

## ***ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER***

**Contract title:** Supply of equipment “*Technical support for fight against organised crime, financial investigation and cyber-crime*”

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**Publication reference:** *NEAR/BEG//2023/EA-OP/0059*

### **Abbreviations**

No	Acronym	Description
	AAA	Authentication, Authorization and Accounting
1.	AC	Alternating current
2.	ACL	<a href="#">Access Control List</a>
3.	AD	<a href="#">Active Directory</a>
4.	AES	Advanced Encryption Standard
5.	ARP	Address Resolution Protocol
6.	BGP	Border Gateway Protocol
7.	CD	Compact Disk
8.	CE	Conformité Européenne
9.	CIFS	Common Internet File System
10.	CLI	Command-line interface
11.	CPU	Central Processing Unit

12.	DDR	Double Data Rate (memory)
13.	DHCP	Dynamic Host Configuration Protocol
14.	DIMM	<a href="#">Dual In-line Memory Module</a>
15.	DIN	Deutsches Institut für Normung
16.	DVD	Digital Video Disc or Digital Versatile Disc
17.	DVI	Digital Visual Interface
18.	DViT	Digital Vision Touch
19.	DWH	Data warehouse system
20.	ECC	Error-correcting code (memory)
21.	EU	European Union
22.	EUD	Delegation of the European Commission to the Republic of Serbia
23.	FC	Fiber Channel
24.	FCoE	Fiber Channel Over Ethernet
25.	FHD	Full High Definition
26.	GB	Gigabyte
27.	Gbps	<a href="#">Gigabits Per Second</a>
28.	GDDR	Graphics Double Data Rate (memory)
29.	GHz	<a href="#">Gigahertz</a>
30.	GPS	Global Positioning System

31.	GUI	<a href="#">Graphical User Interface</a>
32.	HA	High availability
33.	HD	High-definition
34.	HBA	Host Bus Adapter
35.	HDD	<a href="#">Hard Disk Drive</a>
36.	HDMI	High-Definition Multimedia Interface
37.	HTTP	<a href="#">Hypertext Transfer Protocol</a>
38.	IGMP	Internet Group Management Protocol
39.	I/O	Input/Output
40.	IPA	<a href="#">Instrument for Pre-Accession Assistance</a>
41.	IPsec	Internet Protocol Security
42.	iSCSI	Internet Small Computer Systems Interface
43.	IT	<a href="#">Information Technology</a>
44.	KMV	Keyboard, Mouse, Video
45.	LACP	Link Aggregation Control Protocol
46.	LAN	Local Area Network
47.	LC	Lucent Connector
48.	LCD	<a href="#">Liquid Crystal Display</a>
49.	LDAP	Lightweight Directory Access Protocol

50.	LED	Light Emitting Diode
51.	LLDP	<a href="#">Link Layer Discovery Protocol</a>
52.	LTE	Long Term Evolution – 4G Mobile Network
53.	LUN	Logical unit number
54.	MAC	Media Access Control (address)
55.	MB	<a href="#">Megabyte</a>
56.	Mbps	<a href="#">Megabits Per Second</a>
57.	MoI	Ministry of Interior
58.	MP	Megapixel
59.	MPDU	Media access control Protocol Data Unit
60.	Mpps	Million packets per second
61.	MSDU	Media access control Service Data Unit
62.	MSTP	<a href="#">Multiple Spanning Tree Protocol</a>
63.	NAS	Network-Attached Storage
64.	NAT	Network address translation
65.	NBD	Next Business Day
66.	NFS	Network File System
67.	NL-SAS	Nearline Serial-Attached SCSI
68.	NTP	<a href="#">Network Time Protocol</a>

69.	OS	Operating System
70.	OSPF	Open Shortest Path First
71.	PCI	Peripheral Component Interconnect
72.	PCIe	Peripheral Component Interconnect Express
73.	PDU	<a href="#">Power Distribution Unit</a>
74.	PIM	Protocol-Independent Multicast
75.	PoE	Power-Over-Ethernet
76.	PVST+	Per-VLAN Spanning Tree Plus
77.	QoS	Quality of service
78.	RADIUS	Remote Authentication Dial In User Service
79.	RAID	Redundant Array of Independent Disks
80.	RAM	Random Access Memory
81.	RBAC	Role-based access control
82.	RIP	Routing Information Protocol
83.	RJ	Registered Jack
84.	RMON	The Remote Network MONitoring
85.	RoHS	Restriction of Hazardous Substances
86.	RS-232	Recommended Standard 232
87.	RSTP	Rapid Spanning Tree Protocol

88.	RU	Rack Unit
89.	SAN	<a href="#">Storage Area Network</a>
90.	SAS	<a href="#">Serial-Attached SCSI</a>
91.	SATA	<a href="#">Serial Advanced Technology Attachment</a>
92.	SFP	Small form-factor pluggable
93.	SIM	Subscriber Identity Module
94.	SLA	Service Level Agreement
95.	SLR	Service Level Requirement
96.	SNMP	Simple Network Management Protocol
97.	SSD	Solid State Drive
98.	SSH	Secure Shell
99.	STP	Spanning Tree Protocol
100.	TACACS	Terminal Access Controller Access-Control System
101.	TB	<a href="#">Terabyte</a>
102.	TCP/IP	Transmission Control Protocol/Internet Protocol
103.	TF	Time to Fix
104.	TNB	Time until the new build
105.	TPM	Trusted Platform Module
106.	TRT	Time to React or Response Time

107.	UPS	Uninterruptible Power Supply
108.	URL	Uniform Resource Locator
109.	USB	<a href="#">Universal Serial Bus</a>
110.	VESA	Video Electronics Standards Association
111.	VGA	Video Graphics Array
112.	VLAN	Virtual Local Area Network
113.	VM	Virtual Machine
114.	vNIC	Virtual Network Interface Card
115.	VPN	Virtual Private Network
116.	WAN	Wide Area Network
117.	W3C	<a href="#">World Wide Web Consortium</a>
118.	WEEE	<a href="#">Waste Electrical and Electronic Equipment</a>
119.	WQXGA	Wide Quad Extended Graphics Array
120.	WPA	Wi-Fi Protected Access
121.	WRED	Weighted random early detection
122.	WSDL	Web Services Description Language
123.	WWAN	Wireless Wide Area Network
124.	XML	Extensible Markup Language

**Columns 1-2 should be completed by the contracting authority**  
**Columns 3-4 should be completed by the tenderer**  
**Column 5 is reserved for the evaluation committee**

Annex III - the contractor's technical offer

The tenderers are requested to complete the template on the next pages:

- Column 2 is completed by the contracting authority shows the required specifications (not to be modified by the tenderer),
- Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words ‘compliant’ or ‘yes’ are not sufficient)
- Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offered specifications.

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<b>HARDWARE REQUIREMENTS</b>			
1	<b>Hardware requirements</b>			
[R1]	The Tenderer must include in their offer a complete set of required cables, patch cords, power cords, Ethernet cables, appropriate FC cables, accessories and other physical modules required for the proposed equipment/system to			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	operate in accordance with specifications.			
[R2]	The equipment must be suited for operation under Central European land climate and weather conditions without requiring a special preparation process.			
	<b>LOT 2 – SPECIAL IT EQUIPMENT</b>			
2.1	<b>Desktop type 5 (Apple iMac 24" Retina 5K) – quantity: 27 pieces</b>			
[R3]	<ul style="list-style-type: none"> <li>• Processor: Apple M1 chip, 8-core CPU with 4 performance cores and 4 efficiency cores, 8-core GPU, 16-core Neural Engine.</li> <li>• RAM: 8GB user accessible, Configurable to 16GB</li> <li>• Hard drive: 512GB SSD, Configurable to 1TB or 2TB SSD</li> <li>• Video support: Simultaneously supports full native resolution on the built-in display at 1 billion colors and: One external display with up to 6K resolution at 60 Hz</li> <li>• Camera: 1080p FaceTime HD camera</li> <li>• Speakers: Stereo speakers</li> <li>• Microphone: Studio-quality three-mic array with high signal-to-noise ratio and directional beamforming</li> <li>• Connections: 1 x 3.5 mm headphone jack, 1 x SDXC card slot (UHS-II), 4 x USB-A ports, 1 x RJ45 (10/100/1000BASE-T Gigabit Ethernet), 2 x Thunderbolt 3 (USB-</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<p>C) ports with support for: DisplayPort, Thunderbolt (up to 40Gb/s), USB 3.1 Gen 2 (up to 10Gb/s), Thunderbolt 2, HDMI, DVI, and VGA supported using adapters.</p> <ul style="list-style-type: none"> <li>• Keyboard: Magic Keyboard Serbian</li> <li>• Mouse: Magic Mouse</li> <li>• Wireless: 802.11ac Wi-Fi wireless networking, IEEE 802.11a/b/g/n compatible</li> <li>• Bluetooth: 5.0 wireless technology</li> <li>• Operating System: macOS</li> <li>• Display type: 4.5K Retina display</li> <li>• Display size: 23.5-inch (diagonal)</li> <li>• Supported resolution: 4480-by-2520 at 218 resolution with support for one billion colors</li> <li>• Brightness: 500 nits</li> <li>• Color: Wide color (P3)</li> <li>• Sensors: True Tone technology</li> </ul>			

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2.2	<b>Desktop type 6 (MacPro) – quantity: 3 pieces</b>			
[R4]	<ul style="list-style-type: none"> <li>• Processor: 3.5GHz Intel Xeon W, 8 cores, 16 threads, Turbo Boost up to 4.0GHz, 24.5MB cache, Supports 2666MHz memory</li> <li>• RAM: 32GB, Four 8GB DIMMs</li> <li>• Hard drive: 512GB SSD</li> <li>• Graphics: AMD Radeon Pro W5500X, 8GB of GDDR6 memory, Up to 5.6 teraflops single-precision performance or 11.2 teraflops of half-precision computing., Two HDMI 2.0 ports on card</li> <li>• Speaker: Built-in speaker</li> <li>• Enclosure: Mac Pro tower enclosure with feet</li> <li>• Available expansion slots: Eight PCI Express expansion slots, Two MPX Modules or up to four PCI Express card slots, Each MPX bay provides: <ul style="list-style-type: none"> <li>- x16 gen 3 bandwidth for graphics</li> <li>- x8 gen 3 bandwidth for Thunderbolt</li> <li>- DisplayPort video routing</li> <li>- Up to 500W power for an MPX Module</li> </ul> </li> <li>• Input/Output: I/O card installed in the half-length x4 PCI Express slot with: <ul style="list-style-type: none"> <li>- Two USB 3 ports</li> <li>- Support for USB-A (up to 5Gb/s)</li> <li>- Two Thunderbolt 3 ports</li> <li>- Support for Thunderbolt 3 (up to 40Gb/s)</li> </ul> </li> </ul>			

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	<ul style="list-style-type: none"> <li>- Support for USB-C (up to 10Gb/s)</li> <li>- Support for DisplayPort</li> <li>- Two 10Gb Ethernet ports:</li> <li>- Support for 10Gb Ethernet performance over copper cabling</li> <li>- Support for Nbase-T industry standard: 1Gb, 2.5Gb, 5Gb, and 10Gb Ethernet link speeds using RJ-45 connectors</li> <li>- 3.5 mm headphone jack with headset support</li> <li>• Additional Connections: Two Thunderbolt 3 ports on the top of the tower enclosure, Support for Thunderbolt 3 (up to 40Gb/s), Support for USB-C (up to 10Gb/s), Support for DisplayPort</li> <li>• Wireless: 802.11ac Wi-Fi wireless networking, IEEE 802.11a/b/g/n compatible</li> <li>• Bluetooth: Bluetooth 5.0 wireless technology</li> <li>• Keyboard: Magic Keyboard</li> <li>• Mouse: Magic Mouse 2</li> <li>• Power Supply: 1.4 kilowatts, Maximum continuous power: 1280W at 108–125V or 220–240V</li> </ul>			
2.3	<b>Laptop type 4 (Apple MacBook Pro 16") – quantity: 14 pieces</b>			
[R5]	<ul style="list-style-type: none"> <li>• Chip/Processor: Apple M1 Pro chip, 10-core CPU with 8 performance cores and 2 efficiency cores, 16-core GPU, 16-core Neural Engine</li> </ul>			

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	<ul style="list-style-type: none"> <li>• RAM: 16GB unified memory, Configurable to 32GB</li> <li>• Hard drive: 1 TB SSD, Configurable to: 2TB, 4TB, or 8TB</li> <li>• Media engine: Hardware-accelerated H.264, HEVC, ProRes, and ProRes RAW, Video decode engine, Video encode engine, ProRes encode and decode engine</li> <li>• Display: 16.2-inch (diagonal) Liquid Retina XDR display, 3456-by-2234 native resolution at 254 pixels per inch, XDR (Extreme Dynamic Range) Up to 1000 nits sustained (full-screen) brightness, 1600 nits peak brightness 1,000,000:1 contrast ratio, Color: 1 billion colors, Wide color (P3), True Tone technology</li> <li>• Battery and Power: 100-watt-hour lithium-polymer battery, 140W USB-C Power Adapter, USB-C to MagSafe 3 Cable, Fast-charge capable with included 140W USB-C Power Adapter</li> <li>• Charging and Expansion: SDXC card slot, HDMI port, 3.5 mm headphone jack, MagSafe 3 port, Three Thunderbolt 4 (USB-C) ports with support for: <ul style="list-style-type: none"> <li>- Charging</li> <li>- DisplayPort</li> <li>- Thunderbolt 4 (up to 40Gb/s)</li> <li>- USB 4 (up to 40Gb/s)</li> </ul> </li> <li>• Keyboard and Trackpad: Backlit Magic Keyboard with: 12 full-height function keys and 4 arrow keys in an inverted-T arrangement, Touch ID, Ambient</li> </ul>			

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	<ul style="list-style-type: none"> <li>light sensor</li> <li>• Wireless: 802.11ax Wi-Fi 6 wireless networking, IEEE 802.11a/b/g/n/ac compatible</li> <li>• Bluetooth: Bluetooth 5.0 wireless technology</li> <li>• Camera: 1080p FaceTime HD camera, Advanced image signal processor with computational video</li> <li>• Audio: High-fidelity six-speaker sound system with force-cancelling woofers, Wide stereo sound, Support for spatial audio when playing music or video with Dolby Atmos on built-in speakers, Spatial audio with dynamic head tracking when using AirPods (3rd generation), AirPods Pro, and AirPods Max, Studio-quality three-mic array with high signal-to-noise ratio and directional beamforming, 3.5 mm headphone jack with advanced support for high-impedance headphones</li> <li>• Operating System: macOS</li> </ul>			
2.4	<b>Tablet type 2 (Apple iPad Pro M1 12.9") – quantity: 31 pieces</b>			
[R6]	<ul style="list-style-type: none"> <li>• Capacity: 128GB</li> <li>• Display: Liquid Retina XDR display, 12.9-inch (diagonal) mini-LED backlit Multi- Touch display with IPS technology, 2D backlighting system with 2596 full- array local dimming zones, ProMotion technology, Wide color display (P3), True</li> </ul>			

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	<p>Tone display, Fingerprint-resistant oleophobic coating, Fully laminated display, Antireflective coating, Supports Apple Pencil (2nd generation)</p> <ul style="list-style-type: none"> <li>• Resolution: 2732-by-2048-pixel resolution at 264 pixels per inch (ppi)</li> <li>• Reflectivity: 1.8% reflectivity</li> <li>• Brightness: 600 nits max brightness, 1000 nits max full-screen brightness, 1600 nits peak brightness (HDR)</li> <li>• Contrast ratio: 1,000,000:1</li> <li>• Chip: Apple M1 chip, 8-core CPU with 4 performance cores and 4 efficiency cores</li> <li>• GPU: 8-core GPU, 16-core Neural Engine</li> <li>• RAM: 8GB RAM</li> <li>• Camera: Pro camera system: Wide and Ultra Wide cameras, Wide: 12MP, <i>f</i>/1.8 aperture, Ultra Wide: 10MP, <i>f</i>/2.4 aperture, and 125° field of view, 2x optical zoom out, Digital zoom up to 5x, Five- element lens (Wide and Ultra Wide), Brighter True Tone flash, Panorama (up to 63MP), Sapphire crystal lens cover, Autofocus with Focus Pixels (Wide), Smart HDR 3, Wide color capture for photos and Live Photos, Lens correction (Ultra Wide), Advanced red-eye correction, Photo geotagging, Auto image stabilization, Burst mode, Image formats captured: HEIF and JPEG</li> <li>• TrueDepth Camera: 12MP Ultra Wide camera, 122° field of view, <i>f</i>/2.4 aperture, Portrait mode with advanced bokeh and Depth Control, Portrait Lighting with six</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<p>effects (Natural, Studio, Contour, Stage, Stage Mono, High- Key Mono), Animoji and Memoji, Smart HDR 3, 1080p HD video recording at 25 fps, 30 fps, or 60 fps, Time- lapse video with stabilization, Extended dynamic range for video up to 30 fps, Cinematic video stabilization (1080p and 720p), Wide color capture for photos and Live Photos, Lens correction, Retina Flash, Auto image stabilization, Burst mode</p> <ul style="list-style-type: none"> <li>• Speakers: Four speaker audio</li> <li>• Microphones: Five studio-quality microphones for calls, video recording, and audio recording</li> <li>• Wireless: 802.11ax Wi-Fi 6; simultaneous dual band (2.4GHz and 5GHz); HT80 with MIMO</li> <li>• Bluetooth: Bluetooth 5.0 technology</li> <li>• Location: Digital compass, Wi-Fi, iBeacon microlocation</li> <li>• Sensors: Face ID, LiDAR Scanner, Three-axis gyro, Accelerometer, Barometer, Ambient light sensor</li> <li>• Charging and Expansion: Thunderbolt / USB 4 port with support for: <ul style="list-style-type: none"> <li>- Charging</li> <li>- DisplayPort</li> <li>- Thunderbolt 3 (up to 40Gb/s)</li> <li>- USB 4 (up to 40Gb/s)</li> <li>- USB 3.1 Gen 2 (up to 10Gb/s)</li> </ul> </li> <li>• Power and Battery: Built-in 40.88-watt-hour rechargeable lithium-polymer battery, Up to 10 hours of surfing the web on Wi-Fi or</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<p>watching video, Charging via power adapter or USB-C to computer system</p> <ul style="list-style-type: none"> <li>• Operating System: iPadOS 15</li> <li>• Audio Playback: Audio formats supported: AAC- LC, HE- AAC, HE- AAC v2, Protected AAC, MP3, Linear PCM, Apple Lossless, FLAC, Dolby Digital (AC- 3), Dolby Digital Plus (E- AC- 3), Dolby Atmos, and Audible (formats 2, 3, 4, Audible Enhanced Audio, AAX, and AAX+), Spatial audio playback, User-configurable maximum volume limit</li> <li>• TV and Video: Video formats supported: HEVC, H.264, MPEG- 4 Part 2, and Motion JPEG, HDR with Dolby Vision, HDR10, and HLG, Up to 4K HDR AirPlay for mirroring, photos, and video out to Apple TV (2nd generation or later) or AirPlay 2-enabled smart TV</li> </ul>			
2.5	<p align="center"><b>Smart mobile phone type 1 – quantity: 106 pieces</b></p>			
[R7]	<ul style="list-style-type: none"> <li>• Display: 6.7" Dynamic AMOLED 2X, 1080x2400, 421 ppi, HDR10+,120Hz refresh rate support</li> <li>• Main Camera: Triple 12 MP, f/1.8, 26mm (wide), 1/1.76", 1.8µm, Dual Pixel PDAF, OIS 64 MP, f/2.0, 29mm (telephoto), 1/1.72", 0.8µm, PDAF, OIS, 1.1x optical zoom, 3x</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<p>hybrid zoom 12 MP, f/2.2, 13mm, 120° (ultrawide), 1/2.55" 1.4µm, Super Steady, LED flash, auto-HDR, panorama</p> <ul style="list-style-type: none"> <li>• Selfie Camera: 10 MP, f/2.2, 26mm (wide), 1/3.24", 1.22µm, Dual Pixel PDAF, Dual video call, Auto-HDR</li> <li>• Video Recording: resolution 8K video recording at 24 fps, 4K UHD video recording at 30/60 fps, 1080p FHD video recording at 30/60/240 fps, 720p HD video recording at 960 fps</li> <li>• Battery Capacity: Li-Ion 4800 mAh, non- removable</li> <li>• Charging: Improved wireless charging speeds with Fast Wireless Charging, Fast Charging compatible on wired and wireless</li> <li>• Network &amp; Connectivity: GSM / CDMA / HSPA / EVDO / LTE / 5G</li> <li>• Wi-Fi: Wi-Fi 802.11 a/b/g/n/ac/6, dual band, Wi-Fi Direct, hotspot</li> <li>• Bluetooth: Bluetooth v 5.0, A2DP, LE</li> <li>• USB: USB type-C</li> <li>• Location: GPS</li> <li>• CPU: 5nm Octa-Core Processor, 1x2.9GHz Cortex-X1, 3x2.80GHz Cortex-A78, 4x2.2GHz Cortex-A55</li> <li>• Chipset: Exynos 2100</li> <li>• GPU: Mali G78 MP14</li> <li>• Memory: 8GB RAM</li> <li>• Internal storage: 128GB</li> <li>• OS: Android 11</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<ul style="list-style-type: none"> <li>• Water Resistance: IP68</li> <li>• Sensors: Ultrasonic Fingerprint, Accelerometer, Barometer, Gyro, Compass, Proximity</li> </ul>			
2.6	<p><b>Smart mobile phone type 2 –</b> <b>quantity: 64 pieces</b></p>			
[R8]	<ul style="list-style-type: none"> <li>• Display: 6.9" Quad HD+ Dynamic AMOLED 2X, Infinity-O Display (3200x1440), 511 ppi, HDR10+ certified, 120Hz refresh rate support</li> <li>• Front Camera: 40MP Selfie Camera, PDAF, Pixel size: 0.7µm (10MP 1.4µm), FOV: 80°, F.No (aperture): F2.2</li> <li>• Rear Camera: Quad camera</li> <li>• First Camera: 12MP Ultra Wide Camera, Pixel size: 1.4µm, FOV: 120°, F.No (aperture): F2.2</li> <li>• Second Camera: 108MP Wide-angle Camera, PDAF, OIS, Pixel size: 0.8µm (12MP 2.4µm), FOV: 79°, F.No (aperture): F1.8, 1/1.33" image sensor size</li> <li>• Third Camera: 48MP Telephoto Camera, Pixel size: 0.8µm (12MP 1.6µm), FOV: 24°, F.No (aperture): F3.5</li> <li>• Fourth Camera: DepthVision Camera, Space Zoom, Hybrid Optic Zoom 10x, Super Resolution Zoom up to 100x, OIS</li> </ul>			

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	<p>(Optical Image Stabilization), Tracking AF</p> <ul style="list-style-type: none"> <li>• Video Recording:</li> <li>• Resolution: 8K video recording at 24 fps (7680x4320), 4K UHD video recording at 60 fps (3840x2160), 1080p FHD video recording at 60 fps (1920x1080), 720p HD video recording at 30 fps (1280x720)</li> <li>• Shooting speed: Super steady, Super Slow-mo 720p video support at 960 fps, Slow motion 1080p video support at 240 fps, Hyperlapse 1080p video support</li> <li>• Other: HDR10+ recording, VDIS (Video Digital Image Stabilization), Digital zoom up to 20x, High CRI LED Flash, Tracking AF, Take 33MP still photos while playing 8K video, Playback zoom, Video location tags</li> <li>• Battery Capacity: Li-Ion 5000 mAh, non-removable</li> <li>• Charging: Improved wireless charging speeds with Fast Wireless Charging 2.0, Fast Charging compatible on wired and wireless</li> <li>• Network &amp; Connectivity: GSM / CDMA / HSPA / EVDO / LTE / 5G Non-Standalone (NSA), Standalone (SA), Sub6 / mmWave, LTE, Enhanced 4x4 MIMO, Up to 7CA, LTE Cat.20, Up to 2.0Gbps Download / Up to 150Mbps Upload, NFC</li> <li>• Wi-Fi: Wi-Fi 802.11 a/b/g/n/ac/ax 2.4G+5GHz, HE80, MIMO, 1024-QAM, Up to 1.2Gbps Download / Up to 1.2Gbps Upload</li> <li>• Bluetooth: Bluetooth v 5.0, ANT+</li> </ul>			

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	<ul style="list-style-type: none"> <li>• USB: USB type-C</li> <li>• Location: GPS, Galileo, Glonass, BeiDou</li> <li>• CPU: 7nm 64-bit Octa-Core Processor, 2 x perf. core @ 2.73GHz, Samsung Mongoose M5, 4 x effi. core @ 2GHz, ARM Cortex A55, 2 x perf. core @ 2.6GHz, ARM Cortex A76</li> <li>• Chipset: Exynos 990</li> <li>• Memory: 12GB RAM (LPDDR5)</li> <li>• Internal storage: 128GB</li> <li>• Expandable Memory &amp; SIM Card: Dual SIM model (Hybrid SIM slot): one Nano SIM and one Nano SIM or one MicroSD slot (up to 1TB)</li> <li>• OS: Android 10</li> <li>• Audio: Stereo speakers, Surround sound with Dolby Atmos technology (Dolby Digital, Dolby Digital Plus included.)</li> <li>• Ultra high quality audio playback: UHQ 32-bit &amp; DSD64/128 support, PCM: Up to 32 bits, DSD: DSD64/128</li> <li>• Audio playback format: MP3, M4A, 3GA, AAC, OGG, OGA, WAV, WMA, AMR, AWB, FLAC, MID, MIDI, XMF, MXMF, IMY, RTTTL, RTX, OTA, APE, DSF, DFF</li> <li>• Video playback format: MP4, M4V, 3GP, 3G2, WMV, ASF, AVI, FLV, MKV, WEBM</li> <li>• TV connection: <ul style="list-style-type: none"> <li>- Wireless: Smart View (screen mirroring 1080p at 30 fps),</li> <li>- Wired: supports DisplayPort over USB type-C. Supports video out when connecting via HDMI Adapter.</li> </ul> </li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<p>(DisplayPort 4K UHD at 60 fps)</p> <ul style="list-style-type: none"> <li>• Water Resistance: IP68</li> <li>• Sensors: Ultrasonic Fingerprint sensor, Accelerometer, Barometer, Gyro sensor, Geomagnetic sensor, Hall sensor, Proximity sensor, RGB Light sensor</li> <li>• Buttons: Power and Bixby key, Volume key</li> <li>• Authentication: Lock type: pattern, PIN, password, Biometric lock type: Fingerprint sensor, Face recognition</li> </ul>			
2.7	<p><b>Smartphone Apple iOS –</b> <b>quantity: 16 pieces</b></p>			
[R9]	<ul style="list-style-type: none"> <li>• Capacity: 128GB</li> <li>• Display: Super Retina XDR display with ProMotion, ProMotion technology with adaptive refresh rates up to 120Hz, HDR display, True Tone, Wide color (P3), Haptic Touch, Fingerprint-resistant oleophobic coating</li> <li>• Display size: 6.1- inch (diagonal) all- screen OLED display</li> <li>• Display resolution: 2532- by- 1170-pixel resolution at 460 ppi</li> <li>• Display contrast ratio: 2,000,000:1 contrast ratio (typical)</li> <li>• Display brightness: 1000 nits max brightness (typical); 1200 nits max brightness (HDR)</li> <li>• Splash, Water, and Dust Resistant: Rated IP68 under IEC standard 60529</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<ul style="list-style-type: none"> <li>• Chip: A15 Bionic chip, 6- core CPU with 2 performance and 4 efficiency cores</li> <li>• GPU: 5- core GPU, 16-core Neural Engine</li> <li>• Camera: Pro 12MP camera system: Telephoto, Wide, and Ultra Wide cameras, Telephoto: <i>f</i>/2.8 aperture, Wide: <i>f</i>/1.5 aperture, Ultra Wide: <i>f</i>/1.8 aperture and 120° field of view, 3x optical zoom in, 2x optical zoom out; 6x optical zoom range, Digital zoom up to 15x, Night mode portraits enabled by LiDAR Scanner, Portrait mode with advanced bokeh and Depth Control, Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High- Key Mono), Dual optical image stabilization (Telephoto and Wide), Sensor- shift optical image stabilization (Wide), Six- element lens (Telephoto and Ultra Wide); seven- element lens (Wide), True Tone flash with Slow Sync, Panorama (up to 63MP), Sapphire crystal lens cover, 100% Focus Pixels (Wide), Night mode,  Deep Fusion, Smart HDR 4, Photographic Styles, Macro photography, Apple ProRAW, Wide color capture for photos and Live Photos,  Lens correction (Ultra Wide), Advanced red- eye correction, Photo geotagging, Auto image stabilization, Burst mode,  Image formats captured: HEIF and JPEG</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<ul style="list-style-type: none"> <li>• Video Recording: Cinematic mode for recording videos with shallow depth of field (1080p at 30 fps), HDR video recording with Dolby Vision up to 4K at 60 fps, 4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps, 1080p HD video recording at 25 fps, 30 fps, or 60 fps, 720p HD video recording at 30 fps, ProRes video recording up to 4K at 30 fps (1080p at 30 fps for 128GB storage),  Dual optical image stabilization for video (Telephoto and Wide), Sensor- shift optical image stabilization for video (Wide), 3x optical zoom in, 2x optical zoom out; 6x optical zoom range, Digital zoom up to 9x, Audio zoom, True Tone flash, QuickTake video, Slo- mo video support for 1080p at 120 fps or 240 fps,  Time- lapse video with stabilization, Night mode Time- lapse, Cinematic video stabilization (4K, 1080p, and 720p), Continuous autofocus video, Take 8MP still photos while recording 4K video,  Playback zoom, Video formats recorded: HEVC and H.264, Stereo recording</li> <li>• TrueDepth Camera: 12MP camera, <i>f</i>/2.2 aperture, Portrait mode with advanced bokeh and Depth Control, Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High- Key Mono), Animoji and Memoji,</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<p>Night mode, Deep Fusion, Smart HDR 4,</p> <p>Photographic Styles, Apple ProRAW,</p> <p>Cinematic mode for recording videos with shallow depth of field (in 1080p at 30 fps), HDR video recording with Dolby Vision up to 4K at 60 fps, 4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps, 1080p HD video recording at 25 fps, 30 fps, or 60 fps, ProRes video recording up to 4K at 30 fps (1080p at 30 fps for 128GB storage), Slo- mo video support for 1080p at 120 fps, Time- lapse video with stabilization, Night mode Time- lapse, Cinematic video stabilization (4K, 1080p, and 720p), QuickTake video, Wide color capture for photos and Live Photos, Lens correction,</p> <p>Retina Flash, Auto image stabilization,</p> <p>Burst mode</p> <ul style="list-style-type: none"> <li>Cellular and Wireless: 5G NR (Bands n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n29, n30, n38, n40, n41, n48, n66, n71, n77, n78, n79), 5G NR mmWave (Bands n258, n260, n261), FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 28, 29, 30, 32, 66, 71), TD-LTE (Bands 34, 38, 39, 40, 41, 42, 46, 48), CDMA EV-DO Rev. A (800, 1900 MHz), UMTS/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz), GSM/EDGE (850, 900, 1800, 1900 MHz),</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<p>5G (sub- 6 GHz and mmWave), Gigabit LTE with 4x4 MIMO and LAA7, Wi- Fi 6 (802.11ax) with 2x2 MIMO, Bluetooth 5.0 wireless technology, Ultra Wideband chip for spatial awareness, NFC with reader mode</p> <ul style="list-style-type: none"> <li>• Location: Built-in GPS, GLONASS, Galileo, QZSS, and BeiDou, Digital compass, Wi- Fi, Cellular, iBeacon microlocation</li> <li>• Audio Playback: Audio formats supported: AAC- LC, HE- AAC, HE- AAC v2, Protected AAC, MP3, Linear PCM, Apple Lossless, FLAC, Dolby Digital (AC- 3), Dolby Digital Plus (E- AC- 3), Dolby Atmos, and Audible (formats 2, 3, 4, Audible Enhanced Audio, AAX, and AAX+), Spatial audio playback, User- configurable maximum volume limit</li> <li>• Video Playback: Video formats supported: HEVC, H.264, MPEG- 4 Part 2, and Motion JPEG, HDR with Dolby Vision, HDR10, and HLG, Up to 4K HDR AirPlay for mirroring, photos, and video out to Apple TV (2nd generation or later) or AirPlay 2-enabled smart TV</li> <li>• Power and Battery: Built- in rechargeable lithium- ion battery, MagSafe wireless charging up to 15W13, Qi wireless charging up to 7.5W13, Charging via USB to computer system or power adapter, Wireless charging up to 15W13</li> <li>• Sensors: Face ID, LiDAR Scanner,</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	Barometer, Three- axis gyro, Accelerometer, Proximity sensor, Ambient light sensor <ul style="list-style-type: none"> <li>• Operating System: iOS 15</li> <li>• SIM Card: Dual SIM (nano- SIM and eSIM), Dual eSIM support</li> <li>• Languages: QuickType keyboard support: Serbian (Cyrillic, Latin), QuickType keyboard support with autocorrection: Serbian (Cyrillic), Serbian (Latin)</li> </ul>			
2.8	<b>Smart mobile phone Rugged with thermal camera- quantity: 4 pieces</b>			
[R10]	<ul style="list-style-type: none"> <li>• Display: 6.3" IPS capacitive touchscreen, 16M colors, 24-bit, resolution 1080x2340, protection IP68/IP69K and MID-STD-810G compliant</li> <li>• Camera: 48MP+5MP+FLIR Lepton Thermal imaging module, f/2.0, autofocus, LED flash</li> <li>• Battery Capacity: Li-Ion 6580 mAh, non-removable</li> <li>• Network &amp; Connectivity: GSM/HSPA/LTE</li> <li>• Wi-Fi: Wi-Fi 802.11 a/b/g/n/ac, Wi-Fi Direct, hotspot</li> <li>• Bluetooth: Bluetooth v 4.1, A2DP</li> <li>• USB: USB type-C</li> <li>• Location: GPS</li> <li>• CPU: Octa-Core Processor, 4x2.1GHz, Cortex-A73 &amp; 4x2GHz Cortex-A55</li> <li>• Chipset: MediaTek MT6771V/CT Helio P70</li> <li>• GPU: ARM Mali G72 MP3</li> <li>• Memory: 6GB RAM</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<ul style="list-style-type: none"> <li>• Internal storage: 128GB</li> <li>• Expandable Memory &amp; SIM Card: Dual SIM model: Nano SIM or one MicroSD slot (up to 256GB)</li> <li>• OS: Android 9.0</li> <li>• Water Resistance: IP68</li> <li>• Sensors: Fingerprint, Accelerometer, Gyro, Compass, Proximity</li> </ul>			
2.9	<b>Wireless headphones + microphones for Apple products – quantity: 4 pieces</b>			
[R11]	<ul style="list-style-type: none"> <li>• Sensors: Dual beamforming microphones, Dual optical sensors, Motion-detecting accelerometer, Speech-detecting accelerometer</li> <li>• Chip: H1 headphone chip</li> <li>• Controls: Double-tap to play, skip forward, or answer a phone call</li> <li>• Charging Case: Works with the Lightning connector</li> <li>• Connectivity: Bluetooth 5.0</li> </ul>			
2.10	<b>Adapters for Apple products (Apple USB-C VGA Multiport adapter) – quantity: 5 pieces</b>			
[R12]	<ul style="list-style-type: none"> <li>• The USB-C VGA Multiport Adapter lets you connect your USB-C or Thunderbolt 3 (USB-C) to a VGA display, while also connecting a standard USB device and a USB-C charging cable.</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<ul style="list-style-type: none"> <li>• Connections: USB-C, VGA, USB</li> </ul>			
2.11	<b>Adapters for Apple products (Apple USB-C Digital AV Multiport Adapter) – quantity: 5 pieces</b>			
[R13]	<ul style="list-style-type: none"> <li>• The USB-C Digital AV Multiport Adapter lets you connect your USB-C to an HDMI display, while also connecting a standard USB device and a USB-C charging cable.</li> <li>• This adapter allows you to mirror your display to your HDMI-enabled TV or display.</li> <li>• Connections: HDMI, USB, USB-C</li> </ul>			
2.12	<b>Adapters for Apple products (Apple USB-C to USB adapter) – quantity: 4 pieces</b>			
[R14]	<ul style="list-style-type: none"> <li>• The USB-C to USB Adapter lets you connect devices and many of your standard USB accessories to a USB-C or Thunderbolt 3 (USB-C).</li> <li>• Connections: USB-C, USB</li> </ul>			
2	<b>Installation, configuration and commissioning</b>			
[R15]	No installation is required for this lot.			
3	<b>Documentation</b>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
[R16]	<p>The equipment/software shall be delivered with the following:</p> <ul style="list-style-type: none"> <li>• List of equipment;</li> <li>• Certificate of Warranty;</li> <li>• Certificate of Origin;</li> <li>• Licenses (if applicable);</li> <li>• Project documentation, detailed technical documentation describing installation, configuration, integration, customization etc.;</li> <li>• User manuals, Administrator manuals, Maintenance manuals;</li> <li>• Backup and Disaster Recovery Procedures (if applicable);</li> <li>• Procedures for system software installation, configuration, integration, customization;</li> <li>• CD / DVD or USB media with: equipment drivers, restore operating systems, installation kits for software.</li> </ul> <p>All above mentioned documents will be delivered to the Beneficiary in English language.</p> <p>All the documents shall be delivered in electronic format and hard-copy (if not available in electronic form).</p>			
4	<b>Warranty</b>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
[R17]	<ul style="list-style-type: none"> <li>• Duration of warranty is 1 (one) year for each item of this Lot</li> <li>• Warranty starts from the date of issuance of Provisional Acceptance Certificate.</li> <li>• The Tenderer shall submit the Certificate of Warranty for equipment/system to the Contracting Authority stating the commencement date as the date of issuance of Provisional Acceptance Certificate.</li> <li>• Tenderers must provide local reliable warranty service agent providing maintenance and the rapid supply of equipment for the Warranty duration.</li> </ul>			
5	<b>Commercial warranty</b>			
[R18]	<ul style="list-style-type: none"> <li>• Duration of commercial warranty is minimum 1 (one) year for each item of this Lot.</li> <li>• Commercial warranty starts from the date of issuance of Final Acceptance Certificate.</li> <li>• Detailed description of the organisation of the proposed service and description of the commercial warranty shall be included in the offer.</li> </ul>			
6	<b>Support &amp; maintenance requirements during warranty and commercial warranty period</b>			
[R19]	The following activities/operations shall be assured during the warranty and commercial period:			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	<ul style="list-style-type: none"> <li>• Maintenance regarding the supplied equipment/software in the agreed parameters (performance, availability and data integrity etc.);</li> <li>• Improvements to the technical performances if the case;</li> <li>• Solving bugs that have not been identified during the implementation and which occur during the production stage.</li> <li>• The Tenderer shall repair defects or damages at his own cost during the warranty and commercial warranty period.</li> <li>• During warranty and commercial warranty period, the Tenderer shall repair or alternatively replace the defective equipment within a maximum of 30 days from officially submitted warranty support request.</li> <li>• During warranty and commercial warranty period, the Tenderer shall replace equipment for the period of time needed for repairs in case the defect or damage cannot be repaired within the solution time requested.</li> <li>• During warranty and commercial warranty period, the Tenderer shall fully replace equipment in case the defect or damage that cannot be repaired.</li> <li>• In case of media failure, replacement will take place without returning the original media, due to security constraints. Diagnostics of the failed storage media</li> </ul>			

1. Item Number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	must also be performed in the beneficiary institution under the supervision of its competent staff member.			

**DISTRIBUTION LIST:**

No	Item	Special Prosecution Office for the fight against cybercrime	SCUC	UFAC	THB	SPBOK CID OPA	JFI	Crime Analysis Service (CAS)	DDIM CID Belgrade City Police	SSIM CID Belgrade	Regional Police Department Nis	Regional Police Department Novi Sad	Regional Police Department Kraljevo	SKOR	NCKF	SATIT	Total
<b>LOT 2</b>																	
1.	Desktop type 5	21	2							2			2				<b>27</b>
2.	Desktop type 6	3															<b>3</b>
3.	Laptop type 4	14															<b>14</b>
4.	Tablet type 2	16		4	6	5											<b>31</b>
5.	Smart mobile phone type 1			21			20		20	15	15	15					<b>106</b>
6.	Smart mobile phone type 2	4	30		30												<b>64</b>

7.	Smartphone Apple iOS	11							5								<b>16</b>
8.	Smart mobile phone Rugged with thermal camera		2						2								<b>4</b>
9.	Wireless headphones + microphones for Apple products	4															<b>4</b>
10.	Apple USB-C VGA Multiport adapter	5															<b>5</b>
11.	Apple USB-C Digital AV Multiport Adapter	5															<b>5</b>
12.	Apple USB-C to USB adapter	4															<b>4</b>

## ADDRESSES OF THE BENEFICIARIES

Beneficiary abbreviation	Beneficiary (organizational unit within Ministry of Interior of the Republic of Serbia)	Address
SPO	Special Prosecution Office for the fight against cybercrime	Nemanjina 22-26, Belgrade
SCOC-SUCC	Special Unit responsible for Combating Cyber-crime within the Service for Combating Organised Crime (SCOC)	Stari obrenovački put bb, Belgrade
UFAC	Unit for Fight Against Corruption (Anti-Corruption Department)	Bulevar Zorana Đinđića 104, Belgrade
THB	Trafficking in Human Beings (THB) Unit	Stari obrenovački put bb, Belgrade
SCOC-SAD	Special Action Department within the Service for Combating Organised Crime SCOC	Kneza Miloša 101, Belgrade
FIU	Financial Investigation Unit	Kneza Miloša 101, Belgrade
CAS	Crime Analysis Service	Bulevar Mihajla Pupina 2a
SSIM CID Belgrade City Police	Service for Special Investigative Methods (SSIM) CID Belgrade City Police Administration	Bulevar Despota Stefana 107, Palilula, Belgrade
SSIM Belgrade	Service for Special Investigative Methods (SSIM) CID Belgrade	Kneza Miloša 101, Belgrade
SSIM Niš	Service for Special Investigative Methods (SSIM) Regional Police Department Niš	Bul. 12. Februar 89, Niš
SSIM Novi Sad	Service for Special Investigative Methods (SSIM) Regional Police Department Novi Sad	Pavla Papa 46, Novi Sad
SSIM Kraljevo	Service for Special Investigative Methods (SSIM) Regional Police Department Kraljevo	Izletnička bb, naselje Ribnica, Kraljevo
SKOR	Criminal Intelligence Service	Bulevar Zorana Đinđića 104, Belgrade

NCKF	National Centar for Criminalistic Forensic	Kneza Miloša 103, Belgrade
SATIT	Sector for Analytic, Telecommunication and Information Technology	Kneza Miloša 101, Belgrade

### **Annex II + III: Technical Specifications + Technical Offer - part II – Place of delivery/Acceptance**

Item	ARTICLE	Place of acceptance
No 2.1	6 Items	Central Warehouse of the Ministry of Interior, Milorada Jovanovica 7, Belgrade
No 2.4	15 Items	
No 2.5	All items	
No 2.6	60 Items	
No 2.7	5 items	
No 2.8	All items	

Item	ARTICLE	Place of acceptance
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No 2.1	21 Items	Republic Public Prosecution's Office, Nemanjina 22-26, Belgrade
No 2.2	All items	
No 2.3	All items	
No 2.4	16 Items	
No 2.6	4 Items	
No 2.7	11 Items	
No 2.9	All items	
No 2.10	All items	
No 2.11	All items	
No 2.12	All items	