

## SPECIFICAȚII TEHNICE (F4.1)

						Alternativa nr.	
Numărul licitației:		ocds-b3wdp1-MD-1606742171463				Data:	08.12.2020
Denumirea licitației:		Echipament de telecomunicații				Loturile: 1,3,5	
Cod CPV	Denumirea bunurilor și/sau a serviciilor	Modelul articolului	Țara de origine	Producătorul	Specificarea tehnică deplină solicitată de către autoritatea contractantă	Specificarea tehnică deplină propusă de către ofertant	Standarde de referință
1	2	3	4	5	6	7	8
<b>Lotul 1 - Echipament WIFI</b>							
32500000-8	Access point	Mikrotik cAP ac P/N: RBcAPGi-5acD2nD	EU	Mikrotik	CPU nominal frequency: 716 MHz CPU core count: 4 Size of RAM: 128 MB Storage Size: 16MB 10/100/1000 Ethernet ports: 2 First wireless module: 802.11a/n/ac Second wireless module: 802.11b/g/n PoE in 802.3 af/at PoE Input Voltage: 11 V - 57 V PoE out up to 57V Max out per port output (input < 30 V) : 500 mA Max out per port output (input > 30 V): 400 mA Max total out (A): 500 mA Voltage Monitor PCB temperature monitor Tested ambient temperature: -40 to +50C MTBF: Approximately 100'000 hours at 25C Antenna gain: 2 CPU: QCA9556 Max Power consumption: 24W Number of chains: 3 Storage type: FLASH Storage size: 16 MB Wireless 2.4 GHz Max data rate: 300 Mbit/s Wireless 2.4 GHz number of chains: 2 Antenna gain dBi for 2.4 GHz: 2 Wireless 2.4 GHz generation: Wi-Fi 4 Wireless 5 GHz Max data rate: 867 Mbit/s Wireless 5 GHz number of chains 2	CPU nominal frequency: 716 MHz CPU core count: 4 Size of RAM: 128 MB Storage Size: 16MB 10/100/1000 Ethernet ports: 2 First wireless module: 802.11a/n/ac Second wireless module: 802.11b/g/n PoE in 802.3 af/at PoE Input Voltage: 11 V - 57 V PoE out up to 57V Max out per port output (input < 30 V) : 500 mA Max out per port output (input > 30 V): 400 mA Max total out (A): 500 mA Voltage Monitor PCB temperature monitor Tested ambient temperature: -40 to +50C MTBF: Approximately 100'000 hours at 25C Antenna gain: 2 CPU: QCA9556 Max Power consumption: 24W Number of chains: 3 Storage type: FLASH Storage size: 16 MB Wireless 2.4 GHz Max data rate: 300 Mbit/s Wireless 2.4 GHz number of chains: 2 Antenna gain dBi for 2.4 GHz: 2 Wireless 2.4 GHz generation: Wi-Fi 4 Wireless 5 GHz Max data rate: 867 Mbit/s Wireless 5 GHz number of chains 2	

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					<p>Antenna gain: 2  CPU: QCA9556  Max Power consumption: 24W  Number of chains: 3  Storage type: FLASH  Storage size: 16 MB  Wireless 2.4 GHz Max data rate: 300 Mbit/s  Wireless 2.4 GHz number of chains: 2  Antenna gain dBi for 2.4 GHz: 2  Wireless 2.4 GHz generation: Wi-Fi 4  Wireless 5 GHz Max data rate: 867 Mbit/s  Wireless 5 GHz number of chains 2  Antenna gain dBi for 5 GHz: 2.5  Wireless 5 GHz generation: Wi-Fi 5  AC speed: AC1200  Certification: CE, FCC, IC, EAC, ROHS  Warranty: 1 year  Embended wireless characteristics:</p> <ul style="list-style-type: none"> <li>• Wireless band - 5Ghz and 2.4Ghz simultaneously</li> <li>• AP / Station / Bridge modes supported</li> <li>• WDS</li> <li>• 802.1X for wireless authentication to radius server</li> <li>• Wireless scanner for detection of the free wifi channels</li> <li>• Nstreme, NVstreme protocols</li> <li>• Wireless security profiles</li> <li>• The possibility to make virtual access points and bridge them with 802.1Q VLAN</li> <li>• Wireless signal level and mac based access control</li> <li>• Wireless Sniffer, wireless snoopper</li> </ul>	<p>Antenna gain: 2  CPU: QCA9556  Max Power consumption: 24W  Number of chains: 3  Storage type: FLASH  Storage size: 16 MB  Wireless 2.4 GHz Max data rate: 300 Mbit/s  Wireless 2.4 GHz number of chains: 2  Antenna gain dBi for 2.4 GHz: 2  Wireless 2.4 GHz generation: Wi-Fi 4  Wireless 5 GHz Max data rate: 867 Mbit/s  Wireless 5 GHz number of chains 2  Antenna gain dBi for 5 GHz: 2.5  Wireless 5 GHz generation: Wi-Fi 5  AC speed: AC1200  Certification: CE, FCC, IC, EAC, ROHS  Warranty: 1 year  Embended wireless characteristics:</p> <ul style="list-style-type: none"> <li>• Wireless band - 5Ghz and 2.4Ghz simultaneously</li> <li>• AP / Station / Bridge modes supported</li> <li>• WDS</li> <li>• 802.1X for wireless authentication to radius server</li> <li>• Wireless scanner for detection of the free wifi channels</li> <li>• Nstreme, NVstreme protocols</li> <li>• Wireless security profiles</li> <li>• The possibility to make virtual access points and bridge them with 802.1Q VLAN</li> <li>• Wireless signal level and mac based access control</li> <li>• Wireless Sniffer, wireless snoopper</li> </ul>	

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					<p>Router capabilities:</p> <ul style="list-style-type: none"> <li>• MPLS</li> <li>• Routing protocols - OSPF, BGP, RIP</li> <li>• IGMP Proxy</li> <li>• VPN - IPSec, OVPN, PPTP, L2TP (as server and as client)</li> <li>• SNMP, NetFlow</li> <li>• 802.1Q VLAN support</li> <li>• DHCP Server, relay and client</li> <li>• User groups support with radius authentication</li> <li>• DNS Caching with the possibility to make static registrations in DNS.</li> <li>• The protocol to view neighbor devices which support the same protocol. CDP support</li> <li>• FTP and SMB Server</li> <li>• NTP Server and Client</li> <li>• Management - SSH, Telnet, WEB, API for making personal application for management</li> <li>• Bridging interfaces, subinterfaces</li> <li>• Bandwith test server and client</li> <li>• IP Scanner - to scan all network devices from specified range of IP addresses</li> <li>• Packet sniffer</li> <li>• CapsMAN support</li> <li>• The possibility to make scripts for backup or internet failover with e-mail notification. The possibility to schedule the scripts.</li> <li>• Logging local or remote with the possibility to specify processes which we want to log (DHCP, VPN, Firewall...)</li> <li>• VRF</li> <li>• Statefull L4 Firewall, NAT with source and destination IP change</li> </ul>	<p>Router capabilities:</p> <ul style="list-style-type: none"> <li>• MPLS</li> <li>• Routing protocols - OSPF, BGP, RIP</li> <li>• IGMP Proxy</li> <li>• VPN - IPSec, OVPN, PPTP, L2TP (as server and as client)</li> <li>• SNMP, NetFlow</li> <li>• 802.1Q VLAN support</li> <li>• DHCP Server, relay and client</li> <li>• User groups support with radius authentication</li> <li>• DNS Caching with the possibility to make static registrations in DNS.</li> <li>• The protocol to view neighbor devices which support the same protocol. CDP support</li> <li>• FTP and SMB Server</li> <li>• NTP Server and Client</li> <li>• Management - SSH, Telnet, WEB, API for making personal application for management</li> <li>• Bridging interfaces, subinterfaces</li> <li>• Bandwith test server and client</li> <li>• IP Scanner - to scan all network devices from specified range of IP addresses</li> <li>• Packet sniffer</li> <li>• CapsMAN support</li> <li>• The possibility to make scripts for backup or internet failover with e-mail notification. The possibility to schedule the scripts.</li> <li>• Logging local or remote with the possibility to specify processes which we want to log (DHCP, VPN, Firewall...)</li> <li>• VRF</li> <li>• Statefull L4 Firewall, NAT with source and destination IP change</li> </ul>	

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					<ul style="list-style-type: none"> <li>• Policy Based Routing and firewalling</li> <li>• Proxy server</li> <li>• Hotspot - the possibility to redirect the users to a login page to access the network</li> <li>• IPv6 support</li> </ul> <p>The router has to contain: PSU, Gigabit PoE Injector, Mounting loop            Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</p>	<ul style="list-style-type: none"> <li>• Policy Based Routing and firewalling</li> <li>• Proxy server</li> <li>• Hotspot - the possibility to redirect the users to a login page to access the network</li> <li>• IPv6 support</li> </ul> <p>The router has to contain: PSU, Gigabit PoE Injector, Mounting loop            Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</p>	

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<b>Lotul 3 - Echipament de rețea</b>							
32500000-8	Switch Manageabil, Layer3 48 porturi	Catalyst 9200L 48-port Data 4x10G uplink Switch, Network Essentials P/N: C9200L-48T-4X-E	China	Cisco Systems	<p>Switch fundamentals:</p> <ul style="list-style-type: none"> <li>- Layer 2 (VLAN distribution protocol fully compatible with VTP, DTP, MSTP, PVRST+, Port Security, DHCP snooping), Routed Access (RIP, EIGRP Stub, OSPF - 1000 routes), PBR, PIM Stub Multicast (1000 routes), PVLAN, VRRP, PBR, CDP-compatible protocol for discovering neighbor devices at layer 2 of TCP OSI (ex: LLDP), QoS, FHS, 802.1X, MACsec-128, CoPP, IP SLA Responder, DHCP server</li> <li>- Cross-stack EtherChannel - the ability to configure EtherChannel technology across different members of the stack for high resiliency.</li> <li>- SSH, SNMP (v2 and v3), web UI</li> </ul> <p>Telemetry and visibility: Model-driven telemetry, sampled IPFIX, SPAN, RSPAN</p> <p>Automation: NETCONF, RESTCONF, YANG, PnP Agent, PnP</p> <p>RFID tags: the switch needs to have an embedded RFID tag that facilitates easy asset and inventory management using commercial RFID readers</p> <p>Bluetooth ready: The switch needs to have hardware support to connect a Bluetooth dongle, enabling the technician to use this wireless interface as an IP management port interface. The port can be used for configuration and troubleshooting using WebUI or the Command-Line Interface (CLI), and to transfer images and configurations</p>	<p>Switch fundamentals:</p> <ul style="list-style-type: none"> <li>- Layer 2 (VLAN distribution protocol fully compatible with VTP, DTP, MSTP, PVRST+, Port Security, DHCP snooping), Routed Access (RIP, EIGRP Stub, OSPF - 1000 routes), PBR, PIM Stub Multicast (1000 routes), PVLAN, VRRP, PBR, CDP-compatible protocol for discovering neighbor devices at layer 2 of TCP OSI (ex: LLDP), QoS, FHS, 802.1X, MACsec-128, CoPP, IP SLA Responder, DHCP server</li> <li>- Cross-stack EtherChannel - the ability to configure EtherChannel technology across different members of the stack for high resiliency.</li> <li>- SSH, SNMP (v2 and v3), web UI</li> </ul> <p>Telemetry and visibility: Model-driven telemetry, sampled IPFIX, SPAN, RSPAN</p> <p>Automation: NETCONF, RESTCONF, YANG, PnP Agent, PnP</p> <p>RFID tags: the switch needs to have an embedded RFID tag that facilitates easy asset and inventory management using commercial RFID readers</p> <p>Bluetooth ready: The switch needs to have hardware support to connect a Bluetooth dongle, enabling the technician to use this wireless interface as an IP management port interface. The port can be used for configuration and troubleshooting using WebUI or the Command-Line Interface (CLI), and to transfer images and configurations</p>	

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					<p>Performance specifications:</p> <ul style="list-style-type: none"> <li>- Stacking bandwidth - 80Gbps</li> <li>- Total number of MAC addresses - 16000</li> <li>- Total number of IPv4 routes (ARP plus learned routes) - 11,000 (8,000 direct routes and 3,000 indirect routes)</li> <li>- IPv4 routing entries - 3000</li> <li>- IPv6 routing entries - 1500</li> <li>- Multicast routing scale - 1000</li> <li>- QoS scale entries - 1000</li> <li>- ACL scale entries - 1500</li> <li>- Packet buffer per SKU - 6MB</li> <li>- Flexible IPFIX (FNF) entries - 16000 flows</li> <li>- DRAM - 2GB</li> <li>- Flash - 4GB</li> <li>- VLAN IDs - 4096</li> <li>- Total Switched Virtual Interfaces (SVIs) - 512</li> <li>- Jumbo frames - 9198 bytes</li> <li>- Number of IPv4 bindings - 10000</li> <li>- Switching capacity - 176Gbps (64 bytes packets)</li> <li>- Switch capacity with stacking - 256Gbps (64 bytes packets)</li> <li>- Forwarding rate - 130 Mpps (64 bytes packets)</li> <li>- Forwarding rate with stacking - 190Mpps (64 bytes packets)</li> </ul> <p>Connectors and cabling:</p> <ul style="list-style-type: none"> <li>- 48 x 1000BASE-T ports: RJ-45 connectors, 4-pair Cat 5E UTP cabling + 4 x 1/10Gbps SFP+ ports</li> <li>- Slot for stack module</li> <li>- Ethernet management port: RJ-45 connectors, 4-pair Cat 5 UTP cabling</li> </ul>	<p>Performance specifications:</p> <ul style="list-style-type: none"> <li>- Stacking bandwidth - 80Gbps</li> <li>- Total number of MAC addresses - 16000</li> <li>- Total number of IPv4 routes (ARP plus learned routes) - 11,000 (8,000 direct routes and 3,000 indirect routes)</li> <li>- IPv4 routing entries - 3000</li> <li>- IPv6 routing entries - 1500</li> <li>- Multicast routing scale - 1000</li> <li>- QoS scale entries - 1000</li> <li>- ACL scale entries - 1500</li> <li>- Packet buffer per SKU - 6MB</li> <li>- Flexible IPFIX (FNF) entries - 16000 flows</li> <li>- DRAM - 2GB</li> <li>- Flash - 4GB</li> <li>- VLAN IDs - 4096</li> <li>- Total Switched Virtual Interfaces (SVIs) - 512</li> <li>- Jumbo frames - 9198 bytes</li> <li>- Number of IPv4 bindings - 10000</li> <li>- Switching capacity - 176Gbps (64 bytes packets)</li> <li>- Switch capacity with stacking - 256Gbps (64 bytes packets)</li> <li>- Forwarding rate - 130 Mpps (64 bytes packets)</li> <li>- Forwarding rate with stacking - 190Mpps (64 bytes packets)</li> </ul> <p>Connectors and cabling:</p> <ul style="list-style-type: none"> <li>- 48 x 1000BASE-T ports: RJ-45 connectors, 4-pair Cat 5E UTP cabling + 4 x 1/10Gbps SFP+ ports</li> <li>- Slot for stack module</li> <li>- Ethernet management port: RJ-45 connectors, 4-pair Cat 5 UTP cabling</li> </ul>	

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					<p>- Management console port: RJ-45-to-DB9 cable for PC connections, USB-C adaptor, USB adaptor</p> <p>- Power port for 220VAC</p> <p>Supported standards:</p> <ul style="list-style-type: none"> <li>- IEEE 802.1s</li> <li>- IEEE 802.1w</li> <li>- IEEE 802.1x</li> <li>- IEEE 802.1x-Rev</li> <li>- IEEE 802.3ad</li> <li>- IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports</li> <li>- IEEE 802.1D Spanning Tree Protocol</li> <li>- IEEE 802.1p CoS prioritization</li> <li>- IEEE 802.1Q VLAN</li> <li>- IEEE 802.3 10BASE-T specification</li> <li>- IEEE 802.3u 100BASE-TX specification</li> <li>- IEEE 802.3ab 1000BASE-T specification</li> <li>- IEEE 802.3z 1000BASE-X specification</li> <li>- RMON I and II standards</li> </ul> <p>Normal operating temperature and altitudes:</p> <ul style="list-style-type: none"> <li>-5°C to +45°C, up to 5000 feet (1500m)</li> <li>-5°C to +40°C, up to 10,000 feet (3000m)</li> </ul> <p>Minimum ambient temperature for cold start is 32°F (0°C)</p> <p>Short-term* exceptional conditions:</p> <ul style="list-style-type: none"> <li>-5°C to +50°C, up to 5000 feet (1500m)</li> <li>-5°C to +45°C, up to 10,000 feet (3000m)</li> <li>-5°C to +45°C, at sea level with single fan failure</li> </ul> <p>Relative humidity operating and nonoperating noncondensing: 5% to 90% noncondensing</p> <p>Altitude: up to 3000 meters, up to 45°C</p>	<p>- Management console port: RJ-45-to-DB9 cable for PC connections, USB-C adaptor, USB adaptor</p> <p>- Power port for 220VAC</p> <p>Supported standards:</p> <ul style="list-style-type: none"> <li>- IEEE 802.1s</li> <li>- IEEE 802.1w</li> <li>- IEEE 802.1x</li> <li>- IEEE 802.1x-Rev</li> <li>- IEEE 802.3ad</li> <li>- IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports</li> <li>- IEEE 802.1D Spanning Tree Protocol</li> <li>- IEEE 802.1p CoS prioritization</li> <li>- IEEE 802.1Q VLAN</li> <li>- IEEE 802.3 10BASE-T specification</li> <li>- IEEE 802.3u 100BASE-TX specification</li> <li>- IEEE 802.3ab 1000BASE-T specification</li> <li>- IEEE 802.3z 1000BASE-X specification</li> <li>- RMON I and II standards</li> </ul> <p>Normal operating temperature and altitudes:</p> <ul style="list-style-type: none"> <li>-5°C to +45°C, up to 5000 feet (1500m)</li> <li>-5°C to +40°C, up to 10,000 feet (3000m)</li> </ul> <p>Minimum ambient temperature for cold start is 32°F (0°C)</p> <p>Short-term* exceptional conditions:</p> <ul style="list-style-type: none"> <li>-5°C to +50°C, up to 5000 feet (1500m)</li> <li>-5°C to +45°C, up to 10,000 feet (3000m)</li> <li>-5°C to +45°C, at sea level with single fan failure</li> </ul> <p>Relative humidity operating and nonoperating noncondensing: 5% to 90% noncondensing</p> <p>Altitude: up to 3000 meters, up to 45°C</p>	

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					<p>EMI and EMC compliance:</p> <ul style="list-style-type: none"> <li>- FCC Part 15 (CFR 47) Class A</li> <li>- ICES-003 Class A</li> <li>- EN 55032 Class A</li> <li>- CISPR 32 Class A</li> <li>- AS/NZS 3548 Class A</li> <li>- BSMI Class A</li> <li>- VCCI Class A</li> <li>- CISPR 35</li> <li>- EN 55024, EN300 386*, EN 61000-3-2, EN 61000-3-3</li> <li>- EN 61000-6-1</li> </ul> <p>Safety compliance: UL 60950-1, CAN/CSA-C22.2 No. 60950-1, EN 60950-1, IEC 60950-1, CCC, CE</p> <p>Marking</p> <p>LED indicators:</p> <ul style="list-style-type: none"> <li>- "AC OK": Input power to the power supply is OK</li> <li>- "PS OK": Output power from the power supply is OK</li> </ul> <p>Mean time between failures: 503400 hours</p> <p>Dimensions (cm): 4.4 x 44.5 x 28.8</p> <p>Additional features which can be enabled by additional license: EIGRP, HSRP, IS-IS, BSR, MSDP, IP SLA, OSPF (no routes limits); VRF, VXLAN, LISP, full - not sampled IPFIX, EEM</p> <p>Warranty - one year</p> <ul style="list-style-type: none"> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- În ofertă obligatoriu trebuie să fie indicat modelul comutatorului și tipul licenței.</li> </ul>	<p>EMI and EMC compliance:</p> <ul style="list-style-type: none"> <li>- FCC Part 15 (CFR 47) Class A</li> <li>- ICES-003 Class A</li> <li>- EN 55032 Class A</li> <li>- CISPR 32 Class A</li> <li>- AS/NZS 3548 Class A</li> <li>- BSMI Class A</li> <li>- VCCI Class A</li> <li>- CISPR 35</li> <li>- EN 55024, EN300 386*, EN 61000-3-2, EN 61000-3-3</li> <li>- EN 61000-6-1</li> </ul> <p>Safety compliance: UL 60950-1, CAN/CSA-C22.2 No. 60950-1, EN 60950-1, IEC 60950-1, CCC, CE</p> <p>Marking</p> <p>LED indicators:</p> <ul style="list-style-type: none"> <li>- "AC OK": Input power to the power supply is OK</li> <li>- "PS OK": Output power from the power supply is OK</li> </ul> <p>Mean time between failures: 503400 hours</p> <p>Dimensions (cm): 4.4 x 44.5 x 28.8</p> <p>Additional features which can be enabled by additional license: EIGRP, HSRP, IS-IS, BSR, MSDP, IP SLA, OSPF (no routes limits); VRF, VXLAN, LISP, full - not sampled IPFIX, EEM</p> <p>Warranty - one year</p> <ul style="list-style-type: none"> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> </ul> <p>Tipul licenței: perpetual</p>	
32500000-8	Suport pentru comutatoarele din pozitia 1, pentru, cel puțin, un an	SNTC-8X5XNBD Catalyst 9200L 48-port data, 4 x 10G, Network Essential P/N: CON-SNT-C920L4XE	USA	Cisco Systems	<ul style="list-style-type: none"> <li>- 24x7x356 TAC support</li> <li>- Major software updates, maintenance and minor software releases</li> </ul>	SNTC-8X5XNBD Catalyst 9200L 48-port data, 4 x 10G, Network Essential	



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<b>Lotul 5 - UPS-uri și extensii de baterii</b>							
32500000-8	UPS 5000	APC Smart-UPS SRT 5000VA RM 230V P/N:SRT5KRMXLI	Phillipines	APC	<ul style="list-style-type: none"> <li>- Max Configurable Power (Watts) - 4.5kWatts / 5.0kVA</li> <li>- Output Voltage Distortion- Less than 2 %</li> <li>- Output Frequency (sync to mains) - 50/60 Hz +/- 3 Hz Sync to mains</li> <li>- Other Output Voltages - 220, 240</li> <li>- Load Crest Factor - 3 : 1</li> <li>- Topology - Double conversion online</li> <li>- Waveform type - Sine wave</li> <li>- Bypass - Internal bypass (automatic and manual)</li> <li>- Input frequency - 40 - 70 Hz Auto-sensing</li> <li>- Input voltage range for main operations - 100 - 275 Adjustable (half load), 160 - 275V</li> <li>- Other Input Voltages - 220, 240</li> <li>- Battery type - Lead-acid battery</li> <li>- Battery Typical recharge time - 1.5hour(s)</li> <li>- Nominal Battery Voltage - 192 V</li> <li>- Expected Battery Life (years) - 3 - 5</li> <li>- RBC Quantity - 1</li> <li>- Battery Charge Power (Watts) - 560 Watts</li> <li>- Extendable Run Time - 1</li> <li>- Battery Volt-Amp-Hour Capacity - 960</li> <li>- Interface Port(s) - RJ-45 10/100 Base-T, RJ-45 Serial, Smart-Slot, USB</li> <li>- Control panel - Multifunction LCD status and control console</li> <li>- Audible Alarm - Audible and visible alarms prioritized by severity</li> </ul>	<ul style="list-style-type: none"> <li>- Max Configurable Power (Watts) - 4.5kWatts / 5.0kVA</li> <li>- Output Voltage Distortion- Less than 2 %</li> <li>- Output Frequency (sync to mains) - 50/60 Hz +/- 3 Hz Sync to mains</li> <li>- Other Output Voltages - 220, 240</li> <li>- Load Crest Factor - 3 : 1</li> <li>- Topology - Double conversion online</li> <li>- Waveform type - Sine wave</li> <li>- Bypass - Internal bypass (automatic and manual)</li> <li>- Input frequency - 40 - 70 Hz Auto-sensing</li> <li>- Input voltage range for main operations - 100 - 275 Adjustable (half load), 160 - 275V</li> <li>- Other Input Voltages - 220, 240</li> <li>- Battery type - Lead-acid battery</li> <li>- Battery Typical recharge time - 1.5hour(s)</li> <li>- Nominal Battery Voltage - 192 V</li> <li>- Expected Battery Life (years) - 3 - 5</li> <li>- RBC Quantity - 1</li> <li>- Battery Charge Power (Watts) - 560 Watts</li> <li>- Extendable Run Time - 1</li> <li>- Battery Volt-Amp-Hour Capacity - 960</li> <li>- Interface Port(s) - RJ-45 10/100 Base-T, RJ-45 Serial, Smart-Slot, USB</li> <li>- Control panel - Multifunction LCD status and control console</li> <li>- Audible Alarm - Audible and visible alarms prioritized by severity</li> </ul>	

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					<ul style="list-style-type: none"> <li>- Emergency Power Off (EPO) - Yes</li> <li>- Available SmartSlot™ Interface Quantity - 1</li> <li>- Surge energy rating - 480Joules</li> <li>- Units per Pallet - 6.0</li> <li>- Maximum Depth - 719mm</li> <li>- Maximum Width - 432mm</li> <li>- Operating Temperature 0 - 40 °C</li> <li>- Operating Relative Humidity 0 - 95 (Non-condensing) %</li> <li>- Operating Elevation - 0 - 3048meters</li> <li>- Storage Temperature -15 - 45 °C</li> <li>- Audible noise at 1 meter from surface of unit - 55.0dBA</li> <li>- Online thermal dissipation - 931.0BTU/hr</li> <li>- Protection Class - IP20</li> <li>- Approvals - CE, CE Mark, EAC, EN/IEC 62040-1, EN/IEC 62040-2, IRAM, RCM, VDE</li> <li>- Standard warranty - 3 years repair or replace (excluding battery) and 2 years for battery</li> </ul> <p>Smart Module features:</p> <ul style="list-style-type: none"> <li>- Command line interface - simultaneous remote management access through SSH</li> <li>- Device Encryption - Securely connect via HTTPS/SSL, SSH (up to 2048-bit encryption), SNMPv3</li> <li>- Expandable Input and Output Ports - Supports the Temperature Sensor, Temperature and Humidity Sensor and Dry</li> </ul>	<ul style="list-style-type: none"> <li>- Emergency Power Off (EPO) - Yes</li> <li>- Available SmartSlot™ Interface Quantity - 1</li> <li>- Surge energy rating - 480Joules</li> <li>- Units per Pallet - 6.0</li> <li>- Maximum Depth - 719mm</li> <li>- Maximum Width - 432mm</li> <li>- Operating Temperature 0 - 40 °C</li> <li>- Operating Relative Humidity 0 - 95 (Non-condensing) %</li> <li>- Operating Elevation - 0 - 3048meters</li> <li>- Storage Temperature -15 - 45 °C</li> <li>- Audible noise at 1 meter from surface of unit - 55.0dBA</li> <li>- Online thermal dissipation - 931.0BTU/hr</li> <li>- Protection Class - IP20</li> <li>- Approvals - CE, CE Mark, EAC, EN/IEC 62040-1, EN/IEC 62040-2, IRAM, RCM, VDE</li> <li>- Standard warranty - 3 years repair or replace (excluding battery) and 2 years for battery</li> </ul> <p>Smart Module features:</p> <ul style="list-style-type: none"> <li>- Command line interface - simultaneous remote management access through SSH</li> <li>- Device Encryption - Securely connect via HTTPS/SSL, SSH (up to 2048-bit encryption), SNMPv3</li> <li>- Expandable Input and Output Ports - Supports the Temperature Sensor, Temperature and Humidity Sensor and Dry</li> </ul>	

1	2	3	4	5	6	7	8
					<p>Contact I/O Accessory</p> <ul style="list-style-type: none"> <li>- IPv6 support - yes</li> <li>- Smart Battery Management Support - Detailed battery information including battery cartridge parameters provides early-warning fault analysis to simplify management of the entire battery system.</li> <li>- Standard UPS RFC 1628 MIB Compatible</li> <li>- Reboot equipment remotely</li> <li>- Multi-tier user access - Supports up to four access levels - Administrator, Device User, Read-Only User and Network-only User - with user name and password requirements.</li> <li>- Radius support, for user authentication</li> <li>- Fault notifications</li> <li>- Data logging - Identify problematic trends before they escalate or export the data log for analysis.</li> <li>- Scheduled shutdown and reboot</li> <li>- Event logging</li> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- Servicii de montare a echipamentului</li> </ul>	<p>Contact I/O Accessory</p> <ul style="list-style-type: none"> <li>- IPv6 support - yes</li> <li>- Smart Battery Management Support - Detailed battery information including battery cartridge parameters provides early-warning fault analysis to simplify management of the entire battery system.</li> <li>- Standard UPS RFC 1628 MIB Compatible</li> <li>- Reboot equipment remotely</li> <li>- Multi-tier user access - Supports up to four access levels - Administrator, Device User, Read-Only User and Network-only User - with user name and password requirements.</li> <li>- Radius support, for user authentication</li> <li>- Fault notifications</li> <li>- Data logging - Identify problematic trends before they escalate or export the data log for analysis.</li> <li>- Scheduled shutdown and reboot</li> <li>- Event logging</li> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- Servicii de montare a echipamentului</li> </ul>	

1	2	3	4	5	6	7	8
32500000-8	Extensie de baterii pentru UPS 5000	APC Smart-UPS SRT 192V 5kVA and 6kVA RM Battery Pack P/N:SRT192RMBP	Phillipines	APC	<ul style="list-style-type: none"> <li>- Battery Output Voltage - 192 V</li> <li>- Battery type - Lead-acid battery</li> <li>- Battery mounting - Stand alone battery stack</li> <li>- Expected Battery Life (years) 3 - 5</li> <li>- RBC Quantity - 2</li> <li>- Battery Volt-Amp-Hour Capacity - 1920</li> <li>- Units per Pallet - 1.0</li> <li>- Operating Temperature - 32 - 104 °F (0 - 40 °C)</li> <li>- Operating Relative Humidity 0 - 95 (Non-condensing) %</li> <li>- Operating Elevation - 0 - 10000ft (0 - 3048meters)</li> <li>- Storage Temperature -15 - 45 °C</li> <li>- Storage Elevation - 0 - 50000ft (0 - 15240meters)</li> <li>- Approvals - OSHPD</li> <li>- Standard warranty - 2 years repair or replace</li> <li>- Compatibil cu UPS-ul de 5000 de la poziția precedent</li> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- Servicii de montare a echipamentului</li> </ul>	<ul style="list-style-type: none"> <li>- Battery Output Voltage - 192 V</li> <li>- Battery type - Lead-acid battery</li> <li>- Battery mounting - Stand alone battery stack</li> <li>- Expected Battery Life (years) 3 - 5</li> <li>- RBC Quantity - 2</li> <li>- Battery Volt-Amp-Hour Capacity - 1920</li> <li>- Units per Pallet - 1.0</li> <li>- Operating Temperature - 32 - 104 °F (0 - 40 °C)</li> <li>- Operating Relative Humidity 0 - 95 (Non-condensing) %</li> <li>- Operating Elevation - 0 - 10000ft (0 - 3048meters)</li> <li>- Storage Temperature -15 - 45 °C</li> <li>- Storage Elevation - 0 - 50000ft (0 - 15240meters)</li> <li>- Approvals - OSHPD</li> <li>- Standard warranty - 2 years repair or replace</li> <li>- Compatibil cu UPS-ul de 5000 de la poziția precedent</li> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- Servicii de montare a echipamentului</li> </ul>	

1	2	3	4	5	6	7	8
32500000-8	UPS 1500	APC Smart-UPS SRT 1500VA RM 230V Network Card P/N:SRT1500RMXL I-NC	Phillipines	APC	<p>Max Configurable Power (Watts) - 1.5kWatts / 1.5kVA</p> <ul style="list-style-type: none"> <li>- Output Voltage Distortion Less than 2 %</li> <li>- Output Frequency (sync to mains) - 50/60 Hz +/- 3 Hz Sync to mains</li> <li>- Other Output Voltages - 220, 240</li> <li>- Load Crest Factor - 3 : 1</li> <li>- Topology - Double conversion online</li> <li>- Waveform type - Sine wave</li> <li>- Bypass - Built-in bypass</li> <li>- Input frequency - 40 - 70 Hz Auto-sensing</li> <li>- Input voltage range for main operations - 50 - 150 40% load, 80 - 150V</li> <li>- Number of Power Cords - 1</li> <li>- Battery type - Lead-acid battery</li> <li>- Included Battery Modules - 1</li> <li>- Typical recharge time - 3hour(s)</li> <li>- Nominal Battery Voltage - 48 V</li> <li>- Expected Battery Life (years) - 3 - 5</li> <li>- Battery Charge Power (Watts) - 108 Watts</li> <li>- Extendable Run Time - 1</li> <li>- Battery Volt-Amp-Hour Capacity - 340</li> <li>- Interface Port(s) - RJ-45 Serial, Smart-Slot, USB</li> <li>- Pre-Installed SmartSlot™ Card</li> <li>- Control panel - Multifunction LCD status and control console</li> <li>- Audible Alarm - Audible and visible alarms prioritized by severity</li> </ul>	<p>Max Configurable Power (Watts) - 1.5kWatts / 1.5kVA</p> <ul style="list-style-type: none"> <li>- Output Voltage Distortion Less than 2 %</li> <li>- Output Frequency (sync to mains) - 50/60 Hz +/- 3 Hz Sync to mains</li> <li>- Other Output Voltages - 220, 240</li> <li>- Load Crest Factor - 3 : 1</li> <li>- Topology - Double conversion online</li> <li>- Waveform type - Sine wave</li> <li>- Bypass - Built-in bypass</li> <li>- Input frequency - 40 - 70 Hz Auto-sensing</li> <li>- Input voltage range for main operations - 50 - 150 40% load, 80 - 150V</li> <li>- Number of Power Cords - 1</li> <li>- Battery type - Lead-acid battery</li> <li>- Included Battery Modules - 1</li> <li>- Typical recharge time - 3hour(s)</li> <li>- Nominal Battery Voltage - 48 V</li> <li>- Expected Battery Life (years) - 3 - 5</li> <li>- Battery Charge Power (Watts) - 108 Watts</li> <li>- Extendable Run Time - 1</li> <li>- Battery Volt-Amp-Hour Capacity - 340</li> <li>- Interface Port(s) - RJ-45 Serial, Smart-Slot, USB</li> <li>- Pre-Installed SmartSlot™ Card</li> <li>- Control panel - Multifunction LCD status and control console</li> <li>- Audible Alarm - Audible and visible alarms prioritized by severity</li> </ul>	

1	2	3	4	5	6	7	8
					<ul style="list-style-type: none"> <li>- Emergency Power Off (EPO) - Yes</li> <li>- Surge energy rating - 432Joules</li> <li>- Units per Pallet - 12.0</li> <li>- Operating Temperature - 0 - 40 °C</li> <li>- Operating Relative Humidity - 0 - 95 (Non-condensing) %</li> <li>- Operating Elevation - 0 - 3048meters</li> <li>- Storage Temperature -20 - 50 °C</li> <li>- Audible noise at 1 meter from surface of unit - 50.0dBA</li> <li>- Online thermal dissipation - 317.0BTU/hr</li> <li>- Protection Class - IP20</li> <li>- Approvals - CE, EAC</li> <li>- Standard warranty - 3 years repair or replace (excluding battery) and 2 years for battery</li> </ul> <p>Smart Module requirements:</p> <ul style="list-style-type: none"> <li>- Command line interface - simultaneous remote management access through SSH</li> <li>- Device Encryption - Securely connect via HTTPS/SSL, SSH (up to 2048-bit encryption), SNMPv3</li> <li>- Expandable Input and Output Ports - Supports the Temperature Sensor, Temperature and Humidity Sensor and Dry Contact I/O Accessory</li> <li>- IPv6 support - yes</li> </ul>	<ul style="list-style-type: none"> <li>- Emergency Power Off (EPO) - Yes</li> <li>- Surge energy rating - 432Joules</li> <li>- Units per Pallet - 12.0</li> <li>- Operating Temperature - 0 - 40 °C</li> <li>- Operating Relative Humidity - 0 - 95 (Non-condensing) %</li> <li>- Operating Elevation - 0 - 3048meters</li> <li>- Storage Temperature -20 - 50 °C</li> <li>- Audible noise at 1 meter from surface of unit - 50.0dBA</li> <li>- Online thermal dissipation - 317.0BTU/hr</li> <li>- Protection Class - IP20</li> <li>- Approvals - CE, EAC</li> <li>- Standard warranty - 3 years repair or replace (excluding battery) and 2 years for battery</li> </ul> <p>Smart Module requirements:</p> <ul style="list-style-type: none"> <li>- Command line interface - simultaneous remote management access through SSH</li> <li>- Device Encryption - Securely connect via HTTPS/SSL, SSH (up to 2048-bit encryption), SNMPv3</li> <li>- Expandable Input and Output Ports - Supports the Temperature Sensor, Temperature and Humidity Sensor and Dry Contact I/O Accessory</li> <li>- IPv6 support - yes</li> </ul>	

1	2	3	4	5	6	7	8
					<ul style="list-style-type: none"> <li>- Multiple user access - Supports simultaneous web browser access for up to 8 users and network command line interface access for up to 3 users</li> <li>- Smart Battery Management Support - Detailed battery information including battery cartridge parameters provides early-warning fault analysis to simplify management of the entire battery system.</li> <li>- Standard UPS RFC 1628 MIB Compatible</li> <li>- Reboot equipment remotely</li> <li>- Multi-tier user access - Supports up to four access levels - Administrator, Device User, Read-Only User and Network-only User - with user name and password requirements.</li> <li>- Radius support, for user authentication</li> <li>- Fault notifications</li> <li>- Data logging - Identify problematic trends before they escalate or export the data log for analysis.</li> <li>- Scheduled shutdown and reboot</li> <li>- Event logging</li> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- Sau echivalent cu SRT1500RMXLI-NC</li> <li>- Servicii de montare a echipamentului</li> </ul>	<ul style="list-style-type: none"> <li>- Multiple user access - Supports simultaneous web browser access for up to 8 users and network command line interface access for up to 3 users</li> <li>- Smart Battery Management Support - Detailed battery information including battery cartridge parameters provides early-warning fault analysis to simplify management of the entire battery system.</li> <li>- Standard UPS RFC 1628 MIB Compatible</li> <li>- Reboot equipment remotely</li> <li>- Multi-tier user access - Supports up to four access levels - Administrator, Device User, Read-Only User and Network-only User - with user name and password requirements.</li> <li>- Radius support, for user authentication</li> <li>- Fault notifications</li> <li>- Data logging - Identify problematic trends before they escalate or export the data log for analysis.</li> <li>- Scheduled shutdown and reboot</li> <li>- Event logging</li> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- Servicii de montare a echipamentului</li> </ul>	

1	2	3	4	5	6	7	8
32500000-8	Extensie de baterii pentru UPS 1500	APC Smart-UPS SRT 48V 1kVA 1.5kVA RM Battery Pack P/N:SRT48RMBP	Phillipines	APC	<ul style="list-style-type: none"> <li>- Battery type - lead-acid battery</li> <li>- Battery Output Voltage - 48 V</li> <li>- Battery mounting - Stand alone battery stack</li> <li>- Expected Battery Life (years) - 3 - 5</li> <li>- RBC Quantity - 2</li> <li>- Battery Volt-Amp-Hour Capacity - 594</li> <li>- Units per Pallet - 6.0</li> <li>- Operating Temperature - 0 - 40 °C</li> <li>- Operating Relative Humidity - 0 - 95 (Non-condensing) %</li> <li>- Storage Temperature -15 - 45 °C</li> <li>- Standard warranty - 2 years</li> <li>- Rack Height - 2U</li> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- Compatibil cu UPS-ul de 1500 de la poziția precedentă sau echivalent cu SRT48RMBP</li> <li>- Servicii de montare a echipamentului</li> </ul>	<ul style="list-style-type: none"> <li>- Battery type - lead-acid battery</li> <li>- Battery Output Voltage - 48 V</li> <li>- Battery mounting - Stand alone battery stack</li> <li>- Expected Battery Life (years) - 3 - 5</li> <li>- RBC Quantity - 2</li> <li>- Battery Volt-Amp-Hour Capacity - 594</li> <li>- Units per Pallet - 6.0</li> <li>- Operating Temperature - 0 - 40 °C</li> <li>- Operating Relative Humidity - 0 - 95 (Non-condensing) %</li> <li>- Storage Temperature -15 - 45 °C</li> <li>- Standard warranty - 2 years</li> <li>- Rack Height - 2U</li> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- Compatibil cu UPS-ul de 1500 de la poziția precedentă</li> <li>- Servicii de montare a echipamentului</li> </ul>	



1	2	3	4	5	6	7	8
32500000-8	Extensie de baterii pentru APC Smart-UPS RT 10,000 RM XL	APC Smart-UPS RT 192V RM Battery Pack P/N:SURT192RMXLBP	Phillipines	APC	<ul style="list-style-type: none"> <li>- Battery type - Maintenance-free sealed Lead-Acid battery with suspended electrolyte : leakproof</li> <li>- Included Battery Modules - 4</li> <li>- Battery mounting - Stand alone battery stack</li> <li>- Expected Battery Life (years) - 3 - 5</li> <li>- Battery blocks per string - 16</li> <li>- Rack Height - 3U</li> <li>- Standard warranty - 2 years repair or replace</li> <li>- Compatibil cu APC Smart-UPS RT 10000RMXL</li> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- Sau echivalent cu SURT192RMXLBP</li> <li>- Servicii de montare a echipamentului</li> </ul>	<ul style="list-style-type: none"> <li>- Battery type - Maintenance-free sealed Lead-Acid battery with suspended electrolyte : leakproof</li> <li>- Included Battery Modules - 4</li> <li>- Battery mounting - Stand alone battery stack</li> <li>- Expected Battery Life (years) - 3 - 5</li> <li>- Battery blocks per string - 16</li> <li>- Rack Height - 3U</li> <li>- Standard warranty - 2 years repair or replace</li> <li>- Compatibil cu APC Smart-UPS RT 10000RMXL</li> <li>- Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)</li> <li>- Servicii de montare a echipamentului</li> </ul>	




Semnat: \_\_\_\_\_ Numele, prenumele: Valeriu Nastasenco În calitate de: Director

Ofertantul: IM Master Systems S.R.L. Adresa: Moldova, Chisinau MD 2021, str. Drumul Viilor 36/2