integrated 10/100 LAN port. Integrated 2 + 2 Channel High Definition Audio. Minimum 4 Hi-speed USB 2.0 ports. SATA 3.0 Gbps x 2 headers minimum. Support for DDR II 667/533 MHz SDRAM upto 2 GB.1 x PCI Connector minimum. Memory: 1 GB DDR II 667 MHz SDRAM. Storage: 160 GB SATA II with data transfer rates of upto 3 GBps. Keyboard: Standard Keyboard with or without trackball. Standard mouse or trackball integrated in keyboard. Optical Drive : Slot loading DVD player		
	Power Management	Energy star qualified, screen blanking, hard disk and system idle mode in power on, set up password, power supply SMPS surge protected.		
	Design	Ergonomically designed full set up console.		
OEM Certification		All features and functionality should be certified by the OEM		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
6.	Digital Visual Presenter			
	Image			
	Shooting Area	300 x 220 mm		
	Digital Zoom	8x		
	Optical Zoom	16x		
	Focus	Auto/Manual		
	Illumination System			
	Upper	Lamp		
	Lower	Light Box		
	Video			
	Image Sensor	2M Pixels Image Sensor		
	Effective Pixels	1280 x 1024		
	Frame Rate	Min , 30 frames/sec		
	VGA Output	1280 x 1024		
	White Balance	Manual/Auto		
	Negative/Positive	Yes		
	Freeze	Required		
	Input Terminals	VGA :1		
	Output Terminals	VGA :1,USB:1,RS-232C:1, DVI:1		
	Remote Controller	Required with laser pointer		
	GUI (Graphic User Interface)	Required		
	Input Selection	2 Channels		
	On-screen Display	Required		
	Image Freeze	Required		
	Image Save	32 frames		
	Image Recall	8 frames		
	Split Screen	Vertical & Horizontal		
	Picture in Picture	Required		
	Mic In	Required		
	Audio O/P	Required		
	Image Rotation	90,180,270 degree		
	Image Transfer to Computer	USB		
	PC Interface			
	Present Function	Up to 4 user settings		
	USB	Required		
	RS-232C	Required		
	Application Software	Viewer software : Windows 98 or higher AVI capture software for window		
OEM Certification		All features and functionally should be certified by the OEM		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
7.	<u>Data Matrix Switcher</u>			
	Video			
	Routing	16 x 16 Matrix		
	Gain	Unity		
	Bandwidth	450 MHz		
	Switching speed	200 ns (max)		
	Video Input			
	Number/signal type	16 RGBHV,RGBS,RGsB, RsGsBs		
	Connectors	BNC		
	Impedance	75 ohms		
	Horizontal frequency	15 kHz to 100 kHz		
	Vertical frequency	30 Hz to 100 Hz		
	Video output			
	Number/signal type	8 RGBHV,RGBS,RGsB, RsGsBs		
	Connectors	BNC		
	Impedance	75 ohms		
	Audio			
	Routing	16 x 16 stereo matrix		
	Frequency response	20 Hz to 20 kHz		
	Audio input – audio			
	Number/signal type	16 x stereo, balanced/unbalanced		
	Connectors	>10k ohm, balanced		
	Audio output – audio			
	Number/signal type	16 stereo, balanced/unbalanced		
	Presets	Minimum 10		
	Power	AC 100-240V,50/60 Hz		
	OEM Certification	All features & functionality should be certified by the OEM		
8.	<u>Video Matrix Switcher</u>			
	Video			
	Video Routing	24 x 16 matrix		
	Gain	Unity		
	Bandwidth	150 Mhz		
	Switching speed	200 ns (max)		
	Video input			
	Number/ sig type	24 BNC		
	Connectors	BNC		
	Impedance	75 Ohms		
	Horizontal frequency	15 Khz to 100 Khz		
	Video output			
	Number/sig type	16 BNC		
	Connector	BNC		
	Impedance	75 Ohms		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
	Audio			
	Routing	24x16 stereo matrix		
	Frequency response	20 Hz to 20 Khz		
	Audio Input_Audio			
	Number/sig type	16x stereo, balance/unbalanced		
	Impedance	>10k Ohms, balanced		
	Audio output_Audio			
	Number/sig type	16x stereo, balance/unbalanced		
	Presets			
	Minimum	10		
	Power	AC 100-240V, 50/60 Hz		
	OEM Certification	All features & functionality should be certified by the OEM.		
09.	Workstation			
	Operating System	Genuine Window Vista Business 32 bit* or		
		Genuine Window Vista Business 64 bit* or		
		Genuine Window Vista Business 32 bit with downgrade to Windows XP Professional 32 bit custom installed** or		
		Genuine Window Vista Business 64 bit with downgrade to Windows XP Professional 64 bit custom installed** or		
		Red Hot Enterprise Linux WS 4 64 bit. Or		
		HP Installer Kit for Linux (includes drivers for both 32 bit and 64 bit OS versions of Red Hot Enterprise Linux WS4 and WS5) ²		
	Processors	Intel Xeon processor ³ E5205 ⁴ 1.86 GHz ⁵ 6MB L2 cache 1066 MHz FSB ⁶ or		
		Intel Xeon processor ³ E5240 ⁴ 3.00 GHz ⁵ 6MB L2 cache 1333 MHz FSB ⁶ or		
		Intel Xeon processor ³ E5260 ⁴ 3.33 GHz ⁵ 6MB L2 cache 1333 MHz FSB ⁶ or		
		Quad Core ² Intel Xeon processor ³ E5405 ⁴ 2.00 GHz ⁵ 6MB L2 cache 1333 MHz FSB ⁴ or		
		Quad Core ² Intel Xeon processor ³ E5410 ⁴ 2.33 GHz ⁵ 2x6MB L2 cache 1333 MHz FSB ⁶ or		
		Quad Core ² Intel Xeon processor ³ E5420 ⁴ 2.50 GHz ⁵ 2x6MB L2 cache 1333 MHz FSB ⁶ or		
		Quad Core ² Intel Xeon processor ³ E5430 ⁴ 2.66 GHz ⁵ 2x6MB L2 cache 1333 MHz FSB ⁶ or		
		Quad Core ² Intel Xeon processor ³ E5440 ⁴ 2.83 GHz ⁵ 2x6MB L2 cache 1333 MHz FSB ⁶ or		
		Quad Core ² Intel Xeon processor ³ E5450 ⁴ 3.00 GHz ⁵ 2x6MB L2 cache 1333 MHz FSB ⁶		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
	Chipset	Intel 5400		
	Memory	Up to 32 GS DDR2-667 ECC: 8 DIMM slots.		
	Drive Controllers	Integrated SATA 3.0 Gb/s Controller, RAID 0,1,5 capability		
	Hard drive (s)	Up to 3 SATA drives (with the optional optical bay converter kit), or up to 3 of the small form factor SAS drives (with the HDD bay converter kit); 3 TB max: 80 GB ⁸ (7200rpm) SATA 3.0 Gb/s; or 160,250,500 or 1000 GB ⁸ (7200rpm) SATA 3.0 GB/s NCQ; or 80 or 160 GB ⁸ (10Krpm) SATA 1.5 Gb/s NCQ; or 73 or 146 GB ⁸ (10K rpm) 2.5" SAS; or 73, 146,04 300 GB ⁸ (15K rpm) SAS.		
	Optical drives	DVD-ROM (SATA); DVD/CD-RW combo (SATA); dvd+/RW Double Layer Super Multi (SATA) with Light Scribe Direct Disc Labeling (Microsoft Windows only requires Light Scribe media for labeling.		
	Drive bays	2 external 5.25 inch bays; 2 internal 3.5 inch bays or 3 internal 2.5 inch bays; 1 floppy bay (optional)		
	Audio	High Definition Integrated Realtek ALC262 Audio; optional Sound Blaster X-Fi Streamer Gamer Audio Card; optional HP Thin USB Powered.		
	Network	Integrated Broadcom 5755 NetXtreme Gigabit PCIe; optional Broadcom 5751 Net Xtreme Gigabit PCIe; optional Intel Pro 1000 PT Gigabit Ethernet Controller (PCIe) ¹⁰		
	Ports	Front: 2 USB 2.0; 1 IEEE 1394 (optional); 1 microphone in; 1 headphone out.		
		Rear : 5 USB 2.0; 1 serial (optional): 2 PS/2; 1RI-45; 1 audio in; 1 audio out; 1 microphone in.		
		Internal : 1 USB 2.0		

Ser	Sub	Specifications	Model No /	Deviation
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No	System		Compliance	if any
	Input devices	PS/2 standard keyboard; USB standard keyboard; USB Smart Card Keyboard; USB 2 button optical scroll mouse; USB 3 button optical mouse; USB laser scroll mouse; USB Space Explorer; USB Space Pilot.		
	Dimensions (HxWxD)	17.3 x 6.5 x 17.3 in (44 x 16.5 x 44 cm)		
	Power	650 watts 80 PLUS power supply wide ranging, Active Power Factor Correction.		
	Compliance and regulatory	80 PLUS efficient; ENERGY STAR qualified configurations.		
	Monitors (screen size measured diagonally)	HP LP 1965 19-inch LCD Monitor; HP LP 2065 20-inch LCD Monitor; HP LP 2465 24-inch Widescreen LCD Monitor; HP LP 3065 30-inch Widescreen LCD Monitor.		
10.	Digital Video Recorder			
	Video System	NTSC/PAL (auto switchable)		
	Video Compression Format	MPEG4		
	Video Input	4 Channels		
	Video Loop	Output 4 Channels		
	Video Output	Main Monitor Output Cell Monitor Output		
	Maximum Recording Rate (Frame)	720 x 576 pixels with 25 IPS		
	Maximum Recording (CIF)	352 x 288 pixels with 100 IPS		
	Multilingual OSD	Yes		
	Image Quality Setting	Best, High, Normal and Basic		
	Hard Disk Storage	1 x HDD (min 500 GB)		
	Recording Mode	Manual/Timer/Motion/Alarm/Remote		
	Watermark	Yes		
	Refresh Rate	100IPS		
	Multiplex Operation	Live display, record, playback, backup and network		
	Independent Remote Operation	YES		
	Audio I/O	2 audio inputs, 1 audio outputs (Mono)		
	Remote Event Trigger Recording	Yes		
	Motion Detection Area	16 x 12 grids per camera for all channels		
	Back up Device	USB, Network Remote Backup, DVD-RW drive backup		
OEM Certification		All features and functionality should be certified by OEM		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
11.	UPS			
	Rating			
	Capacity in VA	10 KVA		
	Capacity in Watts	6000 Watt		
	Rated Output Voltage	230V (I-Phase)		
	Technology	PWM Technology		
	Inverter Devices	IGBTs		
	No of Devices	Two		
	Rating of Devices			
	Switching Frequency	>15KHz		
	Input			
	Voltage Range	160-270 V AC		
	Frequency Range	50 Hz +- 6%		
	DG Set Compatibility	Required		
	Input Current THD	>0.95		
	Input Power factor			
	No of Phases	1-Phase Earth		
	Input wire configuration	3-Wire (Phase, Neutral)		
	Output			
	Rated Output Voltage	230V		
	Voltage Regulation	230V +- 2%		
	Rated Output Frequency	50 Hz		
	Frequency Regulation (Svn, Mode)	50Hz +-4%		
	Frequency Regulation (Self clock Mode)	50 Hz +-0.5%		
	Transient response & recovery	For 100% step load change Dip <3%: Peak 3% recovery within 1 Cycle time		
	Waveform	Pure sine wave		
	Load Power Factor	0.7 to 0.8		
	Total Harmonic Distortion	<3% for linear loads;<5% for non linear loads		
	Crest Factor for Loads	3:1		
	Efficiency			
	Over Efficiency	>85%		
	Inverter Efficiency	>90%		
	Charger Efficiency	>90%		
	Overload Capability	110% for 10 minutes 125% for 1 minutes		
	Start Modes	Yes		
	Auto Restart	Yes		
	Cold Restart	Yes		

Ser	Sub System	Specifications	Model No /	Deviation
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No			Compliance	if any
	Soft start on Inverter mode	Yes		
	Computer Interface	RS-232 Port with save software for graceful unattended shutdown		
	Remote Manageability Feature	To be provided through additional hardware/software using network management as on OPTION		
	Charger Type	SMPS based CVCC type charger		
	Charger Ripple (in%)	<2%		
	Indication	Mains Mode, Inverter Mode, Load Status, Battery Status, Battery Low/weak, Charging, Overload, Fault, Over Temperature		
	Metering	Digital type of monitor, Input/Output voltage, Input/Output Frequency, Output Current, DC Current		
	Alarms	Main Fails, Battery Low, UPS fault-Over Temperature, Transfer to Bypass		
	Protections	Short Circuit, Over load, Over Temperature of Heat Sinks, Input over voltage, Input under voltage, DC under voltage, Synchronization Failure, Blocking of Buy pass on short circuit		
	Switchgear/ Protection Devices	Input MCB/Vendor to specify Output MCB/Fuse to be specified by vendor DC MCB/Fuse with rating to be specified by vendor.		
	Static By Pass	Static By Pass switch able to transfer 100% load to by Pass. Line should be equipped with Servo Stabilizer & Isolation transformer mounted in single enclosure as on OPTION.		
	Batteries	90 mins backup		
	Quality standards	ISO 9001-2000 certified to Safety Standards and EMC standard as per IEC standards,		
OEM Certification		All features & functionality should be certified by the OEM		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
12.	<u>Interactive Pads</u>			
	Operating System	Windows 98, Win 2000, ME, NT, XP, Linux		
	Size (Interactive Surface)	Minimum 6 inches x 8 inches		
	Resolution	Minimum 4000 lines per inch		
	Technology	Electromagnetic Digital Technology (RF)		
	Computer Interface	Wired and provision for wireless		
	Power Supply	220V AC +- 10%		
	Operating Temp	0 to 45° C		
	Pens	• Electronic pen with mouse emulation that is compatible to Meeting Board. • Working up 0.5" above the working surface of the table. • Pen must be able to accept both nylon tips and ball point refills • Electronic note writing and context annotation with dry erase pen on board and saved in the PC without projector.		
	Application	Interactive Meeting Pad should be capable of comprehensive applications including following applications: • Spot Light, Curtain, Zoom. • Screen Capture and audio recording. • Transparency level of screen can be varied. • Import Picture. • Save, Print, E-mail, Export image. • Text annotations.		
	Other	• Pad must have Led indicators for power, Battery status, Pen. • Software should support the following operating system (windows 98, win 2000, Win ME, NT, XP, MAC OS10 and Linux). • Battery life up to 40 hrs between charging.		

Ser	Sub System	Specifications	Model No /	Deviation
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No			Compliance	if any
OEM Certification		All features and functionality should be certified by the OEM		
13.	<u>Access Control System</u>			
	Memory capacity	256K		
	Maximum storage	15000 records		
	Feature of door unlocked detection	Unlocked door detection		
	Number of availability of visitor's card setting in accordance with period of date & time and use time	50		
	Serial connection with PC	Up to 255 units		
	Connections	Able to work independently with RS 232/ RS-485 can connect portable modem or TCP/IP convertor.		
OEM Certification		All features and functionality should be certified by the OEM		
14.	<u>Cable Cubbies</u>			
	Contact closure	1 x 3.5 mm female captive screw connector, 10 pole		
	Contact closure pin configurations	Pin 1=up, pin 2=down, pin 3=stop, pin 5=enable push operation, pin 6=status up, pin 7=status down, pin 9=status power, pins 4,8 and 10=ground		
	Power	100 V to 240 VAC, 50/60 Hz, 25 watts, internal.		
	Mounting	Furniture mount		
	Enclosure type	Metal		
	Top plate (outer rim)	8.613" W x 6.425" D (21.88 cm W x 16.39cmD)		
	Top plate (tilt rim)	6.663" W x 4.475" D (16.92 cm W x 11.37cmD)		
	Surface cutout	8.113 +-0.0325" W (front) x 5.925 +-0.0325"D (20.61 +-0.83cm W x 15.05+-0.083cm D)		
OEM Certification		All features and functionality should be certified by the OEM		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
15.	<u>Equipment Rack</u>			
	Size	19U		
	Height	As required for equipments		
	Stand Option	Floor standing, Castors with brake		
	Trays	2nos.		
	Ventilation	2 x Cooling fans		
	Power	Inbuilt power strip with 6 x 5Amp Sockets		
	Hardware Mount	2 sets of 10 pieces		
OEM Certification		All features and functionality should be certified by the OEM		
16.	<u>Room Scheduler</u>			
	Display Type	TFT Active matrix color LCD		
	Size	Min 8.4 inch (21.3cm) diagonal		
	Aspect Ratio	4:3		
	Resolution	Min SVGA (800 x 600 pixels)		
	Brightness	Min 200 nits (cd/m ²)		
	Contrast	Min 500:1		
	Color Depth	18 bit, 262k colors		
	Illumination	Edgelit fluorescent		
	Viewing Angle	+65° horizontal, +65° / -45° vertical		
	Touch screen	Resistive membrane		
	Large Hard Keys	12 x Optional large engravable pushbuttons with available backlighting.		
	Small Hard Keys	4 x Optional small backlit pushbuttons, engravable on faceplate		
	Reset	1 x Miniature pushbutton behind faceplate, used to reset the touch panel.		
	Biometric Scanner	Identifies up to 30 users by fingerprint		
	Light Sensor	Programmable photosensor for automatic backlight dimming.		
	DDR SDRAM Memory	512 MB		
	Flash Memory	1 GB		
	Operating System	Microsoft R Windows R XP Embedded		
	Graphic Engine	16-bit non-palette; 65,536 colors; Synapse image rendering algorithm; multi-mode objects; DNav dynamic menu objects; dynamic graphics; PNG translucency; full motion (60 fps) animation; transition effects.		

Ser No	Sub System	Specifications	Model No / Compliance	Deviation if any
	Ethernet	10 Base T/100Base TX, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, IEEE 802.3U compliant		
	Video Streaming/File Formats	MPEG4 and MJPEG		
	Audio	Dual onboard microphones, built-in stereo speakers (min 1W), balanced line-level output		
	Power Connector	1 x 2 pin 3.5mm detachable terminal block; 24 Volt DC power input		
	LAN Connector	1 x 8 wire RJ45 with 2 LED indicators: 10Base T/100Base TX Ethernet port		
	USB Connector	2 x USB ports for keyboard, mouse and storage devices		
	Audio Connector	1 x 5 pin 3.5mm detachable terminal block; balanced/unbalanced stereo line-level audio output		
	Power Requirement	36 Watts (1.5 Amps) @24 Volts DC		
OEM Certification		All features and functionality should be certified by the OEM		

Notes:-

1. Following certificates will be provided:-
 - (a) ISO 9000/9001/9002 and OEM certificate as applicable.
 - (b) Authorized dealership / channel partner certificate as applicable.
 - (c) All pages have to be initialed by authorized signatory.
2. Original literature / documents from the OEM will be produced during the TEC (no Xeroxed / Downloaded material from Web site will be accepted), failure to do so may lead to rejection of quotes.
3. All technical literature/software/handbook etc will be supplied by the vendor along with each equipment.
4. Provide details of OEM, make and models of all items. Failure to provide details will render the bid invalid. Deviation statement will be provided along with the bid for each item of specification, for all items.
5. Equivalent or better technology may be offered in lieu of items quoted below
6. **Confidentiality** - The vendor shall give an undertaking that no confidential or restricted information communicated or made accessible during installation will be disclosed to any one.

(Company Seal)

Place : _____

Dated : _____

(Authorized Signatory of Company)

Name _____

Designation _____

Contact No _____

Appendix 'B'

(Refers to Para 1 of Tender Enquiry)

COMMERCIAL BID**MODERNIZATION OF HQ NORTHERN COMD OPS ROOM AND
INSTALLATION OF DATA WALL****Note : Provide details of make and models of all items. Failure to provide details will render Bid invalid. OEMs from Russia, UK, US, EU and Japan will only be preferred**

Ser No	Item	Qty	Make and Model	Unit Price	Total Price
1.	Data / Video Wall	01			
2.	Data Wall Controller with Wall Management Software	01			
3.	Interactive Panels	03			
4.	Map Dispenser for 8 Maps with Controller	02			
5.	Integrated Presentation Lectern	01			
6.	Digital Visual Presenter	01			
7.	Data Matrix Switcher	01			
8.	Video Matrix Switcher	01			
9.	Workstation	02			
10.	Digital Video Recorder	01			
11.	UPS	01			
12.	Interactive Pads	06			
13.	Access Control System	01			
14.	Cable Cubbies	05			
15.	Equipment Rack	01			
16.	Room Scheduler	01			
17.	Installation/ Integration/ commissioning charges incl cost of cables				
	Grand Total				

- All costs should include basic cost and taxes to be levied.
- Offer is valid up to _____.
- Demand Draft No _____ dated _____ of _____ Bank is attached as Earnest Money Deposit.

(Company Seal)

Place : _____

Dated : _____

(Authorized Signatory of Company)

Name _____

Designation _____

Contact No _____

Annexure I to Appendix 'A'
(Refers to Para 13 of Tender Enquiry)

TERMS AND CONDITIONS FOR AMC

1. **Bank Guarantee for AMC.** The entire AMC period will be covered by a Bank Guarantee equal to the annual value of the AMC. This bank guarantee will be renewed every year and will be valid for a period of 13 ½ months commencing at the date of commencement of the AMC every year.
2. **Commencement of AMC.** If the Customer decides to exercise the option to enter into AMC upon expiry of the free warranty period, the agreement for AMC will be signed with the appropriate authority one month prior to the expiry of the free warranty period. In case of failure to do so, Bank Guarantee for Warranty submitted by vendor will be en-cashed.
3. **Renewal of AMC.** The AMC will be renewed every year 12 calendar months from its commencement at the option of the user. If the Customer decides to exercise the option to renew the AMC on expiry of the previous years AMC, the agreement for the renewed AMC will be signed with the appropriate authority one month prior to the expiry of the previous year's AMC. In case of failure to do so, Bank Guarantee for previous years AMC, submitted by vendor will be en-cashed.
4. Payment due from the customer under this contract shall be paid in arrears towards the end of the corresponding half yearly period, in two equal installments. The invoice along with pre-receipted bill will be forwarded by the vendor to the customer immediately after expiry of half yearly period.
5. In case the uptime works out to be less than 95% but more than 60%, the vendor agrees to percentage rebate which will be adjusted in the payment to be made at the end of the corresponding six-monthly period. The vendor also agrees that no payment will be due to him for half yearly period during which, if he fails to maintain uptime of 60%. System availability calculation will be done as per **Appendix 'E'** of Tender Enquiry.
6. No payment will be due to the contractor in case he fails to maintain uptime upto a min of 60%.
7. In case of breakdown of any equipment/ancillaries, the downtime will commence after 4 working hours after informing the vendor's 'Customer Support Department(s)'. The address Customers Support Department will be intimated by the vendor to the customer. If the vendor fails to rectify the defect even after expiry of 30 days from the date, the defect was first reported, the customer shall have the right to get the defect rectified by a third party without affecting the vendor's obligations for maintenance of the systems under this contract. Payment thus made to the third party will be deducted from the amount due to the vendor under this contract. In case the payment to the third party exceeds the amount due to the vendor the same will be recovered from the Bank Guarantee provided by the vendor.
8. The vendor will ensure an uptime of 95% of the system (99% in case of Data Cubes and Controller) in **Appendix 'A'**.
9. The maintenance service does not include:-
 - (a) Electrical work external to the accessories, attachments, machine or other devices not covered under the contract.
 - (b) Furnishing platens, supplies of accessories, painting or refinishing of machines or furnishing material therefore, making specification charges or performing a service connected with relocation of machines or addition or removing accessories, attachments of other devices.
10. Maintenance of software shall cover restoration, debugging and updating including technical documentation free of cost, if received free of cost by the vendor.
11. In case of termination of contract, the vendor will hand over the system in fully functional state. If the vendor fails to hand over the complete system in fully functional state at the time of termination of contract, the customer shall have the right to get the system repaired by any third party at the expense of the contractor and recover cost from the Bank Guarantee.
12. The AMC shall include both preventive and corrective maintenance to be carried out by vendor of the computer systems of the customer.

Appendix 'C'

(Refers to Para 14 of Tender Enquiry)

CERTIFICATE

It is certified that all the terms and conditions as laid in the above paragraphs and anywhere else in the tender and its appendices are accepted by the company and we will abide by them. It is further certified that any cost incurred on additional hardware/ software/ networking components required to complete the integrated turnkey project would be borne by us.

(Company Seal)

Place : _____

Dated : _____

(Authorized Signatory of Company)

Name _____

Designation _____

Contact No _____

Appendix 'D'

(Refers to Para 23 of Tender Enquiry)

**TERMS AND CONDITIONS FOR MODERNIZATION OF HQ NORTHERN COMD OPS ROOM
INCLUDING INSTALLATION OF A DATA WALL**

1. **Validity.** Prices are valid till _____ (Fill date) (minimum 180 days from the date of closing of tender).
2. **Payment Terms.**
 - (a) 40% of the total project cost will be paid on delivery of the hardware, commercial software components at each sites.
 - (b) 30% of the total project cost will be paid on satisfactory acceptance of the hardware and software.
 - (c) 20% of the total project cost will be paid on satisfactory performance of all the components of the project and on receipt of satisfactory installation report by the user.
 - (d) Balance 10% of the project cost will be paid on successful completion of training and acceptance in total by the user.
3. **Performance Clause.** The vendor shall furnish a performance Bank Guarantee equal to ten percent (10%) of the total value of the contract within seven days of the receipt of supply order. In case of non adherence to the delivery schedule for all deliverables of the project as given in para 3 of the Tender, liquidated damages as given in paras 10 and 11 of the Tender and paras 6, 7 and 8 below will be deducted from this amount. Bank guarantee will be valid till twelve weeks after the expiry of the warranty.
4. **Delivery Period.**
 - (a) Delivery of all hardware and software as given in this tender enquiry, will be completed within **four weeks** of placement of the Supply Order.
 - (b) Installation of all equipments as given in this tender enquiry will be completed within **two weeks** of placement of supply order.
 - (c) The systems will be subjected to Acceptance Test Procedure (ATP) to test the individual components and successful integration of all components after their installation. The free warranty period for the corresponding system at each location will start only from the day the ATP is completed successfully and the complete system is accepted by the customer for operational purpose.
5. **Liquidated Damages (LD).** If the vendor fails to complete in full, all deliveries of hardware, commercial software within the stipulated period, in accordance with this supply order, the vendor shall pay to the Customer - Headquarters Northern Comd GS (Sys), Care of 56 Army Post Office, LD, at the rate of one percent (1%) of the total value, for each complete week or part thereof, of delay upto a maximum of ten percent (10%) of the value of supply order. Thereafter the CUSTOMER will have right to terminate the supply order in the case of such delay beyond 10 weeks, and the customer would have the option to buy the hardware and commercial software from the market at the vendors risk and cost. The mode and method of such risk purchase would be at the total discretion of the Customer - Headquarters Northern Comd GS (Sys), Care of 56 Army Post Office.

6. **Calculation of LD.** LD will be calculated and will be deducted out of the payments due, to the vendor at the discretion of the user.
7. **Method of Payment of LD.** The amount charged as LD shall be deducted by the Customer from the amount due for payment to the Vendor. If the amount of such LD exceeds the payments due to the vendor, the vendor shall within 30 (thirty) days make payment to the customer in full and final settlement of claims failing which the Bank Guarantee will be encashed to make good the amount exceeding the payments due to the vendor.
8. This includes installation of all hardware and commercial software at Srinagar.
9. **Acceptance Testing Procedure (ATP).** The system once delivered will be subjected to an ATP to test individual components. The details of the procedure will be worked out jointly between the vendor and the users before the finalization of the contract. The vendor will provide the necessary diagnostic software to check the hardware. The specifications of the equipments will be in conformity with the details provided in the tender. A physical check of the technical specifications will also be carried out during the ATP; if any discrepancy is found at that time suitable legal action as deemed necessary by this Headquarters will be taken which may include with holding of performance bank guarantee, cancellation of the supply order and even black listing of the vendor. It will be ensured that the equipment delivered to this Headquarters is with original seal / packing intact. The user will issue an acceptance certificate on successful completion of acceptance testing.
10. **Integration.** All the software, hardware and accessories to include networking components etc, to be procured as part of the project will be seamlessly integrated with the existing IT infrastructure as part of the turnkey project. All the issue related with the integration and incompatibilities etc, of any, will be resolved by the vendor. As these are turnkey projects, the vendor will carry out necessary installations at Udhampur. The vendor is bound to make up for any shortcomings encountered in successful implementation of the turnkey project at his own risk and cost.
11. **Warranty.** The date of issuing the acceptance certificate would be deemed to be the date on which the warranty will commence. The vendor will provide on site comprehensive warranty of **three years** for hardware and system software as given by the OEM from the date at acceptance at the site.
12. The vendor will abide by the delivery schedule as laid out in **paragraph 4 above and elsewhere in the tender enquiry.**
13. The vendor will deposit a bank guarantee equal to ten percent (10%) of the total project cost within seven days of receipt of supply order.
14. All prices will be the landed costs, inclusive of all taxes, levies, freight etc. All hardware items for which excise duty is applicable will be specific in commercial bid. Vendor will be responsible to produce excise duty certificate in respect of all such items, whether manufactured by the vendor or otherwise.
15. Only the form supplied along with this tender enquiry will be used for submission of technical and commercial quotes. Vendors will affix their firms stamp in the space provided at the top of the each sheet and the authorized signatory of the firms must sign this also. Additional sheets duly authenticated, may be attached if necessary to elucidate specifications to clarify a point.

16. **Please ensure that this is your best and final offer.** Quotes once received will **NOT** be changed during any stage of the TEC or PNC. If there is any doubt, that must be clarified from this headquarters before submission of the final bids. All items stated in the tender enquiry will be quoted. Failure to do so would lead to rejection of both technical and commercial bids.

17. **Annual Maintenance Contracts (AMC).** AMC cost will **NOT** be included to evaluate the overall project cost. However, while determining the L1 vendor, AMC charges will also be taken into account along with the project cost. AMC will cover all comprehensive on site maintenance of the complete network systems as given in warranty clause (Para 12 refers). Hence, clause of AMC for **seven years** after warranty period should be quoted in the form for financial bid and condition with respect to payments will be made on half yearly basis at the end of each half year, in terms and condition fwd along with letter calling for recorded quotation. Rate of AMC and terms of payments would be negotiated during the PNC and recorded in the PNC proceedings. Irrespective of the maintenance agreement with the vendor, the customer has the option to or not to contract annual maintenance with the vendor at the end of warranty and at the end of each AMC. If the customer decides to maintain the equipment through third party, it is obligatory and binding on part of the vendor to supply the requisite spares and software for maintenance of the deliverables till the life span of the equipment. The bank guarantee submitted by the vendor against the warranty period shall automatically be converted and utilized for AMC from succeeding year, unless both parties decides otherwise. The terms and conditions for AMC contract is given as **Annexure I to Appendix 'A'**. The vendor has to quote his acceptance and rate of AMC in the commercial bid, separately. In future, the maintenance charges will be paid on the basis of supply order and contract agreement only.

18. **Force Majeure Clause.** In the event of being prevented from delivering the supplies and services on the scheduled delivery date due to acts of God, acts of war, blockades, epidemics, riots, strikes, curfews, floods, fires, major accidents resulting in damage of supplies or other similar events of the same nature or reasons beyond vendor's control such delays shall constitute excusable delays provided:

- (a) Notices are given to the customer within 30 (thirty) days of the occurrence and cessation of such event.
- (b) If it can be established by the vendor, with documentary evidence, to the satisfaction of the customer that the above events: -
 - (i) Have delayed performance of the work.
 - (ii) Were beyond vendor's reasonable control, then the time for delivery shall be extended by a period not more than the duration of such events.

19. In case of occurrence of any of the events constituting excusable delays as above, continuing beyond 90 (ninety) days, the parties shall without delay meet to consult each other and try to find an appropriate remedy to the situation, failing which the customer shall have the right to terminate the contract wholly or in parts, by a written notice to the vendor. In the event of such termination, vendor shall forthwith refund to the customer the amount received by him with respect to that part of the contract so terminated with the interest thereon at the rate of 18% per annum.

Appendix 'E'

(Refers to Para 5 of Annexure I to Appendix 'A')

CALCULATION OF SYSTEM AVAILABILITY

1. The system availability shall be calculated as given below.
2. In order to calculate the system down time, the weightage factors, as given out in Annexure I have been assigned for each sub system/system. Down time of each sub system, which will contribute towards down time of the whole system, will be obtained by taking the product of the weightage factor and the down time (in hrs) of each sub system.
3. **Down Time.** The number of hrs a sub system is down shall be the time elapsed, four working hours after the malfunction is reported to the vendor by the customer, to the time the sub system is handed back to the customer, after repair/rectification.
4. Sub-system/System down time does not include the following:-
 - (a) Call has to be planned within contracted maintenance hours.
 - (b) Time for which the machine is shut off due to failure of power or causes other than machine breakdown.
 - (c) Sundays and holidays will be included in the downtime only if a complaint is logged with the vendor by 1300 hrs on the day preceding the Sunday/holiday. In case the complaint is logged after 1300 hrs on the day preceding the holiday the holiday (or holidays if there is more than one contiguous holiday) will not be taken in downtime but all subsequent holidays, till the complaint is rectified, will be taken into account.
5. The customer will maintain proper monthly efficiency report and these will be signed by the vendor's representative. Customer will also maintain proper records of the date and time of call logging and will also record the complaint no given by the vendor when the complaint is logged. The record will be signed by the service engineer of the vendor when he visits to rectify the complaint.
6. **Calculation of Down Time.**
 - (a) No of hrs Sub System X down - X Hrs (No of working days sub-system X down * 8)
 - (b) Weightage factor of Sub System X - Y.
 - (c) Weighted Sub-system downtime - $X * Y = Z$ (hrs)
 - (d) Total System Down Time (TSDT) in hrs = Sum of contribution of weighted down time of all Sub Systems => $TSDT \text{ (hrs)} = Z_1 + Z_2 + \dots + Z_n$ (Where Z_1, Z_2 are weighted system down times of each sub-system comprising the system).
 - (e) $TSDT \text{ (days)} = TSDT \text{ (hrs)} / 8$
 - (f) Actual System Uptime %age = $\frac{\text{No Working days} - TSDT \text{ in days}}{\text{No. working days}} \times 100 = U\%$
 - (g) Required System Uptime = 95%

IF REQUIRED SYSTEM UPTIME IS GREATER THAN ACTUAL SYSTEM UPTIME

7. Deviation in Sys Uptime = $\frac{\text{Required Sys Uptime} - \text{Actual Sys Uptime}}{\text{Required Systems Uptime}} \times 100$
 $= \frac{(95-U)}{100} \times 100$

95

DOWN TIME CALCULATION: WEIGHTAGE FACTOR

<u>Nomenclature</u>	<u>Weightage Factor (Y)</u>
1. Data / Video Wall and Controller	1.0
2. Rostrum / Stand with Built in Interactive Panel	0.5

Appendix 'F'

(Refers to Para 28 of Tender Enquiry)

ACKNOWLEDGEMENT SLIP

1. Refer to HQ Northern Comd, GS (Sys), c/o 56 APO Tender Enquiry No _____
_____ dated _____.
2. Acknowledged.
3. We will be / will not be able to take part in the tender enquiry. (Strike out which is not applicable).
4. Reasons for our inability to participate in the tender are given as under: -

(Company Seal)

Place : _____

Dated : _____

(Authorized Signatory of Company)

Name _____

Designation _____

Contact No _____