



प्रसार भारती/PRASAR BHARATI

भारत का लोक सेवा प्रसारक /India's Public Service Broadcaster

योजना एवं विकास एकक / Planning & Development Unit

आकाशवाणी भवन, संसद मार्ग /Akashvani Bhavan, Parliament Street

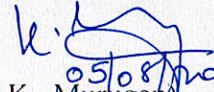
नई दिल्ली/New Delhi-110001

सं./No.J-11018/2/2023-STUDIO DESIGN - P&D UNIT

दिनांक:Dated:05.08.2024

Subject: Publication of Draft Technical Specification for Supply Installation, Testing and commissioning (SITC) of Visual Radio System for seeking Vendors/ OEMs feedback and budgetary quote

1. Draft Technical Specification for SITC of Visual Radio System is being uploaded to invite feedback from the Vendors/OEMs dealing with supply of such equipments. The interested parties are requested to provide comments/feedback on this technical specification.
2. Vendors/OEMs are also requested to provide over all percentage of local content in the offered equipment.
3. The budgetary price of the offered of Visual Radio System including installation, testing and commissioning may also be submitted.
4. All these information may be provided by E-mail to “ airstudiodesign331@gmail.com “ on or before 20.08.2024


(K. Murugan)

(Dy. Director General(E-SD))

For Director General

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आकाशवाणी भवन / Akashvani Bhavan
नई दिल्ली / New Delhi

PRASAR BHARATI
(BROADCASTING CORPORATION OF INDIA)
DIRECTORATE GENERAL: ALL INDIA RADIO
(P&D UNIT)

Technical Specification for SITC of Visual Radio System

1. GENERAL

- 1.1 This specification is for Supply, Installation, Testing & Commissioning of Software & hardware for “Visual Radio System” to be used at studio of 33 Akashvani Stations. Under this project, one existing studio of 33 Akashvani Stations (as per list at Annexure-I) shall be upgraded to work as “Visual Radio System”.
- 1.2 Visual Radio is a new concept in Radio Broadcasting where Radio’s Audio program is delivered in Multi-media mode (in form of Live videos, Music Videos & Multi-media graphics). Media of delivery is usually internet.
- 1.3 The Hardware shall be from OEMs having ISO27001, ISO50001, ISO20000 certifications.
- 1.4 All the offered products should be field proven. Documents in support of this clause should be provided.
- 1.5 The tenderer must submit the following documents along with the tender:
- (a) A Clause-by-clause full compliance statement as per format in Annexure-II in respect to all the clauses of specification from the original software developer(s) of the offered software & OEM of the offered hardware (Media Processor, Full HD PTZ Camera, Voice Tracking Camera, Audio Workstation, Digital Audio Cards and Ethernet Switch duly signed in original. Mere Signature on the copy of Akashvani Specification shall not be acceptable as a compliance statement. If compliance statement is incomplete or in format other than that in Annexure-II, the tender may be rejected outright. Compliance statement should be supported by record of various parameters of specifications in the technical literature enclosed with the tender.
 - (b) In addition to above, a separate point by point compliance statement duly signed by the bidder in respect of all the points laid down in the specifications for all the equipment/item(s) should also be submitted along with the bid by the bidder as per format in Annexure-II. In case the bidder does not have requisite experience and enters into an MOU/Consortium agreement with a partner(s), the point by point compliance statement in respect of all the points laid down in the specifications for all the equipment/item(s) shall be duly signed by the bidder as well as his partner(s).
 - (c) Detailed printed literature of the software & Hardware giving complete details of features and performance data on non-returnable basis to facilitate the technical evaluation.
 - (d) Back to Back Support Commitment from various OEMs for the warranty period of five Years.
 - (e) A letter from Hardware OEMs that none of the quoted product/model is nearing end of life.
 - (f) A copy of un-priced Bill of Material (BOM) as per Annexure-III indicating make, model of the offered product. Any tender, showing ambiguity in above terms shall be treated as incomplete and it will be rejected.
 - (g) Customer reference certificate and documents in support for the offered hardware and software.

- 1.6 The tenderer will be required to demonstrate the functions of the tendered system during technical evaluation in New Delhi. The tenderer will be required to arrange all necessary software & hardware for demonstration during technical evaluation. The demonstration of the system will have to be conducted with-in 15 days from the date of issue of call letter which will be emailed on given Email address. Non-compliance of demonstration within the stipulated time, may lead to disqualification of the tender.
- 1.7 Incomplete offers will be rejected out rightly.
- 1.8 The SITC work at all the stations will have to be completed **within 6 months** after the placement of firm order.
- 1.9 **The hardware as per Bill of Material shall be capable of working in environment given below:**
- a) The hardware should be able to operate on 230 V +/- 10% V, 48-52 Hz, single phase AC power supply.
 - b) All the drivers for hardware shall be supplied along with hardware.
 - c) Operating Environmental conditions: The equipment shall be able to work without any problem in the following conditions:
Operating Temperature: From 10° C to 35° C
Operating Humidity : Up to 80% RH (non-condensing) at 30° C.
 - d) Storage Environmental conditions: The equipment should be able to withstand the following conditions while being stored:
Storage Temperature : From -10° C to 65° C
Storage Humidity : From 5 to 95% humidity.
 - e) The system shall be used in the vicinity of high frequency & high Power Radio field. Therefore, the system shall conform to the protection requirements relevant to electromagnetic phenomena as per national/international standards.

2. SCOPE OF THE TENDER

- 2.1 The Scope of this tender is for supply, installation, integration, testing and commissioning of “**Visual Radio System**” including cabling, as per requirement, for integration of equipment for full functionality of Visual Radio System.
- 2.2 Any additional Hardware & software required for efficient functioning of various features of Visual Radio System shall be quoted & provided by the tenderer.
- 2.3 The Bill of Material giving item-wise requirement is given in Annexure-III.
- 2.4 Supplied Hardware & software etc. shall be configured for efficient working of offered Visual Radio System
- 2.5 All the connectors etc. required for implementation of system at each station will be supplied by the tenderer.
- 2.6 The complete system shall be tested for successful operation of the Visual Radio System.

3. FUNCTIONALITY REQUIREMENT FOR VISUAL RADIO SYSTEM:

- 3.1 **Live programme with Multiple Performers & Audience:**

One PTZ Camera shall focus on lead performer. Voice tracking Camera shall track the current performer when Lead performer is silent. Other camera(s) shall track the Audience & other performers as per requirement of Programme Director. The Video Output of selected Camera and Studio Audio from Audio Console shall go on Visual Radio. It should be possible to send output from two/three Cameras in multiple frame mode on Visual Radio. It should also be possible to insert certain predesigned graphics in the video at certain times.

3.2 Live programme with two/three Performers in Manual Mode:

Cameras shall focus on performers and Video Output of selected Camera and Studio Audio from Audio Console shall go on Visual Radio. It should be possible to send output from two/three Cameras in multiple frame mode on Visual radio. It should also be possible to insert certain predesigned graphics in the video at certain times.

3.3 Live programme with two/three Performers in Automatic Mode:

Video output of Audio tracking Camera and Studio Audio from Audio Console shall go on Visual Radio. It should also be possible to insert certain predesigned graphics in the video at predecided times.

3.4 Anchor Based Programme:

Video output of Audio tracking Camera and Studio Audio from Audio Console shall go on Visual Radio. It should be possible to play selected video during certain segment of programme and during this time Played Video and Studio Audio from Audio Console shall go on Visual Radio. It should also be possible to insert certain predesigned graphics in the video at certain time.

4. HARDWARE SPECIFICATION :

4.1 Quad Channel HD Media Processor

4.1.1 Common Feature of Media Processor

4.1.1.1 It should have function like video switcher, recorder, and streaming device.

4.1.1.2 It should allow to mix four video\computer sources to create engaging and attractive presentations and productions, complete with logo overlay, optional timestamp, and your choice of background.

4.1.1.3 This should have feature to records each HD input independently (plus the program output).

4.1.1.4 It should streams live to users local and global over preferred CDN, including YouTube, Twitch, Facebook, and Livestream . It should also integrates with applications such as Wirecast, vMix, and OBS Broadcast.

4.1.1.5 It should captures video from HDMI sources such as professional cameras, presentation laptops, decoders, and visualizers. The unit can also ingest video from standard IP cameras that support RTSP streams. HD-quality videos can be laid out dynamically with shots arranged side-by-side, picture-in-picture, or overlaid – as per our requirements. Layouts can be saved as templates, giving each production consistency and simplifying the production process for the operator. Audio embedded in video inputs can be mixed with the line-in jacks to provide you an excellent level of audio control.

4.1.2 Technical Parameters of Media Processor

S. No	Description	Technical Parameters	Compliance (Yes/No)	Remarks
1	Number / Signal	4 HDMI digital video		
2	Connection	4 female HDMI type-A		
3	Resolution Range	480i~1080p 60fps or better		
4	IP Source	IP PTZ / Box Cameras RTSP Source (H.264 1080p 60/30fps)		
5	Video Compression	H.264/AVC 4:2:0 8bit color Encoding profile: High, Main, Baseline		
6	Bitrate	200 kbps to 10 Mbps		
	OUTPUT			
7	Number / Signal	Min 3 x H.264/AVC digital video over Ethernet Min 2 x HDMI digital video		
8	Scaled Resolution	1080p		
9	Frame Rate	30 / 60 fps		
10	Internal Storage	Standard 1TB HDD / Optional 2TB HDD		
11	External Storage	1 USB 3.0 port in front panel		
12	File Type	H.264 and AAC in an MP4 container, JPEG		
13	Resolution	360p, 720p, 1080p		
14	Frame Rate	Max. 1080p 60/30 fps		
	Audio input			
15	Number / Signal	4 Line In (stereo, 3.5mm phone jack) 4 stereo, digital de-embedded audio from HDMI IP Audio Source (RTSP, AAC-Raw, 16K / 44.1K / 48K)		
	AUDIO PROCESSING			
16	Compression	AAC-LC		
	AUDIO OUTPUT			
17	Number / Signal	1 stereo, unbalanced 3.5mm phone jack 2 stereo, digital de-embedded audio from HDMI		
	COMMUNICATION			
18	USB	2 rear panel USB 2.0 type A Support USB mouse, keyboard, HID touch display		
19	Serial Control	RS-232 / RS-485 port		
	ETHERNET			
20	Ethernet Host Port	1 female RJ-45 10/100/1000 Base-T high/full duplex		
21	Streaming Protocol	Pull: RTSP Push: RTMP / RTMPS / MPEG-TS TCP, UDP, HTTP DHCP Client		

	FUNCTIONS			
22	Supports IP Sources	IP Cameras, RTSP		
23	Scenes Switch	Yes, preset for layout, background, and overlay		
24	Layout Switch	Yes (Single, PIP, PBP, 3 and 4 windows layouts)		
25	Background Switch	Yes		
26	Overlay	PNG overlay or System time overlay		
27	File Backup	FTP / SFTP / NAS(CIFS/SMB, NFS) / USB Flash Drive		
28	Power Supply	DC In , 12 V / 2A		
29	Power Consumption	24W or better		
30	Dimensions	Standard 1u rack dimensions 122.5mm(L) x 431mm (W) x 44.3mm (H)		
31	Weight	1.2 kg or lesser		

4.2 Technical Parameter of Full HD PTZ Camera

S. No	Description	Specification	Compliance (Yes/No.	Remarks
1	Sensor	1/2.8" 2.16M or better		
2	Video Format	1080p: 60 / 50 / 30 / 25 720p : 60 / 50 / 30 / 25		
3	Video Output (HD) Interface	HDMI / Ethernet / 3G-SDI / USB 3.0		
4	Optical Zoom	12x or better		
5	Viewing Angle	72.5° (H) 40.8° (V) 83.2° (D) or better		
6	Aperture	F1.6~F2.8 or better		
7	Focal Length	3.9mm~46.8mm		
8	Shutter Speed	1/1 ~ 1/10,000 sec or better		
9	Minimum Object Distance	1000/1500mm (Wide/Tele)		
10	Video S/N Ratio	> 50dB or better		
11	Minimum Illumination	1.0 lux (F1.6, 50IRE, 30fps)		
12	Gain Control	Auto / Manual		
13	Panning Angle	-170°~ +170° or better		
14	Panning Speed	0.2°~120°/sec or better		
15	Tilting Angle	+90°~-30°		

16	Tilting Speed	0.2°~80°/sec		
17	IP Stream	Triple Streaming Structure: First : H.264 1080p60 Second : H.264 720p30 Webpage : H.264 720p30		
18	HDMI / 3G-SDI	1080p60		
19	Preset Positions	256 or more		
20	IP Compression	H.264		
21	USB Output	1080p60		
22	IP Protocol	RTSP / RTMP / RTMPS / *SRT		
23	Control Protocol	VISCA / VISCAIP/ *ONVIF		
24	DC In	12V +/- 20%		

4.3 Technical Parameter of Voice Tracking Camera

S. No	Description	Specification	Compliance (Yes/No)	Remarks
1	PTZ Sensor	1/2.8" 8.51M or better		
2	Video Format	2160p : 60/50/30/25 1080p : 60 / 50 / 30 / 25 720p: 60/50/30/25 1080i : 60 / 50		
3	Video Output (HD) Interface	HDMI / Ethernet / 3G-SDI / USB		
4	Optical Zoom/ Digital Zoom	12X/8X or better		
5	PTZ Viewing Angle	81° (H) 50.5° (V) 88.9°(D)		
6	Aperture	F1.8 ~ F3.6 or better		
7	Focal Length	3.4 ~ 43.3 mm or better		
8	Shutter Speed	1 / 25 ~ 1 / 10,000 sec		
9	Minimum Object Distance	Tele: 1.5m / Wide : 1m		
10	Video S/N Ratio	> 50dB or better		
11	Minimum Illumination	0.5 lux (F1.8, AGC ON)		
12	Gain Control	Auto / Manual		
13	Panning Angle	+170°~-170° or better		
14	Panning Speed	0.1°~100°/sec		
15	Tilting Angle	+90°~-30° or better		

16	Tilting Speed	0.1°~60° or better		
17	IP Stream	Main: 2160p60 Second: 480p30		
18	HDMI / 3G-SDI	2160p 60/ 1080p60		
19	Preset Positions	256 or more		
20	IP Compression	H.264 / HEVC (H.265)		
21	USB Output/USB Compression	2160p30/H.264 / MJPEG/NV12		
22	IP Protocol	HTTP/ RTSP / RTMP / RTMPS / SRT		
23	Control Protocol	VISCA / ONVIF		
24	Network PoE	PoE+ (IEEE802.3at)		
25	DC In	12V +/- 20%		
26	Power consumption	PoE : 15W DC In : 14W		
27	Audio Input	Line In		
28	Audio Output	Ethernet / USB / HDMI / SDI		
29	Audio Compression Format	AAC/ PCM		

4.4 Digital Audio Workstation with Digital Audio Card

4.4.1 Technical Parameter of Digital Audio Workstation

S.No.	Component	Description	Compliance (Yes/No)	Remarks
A.	Processor	Processor with 8 Core 16 Thread, Base Frequency 3.10/2.10 Ghz or better , Max. Turbo Frequency 4.5 Ghz or better		
B.	No. of Processor	One		
C.	Memory	16 GB non- ECC DDR4 or better , 4400 Mhz or better, upto 128 GB ECC Memory 4 DIMM Slots Expandable		
D.	Storage	1x512 GB, M.2 NVMe SSD for OS and Application Software and 1x1 TB SATA 7200 RPM HDD		
E.	Storage Controller	Supports up to (3) M.2 PCIe NVMe SSD and up to (3) 3.5" SATA® or (4) 2.5" SATA® on motherboard slot.		

F.	Graphics	Integrated Graphics Card		
G..	Display	Wide Aspect 23.8” TFT Monitor supporting resolution of 1920x1020		
H.	Keyboard	USB Standard Black Keyboard (Same OEM as Workstation))		
I.	Mouse	USB Optical Scroll Mouse (Same OEM as Workstation)		
J.	Audio Controller	Professional PCIe Audio Card		
K.	Network	Factory Installed 10/100/1000 Ethernet Port (2 Nos.)		
L..	PCI Slots	Min 1 PCIe Gen4 x16 2 PCIe Gen3 x4 Slot		
M.	I/O Ports	Min. 1x USB 3.2 Gen2 Type-A with PowerShare Min. 3x USB 3.2 Gen2 Type- A Ports Min 1x USB3.2 Gen2 Type –C Ports Min 1x USB3.2 Gen2x2 Type –C Ports Min. 6xUSB 2.0 Type-A 3 Audio Jacks (In/Out/Mic) 2 RJ45 Ports 2 DP 1.4 Ports 1 x HDMI/DVI		
N.	Networking Protocols	IPv4 & IPv6 should be supported		
O.	Operating System	Windows 11 Professional(64 Bits) OS may either be Factory (Hardware OEM) preloaded (with Recovery Media/Disk) or Licensed to “Akashvani” with Media .		
P.	Cabinet	Tower Toolless Chasis		
Q.	OS Certification	Windows Certification		
R.	Power Supply	Minimum W 80+ Gold Power Supply or better		
S.	Safety Certification	BIS, FCC and CE Certification		
T.	Security	Integrated Panel /Pad lock/Chassis intrusion switch		
U.	Noise Emission	Noise Level should be 20-25 db with Hard-Disk operating. The tenderer shall submit document mentioning the noise		

		level		
V.	Software	Anti-virus software licenced to “Akashvani”(with Free Virus definition updates & patches for a period of one years)		
W.	Recording /Editing Software	Adobe Audition 24.0/ Sound Forge Pro 18 (With One Year License)		

4.4.2 Technical Parameter of Digital Audio Card

4.4.2.1 COMMON FEATURES OF PROFESSIONAL AUDIO CARD

- 4.4.2.1.1 The Professional Audio Cards shall have state-of-the-art digital circuitry.
- 4.4.2.1.2 The Professional Audio Cards should be suitable for reliable operation on 24x7x365 basis working.
- 4.4.2.1.3 It should be compatible to PCI EXPRESS X1(x2,X4,x8,x16) Bus/Format.
- 4.4.2.1.4 It should have OS compatibility with Windows 10 and 11(64 Bits).
- 4.4.2.1.5 It should have main on-board processing feature of PCM Play & Record, MPEG Layer I & II Play & Record, Layer-3 Play, real-time mixing, level adjusting, format & frequency conversion.

4.4.2.2 Audio Inputs

- 4.4.2.2.1 Professional Audio Cards should accept the Stereo Digital Audio Inputs.
- 4.4.2.2.2 Professional Audio Card shall have a built-in Sampling Rate convertor on each Digital input so as to convert Digital Audio Signals of different sampling rate to desired sampling rate.
- 4.4.2.2.3 Digital Analog Input should be through 3-Pin XLR connector, if necessary interface cable with connectors should be included with the Audio card.
- 4.4.2.2.4 The Professional Audio Card should accept digital audio input signal with sampling rates of 44.1 KHz, 48 KHz, 96 kHz and of 16/24 Bit.

4.4.2.3 Audio Outputs

- 4.4.2.3.1 All digital outputs shall have AES-3 Signal format.
- 4.4.2.3.2 Digital Output should be through 3-Pin XLR connector, if necessary interface cable with connectors should be included with the Audio card.
- 4.4.2.3.3 Audio Specification of Two Stereo Channel Professional Audio Card
- 4.4.2.3.4 Digital Input Channels : Two AES/EBU professional inputs
- 4.4.2.3.5 Digital Output Channels :Two AES/EBU Professional Output
- 4.4.2.3.6 Supported Digital Audio Formats :Linear PCM Play & Record & MPEG-1, Layer-2 Play & Record and Layer-3 Play
- 4.4.2.3.7 Supported Sampling Rate : Upto 48 kHz
- 4.4.2.3.8 Supported Bit : Upto 24 bits
- 4.4.2.3.9 Supported MPEG-1 Layer-2 Bitrates:24 to 192 Kbps
- 4.4.2.3.10 Frequency Response (at 48 Khz S/R) : $\pm 0.5\text{dB}$ (from 20 Hz to 20 Khz)
- 4.4.2.3.11 Signal/Noise Ratio at Nominal Level :>85 dB un-weighted
- 4.4.2.3.12 Distortion+ Noise(20 Hz to 20 Khz) :< 0.01% at Maximum Output with 80 Khz

Low Pass Filter

- 4.4.2.3.13 Cross Talk(Analog In or Out) 1 Khz at +23 dBu :≤ -100dB
 4.4.2.3.14 SRC on Digital Inputs :Should be available
 4.4.2.3.15 Workstation Bus Support :PCI-Express

4.5 Technical Parameter of 16 Port POE+ Ethernet Switch

S.No.	Description	Compliance (Yes/No)	Remarks
4.5.1	Gigabit Ethernet Switch shall be provided for interconnecting Visual Studio Equipments		
4.5.2	The switch shall be pre-installed and preconfigured.		
4.5.3	Each switch port should set itself independently for the optimal speed and determines whether to run in half- or full-duplex mode automatically.		
4.5.4	Switch shall support both Fast and Gigabit Ethernet devices in the same network.		
4.5.5	Minimum 8 port of network Switch should have sufficient PoE power budget to operate 4 above mentioned cameras.		
4.5.6	The switch should also provide automatic cable detection.		

5. WARRANTY

- 5.1 The software & hardware shall be warranted for trouble free operation for a minimum period of five years from the date of commissioning.
 The bidder shall submit a letter from OEM for confirmation of back to back support commitment for five years from the date of commissioning at respective site of Akashvani. Tenderer shall provide round the clock support for satisfactory working of complete system.
- 5.2 No separate charges will be paid for visit of engineers for attending to faults and repairs or supply of spare parts.

Annexure –I

Stations Covered under BIND 2021-26 Scheme

S.No.	Station Name	State/UT	Zone	GSTIN
1	Patna	Bihar	EZ	10AAAJ P0288R2ZT
2	Ranchi	Jharkhand	EZ	20AAAJ P0288R1ZT
3	Cuttack	Odisha	EZ	21AAAJ P0288R1ZR
4	Kolkata	West Bengal	EZ	19AAAJ P0288R1ZC
5	Itanagar	Arunachal Pradesh	NEZ	12AAAJ P0288R2ZP
6	Guwahati	Assam	NEZ	18AAAJ P0288R3ZC
7	Shillong	Meghalaya	NEZ	17AAAJ P0288R1ZG
8	Gangtok	Sikkim	NEZ	11AAAJ P0288R1ZS
9	Agartala	Tripura	NEZ	16AAAJ P0288R2ZH
10	Imphal	Manipur	NEZ	14AAAJ P0288R1ZM
11	Aizawl	Mizoram	NEZ	15AAAJ P0288R1ZK
12	Kohima	Nagaland	NEZ	
13	Delhi	Delhi	NZ	
14	Srinagar	Jammu & Kashmir	NZ	01AAAJ P0288R2ZS
15	Jaipur	Rajasthan	NZ	08AAAJ P0288R1ZF
16	Chandigarh	Chandigarh (UT)	NZ	04AAAJ P0288R3ZL
17	Lucknow	Uttar Pradesh	NZ	09AAAJ P0288 R2ZC
18	Dehradun	Uttarakhand	NZ	05AAAJ P0288R3ZJ
19	Jalandhar	Punjab	NZ	
20	Leh	Laddakh	NZ	
21	Shimla	Himachal Pradesh	NZ	02AAAJ P0288R1ZR
22	Rohtak	Haryana	NZ	
23	Vijaywada	Andhra Pradesh	SZ	37AAAJ P0288R1ZE
24	Bengaluru	Karnataka	SZ	29AAAJ P0288R2ZA
25	Thiruvananthapuram	Kerala	SZ	32AAAJ P0288R4ZL

(K N Pandey)
ADE(SD)(K. Murugan)
DDG(SD)(Jitender Pruthi)
DDD(NBH)(Aditya Chaturvedi)
DDG(Project-NZ)

S.No.	Station Name	State/UT	Zone	GSTIN
26	Chennai	Tamil Nadu	SZ	33AAAJP0288R1ZM
27	Port Blair	A&N	SZ	
28	Hyderabad	Telangana	SZ	36AAAJP0288R1ZG
29	Raipur	Chhattisgarh	WZ	22AAAJP0288R2Z0
30	Panaji	Goa	WZ	
31	Bhopal	Madhya Pradesh	WZ	23AAAJP0288R2ZM
32	Mumbai	Maharashtra	WZ	27AAAJP0288R2ZE
33	Ahmedabad	Gujrat	WZ	

Format of Compliance statement

Sr. No of AIR specs.	AIR specs.	Compliance (Yes/No)	Performance Fig. of equipment Offered.	Reference to the Page Number of enclosed literature	Deviations, in case of non-compliance	Optional items if any required to make the system Compliant to AIR specs.	Features in the offered Product which exceeds AIR specs.
1.	2.	3.	4.	5.	6.	7.	8.

Annexure-III

List of Consignee with Bill of Material

Sr. No	Consignee	Work Station with Audio Card	TFT Monitor	Mouse + Keyboard	PTZ Camera With Stand	Voice Tracking Camera With Stand	Media Processor	Ethernet Switch	CAT 6 Cable
1.	Akashvani Kolkata	1	1	1+1	3	1	1	1	100 Mtr.
2.	Akashvani Patna	1	1	1+1	3	1	1	1	100 Mtr.
3.	Akashvani Ranchi	1	1	1+1	3	1	1	1	100 Mtr.
4.	Akashvani Cuttak	1	1	1+1	3	1	1	1	100 Mtr.
5.	Akashvani Itanagar	1	1	1+1	2	1	1	1	100 Mtr.
6.	Akashvani Guwahati	1	1	1+1	3	1	1	1	100 Mtr.
7.	Akashvani Imphal	1	1	1+1	2	1	1	1	100 Mtr.
8.	Akashvani Shillong	1	1	1+1	2	1	1	1	100 Mtr.
9.	Akashvani Aizawl	1	1	1+1	2	1	1	1	100 Mtr.
10.	Akashvani Kohima	1	1	1+1	2	1	1	1	100 Mtr.
11.	Akashvani Gangtok	1	1	1+1	2	1	1	1	100 Mtr.
12.	Akashvani Agartala	1	1	1+1	2	1	1	1	100 Mtr.
13.	Akashvani Chandigarh	1	1	1+1	2	1	1	1	100 Mtr.
14.	Akashvani Delhi	1	1	1+1	3	1	1	1	100 Mtr.
15.	Akashvani Rohtak	1	1	1+1	2	1	1	1	100 Mtr.
16.	Akashvani Shimla	1	1	1+1	2	1	1	1	100 Mtr.
17.	Akashvani Srinagar	1	1	1+1	3	1	1	1	100 Mtr.
18.	Akashvani Leh	1	1	1+1	2	1	1	1	100 Mtr.
19.	Akashvani Jalandhar	1	1	1+1	3	1	1	1	100 Mtr.
20.	Akashvani Jaipur	1	1	1+1	2	1	1	1	
21.	Akashvani Lucknow	1	1	1+1	3	1	1	1	100 Mtr.
22.	Akashvani	1	1	1+1	3	1	1	1	100 Mtr.

(K N Pandey)
ADE(SD)(K. Murugan)
DDG(SD)(Jitender Pruthi)
DDD(NBH)(Aditya Chaturvedi)
DDG(Project-NZ)

	Dehradun								
23.	Akashvani Port Blair	1	1	1+1	2	1	1	1	100 Mtr.
24.	Akashvani Vijaywada	1	1	1+1	2	1	1	1	100 Mtr.
25.	Akashvani Bengaluru	1	1	1+1	3	1	1	1	100 Mtr.
26.	Akashvani Thiruvananthapuram	1	1	1+1	3	1	1	1	100 Mtr.
27.	Akashvani Chennai	1	1	1+1	3	1	1	1	100 Mtr.
28.	Akashvani Hyderabad	1	1	1+1	3	1	1	1	100 Mtr.
29.	Akashvani Raipur	1	1	1+1	2	1	1	1	100 Mtr.
30.	Akashvani Bhopal	1	1	1+1	2	1	1	1	100 Mtr.
31.	Akashvani Panaji	1	1	1+1	2	1	1	1	100 Mtr.
32.	Akashvani Ahmedabad	1	1	1+1	3	1	1	1	100 Mtr.
33.	Akashvani Mumbai	1	1	1+1	3	1	1	1	100 Mtr.
34.	Total	33	33	33+33	82	33	33	33	3300 Mtr.