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/serviciilo r	Modelul articolului	Țara de origine	Producător	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
	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	

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

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					Altitude: up to 3000 meters, up to 45°C	EMI and EMC compliance:	
					EMI and EMC compliance:	- FCC Part 15 (CFR 47) Class A	
					- FCC Part 15 (CFR 47) Class A	- ICES-003 Class A	
					- ICES-003 Class A	- EN 55032 Class A	
					- EN 55032 Class A	- CISPR 32 Class A	
					- CISPR 32 Class A	- AS/NZS 3548 Class A	
					- AS/NZS 3548 Class A	- BSMI Class A	
					- BSMI Class A	- VCCI Class A	
					- VCCI Class A	- CISPR 35	
					- CISPR 35	- EN 55024, EN300 386*, EN 61000-3-2, EN	
					- EN 55024, EN300 386*, EN 61000-3-2, EN	61000-3-3	
					61000-3-3	- EN 61000-6-1	
					- EN 61000-6-1	Safety compliance: UL 60950-1, CAN/CSA-	
					Safety compliance: UL 60950-1, CAN/CSA-	C22.2 No. 60950-1, EN 60950-1, IEC 60950-1,	
					C22.2 No. 60950-1, EN 60950-1, IEC 60950-1,	CCC, CE Marking	
					CCC, CE Marking	LED indicators:	
		1	1		LED indicators:	- "AC OK": Input power to the power supply is	
			1		- "AC OK": Input power to the power supply is	OK : Input power to the power supply is	
		1	1		OK : Input power to the power supply is	- "PS OK": Output power from the power	
			1				
			1		- "PS OK": Output power from the power supply	supply is OK Mean time between failures: 347760 hours	
		1	1		is OK	Mean time between failures: 347760 hours	
					Mean time between failures: 347760 hours	Dimentions (cm): 4.4 x 44.5 x 32.9	
					Dimentions (cm): 4.4 x 44.5 x 32.9	Additional features which can be enabled by	
					Additional features which can be enabled by	additional license:	
					additional license:	EIGRP, HSRP, IS-IS, BSR, MSDP, IP SLA,	
					EIGRP, HSRP, IS-IS, BSR, MSDP, IP SLA,	OSPF (no routes limits); VRF, VXLAN, LISP,	
					OSPF (no routes limits); VRF, VXLAN, LISP,	full – not sampled IPFIX, EEM	
					full – not sampled IPFIX, EEM	Warranty – 3 years, if SNTC-8X5XNBD is	
					Warranty – one year	bought and activated	
					Switch fundamentals:	Switch fundamentals:	
					- Layer 2 (VLAN distribution protocol fully	- Layer 2 (VLAN distribution protocol	
		COZOOT			compatible with VTP, DTP, MSTP,	fully compatible with VTP, DTP, MSTP,	
		C9200L-			PVRST+, Port Security, DHCP snooping),	PVRST+, Port Security, DHCP snooping),	
		24P-4G-E			Routed Access (RIP, EIGRP Stub, OSPF -	Routed Access (RIP, EIGRP Stub, OSPF -	
					· · · · · · · · · · · · · · · · · · ·	S 1	
		(C9200L-			1000 routes), PBR, PIM Stub Multicast	1000 routes), PBR, PIM Stub Multicast	
		NW-E-24;			(1000 routes), PVLAN, VRRP, PBR, CDP-	(1000 routes), PVLAN, VRRP, PBR, CDP-	
		CAB-TA-EU;			compatible protocol for discovering	compatible protocol for discovering	
		PWR-C5-			neighbor devices at layer 2 of TCP OSI (ex:	neighbor devices at layer 2 of TCP OSI	
		BLANK;			LLDP), QoS, FHS, 802.1X, MACsec-128,	(ex: LLDP), QoS, FHS, 802.1X, MACsec-	
	2. Switch	C9200-			CoPP, IP SLA Responder, DHCP server	128, CoPP, IP SLA Responder, DHCP	
32420000-3	Manageabil, Layer3	STACK-	China	Cisco	- Cross-stack EtherChannel – the ability to	server	
	24 porturi PoE	BLANK;			configure EtherChannel technology across	- Cross-stack EtherChannel – the ability to	
	T · · · ·	C9200L-				1	
		DNA-E-24;	1		different members of the stack for high	configure EtherChannel technology across	
		C9200L- DNA-E-24-	1		resiliency.	different members of the stack for high	
			1		- SSH, SNMP (v2 and v3), web UI	resiliency.	
		3Y;	1		Telemetry and visibility: Model driven	- SSH, SNMP (v2 and v3), web UI	
		NETWORK- PNP-LIC;	1		telemetry, sampled IPFIX, SPAN, RSPAN	Telemetry and visibility: Model driven	
		CON-SNT-	1		Automation: NETCONF, RESTCONF,	telemetry, sampled IPFIX, SPAN, RSPAN	
			1				
		C920L24G)	1		YANG, PnP Agent, PnP	Automation: NETCONF, RESTCONF,	
			1		RFID tags : the switch needs to have an	YANG, PnP Agent, PnP	
			1		embedded RFID tag that facilitates easy	RFID tags : the switch needs to have an	
1	i	1	1	1	1	1 11 1DETD : 4 : 6 :11: :	
					asset and inventory management using	embedded RFID tag that facilitates easy	

commercial RFID readers **Bluetooth ready**: The switch needs to have commercial RFID readers 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 configurations 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 - IPv4 routing entries – 3000 - Multicast routing scale – 1000 - IPv6 routing entries – 1500 - Multicast routing scale – 1000 - QoS scale entries – 1000 - ACL scale entries – 1500 - OoS scale entries – 1000 - Packet buffer per SKU – 6MB - ACL scale entries – 1500 - IPFIX (FNF) entries – 16000 flows - Packet buffer per SKU – 6MB - DRAM - 2GB - Flash - 4GB - DRAM - 2GB - VLAN IDs - 1024 - Flash - 4GB - Total Switched Virtual Interfaces (SVIs) -- VLAN IDs - 1024 512 - Jumbo frames – 9198 bytes -512- Number of IPv4 bindings – 10000 - Jumbo frames – 9198 bytes - Switching capacity – 104Gbps (64 bytes paclets) - Switch capacity with stacking – 184Gbps paclets) (64 bytes paclets) - Forwarding rate – 77.38 Mpps (64 bytes

paclets)

asset and inventory management using

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

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)

- IPFIX (FNF) entries 16000 flows
- Total Switched Virtual Interfaces (SVIs)
- Number of IPv4 bindings 10000
- Switching capacity 104Gbps (64 bytes
- Switch capacity with stacking 184Gbps (64 bytes paclets)
- Forwarding rate 77.38 Mpps (64 bytes

Connectors and cabling: paclets)	
- 24 x 1000BASE-T ports: RJ-45 Connectors and cabling	
connectors, 4-pair Cat 5E UTP cabling - 24 x 1000BASE-T ports	s: RJ-45
IEEE 802.3at and IEEE 802.3af connectors, 4-pair Cat 5E	
- 4 x SFP ports IEEE 802.3at and IEEE 8	302.3af
- Slot for stack module - 4 x SFP ports	
- Ethernet management port: RJ-45 - Slot for stack module	
connectors, 4-pair Cat 5 UTP cabling - Ethernet management p	ort: RJ-45
- Management console port: RJ-45-to-DB9 connectors, 4-pair Cat 5 U	UTP cabling
cable for PC connections, USB-C adaptor, - Management console po	ort: RJ-45-to-DB9
USB adaptor cable for PC connections,	, USB-C adaptor,
- Power port for 220VAC USB adaptor	
Supported standards: - Power port for 220VAC	
- EEE 802.1s Supported standards:	
- IEEE 802.1w - EEE 802.1s	
- IEEE 802.1x - IEEE 802.1w	
- IEEE 802.1x-Rev - IEEE 802.1x	
- IEEE 802.3ad	
- IEEE 802.3af - IEEE 802.3ad	
- IEEE 802.3at - IEEE 802.3af	
- IEEE 802.3x full duplex on 10BASE-T, - IEEE 802.3at	
100BASE-TX, and 1000BASE-T ports - IEEE 802.3x full duplex	x on 10BASE-T,
- IEEE 802.1D Spanning Tree Protocol 100BASE-TX, and 1000I	BASE-T ports
- IEEE 802.1p CoS prioritization - IEEE 802.1D Spanning	Tree Protocol
- IEEE 802.1Q VLAN - IEEE 802.1p CoS priori	itization
- IEEE 802.3 10BASE-T specification - IEEE 802.1Q VLAN	
- IEEE 802.3u 100BASE-TX specification - IEEE 802.3 10BASE-T	specification
- IEEE 802.3ab 1000BASE-T specification - IEEE 802.3u 100BASE	-TX specification
- IEEE 802.3z 1000BASE-X specification - IEEE 802.3ab 1000BAS	SE-T specification
- RMON I and II standards - IEEE 802.3z 1000BASI	E-X specification
Normal operating temperature and - RMON I and II standard	ds
altitudes: Normal operating temporal series and series are series and series and series are series are series and series are series are series are series are series and series are series	erature and
-5°C to +45°C, up to 5000 feet (1500m) altitudes :	
-5°C to +40°C, up to 10,000 feet (3000m) -5°C to +45°C, up to 500	0 feet (1500m)
Minimum ambient temperature for cold -5°C to +40°C, up to 10,0	000 feet (3000m)
start is 32°F (0°C) Minimum ambient tempe	erature for cold
Short-term* exceptional conditions : start is 32°F (0°C)	
-5°C to +50°C, up to 5000 feet (1500m) Short-term* exceptional	l conditions:
-5°C to +45°C, up to 10,000 feet (3000m) -5°C to +50°C, up to 500	
-5°C to +45°C, at sea level with single fan -5°C to +45°C, up to 10,0	000 feet (3000m)
failure -5°C to +45°C, at sea leve	el with single fan
Relative humidity operating and failure	
nonoperating noncondensing: 5% to 90% Relative humidity opera	ating and
noncondensing nonconde	ensing: 5% to 90%
Altitude: up to 3000 meters, up to 45°C noncondensing	
EMI and EMC compliance: Altitude: up to 3000 met	ers, up to 45°C
- FCC Part 15 (CFR 47) Class A EMI and EMC complia	nce:
- ICES-003 Class A - FCC Part 15 (CFR 47) C	Class A
- EN 55032 Class A - ICES-003 Class A	
- CISPR 32 Class A - EN 55032 Class A	

					- AS/NZS 3548 Class A - BSMI Class A - VCCI Class A - CISPR 35 - EN 55024, EN300 386*, EN 61000-3-2, EN 61000-6-1 Safety compliance: UL 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	- 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
					Warrancy one year	Warranty – 3 years, if SNTC-8X5XNBD is bought and activated
	Total lot 1					
	Lot 2	T	Т	I		
32420000-3	1. 1000BaseLX SFP	SFP modul 1.25G SM 10km LC connnector (compatibl e 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 10/100/100 0 Mbps,Coo per, 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