

NO. 0168

PROPUESTA ECONOMICA (MATERIALES REDES DE DATOS & SWITCHES)

CLIENTE: JUNTA CENTRAL ELECTORAL

FECHA: 10 ENE 2020

DIRECCION: AVE. 27 DE FEBRERO ESO. AVE. GREGORIO LUPERON, SANTO DOMINGO, D.N./R.D

CONDICIONES: 80% CON ORDEN DE COMPRA & 20% (DE 15 A 30 DIAS DE ENTREGA) TEL: (809) 539-5419

SOLICITUD ASOCIADA: 2020-000025

NO.	DESCRIPCION (CONCEPTOS)	CANT.	UND.	RDS	TOTAL RDS
	FIBRA OPTICA + PERIFERICOS (ENLACE + FLOJO EN CBL)				
1	CABLE UTP CAT6 UNIMAX-(FLUKE TESTED CABLE) -(10% DESC.) ***	20	UD	6,943.00	124,974.00
2	CONECTOR RJ-45 UNIMAX	2000	UD	10.60	21,200.00
3	PATCH CORD 3' CAT 6 -UNIMAX	1000	UD	98.05	98,050.00
4	PATCH CORD 7' CAT 6 -UNIMAX	1000	UD	127.73	127,730.00
5	JACK RJ-45 CAT 6-UNIMAX	500	UD	135.15	67,575.00
6	SWITCH 24 PUERTOS /10GB PORT / MANAGED (detalles abajo). (MODELO: CISCO SX550X-24F-K9-NA)	10	UD	379,073.25	3,790,732.50
	INCLUYE EN PRECIO: SOPORTE SMARNET POR 1 AÑO			SUBTOTAL	4,230,261.50
	INCLUYE EN PRECIO: Los SFP de todos los switches /24 puertos 10GB (DETALLES TECNICOS ANEXO EN 5 PAGS)				
				SUB-TOTAL	4,230,261.50
				ITBIS (18%)	761,447.07
				T.GENERAL	RD\$ 4,991,708.57

COMENTARIOS GENERALES DE LA PROPUESTA:

ESTA PROPUESTA ESTA DADA CON PRECIOS CON DESCUENTO GLOBALIZADO DONDE NO

CONSIDERAMOS ELEMENTOS PARCIALES (COTIZADO COMO UN PROYECTO 100% LOS 6 ITEMS)

*** EN CASO DE USTEDES DIVIDIR ORDEN PUDIERAMOS OFERTAR LOS 10 SWITCHES

SIN LOS ACCESORIOS A ESOS PRECIOS , POR LA RAZON EXPUESTA DE LA CONFIGURACION DE PRECIOS QUE PRESENTAMOS***

ENTREGA DE MATERIALES (REDES DE DATOS) - 2 DIAS LUEGO DE RECIBIR ORDEN DE COMPRA + PRIMER PAGO -AVANCE

GARANTIA 2 AÑO EN MATERIALES & EN CABLE 5 AÑOS

ENTREGA DE SWITCHES 3.5 A 4.5 SEMANAS LUEGO DE RECIBIR ORDEN DE COMPRA+1ER PAGO AVANCE.

GARANTIA 3 AÑOS EN SWITCHES + SOPORTE SMARNET 1 AÑO INCLUIDO EN PRECIO (OPCION DE EXTENDER SOPORTE SMARTNET DE REQUERI

CONDICIONES DE PAGO PARA EL PROYECTO (TOTALIDAD DE ITEMS) :80% ORDEN DE COMPRA / 20% A PAGAR DE 15 A 30 DIAS DE ENTREGA

***** 15 DIAS DE VALIDEZ DE ESTA OFERTA A PARTIR DE LA ENTREGA -EN TASA DEL DOLAR ACTUAL-*****

ING. JORGE LUIS PIMENTEL

AUTORIZADO

*** PROPUESTA VALIDA POR 15 DIAS A PARTIR DE FECHA EMISION

RECIBIDO POR



Santo Domingo, D.N.
10 Enero 2020

Entrega Solicitud de cotización # 2020-000025

DETALLES TECNICOS SWITCHES OFERTADOS (SX550X -24 PUERTOS 10GB +4X10GB UPLINK + 1GB PARA ADMINISTRACION & GESTION)

Spanning Tree Protocol	Standard 802.1d spanning tree support Fast convergence using 802.1w (Rapid Spanning Tree [RSTP]), enabled by default Multiple spanning tree instances using 802.1s (MSTP); 16 instances are supported
Port grouping/link aggregation	Support for IEEE 802.3ad Link Aggregation Control Protocol (LACP) Up to 32 groups Up to 8 ports per group with 16 candidate ports for each (dynamic) 802.3ad LAG
VLAN	Support for up to 4,094 active VLANs simultaneously; port-based and 802.1Q tag-based VLANs; MAC-based VLAN Management VLAN Private VLAN with promiscuous, isolated, and community port Guest VLAN, unauthenticated VLAN, protocol-based VLAN, IP subnet-based VLAN, CPE VLAN Dynamic VLAN assignment using RADIUS server along with 802.1x client authentication
Voice VLAN	Voice traffic is automatically assigned to a voice-specific VLAN and treated with appropriate levels of QoS. Auto voice capabilities deliver networkwide zero-touch deployment of voice endpoints and call control devices
Multicast TV VLAN	Multicast TV VLAN allows the single multicast VLAN to be shared in the network while subscribers remain in separate VLANs. This feature is also known as Multicast VLAN Registration (MVR)
VLAN translation	Support for VLAN One-to-One Mapping. In VLAN One-to-One Mapping, on an edge interface C-VLANs are mapped to S-VLANs and the original C-VLAN tags are replaced by the specified S-VLAN
Q-in-Q	VLANs transparently cross over a service provider network while isolating traffic among customers
Selective Q-in-Q	Selective Q-in-Q is an enhancement to the basic Q-in-Q feature and provides, per edge interface, multiple mappings of different C-VLANs to separate S-VLANs Selective Q-in-Q also allows configuring of Ethertype (TPID) of the S-VLAN

	tag
GVRP/GARP	Generic VLAN Registration Protocol (GVRP) and Generic Attribute Registration Protocol (GARP) enable automatic propagation and configuration of VLANs in a bridged domain
Unidirectional Link Detection (UDLD)	UDLD monitors physical connection to detect unidirectional links caused by incorrect wiring or port faults to prevent forwarding loops and blackholing of traffic in switched networks
DHCP relay at Layer 2	Relay of DHCP traffic to DHCP server in a different VLAN. Works with DHCP option 82
IGMP (versions 1, 2, and 3) snooping	Internet Group Management Protocol (IGMP) limits bandwidth-intensive multicast traffic to only the requesters; supports 4K multicast groups (source-specific multicasting is also supported)
IGMP querier	IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router
HOL blocking	Head-Of-Line (HOL) blocking
Layer 3	
IPv4 routing	Wirespeed routing of IPv4 packets Up to 7,168 routes and up to 256 IP interfaces
Wirespeed IPv6 static routing	Up to 1,792 routes and up to 256 IPv6 interfaces
Layer 3 interface	Configuration of Layer 3 interface on physical port, LAG, VLAN interface, or loopback interface
CIDR	Support for classless interdomain routing
RIP v2	Support for Routing Information Protocol version 2 for dynamic routing
VRRP	Virtual Router Redundancy Protocol (VRRP) delivers improved availability in a Layer 3 network by providing redundancy of the default gateway servicing hosts on the network. VRRP versions 2 and 3 are supported. Up to 255 virtual routers are supported
Policy-Based Routing (PBR)	Flexible routing control to direct packets to different next hop based on IPv4 or IPv6 ACL
IP Service-Level Agreement (SLA) object tracking	IP SLA object tracking relies on IP SLA ICMP echo operation to detect connectivity to a certain network destination IP SLA object tracking for VRRP provides a mechanism to track the

	connectivity to the VRRP router default route next hop IP SLA object tracking for static routes provides a mechanism to track the connectivity to the destination network via the next hop specified in the static route
DHCP server	Switch functions as an IPv4 DHCP server serving IP addresses for multiple DHCP pools/scopes Support for DHCP options
DHCP relay at Layer 3	Relay of DHCP traffic across IP domains
User Datagram Protocol (UDP) relay	Relay of broadcast information across Layer 3 domains for application discovery or relaying of BOOTP/DHCP packets

Stacking	
Hardware stack	Up to 8 units in a stack. Up to 400 ports managed as a single system with hardware failover
High availability	Fast stack failover delivers minimal traffic loss. Support link aggregation across multiple units in a stack
Plug-and-play stacking configuration/management	Master/backup for resilient stack control Autonumbering Hot swap of units in stack Ring and chain stacking options, auto stacking port speed, flexible stacking port options
High-speed stack interconnects	Cost-effective high-speed 10G fiber and copper interfaces. Support LAG as stacking interconnects for even higher bandwidth
Hybrid stack	A mix of SF550X, SG550X, SG550XG, and SX550X in the same stack (10/100, Gigabit, and 10 Gigabit Ethernet)
Security	
SSH	SSH is a secure replacement for Telnet traffic. SCP also uses SSH. SSH versions 1 and 2 are supported
SSL	Secure Sockets Layer (SSL) encrypts all HTTPS traffic, allowing secure access to the browser-based management GUI in the switch
IEEE 802.1X (authenticator role)	RADIUS authentication and accounting, MD5 hash, guest VLAN, unauthenticated VLAN, single/multiple host mode, and single/multiple sessions

	Supports time-based 802.1X dynamic VLAN assignment
IEEE 802.1X supplicant	A switch can be configured to act as a supplicant to another switch. This enables extended secure access in areas outside the wiring closet (such as conference rooms)
Web-based authentication	Web-based authentication provides network admission control through web browser to any host devices and operating systems
STP BPDU Guard	A security mechanism to protect the networks from invalid configurations. A port enabled for Bridge Protocol Data Unit (BPDU) Guard is shut down if a BPDU message is received on that port. This avoids accidental topology loops
STP Root Guard	This prevents edge devices not in the network administrator's control from becoming Spanning Tree Protocol root nodes
DHCP snooping	Filters out DHCP messages with unregistered IP addresses and/or from unexpected or untrusted interfaces. This prevents rogue devices from behaving as a DHCP server
IP Source Guard (IPSG)	When IP Source Guard is enabled at a port, the switch filters out IP packets received from the port if the source IP addresses of the packets have not been statically configured or dynamically learned from DHCP snooping. This prevents IP address spoofing
Dynamic ARP Inspection (DAI)	The switch discards ARP packets from a port if there are no static or dynamic IP/MAC bindings or if there is a discrepancy between the source or destination address in the ARP packet. This prevents man-in-the-middle attacks
IP/MAC/Port Binding (IPMB)	The preceding features (DHCP Snooping, IP Source Guard, and Dynamic ARP Inspection) work together to prevent DoS attacks in the network, thereby increasing network availability
Secure Core Technology (SCT)	Makes sure that the switch will receive and process management and protocol traffic no matter how much traffic is received
Secure Sensitive Data (SSD)	A mechanism to manage sensitive data (such as passwords, keys, and so on) securely on the switch, populating this data to other devices, and secure autoconfig. Access to view the sensitive data as plaintext or encrypted is provided according to the user-configured access level and the access method of the user
Private VLAN	Private VLAN provides security and isolation between switch ports, which helps ensure that users cannot snoop on other users' traffic; supports multiple uplinks
Port security	Ability to lock source MAC addresses to ports and limit the number

	of learned MAC addresses
RADIUS/TACACS+	Supports RADIUS and TACACS authentication. Switch functions as a client
RADIUS accounting	The RADIUS accounting functions allow data to be sent at the start and end of services, indicating the amount of resources (such as time, packets, bytes, and so on) used during the session
Storm control	Broadcast, multicast, and unknown unicast
DoS prevention	Denial-of-Service (DoS) attack prevention
Multiple user privilege levels in CLI	Level 1, 7, and 15 privilege levels

Management

Web user interface	Built-in switch configuration utility for easy browser-based device configuration (HTTP/HTTPS). Supports simple and advanced mode, configuration, wizards, customizable dashboard, system maintenance, monitoring, online help, and universal search
Smart Network Application (SNA)	An innovative network-level monitoring and management tool embedded in Cisco 250 to 550X Series switches. It can discover network topology, display link status, monitor events, apply configurations, and upgrade software images across multiple switches in the network
SNMP	SNMP versions 1, 2c, and 3 with support for traps, and SNMP v3 User-based Security Model (USM)

RMON	Embedded RMON software agent supports 4 RMON groups (history, statistics, alarms, and events) for enhanced traffic management, monitoring, and analysis
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Ing. Jorge Luis Pimentel, MBA & Operations
Presidente CariTec –Consultores & Asesores Tecnológicos.



Santo Domingo, D.N.
10 Enero 2020**A:** Departamento Compras Junta Central Electoral**Atención:** Lic. Iván Agramonte**Asunto:** SOLICITUD 2020-000025 (propuesta).**Entrega Solicitud de cotización # 2020-000025****DETALLES TECNICOS SWITCHES OFERTADOS (SX550X -24 PUERTOS 10GB +4X10GB UPLINK + 1GB PARA ADMINISTRACION & GESTION)****Distinguido Licenciado:**

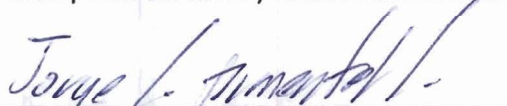
Luego de saludarles por este medio hacemos formal entrega de la propuesta económica referente a la solicitud # 2020-000025 la cual como nos fue remitida para los fines de presentar cotización. EL SOBRE QUE ENTREGAMOS contiene 3 DOCUMENTOS (Copia de esta misma -1PAGINA / Propuesta económica con detalles generales y términos requeridos -1 PAGINA & Los detalles técnicos del equipo ofertado -5 PAGINAS).

GENERAL DE LA SOLUCION:

PUESTO QUE LOS MATERIALES DE DATOS (CABLES & ACCESORIOS) ESTAN ESPECIFICADOS DENTRO LOS SWITCHES QUE AQUÍ OFERTAMOS PASAMOS A DEJARLES LAS CARACTERISTICAS GENERALES PARA LOS MOTIVOS DE SUS EVALUACIONES. CONSIDERAMOS UN SWITCH MARCA CISCO -MODELO SX550X PARA PODER SATISFACER EN EL MEJOR ESTÁNDAR DISPONIBLE EN EL MERCADO LA CANTIDAD DE PUERTOS QUE SE SOLICITA Y LAS CONFIGURACIONES DE LOS MISMOS JUNTO A LAS GARANTIAS INHERENTES DE LA MARCA Y EL SOPORTE DEL PROGRAMA SMARNET QUE NOS SERVIMOS INCLUIR EN EL PRECIO FRUTO DE LAS NEGOCIACIONES QUE PUDIMOS ESTABLECER PARA FAVORECER EN MAYOR MEDIDA SUS DEMANDAS.

PASAMOS Y DEJAMOS LAS GENERALES DEL EQUIPO PARA SUS REVISIONES Y DONDE CUMPLIMOS Y EXCEDEMOS LO APENAS SOLICITADO (24 PUERTOS DE 10GB / MANEJABLE) /NUESTRO EQUIPO EN ADICION CUENTA CON 2 PUERTOS DE 10GB ADICIONALES PARA EL UPLINK Y 1GB COMPLETO PARA LA ADMINISTRACION & GESTION DEL MISMO (DETALLES ANEXOS DENTRO DE PROPUESTA).

Esperando poder servirles y reiterándonos a las órdenes, les saluda sin otro particular.



Ing. Jorge Luis Pimentel, MBA & Operations
Presidente CariTec –Consultores & Asesores Tecnológicos.

**RECIBIDO POR:**_____
NOMBRE_____
FECHA