

REPUBLIC OF TURKEY
ISTANBUL SEISMIC RISK MITIGATION and EMERGENCY
PREPAREDNESS PROJECT (ISMEP)
LOAN NO: 4784-TU

PROCUREMENT OF
SUPPLY AND INSTALLATION OF AUDIO AND VIDEO EQUIPMENT
FOR AKFIRAT COMMAND AND CONTROL CENTRE
ICB NO: AF-GA2.3

ADDENDUM NO:3

The provisions of this Addendum are being issued to modify or amend certain provisions of the Bidding Documents as a result of changing circumstances or additional information being available from the Purchaser or in response to the queries raised by the prospective bidders in writing. The bidding documents are hereby amended as below:

Amendment No.	Bidding Document Page No.	Bidding Document Reference Clause	Clause in the Original Bidding Document	Amended Clause
1	224	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.1. Video Conference Unit Type 1	The unit must able to share content with the opposing party at 1080p30 resolution. There must be H.239 support for H.323 connections. Sharing content must not lead to a resolution loss in the imaging of participants.	The unit must able to share content with the opposing party at 1080p30 resolution. There must be H.239 support for H.323 and BFCP support for SIP connections. Sharing content must not lead to a resolution loss in the imaging of participants.
2	224	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot	The unit must support H.263 and H.264 for video codec; 1080p30, 720p60, 720p30, 4CIF and CIF for video resolutions in transmit and receive. The unit must support G.711, G.722, AAC-LD (at least 20 kHz) and stereo audio.	The unit must support H.263 and H.264 for video codec; 1080p60, 1080p30, 720p60, 720p30, 4CIF and CIF for video resolutions in transmit and receive. The unit must support G.711, G.722, AAC-LD or Siren22 (22 kHz) and stereo audio.

		2), 1. Video Conference System, Sub clause 1.1. Video Conference Unit Type 1		
3	224	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.1. Video Conference Unit Type 1	The unit must provide at least three HD video input interfaces (at least 2 (DVI-I or HDMI or HDCI) and 1 HD-SDI or DVI) and two DVI-I HD video output interfaces . The HD interfaces must have standard based connectors. DVI-I interfaces shall work instantly when the input source is connected without any reboot operation on codec.	The unit must provide at least three HD video input interfaces (at least 2 HDMI) and 1 HDMI or HDCI or HD-VI or 3G-SDI video output interfaces. HD interfaces shall work instantly when the input source is connected without any reboot operation on codec.
4	224	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.1. Video Conference Unit Type 1	The supplier shall provide 2 HD cameras of the same brand, supporting 1080p60 and 720p60 video output and 10x zoom or higher. The cameras must provide HD-SDI or HDCI video output interfaces. The cameras be able to be mounted on the ceiling with /without ceiling apparatus and sending image normally.	The supplier shall provide 2 HD cameras of the same brand, supporting 1080p60 and 720p60 video output and 10x zoom or higher. The cameras must provide HDMI or HD-VI or 3G-SDI or HDCI video output interfaces. The cameras must be able to be mounted on the ceiling with /without ceiling apparatus and sending image normally. If all the cameras cannot be connected to the terminal at the same time an additional hardware must be offered.
5	224	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System,		The videoconference unit should make a video call with Microsoft Lync 2010 or 2013 clients. The necessary equipments / licenses should be added in the offer.

		Sub clause 1.1. Video Conference Unit Type 1		
6	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference Unit Type 2	The codec of the video conferencing unit to be offered must be rack mountable. Codec shall use an embedded system (not Windows or Linux operating system) and shall not use PC/ industrial-PC architecture.	Codec shall use an embedded system (not Windows or Linux operating system) and shall not use PC/ industrial-PC architecture.
7	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference Unit Type 2	Unit must support various data connection types (including IP and comply with H.323).	Unit must support various data connection types (including IP and comply with H.323 and SIP).
8	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference	The unit must support the following access rates: <ul style="list-style-type: none">▪ IP: 128 kbit/s to at least 4 Mbit/s	The unit must support the following access rates: <ul style="list-style-type: none">▪ IP: 128 kbit/s to at least 6 Mbit/s

		Unit Type 2		
9	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference Unit Type 2	The unit must able to share content with the opposing party at 720p30 resolution. There must be H.239 support for H.323 connections. Sharing content must not lead to a resolution loss in the imaging of participants.	The unit must able to share content with the opposing party at 1080p30 resolution. There must be H.239 support for H.323 and BFCP support for SIP connections. Sharing content must not lead to a resolution loss in the imaging of participants.
10	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference Unit Type 2	The unit must support H.263 and H.264 for video codec; 1080p30, 720p60, 720p30, 4CIF and CIF for video resolutions in transmit and receive. The unit must support G.711, G.722, AAC-LD (at least 20 kHz) and stereo audio.	The unit must support H.263 and H.264 for video codec; 1080p60, 1080p30, 720p60, 720p30, 4CIF and CIF for video resolutions in transmit and receive. The unit must support G.711, G.722, AAC-LD (at least 20 kHz) and stereo audio.
11	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference Unit Type 2	The unit must provide at least two HD video input interfaces (at least 2 (DVI-I or HDMI / HDCI)) and two HD video output interfaces (at least 2 (DVI-I or HDMI)). The HD interfaces must have standard based connectors. DVI-I interfaces shall work instantly when the input source is connected without any reboot operation on codec.	The unit must provide at least two HD video input interfaces (HDMI or HDCI or HD-VI) and two HDMI video output interfaces. The HD interfaces must have standard based connectors. HDMI interfaces shall work instantly when the input source is connected without any reboot operation on codec.

12	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference Unit Type 2	The unit must support three audio input interfaces and two audio output interfaces. At least one of audio inputs shall be XLR or RCA input for microphones.	The unit must support three audio input interfaces and two audio output interfaces. At least one of audio inputs shall be XLR or audio input for microphones.
13	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference Unit Type 2	The unit could be able to allow remote (or local) video and presentation to be independently displayed on two display devices. Unit also shall allow two or three video feeds to be displayed in picture in picture, two-pane, or three-pane mode on one display device.	The unit could be able to allow remote (or local) video and presentation to be independently displayed on two display devices. Unit also shall allow two video feeds to be displayed in picture in picture, two-pane, or three-pane mode on one display device.
14	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference Unit Type 2	The supplier shall provide 1 HD cameras of the same brand, supporting 1080p30 and 720p60 video output and 10x zoom or higher. The cameras must provide DVI HD or HDMI or HDCI video output interface. The cameras be able to be mounted on the ceiling with/without ceiling apparatus and sending image normally.	The supplier shall provide 1 HD camera of the same brand, supporting 1080p30 and 720p60 video output and 10x zoom or higher. The cameras must provide HDMI or HD-VI or HDCI video output interface. The cameras be able to be mounted on the ceiling with/without ceiling apparatus and sending image normally.
15	225	Section VI. Technical		The videoconference unit should make a video call with

		Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference Unit Type 2		Microsoft Lync 2010 or 2013 clients. The necessary equipments / licenses should be added in the offer.
16	227	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.3. Video Conference Unit Type 3	The unit must able to share content with the opposing party at 720p30 resolution. There must be H.239 support for H.323 connections. Sharing content must not lead to a resolution loss in the imaging of participants.	The unit must able to share content with the opposing party at 720p30 resolution. There must be H.239 support for H.323 and BFCP support for SIP connections. Sharing content must not lead to a resolution loss in the imaging of participants.
17	227	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.3. Video Conference Unit Type 3		The videoconference unit should make a video call with Microsoft Lync 2010 or 2013 clients. The necessary equipments / licenses should be added in the offer.
18	227	Section VI. Technical Requirements (including	The unit to be offered must be hardware-based and it must be a single system integrated with its	The unit to be offered must be hardware-based and it must be a single system integrated with

		Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.4. Video Conference Unit Type 4	camera, codec, monitor, microphone and audio system. All of these components must be manufactured by the same manufacturer. The bidding product must be highly integrated with the display screens, cameras, speakers, microphones, codecs, control devices, equipment rack. Cables must be out of view to contribute to the system's sleek appearance.	its camera, codec, monitor and audio system. The bidding product must be highly integrated with the display screens, cameras, speakers, microphones, codecs, control devices, equipment rack. Cables must be out of view to contribute to the system's sleek appearance.
19	227	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.4. Video Conference Unit Type 4	There must be a 65 inch monitor at minimum and this monitor must able to support 1080p resolution. It must able to support the following resolutions while both transmitting and receiving: 1080p@30fps, 720p@60	There must be at least 55 inch monitor at minimum and this monitor must able to support 1080p resolution. It must able to support the following resolutions while both transmitting and receiving: 1080p@30fps, 720p@60
20		Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.4. Video Conference Unit Type 4	The unit must support H.263 and H.264 for video codec; 1080p30, 720p60, 720p30, 4CIF and CIF for video resolutions in transmit and receive. The unit must support G.711, G.722, AAC-LD (at least 20 kHz) and stereo audio.	The unit must support H.263 and H.264 for video codec; 1080p30, 720p60, 720p30 for video resolutions in transmit and receive. The unit must support G.711, G.722, AAC-LD or Siren22 audio.
21	227	Section VI. Technical	It must able to support SIP and H.323 and the network	It must able to support SIP and H.323 and the network

		Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.4. Video Conference Unit Type 4	bandwidth rate limit in one-to-one communications must be at least 6 Mbps.	bandwidth rate limit in one-to-one communications must be at least 4 Mbps.
22	227	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.4. Video Conference Unit Type 4	The unit must able to share content with the opposing party at 720p30 resolution. There must be H.239 support for H.323 connections. Sharing content must not lead to a resolution loss in the imaging of participants.	The unit must able to share content with the opposing party at 720p30 resolution. There must be H.239 support for H.323 and BFCP for SIP connections. Sharing content must not lead to a resolution loss in the imaging of participants.
23	227	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.4. Video Conference Unit Type 4		The videoconference unit should make a video call with Microsoft Lync 2010 or 2013 clients. The necessary equipments / licenses should be added in the offer.
24	227	Section VI. Technical Requirements (including		A Wireless Presentation System shall consist of 40 pieces usb dongles and 5

		<p>Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.4. Video Conference Unit Type 4</p>		<p>pieces base unit, there shall be usb dongle table tray with the system, usb dongles and base unit shall communicate with IEEE 802.11 a/g/n protocols by using 2.4Ghz and 5Ghz frequency. Display equipment which is connected to base unit shall show at least 4 windows/mac computer image at the same time on the display, all computer image on the display shall be real time (at least 30fps) and if there exist sound in the image , it also shall be transferable to base unit. Base unit shall has at least one DVI, one displayport and one sound output ports. iOS and Android operating systems also shall be compatible with the system. Usb dongles and base unit shall be communicated at least within 30m ranges, should be added in the offer.</p>
25	227	<p>Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.4. Video Conference Unit Type 4</p>		<p>A Wireless Presentation System shall consist of 60 pieces usb dongles and 15 pieces base unit, usb dongles and base unit shall communicate with IEEE 802.11 a/g/n protocols by using 2.4Ghz and 5Ghz frequency. Display equipment which is connected to base unit shall show at least 1 windows/mac computer image at the same time on the display, all computer image on the display shall be real time (at least 30fps) and if there exist sound in the image</p>

				, it also shall be transferable to base unit. Base unit shall has at least one HDMI, one VGA and one sound output ports. iOS and Android operating systems also shall be compatible with the system. Usb dongles and base unit shall communicates at least within 30m ranges, should be added to offer.
26	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System,	1.5. VIDEO CONFERENCE USB CAMERA	1.5. VIDEO CONFERENCE CAMERA
27	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.5. Video Conference USB Camera	The unit must have native 2MP HD Sensor.	The unit must have native at least 1.3 MP HD Sensor.
28	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center	The unit must capture up to 1600x1200 pixels HD Video.	The unit must capture at least 1280x720 pixels HD Video.

		Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.5. Video Conference USB Camera		
29	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.5. Video Conference USB Camera	The unit must have USB 2.0 port for PC connectivity.	The unit must have HDMI or HD-VI port for connectivity.
30	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.6. Video Conference Software	The video conference software to be offered must able to work on PC.	The video conference software to be offered must able to work on PC and mobile devices.
31	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical	The software must able to support 720p30 fps	The software must able to support up to 720p30fps on desktop and up to CIF on mobile devices.

		Specification (Lot 2), 1. Video Conference System, Sub clause 1.6. Video Conference Software		
32	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.6. Video Conference Software	A presentation must able to be sent to the opposing party through the software. There must be SIP support.	<u>Removed</u>
33	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.6. Video Conference Software	It must support the bandwidth up to 1920Kbps.	<u>Removed</u>
34	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video	It must support H.263, H.263+ and H.264 video standards.	It must support H.264 video standards

		Conference System, Sub clause 1.6. Video Conference Software		
35	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.6. Video Conference Software	It must support 4CIF, CIF, QCIF, VGA, w720p resolutions.	<u>Removed</u>
36	228	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.6. Video Conference Software	It must support G.722.1 24 kbps and G.711 audio standards.	<u>Removed</u>
37	229	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.6.	It must able to control the camera of the opposing party.	<u>Removed</u>

		Video Conference Software		
38	229	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.7. Central Multi-Conference Unit (MCU)	The unit must provide a complete backup mechanism, enabling active and standby switchover or redundancy backup for the main control modules (video exchange, audio mixing, signaling, data, clock, conference control, and main control), service modules, ethernet interfaces and power supply modules. If unit couldn't support one of these backup mechanisms, the supplier shall provide one additional MCU with same capabilities (port, chassis-based etc.) for backup.	The unit must provide a complete backup mechanism, enabling active and standby switchover or redundancy backup for the main control modules, service modules, Ethernet interfaces and power supply modules. If unit couldn't support one of these backup mechanisms, the supplier shall provide one additional MCU with same capabilities (port, chassis-based etc.) for backup.
39	229	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.7. Central Multi-Conference Unit (MCU)	The MCU shall support H.261, H.263, and H.264 video codecs and shall support G.711, G.722, G.728, G.729, and AAC-LD (at least 20 kHz) audio codecs.	The MCU shall support H.261, H.263, and H.264 video codecs and shall support G.711, G.722, G.728, G.729, and AAC-LD or Siren22 (22 kHz) audio codecs.
40	230	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video	MCU shall be able to enable the connection of two networks that are not physically connected with each other, allowing endpoints on different networks to join the same conference, and shall support the traversal between private and public networks. If MCU couldn't support traversal in a single	<u>Removed</u>

		Conference System, Sub clause 1.7. Central Multi-Conference Unit (MCU)	chassis, the supplier shall provide additional network infrastructure equipment(s) for enabling firewall-traversal and easy connection between different networks.	
41	230	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.7. Central Multi-Conference Unit (MCU)	MCU must have built-in web-based management user interface and built-in GateKeeper. The gatekeeper must able to allow up to 25 registrations at minimum. If these functions cannot be provided, an additional unit must be offered to provide them.	Removed
42	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.8. Central Management Unit		Management System modules can be in a single appliance or it can be proposed as more than one appliance.
43	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video		The unit or units to be offered must be mountable to the cabinet and it must be hardware-based. The unit can also be offered as Virtual Appliance with required VMWare licenses supporting VMWare vCloud Enterprise

		Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.8. Central Management Unit		environment for protecting resiliency and scalability.
44	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.8. Central Management Unit		Management System must have Call Control and Resource Management functions.
45	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.8. Central Management Unit		Resource Management System must support at least 100 device management and provisioning. It should be able to upgrade to at least 400 devices within same appliance.
46	230	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot	It must able to work integrated with Microsoft Outlook and IBM Lotus Notes optionally and support arranging the time of conference via these applications.	It must able to work integrated with Microsoft Outlook optionally and support arranging the time of conference via these application.

		2), 1. Video Conference System, Sub clause 1.8. Central Management Unit		
47	230	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.8. Central Management Unit	Using the Windows authentication, the opportunity of single-point access must be given.	<u>Removed</u>
48	230	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.8. Central Management Unit	It must be possible to back up the system settings automatically and re-load the configuration of systems from these backups when desired.	It must be possible to back up the system settings and re-load the configuration of systems from these backups when desired.
49	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System,		For external calls, there must be an additional appliance (Video Conferencing Firewall Traversal) which connects external participants to video conferences securely. Unit must support to be located in DMZ.

		Sub clause 1.8. Central Management Unit		
49	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.8. Central Management Unit		Video Conferencing Firewall Traversal system must support secure H.323 or SIP calls originated from outside to inside network. Unit must support concurrent 25 video calls.
50	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.8. Central Management Unit		The unit should support ITU H.460 or SIP standards for traversal calls.
51	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.8. Central		The unit should support HTTPS or SSH for secure management

		Management Unit		
52	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder	It must support on-demand or live recording.	It must support on-demand viewing or live recording or on-demand recording.
53	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder	It must able to make records from a H.323 or SIP-compatible video conferencing unit and support H.239 dual stream presentations.	It must able to make records from a H.323 or SIP-compatible video conferencing unit and support H.239 or BFCP dual stream presentations.
54	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder	The unit must allow making corrections on the recorded content and able to create indexes on the record. If the unit doesn't support it natively, same functions must be done by 3 rd party integrations.	<u>Removed</u>

55	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder	The Active Directory authentication must be supported via LDAP.	<u>Removed</u>
56	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder	The access to the management unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.	<u>Removed</u>
57	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder	The recorded calls must able to be downloaded in Windows Media or Real Media formats	<u>Removed</u>
58	231	Section VI. Technical	It must be possible to watch the contents through IE, Mozilla	It must be possible to watch the contents through any

		Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder	Firefox and Safari.	internet browser.
59	232	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder	The unit must able to provide the options of playing the records at different speeds that the user can choose according to the network bandwidth.	<u>Removed</u>
60	232	Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder	It must be possible to create personal recording patterns.	<u>Removed</u>
61	232	Section VI. Technical Requirements (including	It must support G.711, G.722 and AAC-LD audio standards.	<u>Removed</u>

		Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder		
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