



BANGKO SENTRAL NG PILIPINAS

BIDS AND AWARDS COMMITTEE – INFORMATION TECHNOLOGY, INFRASTRUCTURE AND OTHER RELATED COMPONENTS

Project : One (1) lot – Bangko Sentral ng Pilipinas (BSP) LAN Enhancement Y2020 Project consisting of Supply, Delivery, Installation, Configuration, Testing and Commissioning of Cisco Nexus 9300 Series Switches, Cisco Catalyst 9300 Series Switches, Cisco Router, Cisco Identity Services Engine, Cisco Wireless Access Points and Network Uninterruptible Power Supply, as per BSP Terms of Reference and Service Level Agreement

Subject : Bid Bulletin No. 1

Date : 20 April 2021

Following the conduct of the pre-bid conference last 16 April 2021, this Bid Bulletin is issued.

I. Revisions in the Bidding and Technical Documents

The following documents are revised:

- a. BSP Terms of Reference; and
- b. Financial Cost Breakdown.

THE BSP TERMS OF REFERENCE AND FINANCIAL COST BREAKDOWN, AS REVISED, ARE ATTACHED WITH THE REVISED PORTIONS HIGHLIGHTED. THE ATTACHED REVISED DOCUMENTS SHALL SUPERSEDE THE ORIGINALLY-ISSUED DOCUMENTS, PARTICULARLY ON THE REVISED PORTIONS. THE REVISED BSP TERMS OF REFERENCE AND FINANCIAL COST BREAKDOWN, WHICH ARE ISSUED THROUGH THIS BID BULLETIN, MUST BE SIGNED BY THE BIDDER'S AUTHORIZED REPRESENTATIVE/S IN THE APPROPRIATE PORTION/S AND SUBMITTED BY THE BIDDER AS PART OF THE TECHNICAL DOCUMENTS (ENVELOPE NO. 1) AND FINANCIAL BID PROPOSAL (ENVELOPE NO. 2), RESPECTIVELY, TO SIGNIFY CONFORMITY TO THE CHANGES IN THE REVISED DOCUMENTS; OTHERWISE, THE BID SHALL BE CONSIDERED AS "FAILED".

II. Schedule of Submission and Opening of Bids

The schedule of the submission and opening of bids for subject requirement remains on **28 April 2021, 1:00 P.M. (PHILIPPINE TIME)**. Please refer to Annex C – Guidelines in the Submission of Bids (Manual and Electronic) for guidance/information.

All other requirements stated in the previously issued bidding documents not inconsistent with the above shall remain.

SGD.
REYSAN G. GANTUANGCO
Vice-Chairperson

ATTACHMENTS:

1. Revised BSP Terms of Reference
2. Revised Financial Cost Breakdown



BANGKO SENTRAL NG PILIPINAS

**INFORMATION TECHNOLOGY OFFICE
IT INFRASTRUCTURE AND OPERATIONS DEPARTMENT**

**TERMS OF REFERENCE
BSP LAN ENHANCEMENT 2020 PROJECT**

PART A – INTRODUCTION

1. BACKGROUND INFORMATION

The Bangko Sentral ng Pilipinas (BSP) is pleased to issue this Terms of Reference (TOR) to the Service Providers as guidelines of the project or services rendered to achieve project completion.

2. BACKGROUND AND RATIONALE

Providing a high-speed, highly-reliable, highly-available and resilient Network Infrastructure is critical to BSP's business process especially with the continuous technology upgrades and growing number of Information and Communications Technology (ICT) users bank-wide. It is the goal and responsibility of IT-Infrastructure and Operations Department – Network Operations Group (ITIOD-NOG) to keep the network infrastructure updated, secured, and scalable while providing high quality of service to all the bank's employees.

This project aims to provide a high level of availability and to future-proof BSP's Network Infrastructure by (1) acquiring high-speed and high-capacity network devices; (2) replacing old network devices that have reached its End-of-Support (EoS) state; and (3) obtaining additional wireless network devices and network access system for mobile computing system. The project will be called LAN Enhancement 2020 Project which involves supply, delivery, installation, configuration, testing, and commissioning of Network Data, Network Voice, Wireless Network devices, Identity Services Engine (ISE) and Network Uninterruptible Power Supply (UPS) devices.

The project includes acquisition of new Network Data Devices for Data Center and Campus (End-User) Network Segments. The Cisco Nexus 9300 Series Switches will provide a high-speed and low-latency network infrastructure specifically designed for Data Center Servers. These Data Center Switches shall complement the network performance requirements and optimize BSP's virtualized data centers by providing 1/10Gbps interface speeds and flexible layer 2 and layer 3 scalability. The Cisco Catalyst 9300 Series Switches will replace the old Network Switches that reached its End-of-Support state (EoS) currently handling the Local Area Network (LAN) connectivity of the End-User segment. The Cisco Catalyst 9300 will provide high-speed network connectivity to the multiple access switches with its 1Gbps switchport interfaces.

Moreover, the project includes the expansion of BSP's wireless network infrastructure to cater the increasing demand for the mobile computing system in the workplace. Acquisition of Wireless Access Points (WAPs) and Cisco ISE will support this expansion. The Cisco ISE will provide authentication system that shall restrict unauthorized access to BSP's wireless network infrastructure.

Lastly, the Network UPS which handles one of the Core Network Device and Distribution Switches in BSP-HO has been supporting the critical services since 2015. To avoid unscheduled service downtime due to UPS failure, there is a need to replace this aging UPS with higher capacity rating.

3. PROJECT DESCRIPTION

This project shall be officially called LAN Enhancement 2020 Project sponsored by the IT-Infrastructure and Operations Department (ITIOD). This project shall involve supply, delivery, installation, configuration, testing and commissioning of Cisco Nexus 9300 Series Switches, Cisco Catalyst 9300 Series Switches, Cisco Routers, Cisco ISE, Cisco Wireless Access Points and Network UPS.

4. PROJECT OBJECTIVES

- 4.1. To support the BSP Data Center's high-performance, high-capacity and low latency network requirements;
- 4.2. To replace the old Campus Network Switches and Cisco ISR that already reached their End-of-Support and End-of-Warranty status.
- 4.3. To integrate the existing PABX system to the data network infrastructure.
- 4.4. To provide a secure and reliable authentication system that will meet the network connectivity requirements for mobility;
- 4.5. To address the growing demand for wireless network connectivity; and
- 4.6. To ensure protection and reliable back-up power for the Network Core Switch and Distribution Switches by replacing the old Network UPS.

5. PROJECT PERIOD

Project Period: 200 Calendar Days

Project Start Date: Effective Date of Notice to Proceed (NTP)

Project End Date: Date of Successful Project Completion including successful tests and acceptance from ITIOD-NOG

Revised as per Bid Bulletin No. 1

PART B – TECHNICAL REQUIREMENTS

1. Network Data Devices

Supply, delivery, installation, configuration, testing, and commissioning of Cisco Nexus and Catalyst Switches:

PRODUCT CODE	DESCRIPTION	QUANTITY
Nexus Switches for Data Center – Fiber Ports		
N9K-C93180YC-FX	Nexus 9300 with 48p 1/10/25G, 6p 40/100G, MACsec	10
CON-PSRT-N93YCFX	PRTNR SS 8X5XNBD Nexus 9300 with 48p	10
MODE-NXOS	Dummy PID for mode selection	10
NXOS-703I7.3	Nexus 9500, 9300, 3000 Base NX-OS Software Rel 7.0(3)I7(3)	10
C1-SUBS-OPTOUT	OPT OUT FOR "Default" DCN Subscription Selection	10
NXK-ACC-KIT-1RU	Nexus 3K/9K Fixed Accessory Kit, 1RU front and rear removal	10
NXA-PAC-500W-PE	Nexus NEBs AC 500W PSU - Port Side Exhaust	20
CAB-9K12A-NA	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America	20
NXA-FAN-30CFM-F	Nexus Fan, 30CFM, port side exhaust airflow	40
NXOS-ES-XF	NX-OS Essentials license for Nexus 9300 (10G+) Platforms	10
CON-PSBU-N9SWESXF	PSS SWSS UPGRADES NX-OS Essentials license for Nexus 9300	10
SFP-10G-SR=	10GBASE-SR SFP Module	70
DCNM-LAN-N93-K9=	DCNM for LAN Advanced Edt. for Nexus 9300 switches	10
CON-ECMU-N93LANK9	SWSS UPGRADES DCM for LAN Advanced Edt. for Nexus 9300 Switches	10
Nexus Switches for Data Center – Copper Ports		
N9K-C93108TC-FX	Nexus 9300 with 48p 10G-T, 6p 100G QSFP28	32
CON-PSRT-N93TCFX	PRTNR SS 8X5XNBD Nexus 9300 with 48p	32
MODE-NXOS	Dummy PID for mode selection	32
NXOS-703I7.3	Nexus 9500, 9300, 3000 Base NX-OS Software Rel 7.0(3)I7(3)	32
NXK-ACC-KIT-1RU	Nexus 3K/9K Fixed Accessory Kit, 1RU front and rear removal	32
NXA-PAC-500W-PE	Nexus NEBs AC 500W PSU - Port Side Exhaust	64
NXA-FAN-30CFM-F	Nexus Fan, 30CFM, port side exhaust airflow	128
CAB-N5K6A-NA	Power Cord, 200/240V 6A North America	64
C1-SUBS-OPTOUT	OPT OUT FOR "Default" DCN Subscription Selection	32
NXOS-ES-XF	NX-OS Essentials license for Nexus 9300 (10G+) Platforms	32
CON-PSBU-N9SWESXF	PSS SWSS UPGRADES NX-OS Essentials license for Nexus 9300	32
CVR-QSFP-SFP10G=	QSFP to SFP10G adapter	126
SFP-10G-SR=	10GBASE-SR SFP Module	130
DCNM-LAN-N93-K9=	DCNM for LAN Advanced Edt. for Nexus 9300 switches	32
CON-ECMU-N93LANK9	SWSS UPGRADES DCM for LAN Advanced Edt. for Nexus 9300 Switches	32
Catalyst Switches for User Network Segment – Top of Rack Switches		
C9300L-48T-4X-E	Catalyst 9300L 48p data, Network Essentials ,4x10G Uplink	35
CON-PSRT-C9300L4E	PRTNR SS 8X5XNBD Catalyst 9300L 48p data, Network Essenti	35
PWR-C1-350WAC-P	350W AC 80+ platinum Config 1 Power Supply	35
S9300LUK9-1612	Cisco Catalyst 9300L XE 16.12 UNIVERSAL	35
C9300L-SPS-NONE	No Secondary Power Supply Selected	35
CAB-TA-NA	North America AC Type A Power Cable	35

FAN-T2	Cisco Type 2 Fan Module	105
C9300L-SSD-NONE	No SSD Card Selected	35
PWR-C1-BLANK	Config 1 Power Supply Blank	35
C9300L-NW-E-48	C9300L Network Essentials, 48-port license	35
C9300L-DNA-E-48	C9300L Cisco DNA Essentials, 48-port license	35
C9300L-DNA-E-48-3Y	C9300L Cisco DNA Essentials, 48-port, 3 Year Term license	35
C9300L-STACK-KIT	Cisco Catalyst 9300L Stacking Kit	35
C9300L-STACK	Catalyst 9300L Stack Module	70
STACK-T3-3M	3M Type 3 Stacking Cable for C9300L	35
NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	35
L-MGMT3X-93XX-K9=	Cisco Ent MGMT: PI 3.x LF,AS,1 Cat 93xx	35
CON-ECMU-LMGKMT3X	SWSS UPGRADES Cisco Ent MGMT: PI 3.x LF,AS APIC-EM L	35
Catalyst Switches for User Network Segment – Distribution Switches		
C9300-24S-E	Catalyst 9300 24 GE SFP Ports, modular uplink Switch	6
CON-PSRT-C930024E	PRTNR SS 8X5XNBD Catalyst 9300 24 GE SFP Ports, modular	6
C9300-NW-E-24	C9300 Network Essentials, 24-port license	6
PWR-C1-715WAC-P	715W AC 80+ platinum Config 1 Power Supply	6
PWR-C1-715WAC-P/2	715W AC 80+ platinum Config 1 Secondary Power Supply	6
CAB-TA-NA	North America AC Type A Power Cable	12
C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	6
CAB-SPWR-150CM	Catalyst Stack Power Cable 150 CM - Upgrade	6
S9300UK9-1612	Cisco Catalyst 9300 XE 16.12 UNIVERSAL	6
STACK-T1-3M	3M Type 1 Stacking Cable	6
C9300-DNA-E-24S	C9300 DNA Essentials, 24-Port Fiber Term Licenses	6
C9300-DNA-E-24S-3Y	C9300 DNA Essentials, 24-Port Fiber, 3 Year Term License	6
NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	6
GLC-SX-MMD=	1000BASE-SX SFP transceiver module, MMF, 850nm, DOM	50
SFP-10G-SR=	10GBASE-SR SFP Module	24
L-MGMT3X-93XX-K9=	Cisco Ent MGMT: PI 3.x LF,AS,1 Cat 93xx	6
CON-ECMU-LMGKMT3X	SWSS UPGRADES Cisco Ent MGMT: PI 3.x LF,AS APIC-EM L	6
Catalyst Switches for Private Automatic Branch Exchange (PABX)		
C9300L-24T-4G-A	Catalyst 9300L 24p data, Network Advantage ,4x1G Uplink	2
CON-PSRT-C9300LA2	PRTNR SS 8X5XNBD Catalyst 9300L 24p data, Network Advanta	2
S9300LUK9-1612	Cisco Catalyst 9300L XE 16.12 UNIVERSAL	2
C9300L-NW-A-24	C9300L Network Advantage, 24-port license	2
FAN-T2	Cisco Type 2 Fan Module	6
PWR-C1-350WAC-P	350W AC 80+ platinum Config 1 Power Supply	2
PWR-C1-350WAC-P/2	350W AC 80+ platinum Config 1 Secondary Power Supply	2
CAB-TA-NA	North America AC Type A Power Cable	4
C9300L-SSD-NONE	No SSD Card Selected	2
C9300L-STACK-KIT	Cisco Catalyst 9300L Stacking Kit	2
C9300L-STACK	Catalyst 9300L Stack Module	4
STACK-T3-50CM	50CM Type 3 Stacking Cable for C9300L	2
NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	2

C9300L-DNA-A-24	C9300L Cisco DNA Advantage, 24-port Term Licenses	2
C9300L-DNA-A-24-3Y	C9300L Cisco DNA Advantage, 24-port, 3 Year Term license	2
PI-LFAS-T	Prime Infrastructure Lifecycle & Assurance Term - Smart Lic	2
PI-LFAS-AP-T-3Y	PI Dev Lic for Lifecycle & Assurance Term 3Y	2

2. Identity Services Engine

Supply, delivery, installation, configuration, testing, and commissioning of Cisco Identity Services Engine (ISE):

PRODUCT CODE	DESCRIPTION	QUANTITY
Cisco ISE Hardware		
SNS-3615-K9	Small Secure Network Server for ISE Applications	2
CON-PSRT-SNS3615K	PRTNR SS 8X5XNBD Small Secure Network Server for ISE Appl	2
CAB-N5K6A-NA	Power Cord, 200/240V 6A North America	2
SNS-CPU-4110	2.1 GHz 4110/85W 8C/11MB Cache/DDR4 2400MHz	2
SNS-HD600G10K12N	600GB 12G SAS 10K RPM SFF HDD	2
SNS-PSU1-770W	770W Power Supply	2
UCSC-PSU1-770W=	Cisco UCS 770W AC Power Supply for Rack Server	2
SW-36X5-ISE-K9	Cisco ISE Software Load on SNS-36x5-K9 appliance	2
SNS-PCIE-IRJ45	Intel i350 Quad Port 1Gb Adapter	2
R2XX-RAID0	Enable RAID 0 Setting	2
SNS-RAID-M5	Cisco 12G Modular RAID Controller with 2GB cache	2
SNS-MR-X16G1RT-H	16GB DDR4-2933-Mhz RDIMM/1Rx4/1.2v	4
L-ISE-BSE-PLIC	Cisco ISE Base License	1
L-ISE-BSE-P4	Cisco ISE Base License - Sessions 1000 to 2499	1000

3. Network Voice Device

Supply, delivery, installation, configuration, and testing of the following Network Voice device:

PRODUCT CODE	DESCRIPTION	QUANTITY
Voice Gateway – Router		
ISR4321-V/K9	Cisco ISR 4321 Bundle, w/UC License	1
CON-PSRT-ISR4321V	PRTNR SS 8X5XNBD Cisco ISR 4321 UC Bundle, PVD4-32, UC L	1
SL-4320-UC-K9	Unified Communication License for Cisco ISR 4320 Series	1
SL-4320-IPB-K9	IP Base License for Cisco ISR 4320 Series	1
PWR-4320-AC	AC Power Supply for Cisco ISR 4320	1
CAB-AC-C5	AC Power Cord, Type C5, US, Canada	1
MEM-FLSH-4G	4G Flash Memory for Cisco ISR 4300 (Soldered on motherboard)	1
MEM-4320-4G	4G DRAM for Cisco ISR 4320 (Soldered on motherboard)	1
SISR4300UK9-169	Cisco ISR 4300 Series IOS XE Universal	1
NIM-1MFT-T1/E1	1 port Multiflex Trunk Voice/Clear-channel Data T1/E1 Module	1
PVD4-64	64-channel DSP module	1
NIM-1MFT-T1/E1	1 port Multiflex Trunk Voice/Clear-channel Data T1/E1 Module	1
PVD4-64	64-channel DSP module	1

4. Wireless Network Requirements

Supply, delivery, configuration, and testing of the following Wireless Access Points and Licenses for Wireless LAN Controllers:

PRODUCT CODE	DESCRIPTION	QUANTITY
Wireless Access Points		
AIR-AP2802I-A-K9	802.11ac W2 AP w/CA; 4x4:3; Int Ant; 2xGbE A Domain	75
CON-PSRT-AIRAPAKP	PRTNR SS 8X5XNBD 802.11ac W2 AP w/CA; 3x4:3; Int Ant; 2x	75
AIR-AP-T-RAIL-R	Ceiling Grid Clip for Aironet APs - Recessed Mount (Default)	75
AIR-AP-BRACKET-1	802.11 AP Low Profile Mounting Bracket (Default)	75
SW2802-CAPWAP-K9	Cisco Aironet 2800 Series CAPWAP Software Image	75
AIR2800-DNA-OPTOUT	CISCO DNA SUBSCRIPTION OPTOUT for AIR2800	75
AIR-PWRINJ6	Power Injector (802.3at) for Aironet Access Points	75
AIR-PWR-CORD-NA	AIR Line Cord North America	75
Licenses for Wireless LAN Controller 1		
AIR-DNA	CISCO DNA for Wireless - CHOOSE ONLY QTY 1 HERE	1
AIR-DNA-TRK-3Y	CISCO DNA Wireless Term Tracker 3Y	1
WLC-AP-T	Aironet AP License Term Licenses	75
WLC-AP-T-3Y	Aironet AP License 3 Year Term License	75
PI-LFAS-AP-T	Prime AP Term Licenses	75
PI-LFAS-AP-T-3Y	PI Dev Lic for Lifecycle & Assurance Term 3Y	75
AIR-DNA-E	Aironet CISCO DNA Essentials Term Licenses	75
AIR-DNA-E-3Y	Aironet CISCO DNA Essentials 3 Year Term License	75
AIR-DNA-E-T	Aironet AP License Term Licenses	75
AIR-DNA-E-T-3Y	Aironet CISCO DNA Essentials 3 Year Term License	75
AIR-DNA-NWSTACK-E	AIR CISCO DNA Perpetual Network Stack	75
Licenses for Wireless LAN Controller 2		
AIR-DNA	CISCO DNA for Wireless - CHOOSE ONLY QTY 1 HERE	1
AIR-DNA-TRK-3Y	CISCO DNA Wireless Term Tracker 3Y	1
WLC-AP-T	Aironet AP License Term Licenses	75
WLC-AP-T-3Y	Aironet AP License 3 Year Term License	75
PI-LFAS-AP-T	Prime AP Term Licenses	75
PI-LFAS-AP-T-3Y	PI Dev Lic for Lifecycle & Assurance Term 3Y	75
AIR-DNA-E	Aironet CISCO DNA Essentials Term Licenses	75
AIR-DNA-E-3Y	Aironet CISCO DNA Essentials 3 Year Term License	75
AIR-DNA-E-T	Aironet AP License Term Licenses	75
AIR-DNA-E-T-3Y	Aironet CISCO DNA Essentials 3 Year Term License	75
AIR-DNA-NWSTACK-E	AIR CISCO DNA Perpetual Network Stack	75

5. Smart Licenses for Cisco Prime Infrastructure

Supply, delivery and installation of Cisco Prime Infrastructure Smart Licenses.

Wireless Access Points		
L-MGMT3X-AP-K9=	Cisco Ent MGMT: PI 3.x LF, AS , 1 AP	103
CON-ECMU-LGMT3XAK	SWSS UPGRADES Cisco MGMT: Prime Infra 3x LF, AS API	103

Cisco ASR 1000 Series Aggregation Services Routers		
L-MGMT3X-ASR1K9=	Cisco Ent MGMT: PI 3.x LF, AS , 1 ASR1K	4
CON-ECMU-LMGMT3XK9	SWSS UPGRADES Cisco MGMT Prime Infra 3x LF, AS API	4
Cisco Nexus 7000 Series Switches		
L-MGMT3X-N7K-K9=	Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 Nexus 7K	4
CON-ECMU-LMGMT3X7	SWSS UPGRADES Cisco MGMT: Prime Infra 3.x LF, AS Lic	4
Catalyst 2000 Series Switches		
L-MGMT3X-2K-K9=	Cisco Ent MGMT: PI 3.x LF,AS & APIC-EM Lic, 1 Cat 2K	495
CON-ECMU-LMGMT3X2	SWSS UPGRADES Cisco Ent MGMT PI 3.x LF,AS APIC-EM L	495
Catalyst 3000 Series Switches		
L-MGMT3X-3K-K9=	Cisco Ent MGMT: PI 3.x LF,AS , 1 Cat 3K	47
CON-ECMU-LMGMT3X3	SWSS UPGRADES Cisco Ent MGMT PI 3.x LF,AS APIC-EM L	47

6. Network UPS

Supply, delivery, installation, configuration, testing, and commissioning of Network UPS

PRODUCT CODE	DESCRIPTION	QUANTITY
GXT5-10KIRT5UXLN	Liebert GXT5 10000VA/10000W 230V, Rack/Tower Type, with Network Card, Engineering Services and 3-yrs warranty	3

7. Trainings

Provide complete, instructor-led, Cisco trainings^{/1} specified below for authorized ITIOD-NOG personnel:

DESCRIPTION	QUANTITY
200-301 CCNA Implementing and Administering Cisco Solutions	12
300-401 ENCOR Implementing and Operating Cisco Enterprise Network Core Technologies	12
300-410 ENARSI Implementing Cisco Enterprise Advanced Routing and Services	5
300-420 ENSLD Designing Cisco Enterprise Networks	5
300-425 ENWLSL Designing Cisco Enterprise Wireless Networks	4
300-430 ENWLSI Implementing Cisco Enterprise Wireless Networks	4

^{/1} Equivalent Virtual Class is acceptable

8. Project Management Team Requirements

8.1. One (1) Project Manager

- 8.1.1. Must hold a Project Management Professional (PMP) Certification;
- 8.1.2. Must have a minimum of three (3) years project involvement in a similar project/contract;
- 8.1.3. Must have successfully implemented minimum of two (2) IT-related projects/contracts; and,
- 8.1.4. Must provide a list of projects handled in his/her Curriculum Vitae, including project description, inclusive periods, reference sites, and client's contact details, for validation purposes

8.2. One (1) Project Supervisor

- 8.2.1. Must have a current and valid Cisco Certified Design Professional (CCDP) or Cisco Certified Network Professional (CCNP) Certification;
- 8.2.2. Must have a minimum of three (3) years work experience in supervising a similar project/contract;

- 8.2.3. Must have experience and knowledge in Data Center Network Infrastructure, involving Cisco Network Devices; and,
 - 8.2.4. Must have implemented and supervised installation, configuration, and troubleshooting of Data Network Infrastructure (wired and wireless) and Network Security Infrastructure in previous project implementation
- 8.3. Two (2) Cisco Certified Network Professionals (CCNP)
- 8.3.1. Must have a current and valid Cisco Certified Network Professional (CCNP) Certification;
 - 8.3.2. Must have a minimum of two (2) years work experience in installation, configuration, and troubleshooting of Data Network Infrastructure (wired and wireless) and Network Security Infrastructure; and,
 - 8.3.3. Must have implemented and supervised installation, configuration and troubleshooting of LAN, WLAN, and Network Security in previous project implementations
- 8.4. Two (2) Cisco Certified Network Associates (CCNA)
- 8.4.1. Must have a current and valid Cisco Certified Network Associate (CCNA) Certification; and,
 - 8.4.2. Must have a minimum of one (1) year experience in installation, configuration, and troubleshooting of LAN, WLAN, WAN, Network Voice and Network Security.
- 8.5. Two (2) Network UPS Engineers
- 8.5.1. Must be authorized by the Product Manufacturer to install, configure, and troubleshoot the Network UPS products being offered; and
 - 8.5.2. Must have a minimum of one (1) year experience in installation, configuration, testing, and troubleshooting of the Network UPS being offered.
- 8.6. The Project Management Team is required to submit the following:
- 8.6.1. Current and valid certifications;
 - 8.6.2. Certificates of Employment; and
 - 8.6.3. Curriculum Vitae detailing the list of successfully implemented and completed Projects/Contracts, inclusive periods, reference sites, and client contact details for verification purpose

9. Other Requirements

All necessary software, hardware, materials, licenses, and other components not mentioned in the specification but are required for the systems to operate as defined in this Terms of Reference shall be delivered and installed by the Service Provider without additional cost to BSP.

Should any device, part, or component reach its End-of-Sale, End-of-Life and/or End-of-Support status preventing supply or delivery as required, the Service Provider shall provide a replacement unit with similar or higher specification to the affected item without additional cost to BSP.

The Service Provider must be able to conform to the service level agreement as stated in the Service Level Agreement (SLA) of BSP (Refer to **Annex A**).

PART C – SCOPE OF WORKS

The Service Provider shall be responsible for the total implementation of the BSP LAN Enhancement 2020 project, as project turnkey in accordance with BSP specification and with the provisions of the Philippine Electrical Code and Building and Safety Codes. Work shall likewise be implemented in compliance with the BSP House Rules.

The Scope of Work shall employ the Project Management methodology or approach to ensure successful implementation. The Service Provider shall allocate technical and project management personnel during planning and implementation. The designated personnel shall perform the following implementation phases:

1. PROJECT INITIATION REQUIREMENTS

1.1. The Project Management Team

1.1.1. The Service Provider shall organize a Project Management Team and shall be composed of the Service Provider's assigned Project Manager and Project Management Technical Staff. The Project Management Team should be able to meet the requirements detailed in Part B of this Terms of Reference.

1.1.2. The Project Management Team should be adequately staffed with a pool of effective, well-trained professionals with substantial and real experience in various fields of specialization that could very well satisfy the BSP project demands. The Service Provider shall submit the curriculum vitae of the personnel included in the Project Team, and shall indicate/attach appropriate certifications.

1.1.3. The Project Management Team should be competent and capable of establishing a professional working relationship with the BSP

1.2. The Service Provider shall facilitate the development of a written Project Scope and establish a preliminary Project Schedule to define the activities that shall be accomplished at certain points in the project in order to deliver what is described in the scope statement.

1.3. The Service Provider shall submit and facilitate approval of the following documentations:

1.3.1. Project Responsibility Assignment Matrix (RAM)

1.3.2. Project Gantt Chart/Preliminary Schedule

1.3.3. Work Breakdown Structure

1.3.4. Test plan/scripts validating Functionality and Features of Service

1.4. The Service Provider shall organize and conduct Project Kick-off Meeting.

2. PROJECT PLANNING REQUIREMENTS

2.1. The Service Provider shall facilitate the development of the Project Implementation Plan/Methods of Procedures.

2.2. The Service Provider shall submit and facilitate approval of the following project documentation:

2.2.1. Project Acceptance Test Plan

2.2.2. Project Accomplishment Report

2.2.3. Project Change Request (if necessary)

2.2.4. Signed BSP-provided Confidentiality and Non-Disclosure Agreement

2.3. The Service Provider shall secure from ITIOD-NOG, the necessary entry and work permits for their authorized personnel that will conduct inspection, delivery, installation, tests and other works services at the BSP sites

- 2.4. The Service Provider shall be responsible for the configuration and test equipment/tools that are needed in the installation, configuration and testing of all the deliverables mentioned in Part B – Technical Requirements
- 2.5. The Service Provider’s personnel/representatives shall abide by existing BSP rules and regulations at all times
- 2.6. Service Provider must submit an “AS-PLANNED” comprehensive network design with diagram, certified by the CCNP Engineer as secured and implementable.

3. PROJECT IMPLEMENTATION REQUIREMENTS

- 3.1. The Service Provider shall deliver all the equipment and its components to BSP site. Activity will be supervised by ITIOD-NOG.
- 3.2. The Service Provider shall perform the activities listed below:
 - 3.2.1. Network Data Devices
 - 3.2.1.1. Supply, delivery, configuration, installation, testing and commissioning of Cisco Network Switches, its necessary components and corresponding quantities as indicated in Part B – Technical Requirements.
 - 3.2.1.2. Design and implement redundancy of Cisco Network Switches as required by BSP.
 - 3.2.1.3. Facilitate the development of implementation plan/methods of procedure and submit to ITIOD-NOG for approval prior to execution.
 - 3.2.1.4. Configure and set-up the Cisco Network Switches as required by ITIOD-NOG.
 - 3.2.1.5. Submit User Acceptance Test Plan subject to ITIOD-NOG’s approval
 - 3.2.2. Identity Services Engine (ISE)
 - 3.2.2.1. Supply, delivery, configuration, installation, testing and commissioning of Cisco ISE, its necessary components, licenses and corresponding quantities as indicated in Part B – Technical Requirements.
 - 3.2.2.2. Design and implement a secured and redundant authentication system capable of handling the WLAN users as required by BSP.
 - 3.2.2.3. The Service Provider shall integrate the new Cisco ISE with the existing WLAN Controller (WLC) and Active Directory.
 - 3.2.2.4. The Service Provider shall configure a web portal for the login access of Mobile devices.
 - 3.2.3. Network Voice Device
 - 3.2.3.1. Supply, delivery, configuration, installation, testing and commissioning of Cisco ISR, its necessary components and corresponding quantities as indicated in Part B – Technical Requirements.
 - 3.2.3.2. Perform the following VoIP communication test:
 - 3.2.3.2.1. BSP-HO to BSP-SPC and vice versa.
 - 3.2.3.2.2. BSP-HO to BSP-ROBs and vice versa.
 - 3.2.3.2.3. BSP-SPC to BSP-ROBs and vice versa.
 - 3.2.3.2.4. BSP-ROBs to different BSP-ROBs.
 - 3.2.3.2.5. VoIP Phones to PABX local lines and vice versa.
 - 3.2.3.2.6. VoIP Phones to direct line and vice versa.
 - 3.2.3.2.7. VoIP Phones to One BSP line and vice versa.
 - 3.2.3.2.8. Teleconferencing between BSP-HO, BSP-SPC and ROBs VoIP Phones.

- 3.2.3.3. Successful integration of the new Voice Gateway Router to the existing Voice Gateway Routers, Cisco Unified Communications Manager and PABX system.
- 3.2.3.4. The Service Provider shall perform successful failover/resiliency testing between the new and existing Voice Gateway Routers.
- 3.2.3.5. Submit User Acceptance Test Results, duly acknowledged by authorized ITIOD-NOG representatives
- 3.2.3.6. User accounts shall be turned-over to ITIOD-NOG.

- 3.2.4. Wireless Network Devices:
 - 3.2.4.1. The Wireless Access Points (WAPs) shall be configured and tested functional as required by BSP. Testing shall include the seamless connection and successful hand-over of end-user devices between WAPs.
 - 3.2.4.2. The Wireless Access Points shall be discovered and managed by the existing WLCs.
 - 3.2.4.3. The existing Cisco Prime Infrastructure Monitoring System shall be able to monitor and configure the new WAPs.
 - 3.2.4.4. All SNMP requirements shall be configured, enabled and tested functional using the BSP provided Network Management System.

- 3.2.5. Network UPS Requirements:
 - 3.2.5.1. Supply, delivery, installation, configuration and testing of the Network UPS System, its components and corresponding quantities as specified in Part B – Technical Requirements.
 - 3.2.5.2. The Service Provider should ensure that the Network UPS are tested 100% operational prior to deployment.
 - 3.2.5.3. Backup time should reach at least 5 minutes.

- 3.2.6. Training Requirements:
 - 3.2.6.1. The Service Provider must provide an instructor-led Cisco Authorized Trainings to authorized ITIOD personnel.
 - 3.2.6.2. The Service Provider shall be responsible for the arrangement of Training Schedules

- 3.3. Submit Accomplishment Report for every milestone completion.
- 3.4. Inspection, supply, delivery, installation and testing of all the service components shall be administered by ITIOD-NOG authorized personnel at the BSP Head Office and Security Plant Complex.
- 3.5. Necessary software, hardware, materials, licenses and other components not mentioned in the specification but required to operate as defined in this Terms of Reference shall be delivered by the Service Provider.

4. POST PROJECT IMPLEMENTATION REQUIREMENTS

The Service Provider must submit the following detailed technical documentation for review and approval:

- 4.1. Configuration details of all the Network Switches, Routers/Voice Gateway, Identity Services Engine (ISE), Wireless Access Points (WAPs) and Network UPS must be backed-up in a portable/external storage device.

- 4.2. Software version installed on the Network Switches, Routers/Voice Gateway, ISE, WAPs and Network UPS must be backed-up in a portable/external storage device. Latest available and stable version must be installed and used.

- 4.3. Acceptance Test Results for the Network Switches, Routers/Voice Gateway, ISE, WAP and Network UPS shall be acknowledged by authorized ITIOD-NOG representatives.
- 4.4. "As-built" network diagram of the Network Switches and ISE shall be certified by the Service Provider's CCNP Engineer.
- 4.5. Single line diagram and floor plan showing the "As-built" electrical layout of the 10KVA Network UPS.
- 4.6. The Service Provider shall issue Training Certificates and/or Training Vouchers for all the trainings as specified in Part B of this Terms of Reference.
- 4.7. Compiled Accomplishment Reports per milestone achieved.
- 4.8. Conduct rectification works or punch list items identified by BSP as deemed necessary without additional cost to BSP.
- 4.9. Surrender all login credentials of all accounts configured to ITIOD-NOG.

5. PROJECT COMPLETION REQUIREMENTS

5.1. Network Data Devices

- 5.1.1. The Cisco Switches must be configured and tested functional as required by BSP.
- 5.1.2. Documentation on the configuration of Cisco Switches.
- 5.1.3. All SNMP requirements must be configured, enabled and tested functional using the BSP provided Network Management System.
- 5.1.4. The existing Cisco Data Center Network Manager and Cisco Prime Monitoring Systems shall be able to monitor the new Network Switches for Data Center and User Segments respectively.
- 5.1.5. "As-built" network diagram must be submitted and certified by the Service Provider's CCNP Engineer.
- 5.1.6. User accounts shall be turned-over to BSP ITIOD-NOG.

5.2. Identity Services Engine

- 5.2.1. The Cisco ISE shall be installed, configured and tested functional as required by BSP.
- 5.2.2. All SNMP requirements must be configured, enabled and tested functional using the BSP provided Network Management System.
- 5.2.3. Policies must be configured and tested functional.
- 5.2.4. Successful integration of the new Cisco ISE with the existing Wireless LAN Controller and Active Directory.
- 5.2.5. Mobile devices must be able to connect to the desired network using the new Cisco ISE portal.
- 5.2.6. User accounts shall be turned-over to ITIOD-NOG.

5.3. Network Voice Device

- 5.3.1. The Cisco ISR shall be installed, configured and tested functional as required by BSP.
- 5.3.2. Perform successful VoIP communication tests as listed in Item 3.2.3
- 5.3.3. The existing Cisco Prime Monitoring Systems shall be able to monitor the newly added Network Voice components
- 5.3.4. "As-built" network diagram must be submitted and certified by the Service Provider's CCNP Engineer.
- 5.3.5. User accounts shall be turned-over to BSP ITIOD-NOG.

5.4. Wireless Network Devices

- 5.4.1. The WAPs shall be configured and tested functional as required by BSP.
- 5.4.2. The WAPs shall be discovered and managed by the existing WLCs.
- 5.4.3. The existing Cisco Prime Monitoring System shall be able to monitor and configure the new WAPs.
- 5.4.4. All SNMP requirements shall be configured, enabled and tested functional using the BSP provided Network Management System.

5.5. Network UPS Requirements

- 5.5.1. The Network UPS System shall be installed, configured and tested functional as required by BSP.
- 5.5.2. Submit the accomplished Network UPS Acceptance Test results
- 5.5.3. Perform successful Power Failover Tests
- 5.5.4. Submit the single line diagram and floor plan showing the "As-built" electrical layout of the 10KVA Network UPS signed by the Service Providers' Engineer
- 5.5.5. All SNMP requirements shall be configured, enabled and tested functional in all Network UPS using the BSP provided Network Management System.

5.6. Training Requirements

- 5.6.1. Training Certificates or Training Vouchers on the list of trainings specified in this Terms of Reference shall be submitted.

5.7. Project Completion Documents

The Service Provider must submit a properly organized and book-bound Project Documentation including:

- 5.5.1. Completion Letter
- 5.5.2. Project Completion and Acceptance Certificate
- 5.5.3. Project Chronology
- 5.5.4. Project Implementation Plan/Method of Procedure
- 5.5.5. Device Configuration Details
- 5.5.6. Acknowledged User Acceptance Tests
- 5.5.7. Product Data Sheets
- 5.5.8. Project Accomplishment Monthly Reports
- 5.5.9. Warranty Certificates
- 5.5.10. Approved Request For Change (RFC), if any
- 5.5.11. Approved Freeze Dates, if any
- 5.5.12. Technical/Service Support Escalation List

PART D – LIQUIDATED DAMAGES

The Service Provider shall be charged as liquidated damages, the applicable rate of one tenth (1/10) of one (1) percent of the cost of the unperformed portion for every day of delay until actual delivery or performance, if it fails to satisfactorily deliver any or all of the Goods and/or to perform the Services within the period(s)/schedules specified in this Contract, inclusive of duly granted time extensions if any, which shall be deductible from the Contract Price, without prejudice to other remedies under this Contract and under the applicable law. Once the amount of Liquidated Damages reaches ten percent (10%), the Procuring entity may rescind or terminate the Contract pursuant to GCC Clause 23, without prejudice to other courses of action and remedies open to it.

PART E - HARDWARE WARRANTY AND SOFTWARE SUBSCRIPTION SERVICES

1. The Service Provider shall provide warranty until 31 December 2022, inclusive of labor, hardware maintenance and software support subscription on all Cisco network devices.
2. The Service Provider shall provide warranty until 31 December 2023, inclusive of labor, hardware maintenance and support for Network UPS devices.
3. During the Hardware Warranty and Software Subscription Service Period, the Service Provider shall comply with the provisions of Service Level Agreement (SLA) stipulated in [Annex A](#) of this Terms of Reference.

PART F - DELIVERY, STORAGE & HANDLING

Provide necessary protection of equipment to prevent damage, theft, soiling, and misalignment during transit, storage and handling. Equipment should not be stored where conditions fall outside manufacturer's recommendations for environmental conditions. Damaged equipment shall not be installed and shall be from site, replaced with a new unit. Equipment/sub-components shall not be modified in any way without the knowledge and approval of BSP personnel involved in the project just to comply with the specification requirements of other parts and/or components.

The Service Provider shall be responsible for the safekeeping of its own and its subcontractors' property such as equipment and materials on the job site. The BSP assumes no responsibility for the protection of their property against fire, theft, and other environmental conditions.

PART G - CONTINUITY OF SERVICES

The Service Provider shall take no action which may interrupt or interfere with existing building services unless previous arrangements have been made with a BSP representative. Work shall be arranged so that shutdown time is minimized.

The Service Provider shall agree to the scheduled operational and security restrictions at the BSP site during implementation.

For any system shutdown as required by the Service Provider due to re/installation, preventive/corrective maintenance, and the like, the Service Provider shall give a ten (10)-day advance notice to BSP. Only authorized BSP personnel shall perform shutdown of operating systems.

Should services be inadvertently interrupted due to activities done by the Service Provider, the Service Provider shall immediately furnish labor, including overtime, material, and equipment necessary for the prompt restoration of interrupted service.

PART H - CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT (NDA)

1. The Service Provider shall not disclose documents, materials, project manuals, vulnerability results, firmware/software (applications and platforms used) and hardware inventory lists, solutions used, and or any information that would compromise the position of BSP during and after the implementation of this contract.
2. The Service Provider shall maintain the information obtained from BSP in strict confidentiality.
3. The Service Provider must agree with and sign the BSP-provided Confidentiality and Non-Disclosure Agreement upon Contract Award.

PART I - PROJECT LIABILITY

The Service Provider shall be liable for damages caused to any BSP property due to the fault or negligence of their personnel. Damages shall be repaired by the Service Provider at its own expense and to the satisfaction of BSP. In case of failure by the Service Provider to effect repair on damaged property, BSP may cause the repair and deduct the entire cost from any amount due to the Service Provider.

PART J – BILLING

Billing statements shall be addressed to:

The Administrative Division
Information Technology Office
Bangko Sentral ng Pilipinas
A. Mabini Street corner P. Ocampo Sr. Avenue
Malate Manila 1004

All billing statements shall clearly indicate the Purchase Order / Job Order number assigned by BSP for this contract, primarily for internal requirements of identification and association of billing statements to this particular contract.

PART K – DELIVERIES OF DOCUMENTS

1. Delivery schedule is every Monday, Wednesday and Friday, 9:00 AM to 3:00 PM.
2. Delivery of Documents such as the Proof of Entitlement shall be through:

The Administrative Services Department
Rm 109, 5-Storey Building
Bangko Sentral ng Pilipinas
A. Mabini Street corner P. Ocampo Sr. Avenue
Malate, Manila 1004

3. The Service Provider must submit/present the following:
 - 3.1 Original Supplier's Invoice(s)/Bill(s) and/or Delivery Receipt(s)
 - 3.2 Certified True Copy of the Job/Purchase Order
 - 3.3 Certified True Copy of the Notice to Proceed
 - 3.4 *Certified True Copy of the BSP Terms of Reference*

PART L – PAYMENT SCHEDULE

The proposed solution shall be for a fixed price, which shall be paid by BSP progressively or partially and where each payment shall be equivalent to the corresponding services completed and accepted by BSP.

Progress Payment		Project Milestones
1	50 %	<ul style="list-style-type: none">• Upon submission of Project Pre-implementation Requirements• Upon providing vouchers for Cisco technical training• Upon complete delivery of all the items listed in Part B of this Terms of Reference
2	48 %	<ul style="list-style-type: none">• Upon installation, configuration and commissioning of Cisco Nexus 9300 Switches, Cisco Catalyst 9300 Switches, Identity Services Engine, Voice Gateway and Network UPS• Upon configuration and testing of Wireless Access Points
3	2 %	Upon Project Sign-off and Acceptance, and Completion of Project Requirements
	100 %	

Prepared by:



Digitally signed by Romnick B. Alano
Date: 2020.07.13 14:31:31 +08'00'

ROMNICK B. ALANO
Information Systems Analyst III, ITIOD-NOG

Reviewed by



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Victor Uv Troncales
Date: 2020.07.13 15:35:04
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TRISTAN VICTOR U. TRONCALES
Bank Officer IV, ITIOD-NOG



GLADYS LENORE L. LARA
Bank Officer V, ITIOD-NOG

Recommending Approval



Isidro Alona
Holgado
2020-07-15 12:
01:30

ALONA H. ISIDRO
Deputy Director, ITIOD-NOG

Approved by



JOHN L. REGALA
Director, ITIOD

For Bidder's only

This is to certify that our company is amenable with Bangko Sentral ng Pilipinas Terms of Reference for its BSP LAN ENHANCEMENT 2020 PROJECT and is capable of satisfying the requirements.

Conforme:

Bidder's Authorized Representative Signature



BSP LAN ENHANCEMENT 2020 PROJECT

Financial Cost Breakdown

Project Component	Product/Service Description	Qty (A)	Unit Cost (B)	Total Cost (C = A x B)	
1	Nexus Switches for Data Center – Fiber Ports				
	N9K-C93180YC-FX	Nexus 9300 with 48p 1/10/25G, 6p 40/100G, MACsec	10	Php	Php
	CON-PSRT-N93YCFX	PRTNR SS 8X5XNBD Nexus 9300 with 48p	10	Php	Php
	MODE-NXOS	Dummy PID for mode selection	10	Php	Php
	NXOS-703I7.3	Nexus 9500, 9300, 3000 Base NX-OS Software Rel 7.0(3)I7(3)	10	Php	Php
	C1-SUBS-OPTOUT	OPT OUT FOR "Default" DCN Subscription Selection	10	Php	Php
	NXK-ACC-KIT-1RU	Nexus 3K/9K Fixed Accessory Kit, 1RU front and rear removal	10	Php	Php
	NXA-PAC-500W-PE	Nexus NEBs AC 500W PSU - Port Side Exhaust	20	Php	Php
	CAB-9K12A-NA	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America	20	Php	Php
	NXA-FAN-30CFM-F	Nexus Fan, 30CFM, port side exhaust airflow	40	Php	Php
	NXOS-ES-XF	NX-OS Essentials license for Nexus 9300 (10G+) Platforms	10	Php	Php
	CON-PSBU-N9SWESXF	PSS SWSS UPGRADES NX-OS Essentials license for Nexus 9300	10	Php	Php
	SFP-10G-SR=	10GBASE-SR SFP Module	70	Php	Php
	DCNM-LAN-N93-K9=	DCNM for LAN Advanced Edt. for Nexus 9300 switches	10	Php	Php
	CON-ECMU-N93LANK9	SWSS UPGRADES DCNM for LAN Advanced Edt. for Nexus 9300 Switches	10	Php	Php
	Nexus Switches for Data Center – Copper Ports				
	N9K-C93108TC-FX	Nexus 9300 with 48p 10G-T, 6p 100G QSFP28	32	Php	Php
	CON-PSRT-N93TCFX	PRTNR SS 8X5XNBD Nexus 9300 with 48p	32	Php	Php
	MODE-NXOS	Dummy PID for mode selection	32	Php	Php
	NXOS-703I7.3	Nexus 9500, 9300, 3000 Base NX-OS Software Rel 7.0(3)I7(3)	32	Php	Php
	NXK-ACC-KIT-1RU	Nexus 3K/9K Fixed Accessory Kit, 1RU front and rear removal	32	Php	Php
	NXA-PAC-500W-PE	Nexus NEBs AC 500W PSU - Port Side Exhaust	64	Php	Php
	NXA-FAN-30CFM-F	Nexus Fan, 30CFM, port side exhaust airflow	128	Php	Php
CAB-N5K6A-NA	Power Cord, 200/240V 6A North America	64	Php	Php	
C1-SUBS-OPTOUT	OPT OUT FOR "Default" DCN Subscription Selection	32	Php	Php	
NXOS-ES-XF	NX-OS Essentials license for Nexus 9300 (10G+) Platforms	32	Php	Php	

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Revised as per Bid Bulletin No. 1

CON-PSBU-N9SWESXF	PSS SWSS UPGRADES NX-OS Essentials license for Nexus 9300	32	Php	Php
CVR-QSFP-SFP10G=	QSFP to SFP10G adapter	126	Php	Php
SFP-10G-SR=	10GBASE-SR SFP Module	130	Php	Php
DCNM-LAN-N93-K9=	DCNM for LAN Advanced Edt. for Nexus 9300 switches	32	Php	Php
CON-ECMU-N93LANK9	SWSS UPGRADES DCNM for LAN Advanced Edt. for Nexus 9300 Switches	32	Php	Php
Catalyst Switches for User Network Segment – Top of Rack Switches				
C9300L-48T-4X-E	Catalyst 9300L 48p data, Network Essentials ,4x10G Uplink	35	Php	Php
CON-PSRT-C9300L4E	PRTNR SS 8X5XNBD Catalyst 9300L 48p data, Network Essenti	35	Php	Php
PWR-C1-350WAC-P	350W AC 80+ platinum Config 1 Power Supply	35	Php	Php
S9300LUK9-1612	Cisco Catalyst 9300L XE 16.12 UNIVERSAL	35	Php	Php
C9300L-SPS-NONE	No Secondary Power Supply Selected	35	Php	Php
CAB-TA-NA	North America AC Type A Power Cable	35	Php	Php
FAN-T2	Cisco Type 2 Fan Module	105	Php	Php
C9300L-SSD-NONE	No SSD Card Selected	35	Php	Php
PWR-C1-BLANK	Config 1 Power Supply Blank	35	Php	Php
C9300L-NW-E-48	C9300L Network Essentials, 48-port license	35	Php	Php
C9300L-DNA-E-48	C9300L Cisco DNA Essentials, 48-port license	35	Php	Php
C9300L-DNA-E-48-3Y	C9300L Cisco DNA Essentials, 48-port, 3 Year Term license	35	Php	Php
C9300L-STACK-KIT	Cisco Catalyst 9300L Stacking Kit	35	Php	Php
C9300L-STACK	Catalyst 9300L Stack Module	70	Php	Php
STACK-T3-3M	3M Type 3 Stacking Cable for C9300L	35	Php	Php
NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	35	Php	Php
L-MGMT3X-93XX-K9=	Cisco Ent MGMT: PI 3.x LF,AS,1 Cat 93xx	35	Php	Php
CON-ECMU-LMGKMT3X	SWSS UPGRADES Cisco Ent MGMT: PI 3.x LF,AS APIC-EM L	35	Php	Php
Catalyst Switches for User Network Segment – Distribution Switches				
C9300-24S-E	Catalyst 9300 24 GE SFP Ports, modular uplink Switch	6	Php	Php
CON-PSRT-C930024E	PRTNR SS 8X5XNBD Catalyst 9300 24 GE SFP Ports, modular u	6	Php	Php
C9300-NW-E-24	C9300 Network Essentials, 24-port license	6	Php	Php
PWR-C1-715WAC-P	715W AC 80+ platinum Config 1 Power Supply	6	Php	Php
PWR-C1-715WAC-P/2	715W AC 80+ platinum Config 1 SecondaryPower Supply	6	Php	Php
CAB-TA-NA	North America AC Type A Power Cable	12	Php	Php
C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	6	Php	Php
CAB-SPWR-150CM	Catalyst Stack Power Cable 150 CM - Upgrade	6	Php	Php

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	S9300UK9-1612	Cisco Catalyst 9300 XE 16.12 UNIVERSAL	6	Php	Php
	STACK-T1-3M	3M Type 1 Stacking Cable	6	Php	Php
	C9300-DNA-E-24S	C9300 DNA Essentials, 24-Port Fiber Term Licenses	6	Php	Php
	C9300-DNA-E-24S-3Y	C9300 DNA Essentials, 24-Port Fiber, 3 Year Term License	6	Php	Php
	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	6	Php	Php
	GLC-SX-MMD=	1000BASE-SX SFP transceiver module, MMF, 850nm, DOM	50	Php	Php
	SFP-10G-SR=	10GBASE-SR SFP Module	24	Php	Php
	L-MGMT3X-93XX-K9=	Cisco Ent MGMT: PI 3.x LF,AS,1 Cat 93xx	6	Php	Php
	CON-ECMU-LMGKMT3X	SWSS UPGRADES Cisco Ent MGMT: PI 3.x LF,AS APIC-EM L	6	Php	Php
	Catalyst Switches for Private Automatic Branch Exchange (PABX)				
	C9300L-24T-4G-A	Catalyst 9300L 24p data, Network Advantage ,4x1G Uplink	2	Php	Php
	CON-PSRT-C9300LA2	PRTNR SS 8X5XNBD Catalyst 9300L 24p data, Network Advanta	2	Php	Php
	S9300LUK9-1612	Cisco Catalyst 9300L XE 16.12 UNIVERSAL	2	Php	Php
	C9300L-NW-A-24	C9300L Network Advantage, 24-port license	2	Php	Php
	FAN-T2	Cisco Type 2 Fan Module	6	Php	Php
	PWR-C1-350WAC-P	350W AC 80+ platinum Config 1 Power Supply	2	Php	Php
	PWR-C1-350WAC-P/2	350W AC 80+ platinum Config 1 Secondary Power Supply	2	Php	Php
	CAB-TA-NA	North America AC Type A Power Cable	4	Php	Php
	C9300L-SSD-NONE	No SSD Card Selected	2	Php	Php
	C9300L-STACK-KIT	Cisco Catalyst 9300L Stacking Kit	2	Php	Php
	C9300L-STACK	Catalyst 9300L Stack Module	4	Php	Php
	STACK-T3-50CM	50CM Type 3 Stacking Cable for C9300L	2	Php	Php
	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	2	Php	Php
	C9300L-DNA-A-24	C9300L Cisco DNA Advantage, 24-port Term Licenses	2	Php	Php
	C9300L-DNA-A-24-3Y	C9300L Cisco DNA Advantage, 24-port, 3 Year Term license	2	Php	Php
	PI-LFAS-T	Prime Infrastructure Lifecycle & Assurance Term - Smart Lic	2	Php	Php
	PI-LFAS-AP-T-3Y	PI Dev Lic for Lifecycle & Assurance Term 3Y	2	Php	Php
2	Cisco ISE Hardware				
	SNS-3615-K9	Small Secure Network Server for ISE Applications	2	Php	Php
	CON-PSRT-SNS3615K	PRTNR SS 8X5XNBD Small Secure Network Server for ISE Appl	2	Php	Php
	CAB-N5K6A-NA	Power Cord, 200/240V 6A North America	2	Php	Php
	SNS-CPU-4110	2.1 GHz 4110/85W 8C/11MB Cache/DDR4 2400MHz	2	Php	Php

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	SNS-HD600G10K12N	600GB 12G SAS 10K RPM SFF HDD	2	Php	Php
	SNS-PSU1-770W	770W Power Supply	2	Php	Php
	UCSC-PSU1-770W=	Cisco UCS 770W AC Power Supply for Rack Server	2	Php	Php
	SW-36X5-ISE-K9	Cisco ISE Software Load on SNS-36x5-K9 appliance	2	Php	Php
	SNS-PCIE-IRJ45	Intel i350 Quad Port 1Gb Adapter	2	Php	Php
	R2XX-RAID0	Enable RAID 0 Setting	2	Php	Php
	SNS-RAID-M5	Cisco 12G Modular RAID Controller with 2GB cache	2	Php	Php
	SNS-MR-X16G1RT-H	16GB DDR4-2933-Mhz RDIMM/1Rx4/1.2v	4	Php	Php
	L-ISE-BSE-PLIC	Cisco ISE Base License	1	Php	Php
	L-ISE-BSE-P4	Cisco ISE Base License - Sessions 1000 to 2499	1000	Php	Php
3	Voice Gateway – Router				
	ISR4321-V/K9	Cisco ISR 4321 Bundle, w/UC License	1	Php	Php
	CON-PSRT-ISR4321V	PRTNR SS 8X5XNBD Cisco ISR 4321 UC Bundle, PVD4-32, UC L	1	Php	Php
	SL-4320-UC-K9	Unified Communication License for Cisco ISR 4320 Series	1	Php	Php
	SL-4320-IPB-K9	IP Base License for Cisco ISR 4320 Series	1	Php	Php
	PWR-4320-AC	AC Power Supply for Cisco ISR 4320	1	Php	Php
	CAB-AC-C5	AC Power Cord, Type C5, US, Canada	1	Php	Php
	MEM-FLSH-4G	4G Flash Memory for Cisco ISR 4300 (Soldered on motherboard)	1	Php	Php
	MEM-4320-4G	4G DRAM for Cisco ISR 4320 (Soldered on motherboard)	1	Php	Php
	SISR4300UK9-169	Cisco ISR 4300 Series IOS XE Universal	1	Php	Php
	NIM-1MFT-T1/E1	1 port Multiflex Trunk Voice/Clear-channel Data T1/E1 Module	1	Php	Php
	PVD4-64	64-channel DSP module	1	Php	Php
	NIM-1MFT-T1/E1	1 port Multiflex Trunk Voice/Clear-channel Data T1/E1 Module	1	Php	Php
	PVD4-64	64-channel DSP module	1	Php	Php
4	Wireless Access Points				
	AIR-AP2802I-A-K9	802.11ac W2 AP w/CA; 4x4:3; Int Ant; 2xGbE A Domain	75	Php	Php
	CON-PSRT-AIRAPAKP	PRTNR SS 8X5XNBD 802.11ac W2 AP w/CA; 3x4:3; Int Ant; 2x	75	Php	Php
	AIR-AP-T-RAIL-R	Ceiling Grid Clip for Aironet APs - Recessed Mount (Default)	75	Php	Php
	AIR-AP-BRACKET-1	802.11 AP Low Profile Mounting Bracket (Default)	75	Php	Php
	SW2802-CAPWAP-K9	Cisco Aironet 2800 Series CAPWAP Software Image	75	Php	Php
	AIR2800-DNA-OPTOUT	CISCO DNA SUBSCRIPTION OPTOUT for AIR2800	75	Php	Php
	AIR-PWRINJ6	Power Injector (802.3at) for Aironet Access Points	75	Php	Php
	AIR-PWR-CORD-NA	AIR Line Cord North America	75	Php	Php

**Signature Above Printed Name/
E-Signature* of the Bidder's Duly
Authorized Representative**

Licenses for Wireless LAN Controller 1					
AIR-DNA	CISCO DNA for Wireless - CHOOSE ONLY QTY 1 HERE	1	Php	Php	
AIR-DNA-TRK-3Y	CISCO DNA Wireless Term Tracker 3Y	1	Php	Php	
WLC-AP-T	Aironet AP License Term Licenses	75	Php	Php	
WLC-AP-T-3Y	Aironet AP License 3 Year Term License	75	Php	Php	
PI-LFAS-AP-T	Prime AP Term Licenses	75	Php	Php	
PI-LFAS-AP-T-3Y	PI Dev Lic for Lifecycle & Assurance Term 3Y	75	Php	Php	
AIR-DNA-E	Aironet CISCO DNA Essentials Term Licenses	75	Php	Php	
AIR-DNA-E-3Y	Aironet CISCO DNA Essentials 3 Year Term License	75	Php	Php	
AIR-DNA-E-T	Aironet AP License Term Licenses	75	Php	Php	
AIR-DNA-E-T-3Y	Aironet CISCO DNA Essentials 3 Year Term License	75	Php	Php	
AIR-DNA-NWSTACK-E	AIR CISCO DNA Perpetual Network Stack	75	Php	Php	
Licenses for Wireless LAN Controller 2					
AIR-DNA	CISCO DNA for Wireless - CHOOSE ONLY QTY 1 HERE	1	Php	Php	
AIR-DNA-TRK-3Y	CISCO DNA Wireless Term Tracker 3Y	1	Php	Php	
WLC-AP-T	Aironet AP License Term Licenses	75	Php	Php	
WLC-AP-T-3Y	Aironet AP License 3 Year Term License	75	Php	Php	
PI-LFAS-AP-T	Prime AP Term Licenses	75	Php	Php	
PI-LFAS-AP-T-3Y	PI Dev Lic for Lifecycle & Assurance Term 3Y	75	Php	Php	
AIR-DNA-E	Aironet CISCO DNA Essentials Term Licenses	75	Php	Php	
AIR-DNA-E-3Y	Aironet CISCO DNA Essentials 3 Year Term License	75	Php	Php	
AIR-DNA-E-T	Aironet AP License Term Licenses	75	Php	Php	
AIR-DNA-E-T-3Y	Aironet CISCO DNA Essentials 3 Year Term License	75	Php	Php	
AIR-DNA-NWSTACK-E	AIR CISCO DNA Perpetual Network Stack	75	Php	Php	
5	Smart Licenses for Cisco Prime Infrastructure				
	Wireless Access Points				
	L-MGMT3X-AP-K9=	Cisco Ent MGMT: PI 3.x LF, AS , 1 AP	103	Php	Php
	CON-ECMU-LGMT3XAK	SWSS UPGRADES Cisco MGMT: Prime Infra 3x LF, AS API	103	Php	Php
	Cisco ASR 1000 Series Aggregation Services Routers				
	L-MGMT3X-ASR1K9=	Cisco Ent MGMT: PI 3.x LF, AS , 1 ASR1K	4	Php	Php
	CON-ECMU-LMGT3XK9	SWSS UPGRADES Cisco MGMT Prime Infra 3x LF, AS API	4	Php	Php

**Signature Above Printed Name/
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Cisco Nexus 7000 Series Switches					
L-MGMT3X-N7K-K9=	Cisco Ent MGMT: PI 3.x LF, AS Lic, 1 Nexus 7K	4	Php	Php	
CON-ECMU-LMGMT3X7	SWSS UPGRADES Cisco MGMT: Prime Infra 3.x LF, AS Lic	4	Php	Php	
Catalyst 2000 Series Switches					
L-MGMT3X-2K-K9=	Cisco Ent MGMT: PI 3.x LF,AS & APIC-EM Lic, 1 Cat 2K	495	Php	Php	
CON-ECMU-LMGMT3X2	SWSS UPGRADES Cisco Ent MGMT PI 3.x LF,AS APIC-EM L	495	Php	Php	
Catalyst 3000 Series Switches					
L-MGMT3X-3K-K9=	Cisco Ent MGMT: PI 3.x LF,AS , 1 Cat 3K	47	Php	Php	
CON-ECMU-LMGMT3X3	SWSS UPGRADES Cisco Ent MGMT PI 3.x LF,AS APIC-EM L	47	Php	Php	
6	Network UPS				
GXT5-10KIRT5UXLN	Liebert GXT5 10000VA/10000W 230V, Rack/Tower Type, with Network Card, Engineering Services and 3-yrs warranty	3	Php	Php	
7	Trainings				
	200-301 CCNA Implementing and Administering Cisco Solutions	12	Php	Php	
	300-401 ENCOR Implementing and Operating Cisco Enterprise Network Core Technologies	12	Php	Php	
	300-410 ENARSI Implementing Cisco Enterprise Advanced Routing and Services	5	Php	Php	
	300-420 ENSLD Designing Cisco Enterprise Networks	5	Php	Php	
	300-425 ENWLS D Designing Cisco Enterprise Wireless Networks	4	Php	Php	
	300-430 ENWLSI Implementing Cisco Enterprise Wireless Networks	4	Php	Php	
8	ADD: All applicable taxes and other charges		Php		
Total Project Cost (inclusive of all applicable taxes and other charges)		Php			

Note: Bids not addressing or providing all of the required items in the bidding documents including, where applicable, bill of quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a "0" (zero) for the said item would mean that is being offered for free for the Government [Sec 32.2.2 (a) of the revised IRR]

For Bidder's only

Conforme:

Bidder's Authorized Representative Signature

All unit costs and total costs under Components 1 to 7 are exclusive of all applicable taxes and other charges.

Component 8 contains the total of all applicable taxes and other charges.

Total Project Cost is the total of Components 1 to 8.