## 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.

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		2), 1. Video		
		Conference System,		
		Sub clause 1.1.		
		Video Conference		
		Unit Type 1		
		Section VI.		
		Technical		
		Requirements	The unit must provide at least	
		(including	three HD video input interfaces	The unit must provide at least
		Implementation	(at least 2 (DVI-I or HDMI or	three HD video input
		Schedule), B.	HDCI) and 1 HD-SDI or DVI)	interfaces (at least 2 HDMI)
		Akfırat Command	and two DVI-I HD video output	and 1 HDMI or HDCI or HD-
3	224	And Control Center	interfaces . The HD interfaces	VI or 3G-SDI video output
5	227	Audio And Video	must have standard based	interfaces. HD interfaces shall
		Systems Technical	connectors. DVI-I interfaces	work instantly when the input
		Specification (Lot	shall work instantly when the	source is connected without
		2), 1. Video	input source is connected	
		Conference System,	without any reboot operation on	any reboot operation on codec.
		Sub clause 1.1.	codec.	
		Video Conference		
		Unit Type 1		
		Section VI.		The supplier shall provide 2
		Technical		HD cameras of the same
		Requirements		brand, supporting 1080p60
		(including	The supplier shall provide 2 HD	and 720p60 video output and
		Implementation	cameras of the same brand,	10x zoom or higher. The
		Schedule), B.	supporting 1080p60 and 720p60	cameras must provide HDMI
		Akfırat Command	video output and 10x zoom or	or HD-VI or 3G-SDI or HDCI
4	224	And Control Center	higher. The cameras must	video output interfaces. The
4	224	Audio And Video	provide HD-SDI or HDCI video	cameras must be able to be
		Systems Technical	output interfaces. The cameras	mounted on the ceiling with
		Specification (Lot	be able to be mounted on the	/without ceiling apparatus and
		2), 1. Video	ceiling with /without ceiling	sending image normally. If all
		Conference System,	apparatus and sending image	the cameras cannot be
		Sub clause 1.1.	normally.	connected to the terminal at
		Video Conference		the same time an additional
		Unit Type 1		hardware must be offered.
		Section VI.		
		Technical		
		Requirements		
		(including		The wide
		Implementation		The videoconference unit
		Schedule), B.		should make a video call with
5	224	Akfirat Command		Microsoft Lync 2010 or 2013
		And Control Center		clients. The necessary
		Audio And Video		equipments / licenses should
		Systems Technical		be added in the offer.
		Specification (Lot		
		2), 1. Video		
		Conference System,		
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		Sub clause 1.1.		
		Video Conference		
		Unit Type 1		
		Section VI.		
		Technical		
		Requirements		
		(including		
		Implementation	The codec of the video	
		Schedule), B.	conferencing unit to be offered	Codec shall use an embedded
		Akfırat Command	must be rack mountable. Codec	system (not Windows or
6	225	And Control Center	shall use an embedded system	Linux operating system) and
0	223	Audio And Video	(not Windows or Linux	shall not use PC/ industrial-PC
		Systems Technical	operating system) and shall not	architecture.
		Specification (Lot	use PC/ industrial-PC	arenneeture.
		2), 1. Video	architecture.	
		Conference System,		
		Sub clause 1.2.		
		Video Conference		
		Unit Type 2		
		Section VI.		
		Technical		
	225	Requirements		
		(including		
		Implementation		
		Schedule), B.		Unit must support various data
		Akfirat Command	Unit must support various data	connection types (including IP
7		And Control Center	connection types (including IP	••••••
/	223	Audio And Video	and comply with H.323).	and comply with H.323 and
		Systems Technical	1 7 /	SIP).
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.2.		
		Video Conference		
		Unit Type 2		
		Section VI.		
		Technical		
		Requirements		
		(including		
		Implementation	The unit must support the	The unit must support the
		Schedule), B.		
		Akfırat Command	following access rates:	following access rates:
8	225	And Control Center	• IP: 128 kbit/s to at least 4	• IP: 128 kbit/s to at least 6
		Audio And Video		
		Systems Technical	Mbit/s	Mbit/s
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.2.		
		Video Conference		

		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. Akfırat 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.	1080p60, 1080p30, 720p60, 720p30, 4CIF and CIF for video resolutions in transmit and receive. The unit must support G 711 G 722 AAC-
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

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12	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfırat 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.	audio input interfaces and two audio output interfaces. At
13	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfırat 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.	and presentation to be independently displayed on two display devices. Unit also shall allow two video feeds to be displayed in picture in
14	225	Section VI. Technical Requirements (including Implementation Schedule), B. Akfırat 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	provide DVI HD or HDMI or HDCI video output interface. The cameras be able to be	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.

Akfırat Command And Control Center

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Microsoft Lync 2010 or 2013 clients. The necessary equipments / licenses should be added in the offer.

		Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.2. Video Conference		
		Unit Type 2		
16	227	Section VI. Technical Requirements (including Implementation Schedule), B. Akfırat 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	hardware-based and it must be

		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	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	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
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	monitor must able to support 1080p resolution. It must able to support the following resolutions while both
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	

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	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.
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	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.

		2), 1. Video	participants.	ioss in the imaging of
		Conference System,		participants.
		Sub clause 1.4.		
		Video Conference		
		Unit Type 4		
		Section VI.		
		Technical		
		Requirements		
		(including		
		Implementation		The videoconference unit
		Schedule), B.		should make a video call with
		Akfırat Command		
23	227	And Control Center		Microsoft Lync 2010 or 2013
23	221	Audio And Video		clients. The necessary
		Systems Technical		equipments / licenses should
		Specification (Lot		be added in the offer.
		2), 1. Video		
		Conference System,		
		Sub clause 1.4.		
		Video Conference		
		Unit Type 4		
		Section VI.		A Wireless Presentation
24	227	Technical		System shall consist of 40
2 <del>4</del>		Requirements		•
		(including		pieces usb dongles and 5

		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	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
25	227	Section VI. Technical Requirements (including Implementation Schedule), B. Akfırat 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	added in the offer. 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

				, 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. Akfırat 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. Akfırat 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. Akfırat Command And Control Center	The unit must capture up to 1600x1200 pixels HD Video.	The unit must capture at least 1280x720 pixels HD Video.

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		Audio And Video		
		Systems Technical		
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.5.		
		Video Conference		
		USB Camera		
		Section VI. Technical		
		Requirements		
		_		
		(including		
		Implementation Schedule), B.		
		Akfirat Command		
		And Control Center	The unit must have USB 2.0	The unit must have HDMI or
29	228	Audio And Video	port for PC connectivity.	HD-VI port for connectivity.
		Systems Technical		
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.5.		
		Video Conference		
		USB Camera		
		Section VI.		
	228	Technical		
		Requirements		
		(including		
		Implementation		
		Schedule), B.		The video conference software
		Akfırat Command	The video conference software	to be offered must able to
30			to be offered must able to work	work on PC and mobile
00		Audio And Video	on PC.	
		Systems Technical		devices.
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.6. Video Conference		
		Software		
		Software Section VI.		
		Technical		
		Requirements		
		(including		The software must able to
		Implementation	The software must able to	support up to 720p30fps on
31	228	Schedule), B.	support 720p30 fps	desktop and up to CIF on
		Akfirat Command		mobile devices.
		And Control Center		
		Audio And Video		
		Systems Technical		
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		Specification (Lot 2), 1. Video Conference System, Sub clause 1.6. Video Conference Software Section VI. Technical Requirements (including Implementation Schedule), B.	A presentation must able to be	
32	228	Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.6. Video Conference Software	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. Akfırat 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. Akfırat 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		
		Section VI.		
		Technical		
		Requirements		
		(including		
		Implementation		
		Schedule), B.		
		Akfirat Command	It must support 4CIF, CIF,	
35	228	And Control Center	QCIF, VGA, w720p	Removed
55	220	Audio And Video	resolutions.	
		Systems Technical		
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.6.		
		Video Conference		
		Software		
		Section VI.		
	228	Technical		
		Requirements		
		(including		
		Implementation		
		Schedule), B.	It must support G.722.1 24 kbps and G.711 audio standards.	
		Akfirat Command		
26		And Control Center		Removed
36		Audio And Video		
		Systems Technical		
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.6.		
		Video Conference		
		Software		
		Section VI.		
		Technical		
		Requirements		
		(including		
		Implementation		
		Schedule), B.	It must able to control the	
37	229	Akfırat Command		Removed
57	227	And Control Center	camera of the opposing party.	
		Audio And Video		
		Systems Technical		
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.6.		

[]		Video Carf		
		Video Conference Software		
38	229	Software 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.	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-
39	229	Section VI. Technical Requirements (including Implementation Schedule), B. Akfırat 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. Akfırat 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. Akfırat 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. Akfırat 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		anvironment for protection
		-		environment for protecting
		Specification (Lot		resiliency and scalability.
		2), 1. Video		
		Conference System,		
		Sub clause 1.8.		
		Central		
		Management Unit		
		Section VI.		
		Technical		
		Requirements		
		(including		
		Implementation		
		Schedule), B.		Management System must
		Akfırat Command		
	221	And Control Center		have Call Control and
44	231	Audio And Video		Resource Management
		Systems Technical		functions.
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.8.		
		Central		
		Management Unit Section VI.		
		Technical		
		Requirements		
		(including		Resource Management System
		Implementation		must support at least 100
		Schedule), B.		
		Akfirat Command		device management and
45	231	And Control Center		provisioning. It should be able
		Audio And Video		to upgrade to at least 400
		Systems Technical		devices within same
		Specification (Lot		appliance.
		2), 1. Video		appriance.
		Conference System,		
		Sub clause 1.8.		
		Central		
		Management Unit		
		Section VI.		
		Technical	It must able to see all interest in	
		Requirements	It must able to work integrated	-
		(including	with Microsoft Outlook and	with Microsoft Outlook
		Implementation	IBM Lotus Notes optionally and	optionally and support
46	230	Schedule), B.	support arranging the time of	arranging the time of
		Akfırat Command		
		And Control Center		
		Audio And Video	applications.	application.
		Specification (Lot		
46	230	Akfirat Command And Control Center Audio And Video Systems Technical	support arranging the time of conference via these applications.	

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

		Cub alarras 1.0	
		Sub clause 1.8. Central	
		Management Unit	
		Section VI.	
		Technical	
		Requirements	
		(including	Video Conferencing Firewall
		Implementation	e
		Schedule), B.	Traversal system must support
		Akfirat Command	secure H.323 or SIP calls
49	231	And Control Center	originated from outside to
	231	Audio And Video	inside network. Unit must
		Systems Technical	support concurrent 25 video
		Specification (Lot	calls.
		2), 1. Video	calls.
		Conference System,	
		Sub clause 1.8.	
		Central	
		Management Unit	
		Section VI.	
		Technical	
		Requirements	
		(including	
		Implementation	
		Schedule), B.	
		Akfirat Command	The unit should support ITU
		And Control Center	H.460 or SIP standards for
50	231	Audio And Video	
		Systems Technical	traversal calls.
		Specification (Lot	
		2), 1. Video	
		Conference System,	
		Sub clause 1.8.	
		Central	
		Management Unit Section VI.	
		Technical	
		Requirements	
		(including	
		Implementation	
		Schedule), B.	The unit should support
		Akfirat Command	HTTPS or SSH for secure
51	231	And Control Center	
		Audio And Video	management
		Systems Technical	
		Specification (Lot	
		2), 1. Video	
		Conference System,	
		Sub clause 1.8.	
		Central	

		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. Akfırat 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.	trom a H323 or SIP-1
54	231	Section VI. Technical Requirements (including Implementation Schedule), B. Akfırat 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 <sup>rd</sup> party integrations.	<u>Removed</u>

2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder Section VI. Technical Requirements	Conference System, Sub clause 1.9. Video Conference Recorder
Conference System, Sub clause 1.9. Video Conference Recorder Section VI. Technical Requirements	Conference System, Sub clause 1.9. Video Conference Recorder
Sub clause 1.9.   Video Conference   Recorder   Section VI.   Technical   Requirements	Sub clause 1.9. Video Conference Recorder
Recorder   Section VI.   Technical   Requirements	Recorder
Section VI. Technical Requirements	
Technical Requirements	Cratical VI
Requirements	Section VI.
-	
	(including
Implementation	
Schedule), B. The access to the management	Schedule) B I ne access to the management
-26	Akfırat Command unit must able to be leveled and
Audio And Video resolution support for H.239	Akfirat Command And Control Center there must be at least 1024x768 <u>Removed</u>
Source.	231Akfirat Command And Control Center Audio And Videounit must able to be leveled and there must be at least 1024x768 resolution support for H.239Removed
	231Akfirat Command And Control Center Audio And Video Systems Technicalunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed
	231Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lotunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed
	231Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Videounit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed
	231Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System,unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed
	231Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9.unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed
Kecorder	231Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conferenceunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed
	231Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorderunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed
Section VI.	231Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorderunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed231Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorderunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed
Section VI. Technical	231Akfirat Command And Control Center Audio And Video Systems Technical 
Section VI. Technical Requirements	231Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, 
Section VI. Technical Requirements (including	231   Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder   unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.   Removed     231   Mit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.   Removed
Section VI. Technical Requirements	231   Akfirat Command Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder   unit must able to be leveld and there must be at least 1024x768 resolution support for H.239 source.     Video Conference Recorder   Section VI. Technical Requirements (including Implementation
Section VI. Technical Requirements (including Implementation	231   Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder   unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.   Removed     Video Conference Recorder   Section VI. Technical Requirements (including Implementation Schedule), B.   Section VI.
Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center he downloaded in Windows Berneved	231   Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder   unit must able to be leveld and there must be at least 1024x768 resolution support for H.239 source.   Removed     Video Conference Recorder   Sub clause 1.9. Video Conference Recorder   Note the second source.   Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center   The recorded calls must able to be downloaded in Windows   Removed
Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command The recorded calls must able to	231Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorderunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed231Akfirat Command And Control Center (including Implementation Schedule), B. Akfirat Command And Control Center the downloaded in WindowsImplementation RemovedRemoved231Akfirat Command And Control Center the to the to the to the to the to the totalThe recorded calls must able to be downloaded in WindowsRemoved
Section VI.     Technical     Requirements     (including     Implementation     Schedule), B.     Akfirat Command     And Control Center     be   downloaded     The recorded calls must able to     Removed	Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorderunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed231Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference RecorderImage: model of the second of th
57   231   Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video   The recorded calls must able to be downloaded in Windows Media or Real Media formats	231Akfrat Command Akfrat Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorderunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed231Akfrat Command And Control Center Audio And Video Systems Technical Recorderunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed
Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. VideoSection VI. Technical the recorded calls must able to be downloaded in Windows Media or Real Media formatsRemoved57231Section VI. Technical Systems Technical Specification (Lot 2), 1. VideoThe recorded calls must able to be downloaded in Windows Media or Real Media formatsRemoved	231Akfrat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorderunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed231Section VI. Technical Requirements (including Implementation Schedule), B. Akfrat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. VideoThe recorded calls must able to be downloaded in Windows Media or Real Media formatsRemoved231And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. VideoThe recorded calls must able to be downloaded in WindowsRemoved
57231Section 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 recorded calls must able to be downloaded in Windows Media or Real Media formatsRemoved	231   Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder   unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.   Removed     231   Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video   The recorded calls must able to be downloaded in Windows Media or Real Media formats
57231Section 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.The recorded calls must able to be downloaded in Windows Media or Real Media formatsRemoved	231   Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder   unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.   Removed     231   Section (Lot 2), 1. Video Conference System, Sub clause 1.9.   unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.   Removed     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.   The recorded calls must able to be downloaded in Windows Media or Real Media formats
57231Section 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 ConferenceThe recorded calls must able to be downloaded in Windows Media or Real Media formatsRemoved	Akfrat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorderunit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.Removed231Section VL Technical Requirements (including Implementation Schedule), B. Akfrat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. VideoThe recorded calls must able to be downloaded in Windows Media or Real Media formatsRemoved231Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video ConferenceThe recorded calls must able to be downloaded in Windows Media or Real Media formatsRemoved
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	231   Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder   unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.     231   Akfirat Command Audio And Video Systems Technical Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command Audio And Video Systems Technical Specification (Lot 2), 1. Video   unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.     231   Section VI. Technical Requirements (including Implementation Schedule), B. Akfirat Command 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     231   Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder   main must able to 
57231Section 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 ConferenceThe recorded calls must able to be downloaded in Windows Media or Real Media formatsRemoved	231   Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder   unit must able to be leveled and there must be at least 1024x768 resolution support for H.239 source.   Removed     231   Section VL Technical Requirements (including Implementation Schedule), B. Akfirat Command And Control Center Audio And Video Systems Technical Specification (Lot 2), 1. Video   The recorded calls must able to be downloaded in Windows Media or Real Media formats     231   Section VL 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     231   Section VL 2), 1. Video Conference System, Sub clause 1.9. Video Conference Recorder   It must be possible to watch the It must be possible to watch

	1	· _ ·		
		Requirements	Firefox and Safari.	internet browser.
		(including		
		Implementation		
		Schedule), B.		
		Akfırat Command		
		And Control Center		
		Audio And Video		
		Systems Technical		
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.9.		
		Video Conference		
		Recorder		
		Section VI.		
		Technical		
		Requirements		
		(including		
		Implementation		
		Schedule), B.	The unit must able to provide	
		Akfırat Command	the options of playing the	
59	232	And Control Center	records at different speeds that	Removed
57	232	Audio And Video	the user can choose according	
		Systems Technical	to the network bandwidth.	
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.9.		
		Video Conference		
		Recorder		
		Section VI.		
		Technical		
		Requirements		
		(including		
		Implementation		
		Schedule), B.		
		Akfirat Command	It must be possible to create	
60	232	And Control Center	personal recording patterns.	Removed
		Audio And Video	personal recording patterns.	
		Systems Technical		
		Specification (Lot		
		2), 1. Video		
		Conference System,		
		Sub clause 1.9.		
		Video Conference		
		Recorder		
		Section VI.	It must support G.711, G.722	_
61	232	Technical	and AAC-LD audio standards.	Removed
		Requirements		
		(including		

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