Specificaţii tehnice (F4.1)

Numărul procedurii de achiziție ocds-b3wdp1-MD-1571401936005 din “18” octombrie 2019							
Denumirea procedurii de achiziție: ***Echipament de retea***							
Cod CPV	**Denumirea bunurilor/serviciilor**	**Modelul articolului**	**Ţara de origine**	**Producător**	**Specificarea tehnică deplină solicitată de către autoritatea contractantă**	**Specificarea tehnică deplină propusă de către ofertant**	**Standarde de referinţă**
1	2	3	4	5	6	7	8
	Bunuri/servicii						
	Lotul 1						
32420000-3	1. Switch Manageabil, Layer3 48 porturi	**C9200L-48T-4G-E** (C9200L-NW-E-48; CAB-TA-EU; PWR-C5-BLANK; C9200-STACK-BLANK; C9200L-DNA-E-48; C9200L-DNA-E-48-3Y; NETWORK-PNP-LIC; CON-SNT-C920L48E)	China	Cisco	**Switch fundamentals:** - 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 - Cross-stack EtherChannel – the ability to configure EtherChannel technology across different members of the stack for high resiliency. - SSH, SNMP (v2 and v3), web UI **Telemetry and visibility**: Model driven telemetry, sampled IPFIX, SPAN, RSPAN **Automation**: NETCONF, RESTCONF, YANG, PnP Agent, PnP **RFID tags**: the switch needs to have an embedded RFID tag that facilitates easy asset and inventory management using commercial RFID readers **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 **Performance specifications**: - Stacking bandwidth – 80Gbps - Total number of MAC addresses – 16000 - Total number of IPv4 routes (ARP plus learned routes) - 11,000 (8,000 direct routes and 3,000 indirect routes) - IPv4 routing entries – 3000 - IPv6 routing entries – 1500	**Switch fundamentals:** - 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 - Cross-stack EtherChannel – the ability to configure EtherChannel technology across different members of the stack for high resiliency. - SSH, SNMP (v2 and v3), web UI **Telemetry and visibility**: Model driven telemetry, sampled IPFIX, SPAN, RSPAN **Automation**: NETCONF, RESTCONF, YANG, PnP Agent, PnP **RFID tags**: the switch has an embedded RFID tag that facilitates easy asset and inventory management using commercial RFID readers **Bluetooth ready**: The switch has 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 **Performance specifications**: - Stacking bandwidth – 80Gbps - Total number of MAC addresses – 16000 - Total number of IPv4 routes (ARP plus learned routes) - 11,000 (8,000 direct routes and 3,000 indirect routes) - IPv4 routing entries – 3000 - IPv6 routing entries – 1500 - Multicast routing scale – 1000 - QoS scale entries – 1000	

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Date: 2019.10.29 09:11:20 EET
Reason: MoldSign Signature
Location: Moldova

					- Multicast routing scale – 1000 - QoS scale entries – 1000 - ACL scale entries – 1500 - Packet buffer per SKU – 6MB - Flexible IPFIX (FNF) entries - 16000 flows - DRAM – 2GB - Flash – 4GB - VLAN IDs – 1024 - Total Switched Virtual Interfaces (SVIs) – 512 - Jumbo frames – 9198 bytes - Number of IPv4 bindings – 10000 - Switching capacity – 104Gbps (64 bytes paclets) - Switch capacity with stacking – 184Gbps (64 bytes paclets) - Forwarding rate – 77.38 Mpps (64 bytes paclets) **Connectors and cabling:** - 48 x 1000BASE-T ports: RJ-45 connectors, 4-pair Cat 5E UTP cabling 4 x SFP ports - Slot for stack module - Ethernet management port: RJ-45 connectors, 4-pair Cat 5 UTP cabling - Management console port: RJ-45-to-DB9 cable for PC connections, USB-C adaptor, USB adaptor - Power port for 220VAC **Supported standards:** - EEE 802.1s - IEEE 802.1w - IEEE 802.1x - IEEE 802.1x-Rev - IEEE 802.3ad - IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports - IEEE 802.1D Spanning Tree Protocol - IEEE 802.1p CoS prioritization - IEEE 802.1Q VLAN - IEEE 802.3 10BASE-T specification - IEEE 802.3u 100BASE-TX specification - IEEE 802.3ab 1000BASE-T specification - IEEE 802.3z 1000BASE-X specification - RMON I and II standards **Normal operating temperature and altitudes**: -5°C to +45°C, up to 5000 feet (1500m) -5°C to +40°C, up to 10,000 feet (3000m) Minimum ambient temperature for cold start is 32°F (0°C) Short-term* exceptional conditions: -5°C to +50°C, up to 5000 feet (1500m) -5°C to +45°C, up to 10,000 feet (3000m) -5°C to +45°C, at sea level with single fan failure **Relative humidity operating and nonoperating noncondensing**: 5% to 90% noncondensing	- ACL scale entries – 1500 - Packet buffer per SKU – 6MB - Flexible IPFIX (FNF) entries - 16000 flows - DRAM – 2GB - Flash – 4GB - VLAN IDs – 1024 - Total Switched Virtual Interfaces (SVIs) – 512 - Jumbo frames – 9198 bytes - Number of IPv4 bindings – 10000 - Switching capacity – 104Gbps (64 bytes paclets) - Switch capacity with stacking – 184Gbps (64 bytes paclets) - Forwarding rate – 77.38 Mpps (64 bytes paclets) **Connectors and cabling:** - 48 x 1000BASE-T ports: RJ-45 connectors, 4-pair Cat 5E UTP cabling 4 x SFP ports - Slot for stack module - Ethernet management port: RJ-45 connectors, 4-pair Cat 5 UTP cabling - Management console port: RJ-45-to-DB9 cable for PC connections, USB-C adaptor, USB adaptor - Power port for 220VAC **Supported standards:** - EEE 802.1s - IEEE 802.1w - IEEE 802.1x - IEEE 802.1x-Rev - IEEE 802.3ad - IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports - IEEE 802.1D Spanning Tree Protocol - IEEE 802.1p CoS prioritization - IEEE 802.1Q VLAN - IEEE 802.3 10BASE-T specification - IEEE 802.3u 100BASE-TX specification - IEEE 802.3ab 1000BASE-T specification - IEEE 802.3z 1000BASE-X specification - RMON I and II standards **Normal operating temperature and altitudes**: -5°C to +45°C, up to 5000 feet (1500m) -5°C to +40°C, up to 10,000 feet (3000m) Minimum ambient temperature for cold start is 32°F (0°C) Short-term* exceptional conditions: -5°C to +50°C, up to 5000 feet (1500m) -5°C to +45°C, up to 10,000 feet (3000m) -5°C to +45°C, at sea level with single fan failure **Relative humidity operating and nonoperating noncondensing**: 5% to 90% noncondensing Altitude: up to 3000 meters, up to 45°C	

					Altitude: up to 3000 meters, up to 45°C **EMI and EMC compliance**: - FCC Part 15 (CFR 47) Class A - ICES-003 Class A - EN 55032 Class A - CISPR 32 Class A - AS/NZS 3548 Class A - BSMI Class A - VCCI Class A - CISPR 35 - EN 55024, EN300 386*, EN 61000-3-2, EN 61000-3-3 - EN 61000-6-1 **Safety compliance**: UL 60950-1, CAN/CSA-C22.2 No. 60950-1, EN 60950-1, IEC 60950-1, CCC, CE Marking **LED indicators**: - "AC OK": Input power to the power supply is OK - "PS OK": Output power from the power supply is OK **Mean time between failures**: 347760 hours **Dimentions** (cm): 4.4 x 44.5 x 32.9 **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 **Warranty** – one year	**EMI and EMC compliance**: - FCC Part 15 (CFR 47) Class A - ICES-003 Class A - EN 55032 Class A - CISPR 32 Class A - AS/NZS 3548 Class A - BSMI Class A - VCCI Class A - CISPR 35 - EN 55024, EN300 386*, EN 61000-3-2, EN 61000-3-3 - EN 61000-6-1 **Safety compliance**: UL 60950-1, CAN/CSA-C22.2 No. 60950-1, EN 60950-1, IEC 60950-1, CCC, CE Marking **LED indicators**: - "AC OK": Input power to the power supply is OK - "PS OK": Output power from the power supply is OK **Mean time between failures**: 347760 hours **Dimentions** (cm): 4.4 x 44.5 x 32.9 **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 **Warranty** – 3 years, if SNTC-8X5XNBD is bought and activated	
32420000-3	2. Switch Manageabil, Layer3 24 porturi PoE	**C9200L-24P-4G-E** (C9200L-NW-E-24; CAB-TA-EU; PWR-C5-BLANK; C9200-STACK-BLANK; C9200L-DNA-E-24; C9200L-DNA-E-24-3Y; NETWORK-PNP-LIC; CON-SNT-C920L24G)	China	Cisco	**Switch fundamentals**: - 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 - Cross-stack EtherChannel – the ability to configure EtherChannel technology across different members of the stack for high resiliency. - SSH, SNMP (v2 and v3), web UI **Telemetry and visibility**: Model driven telemetry, sampled IPFIX, SPAN, RSPAN **Automation**: NETCONF, RESTCONF, YANG, PnP Agent, PnP **RFID tags**: the switch needs to have an embedded RFID tag that facilitates easy asset and inventory management using	**Switch fundamentals**: - 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 - Cross-stack EtherChannel – the ability to configure EtherChannel technology across different members of the stack for high resiliency. - SSH, SNMP (v2 and v3), web UI **Telemetry and visibility**: Model driven telemetry, sampled IPFIX, SPAN, RSPAN **Automation**: NETCONF, RESTCONF, YANG, PnP Agent, PnP **RFID tags**: the switch needs to have an embedded RFID tag that facilitates easy	

					commercial RFID readers **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 **Efficient switch operation**: The ports have to support reduced power modes so that ports not in use can move into a lower power utilization state. Other efficient switch operation features are as follows: - Per-port power consumption command allows customers to specify a maximum power setting on an individual port. - Per-port PoE power sensing measures actual power being drawn, enabling more intelligent control of powered devices. - The PoE MIB provides proactive visibility into power usage and allows you to set different power-level thresholds. **Performance specifications**: - Stacking bandwidth – 80Gbps - Total number of MAC addresses – 16000 - Total number of IPv4 routes (ARP plus learned routes) - 11,000 (8,000 direct routes and 3,000 indirect routes) - IPv4 routing entries – 3000 - IPv6 routing entries – 1500 - Multicast routing scale – 1000 - QoS scale entries – 1000 - ACL scale entries – 1500 - Packet buffer per SKU – 6MB - IPFIX (FNF) entries – 16000 flows - DRAM – 2GB - Flash – 4GB - VLAN IDs – 1024 - Total Switched Virtual Interfaces (SVIs) – 512 - Jumbo frames – 9198 bytes - Number of IPv4 bindings – 10000 - Switching capacity – 104Gbps (64 bytes paclets) - Switch capacity with stacking – 184Gbps (64 bytes paclets) - Forwarding rate – 77.38 Mpps (64 bytes paclets)	asset and inventory management using commercial RFID readers **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 **Efficient switch operation**: The ports have to support reduced power modes so that ports not in use can move into a lower power utilization state. Other efficient switch operation features are as follows: - Per-port power consumption command allows customers to specify a maximum power setting on an individual port. - Per-port PoE power sensing measures actual power being drawn, enabling more intelligent control of powered devices. - The PoE MIB provides proactive visibility into power usage and allows you to set different power-level thresholds. **Performance specifications**: - Stacking bandwidth – 80Gbps - Total number of MAC addresses – 16000 - Total number of IPv4 routes (ARP plus learned routes) - 11,000 (8,000 direct routes and 3,000 indirect routes) - IPv4 routing entries – 3000 - IPv6 routing entries – 1500 - Multicast routing scale – 1000 - QoS scale entries – 1000 - ACL scale entries – 1500 - Packet buffer per SKU – 6MB - IPFIX (FNF) entries – 16000 flows - DRAM – 2GB - Flash – 4GB - VLAN IDs – 1024 - Total Switched Virtual Interfaces (SVIs) – 512 - Jumbo frames – 9198 bytes - Number of IPv4 bindings – 10000 - Switching capacity – 104Gbps (64 bytes paclets) - Switch capacity with stacking – 184Gbps (64 bytes paclets) - Forwarding rate – 77.38 Mpps (64 bytes	

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	Total lot 1						
	Lot 2						
32420000-3	1. 1000BaseLX SFP	SFP modul 1.25G SM 10km LC connnector (compatible Cisco)	China	Transcend	- Form factor: SFP - Distance: Up to 10km - Wavelength: 1310 - Speed: 1Gbps - Connector: LC - Fiber type: Single mode - Compatibility: Cisco - Hotswapable - Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)	- Form factor: SFP - Distance: Up to 10km - Wavelength: 1310 - Speed: 1Gbps - Connector: LC - Fiber type: Single mode - Compatibility: Cisco - Hotswapable - Not refurbished	
32420000-3	2. 10/100/1000 BaseTX SFP	SFP modul 10/100/1000 Mbps,Cooper, Electrical (compatibl	China	Transcend	- Form factor: SFP - Speed: 10/100/1000Mbps - Connector: RJ45 - Compatibility: Cisco - Hotswapable - Not refurbished (Certificat/document care ar confirma că echipamentul nu este	- Form factor: SFP - Speed: 10/100/1000Mbps - Connector: RJ45 - Compatibility: Cisco - Hotswapable - Not refurbished	

		e Cisco)			refurbished)		
	Total lot 2						
	TOTAL						

Semnat:_____ Numele, prenumele: Victor Baciu În calitate de: Administrator

Ofertantul: SC Rapid Link SRL Adresa: mun. Chisinau, MD-2028, str. Gh. Asachi 71/7