Specificaţii tehnice (F4.1)

Numărul procedurii de achiziție **ocds-b3wdp1-MD-1571401936005**
Denumirea procedurii de achiziție: **Echipament de retea**

Nr lot	**Denumirea bunurilor**	**Modelul articolului**	**Ţara de origine**	**Produ-cătorul**	**Specificarea tehnică deplină solicitată de către autoritatea contractantă**	**Specificarea tehnică deplină propusă de către ofertant**	**Standarde de referinţă**
	2	3	4	5	6	7	8
	Licențe de actualizare și asistență a produselor de program						
Lot 1	Switch Manageabil, Layer3 48 porturi	Cisco Catalyst 9200L 48-port	SUA	Cisco System Inc	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	Catalyst 9200L 48-port data, 4 x 1G, Network Essentials C9200L Network Essentials, 48-port license Europe AC Type A Power Cable Config 5 Power Supply Blank Catalyst 9200 Blank Stack Module C9200L Cisco DNA Essentials, 48-port Term license C9200L Cisco DNA Essentials, 48-port, 3 Year Term license Network Plug-n-Play License for zero-touch device deployment SNTC-8X5XNBD Catalyst 9200L 48-port data, 4 x 1G, Net Switch fundamentals: - Layer 2 (VLAN distribution	-

					different members of the stack for high resiliency. - SSH, SNMP (v2 and v3), web UI Telemetry and visibility: Modeldriven 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	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: Modeldriven 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	

					- IPv6 routing entries – 1500 - 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	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 - 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	

					- 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:	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	

					-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 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:	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	

					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 - Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished) - În ofertă obligatoriu trebuie să fie indicat modelul comutatorului şi tipul licenţei.	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 year** - Not refurbished	

	Switch Manageabil, Layer3 24 porturi PoE	Cisco Catalyst 9200L 24-port PoE+	SUA	Cisco System Inc	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: Modeldriven 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	Catalyst 9200L 24-port PoE+, 4 x 1G, Network Essentials C9200L Network Essentials, 24-port license Europe AC Type A Power Cable Config 5 Power Supply Blank Catalyst 9200 Blank Stack Module C9200L Cisco DNA Essentials, 24-port Term license C9200L Cisco DNA Essentials, 24-port, 3 Year Term license Network Plug-n-Play License for zero-touch device deployment SNTC-8X5XNBD Catalyst 9200L 24-port PoE+, 4 x 1G, Net 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	

					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) -	EtherChannel technology across different members of the stack for high resiliency. - SSH, SNMP (v2 and v3), web UI Telemetry and visibility: Modeldriven 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 Efficient switch operation: The	

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					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 - Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished) - În ofertă obligatoriu trebuie să fie indicat modelul comutatorului şi tipul licenţei.	(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 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	

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Semnat:_____ Numele, Prenumele: **Alexandr Dașchevici** În calitate de: **Administrator**

Ofertantul: **Î.C.S. „Softline International" S.R.L.** Adresa: **MD-2004, mun. Chișinău, bd. Ștefan cel Mare și Sfânt nr. 202**