



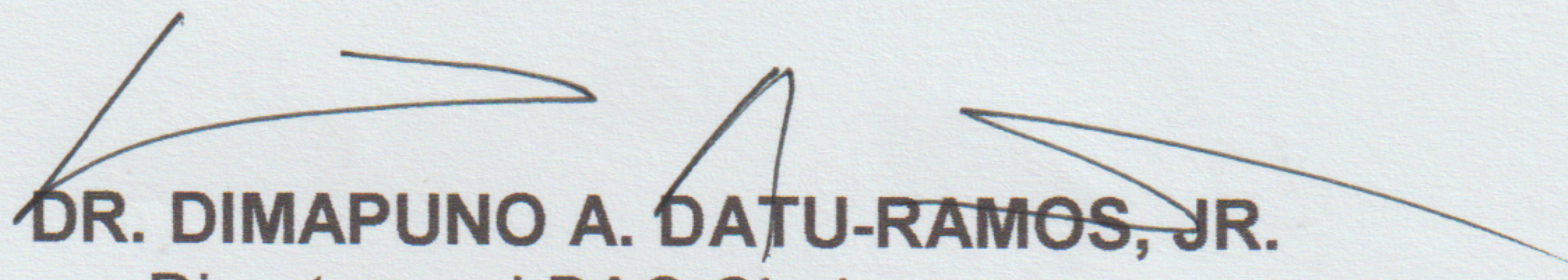
Republic of the Philippines
OFFICE OF THE PRESIDENT
NATIONAL COMMISSION ON MUSLIM FILIPINOS

BIDS AND AWARDS COMMITTEE

TO : ALL PROSPECTIVE BIDDERS
SUBJECT : Addendum No. 2019-02
DATE : 16 July 2019

This Addendum forms a part of the Bid Documents and modifies the original Bid Documents for the Procurement of Services for the Supply, Delivery and Installation of Wireless Local Area Network (LAN), Voice Over Internet Protocol (VOIP) Telephone System and Equipment for NCMF Central Office and 11 Regional Offices. Attached herewith is the modified Bid Documents.

For your information and guidance.


DR. DIMAPUNO A. DATU-RAMOS, JR.
Director and BAC Chairperson

TENDER DOCUMENT

REQUEST FOR PROPOSAL

FOR THE

**SUPPLY, DELIVERY AND INSTALLATION OF WIRELESS LOCAL AREA
NETWORK (LAN), VOICE OVER INTERNET PROTOCOL (VOIP)
TELEPHONE SYSTEM AND EQUIPMENT FOR 11 REGIONAL OFFICE
AND CENTRAL OFFICE OF THE NATIONAL COMMISSION ON MUSLIM
FILIPINOS (NCMF)**

NATIONAL COMMISSION ON MUSLIM FILIPINOS (NCMF)

**79 JOCFER ANNEX BUILDING, COMMONWEALTH AVENUE, DILIMAN,
QUEZON CITY, PHILIPPINES**

TERMS OF REFERENCE

Title: Supply, Delivery and Installation of Wireless Local Area Network (LAN), Voice over Internet Protocol (VoIP) Telephone System and equipment for 11 Regional Office and Central Office of the National Commission on Muslim Filipinos (NCMF)

Type: Goods (Installation, Testing and Configuration)

End-User: Management and Information Systems Division (MISD) – Planning Service

A. BACKGROUND AND OBJECTIVES

I. Background and Rationale:

Information Management is a critical component to guide the implementation of different programs, projects and activities of the National Commission on Muslim Filipino (NCMF), proper collection, validation, consolidation, and analysis of data is crucial in the immediate utilization of information for decision-makers to design and select appropriate response interventions, resource mobilization, and enhancing policies and guidelines in managing operations. In addition, proper dissemination and sharing of information is a vital concern of NCMF offices, other government agencies and partners for their own use and reference, and to raise awareness on different programs and projects to the general public.

The project will install a Structured Cabling System (SCS) for data, voice, wireless access point, electronic surveillance system (CCTV), and equipment to all the offices of the National Commission on Muslim Filipino. It will function as an avenue of interconnecting all of NCMF's ICT equipment such as desktop computers, laptops, network printers, and other network compatible devices.

II. Objectives:

1. To rehabilitate NCMF in-house LAN cabling and its components which include but not limited to the IDF Network data cabinet, UTP patch panel, UTP patch cord, cable managers, I/O port jack, I/O face-plate and other peripherals needed to run the system.
2. To install One Hundred Fifty Four (154) universal I/O ports for in-house structured LAN cabling system for VoIP Telephone System and Wireless Access Points to the following NCMF office and its addresses:

OFFICE	ADDRESS
North Luzon (Pampanga)	2/F Brother's 5 Building McArthur Highway, Dolores San Fernando City, Pampanga
National Capital Region (Quezon City)	3/F Bookman Building, Quezon Avenue, Quezon City
South Luzon (Rizal)	2/F Fortunil Bldg., Manila East Road, Sitio Ilog Pugad, Brgy. San Juan, Taytay, Rizal
Visayas (Cebu)	4/F 116-3 GTC Bldg., Borromeo St., Cebu City
Zamboanga	Elvira Drive, Upper Calarian, Zamboanga City
Sulu (Jolo)	2/F Tankee Bldg., Salih Yusah St., Jolo, Sulu
Davao	Pelayo Bldg., Juan Luna St., Davao City
Northern Mindanao (Cagayan De Oro)	Mezzanine Floor, Philippine First Insurance Co. Building, Aguinaldo Street, Cagayan De Oro, Misamis Oriental
Cotabato	Episcopal Bldg., Sinsuat Avenue, Cotabato City
Lanao – Moved to Iligan	3/F Gimeno-Gonzales Building, Tubod Highway, Iligan City
Caraga (Butuan)	106 WSL Building, T. Calo Extension, Butuan City

Central Office (Quezon City)	79 Jocfer Annex Building, Commonwealth Avenue, Diliman, Quezon City
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III. **Proposed ABC:** Php 14,320,000.00

IV. **Date of delivery:** Ninety (90) calendar days from issuance of NTP

B: GENERAL

1.0 INTRODUCTION

The following specifications are intended to provide a set of instructions and materials needed to furnish and install Telecommunications Cabling, within parameters set by industry standards, in a new facility. This document describes the system requirements to be met in the proposals of the Structured Cabling System (SCS) vendors to secure under contract all materials, engineering, installation, supervision and training services for the Structured Cabling System.

This document is issued as a request for proposal for the Supply, Delivery and Installation of Wireless Local Area Network (LAN), Voice over Internet Protocol (VoIP) Telephone System and equipment for 11 Regional Office and Central Office of the National Commission on Muslim Filipinos (NCMF) for the following:

- i) Horizontal Cabling and Accessories – Category 6 with a minimum of 250MHz bandwidth
- ii) Network equipment and peripherals
- iii) Wireless Access Point and controllers
- iv) Voice Over Internet Protocol (VoIP)
- v) Network Attached Storage (NAS) and hard drive
- vi) Electronic Surveillance System or Closed Circuit Television (CCTV) System
- vii) Access Control System (ACS)
- viii) Uninterrupted Power Supply (UPS)
- ix) And others stated in this document

2.0 SUBMITTAL REQUIREMENTS

Under the provisions of this request for proposal, the Structured Cabling System Contractor shall submit a Technical-Commercial Proposal– a combination of technical and cost/price must be completely presented. Provide one (1) original copy, one (1) duplicate copy, placed in a sealed envelope. The proposal shall contain the following:

- 2.1 Specifications – The contractor shall provide a **complete product specification and breakdown list of the proposed equipment, item, and materials** (imported or local) including accessories.

- 2.2 Scope of Work – The contractor shall provide a detailed, step-by-step description of the work to be performed by the contractor, organized to reflect order in which the work is to be performed.
- 2.3 Project Management – The contractor shall specify who will be responsible in monitoring the timetables and deliverables or measurable standards for completion, for meeting the goals, keeping the project within the contracted cost, and keeping the project within the scope of work outlined in the RFQ.
- 2.4 Compliance Matrix – The contractor shall submit a Compliance Matrix to be provided as Appendix A.
- 2.5 Deliverables Summary and Schedule – Establish a general schedule of events or estimated timetable that lists the deliverables or measurable standards for completion in sequential order, beginning from the contract award date to the final expected date of turn-over or completion.
- 2.6 Support, Training and Maintenance – identify in detail the Support, Training, Maintenance and Service Level Agreement that will be provided.
- 2.7 Proposal should include a summary of approach to the work, any exceptions to be taken, and any alternative or additional information that may deem important to the representation of the contractor.
- 2.8 Pages must be labelled and numbered accordingly. All proposals are required to have proposal reference number and must be completely signed by the duly authorized officer. Erasures or corrections must be signed.

3.0 CONTRACTOR QUALIFICATIONS

The Contractor shall, as a minimum, possess the following qualifications and submit required certifications:

- 3.1 The Contractor will have demonstrable design and installation training with certifications of competence. The Contractor shall have all of the following employed professionals in its company/organization:
 - 3.1.1 At least one (1) Professional Electronics Engineer (PECE) with at least three to five (3-5) years relevant experience in Structured Cabling Systems
 - 3.1.2 At least three (3) Certified Installers of the SCS Manufacturer being represented by the Contractor.
- 3.2 The Contractor shall submit relevant and recent, up-to-date licenses, certifications and training certificates. The Contractor shall submit copies of the certification of the staff that will be performing the installation and termination of the installation to provide proof of compliance of this specification.
- 3.3 The Contractor shall submit Letter of Authorization and Certificate of Approval from the Cabling System Manufacturer stating that the Contractor is an Authorized Business Partner and Certified Installer. The

Contractor shall also submit proof from Manufacturer of the Contractor's good standing in the Manufacturer's program.

- 3.4 The Contractor shall submit Letter of Warranty Support from the Cabling System Manufacturer stating that the Cabling Installation of the Contractor shall be supported with 25-Year System Warranty to be issued by the Cabling System Manufacturer (not by the Contractor) which shall cover products, cables, and application.
- 3.5 Under the provisions of this request for proposal, prior to the start of work the Certified Installer shall:
 - 3.5.1 Provide a Project Manager to supervise the project who has been trained to the qualified level as specified by the Manufacturer for installation and maintenance of equipment being provided on this project.
 - 3.5.2 Provide a full-time on-site project team leader who personally has been certified as described above.
- 3.6 The Certified Installer must own a Level III/IV field tester and firmware version must be latest:
 - 3.6.1 The Certified Installer shall provide a copy of valid (not expired) calibration certificate of the level III field tester.
 - 3.6.2 Personnel shall be trained and experienced in using the Level III/IV field tester.
 - 3.6.3 Provide proof of ownership of Level III/IV field tester
- 3.7 The Contractor shall provide names of contacts from the last five similar projects including the General Contractor and Owner's Representative with details of project.
- 3.8 The Contractor shall have the capability to bond project in its entirety.
- 3.9 The Contractor shall be able to provide insurance at the request of the owner.
- 3.10 The Contractor shall be able to provide Certificate of Good Standing which must be secured from the Administrative Service to ensure transparency and accountability of the interested companies and bidders.

4.0 CODES AND STANDARDS COMPLIANCE

- 4.1 All materials and installation practices shall comply with the applicable sections of the following Telecommunications Industry Standards:
 - 4.1.1 Philippine Electronics Code Book 1
 - 4.1.2 Philippine Electrical Code
 - 4.1.3 National Electrical Safety Code (NESC IEEE C 2)

- 4.1.4 Local Codes, amendments, and ordinances
- 4.1.5 ANSI/TIA/EIA-568-C, Commercial Building Telecommunications Cabling Standard, further broken down to:
 - (a) ANSI/TIA/EIA-568-C.0, Generic Telecommunications Cabling
 - (b) ANSI/TIA/EIA-568-C.1, General Requirements
 - (c) ANSI/TIA/EIA-568-C.2, Balanced Twisted-Pair Cabling Components Standard including Transmission Performance Specification for 4-Pair 100 Ω Category 6 Cabling (Standard)
 - (d) ANSI/TIA/EIA-568-C.3, Optical Fiber Cabling Components Standard
 - (e) ANSI/TIA/EIA-569, Commercial Building Standards for Telecommunications Pathways and Spaces
 - (f) ANSI/TIA-570, Residential and Light Commercial Telecommunications Wiring Standard
ANSI/TIA-606, The Administration Standard for the Telecommunications infrastructure of Commercial Building
 - (g) ANSI/TIA-607, Commercial Building Grounding and Bonding Requirements for Telecommunications

5.0 WARRANTY

- 5.1 A 25-Year Performance and Application Assurance Warranty covering all components, equipment and workmanship shall be submitted in writing with system documentation. The warranty period shall begin on the system's first use by the owner.
- 5.2 Should the cabling system fail to perform its expected operation within this warranty period due to inferior or faulty material and/or workmanship, the contractor shall promptly make all required corrections without cost to the owner.
- 5.3 The supplier shall provide three (3) years warranty on all equipment and related peripherals.
- 5.4 The supplier shall provide a description and a quote on maintenance services for the next three (3) years after the warranty has expired.

C: TECHNICAL SPECIFICATIONS

C.1 UTP HORIZONTAL CABLING REQUIREMENTS

1.0 COPPER CABLING

All Copper Cabling shall comply or exceed the following:

- 1.1 All Category 6+ PVC (Non-Plenum) cable shall satisfy or exceed the performance requirements of category 6 of ANSI/EIA/TIA-568-C.2 standard.
- 1.2 Cable construction must have a cross web for best cross talk performance.

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- 1.3 Conductor must be of 23 AWG.
- 1.4 Temperature operation during operation: - 20° C to + 75° C.

2.0 FACEPLATE AND TELECOMMUNICATION OUTLETS – WORK AREA

All Faceplates and Telecommunication Outlets shall comply or exceed the following:

- 2.1 Category 6+ Telecommunications Outlet Connector Module
- 2.2 Category 6+ modular jack devices, 8-position, 8-conductor modular jacks, terminated to 110 type IDC connections for the installation of UTP cable.
- 2.3 Units shall be labelled in accordance with both wiring designations T568A/B.
- 2.4 Dual layer wiring label must be used to simplify punch down and reduces re-work.
- 2.5 Gas tight connection at the IDC to prevent corrosion.
- 2.6 Provide and install blank inserts as needed.
- 2.7 Must have pair separation tower design to facilitate separation of conductors.
- 2.8 Must have Retention Force Technology (RFT) to protect tines from damage.
- 2.9 Jacks must be RoHS compliant and UL listed.
- 2.10 Provide and install faceplates for mounting telecommunication outlet connector modules

3.0 PATCH CORDS

All Patch Cords shall comply or exceed the following:

3.1 Workstation Cords

- 3.1.1 Category 6 UTP Patch Cords with matching colour boots must be used. Quantity, colour, and length shall be supplied as required. Typically, 1.5m Cord.
- 3.1.2 All patch cords shall be factory terminated at both ends. **Field terminated patch cords will not be accepted.**
- 3.1.3 RJ45 patch cords shall be used for added security to prevent unauthorized and unintentional port access.
- 3.1.4 RJ45 patch cords must be offered in 4 different colours for use with different systems.
- 3.1.5 Both ends of the patch cord shall be labelled with Brady labelling to identify the network point location. Naming convention of the labels will be advised upon tender award
- 3.1.6 Cords must be independently tested and verified by ETL or UL.

3.2 Patch Panel to Network Switch Cords

- 3.2.1 Category 6 Patch Cords shall provide 1 Gigabit application performance for cross connecting in systems comprising of network equipment, cable, and appropriate connectors.
- 3.2.2 The patch cord shall be 28-gauge, unshielded, twisted pair, stranded conductor construction with a standard 8-position modular plug on both ends. Quantity, colour, and length shall be supplied as required. Typically, 6in (150mm) Cord

- 3.2.3 All patch cords shall be factory terminated at both ends. **Field terminated patch cords will not be accepted.**
- 3.2.4 Plug contacts shall be plated with minimum of 50micron of gold. Patch cords shall have an outer diameter of 0.15”.
- 3.2.5 Patch cords must be offered in at least 4 different colours for use with different systems.
- 3.2.6 Cords must meet all applicable standards and listing such as ANSI/TIA-1096-A (formerly FCC Part 68), RoHS compliant, IEEE 802.3 and PoE: IEEE 802.3at – 2012.

4.0 PATCH PANELS – TELECOMMUNICATION ROOM

All Patch Panels shall comply or exceed the following:

- 4.1 Component-rated Patch Panel shall be in 24- or 48- port, flat profile.
- 4.2 The panels shall feature both T568A and T568B wiring configurations, white IDC 110-punchdown modules, mounting standoffs for cable management bars, color-coded front window labelling, and a termination standoff for patch panel earthing/grounding.
- 4.3 The panels shall have universal T568A and T568B wiring card for terminations.
- 4.4 The panels shall be made of 16-gauge steel, and shall have a black painted finish with white silk-screening.
- 4.5 The plastic elements shall be fire-retardant with a UL flammability rating of 94V-0.
- 4.6 Flat panels shall include rear cable manager in same package.

C.2 EQUIPMENT RACKS AND VERTICAL CABLE MANAGEMENT

The wall mounted equipment racks shall meet the following general requirements:

- 1.0 Each rack shall be provided with the rack frame, 19 inch mounting angles, punched sections, front and back perforated doors, side panel, divider panel, blanking panels and other accessories (eg bolts & nuts, cable management, shelves, ground strips..etc)
- 2.0 The internal dimension of the rack shall comply fully with the EIA-310-D Standard. External dimension of the server rack shall be:
 - Rack Width = 800mm
 - Rack Depth = 1000 to 1200mm
 - Rack Height = 1000mm

The network rack shall be 19-inch.

- 3.0 Each rack shall have four vertical mounting flanges. The vertical mounting flange height shall be 1000mm. The vertical mounting rails must come with equipment mounting holes using 0.375” (9.5mm) square holes for mounting of equipment
- 4.0 The vertical mounting rails shall have each U space identified by a line at the top and the bottom of each U. The number U space shall be marked on the middle hole of each U

- 5.0 Front and back door perforation shall provide at least 63% perforated or more (the amount of open space to un-open area within an airflow inlet or outlet). The front and rear doors must be lockable.
- 6.0 Removable Side Panel shall be removable. They must complete with locks to provide additional security
- 7.0 Grounding kits shall be provided to ensure grounding continuity between all parts of the rack and installation site ground point. Grounding wires shall be #6 AWG insulated solid copper conductor (Green) to bond all metallic raceway to the nearest grounding bus bar 10AWG.
- 8.0 All grounding and bonding work shall comply with the buildings code, fire code, electrical code and ANSI/TIA/EIA standards as well as local codes which may specify additional groundings and/or bonding requirements.
- 9.0 The rack shall come in black in colour
- 10.0 It comes with power strips with 4-outlets. Extension cords must reach the nearest identified convenience outlet in the assigned floor.

D: INSTALLATION & TESTING

D.1 INSTALLATION

- 1.0 General
 - 1.1 All cable and associated hardware shall be placed so as to make efficient use of available space in coordination with other uses. All cable and associated hardware shall be placed so as to not impair the use or capacity of other building systems, equipment, or hardware placed by others (or existing).
 - 1.2 Where cable is placed in ceiling areas or other non-exposed areas, cables shall be installed in cable trays or pipes. Attaching wire to pipes or other mechanical items is not permitted. Cables shall not be bundled or tied in conduits, and in cable trays above ceilings.
 - 1.3 Unless noted, all interior wiring shall be installed in raceways and conduits.
 - 1.4 All cables running outside the building shall be rated for outside plant installation.
 - 1.5 Backbone cables shall be grouped separately from horizontal distribution cables. Cable for other systems shall be grouped separately from cables for telephone and data.

- 1.6 All wires shall be marked at all junction boxes, pull boxes, cabinets, boxes and terminations. Each cable run between terminating locations shall be one continuous cable (no splices or connections are allowed).
- 1.7 The Contractor shall install cable in such a manner as to prevent stretching, kinking or sharp bends. Cable damaged during installation or not passing required testing shall be removed and replaced at no additional cost to Owner.
- 1.8 The Contractor shall replace or rework cables showing evidence of improper handling including stretches, kinks, short radius bends, over tightened bindings, loosely twisted and over twisted pairs at terminations, and too much jacket removed.
- 1.9 Minimum bend radius and maximum pulling tension for all cables shall be maintained during and after installation. Install cable in accordance with manufacturer's ratings and instructions.
- 1.10 In telecommunications spaces, cables shall be routed as close as possible to the ceiling, floor, or corners to ensure that adequate wall or backboard space is available for current and future equipment and for cable terminations. Cables shall not be tie-wrapped to existing electrical conduit or other equipment. Minimum bend radius shall be observed.
- 1.11 Cables shall be neatly bundled with hook and loop type fasteners. Nylon tire wraps are not acceptable. Cables must be neatly bundled in the telecommunications spaces and at the cable service loop.
- 1.12 Should a cable become kinked, skinned or stretched during installation, the cable shall be removed and replaced at no additional cost to the Owner. Splicing at points other than those specified will not be acceptable.
- 1.13 Raceways, cable trays and piping. Cable tray supports shall be attached to the structural ceiling or walls with hardware or other installation and support aids specially designed for the cable tray and designed to support the cable tray's weight and required cable weight and volume.
- 1.14 All LAN cables running inside ceiling should be placed in PVC pipes to keep it protected and in the matter of no space inside the ceiling, all cables must be place in plastic mouldings.
- 1.15 All drop down cables from the ceiling going down to patch panel should be placed in tubular or plastic mouldings. The tubular or mouldings should have enough space to house all the LAN cables.
- 1.16 Maintain a clearance of 5" between top of cable tray and ceiling structure or other equipment or raceway
- 1.17 Maintain a clearance of 1" from conduit or cables used for electrical power distribution

- 1.18 All drop LAN cables from the ceiling going down to drop off points to I/O ports should be protected from the electromagnetic flux (EMF) emitted by electrical wiring.
- 1.19 Maintain a clearance of 4" from motors or transformers

D.2 TESTING

1.0 Copper Cable Testing

1.1 Unshielded Twisted Pair Testing Equipment:

- 1.1.1 Cable tester will be NRTL certified for Level 3 or higher accuracy.
- 1.1.2 The cable tester will have a wide variety of preprogrammed cable types as an integral part of its testing system and have the ability to test cables less than 6 feet (6ft.) from the test point.
- 1.1.3 All balanced twisted-pair field testers will be factory calibrated each calendar year by the field test equipment manufacturer as stipulated by the manuals provided with the field test unit. The calibration certificate will be provided for review prior to the start of testing.
- 1.1.4 Testing will be accomplished using level III or higher field tester that is loaded with the most current version of test software by the manufacturer of the test equipment.
- 1.1.5 *Provide factory calibration report of field test equipment.***

1.2 Testing Procedures:

- 1.2.1 Test each pair and shield of each cable for opens, shorts, grounds, and pair reversal. Correct grounded and reversed pairs. Examine open and shorted pairs to determine if problem is caused by improper termination. If termination is proper, tag bad pairs at both ends and note on termination sheets.
- 1.2.2 Test each UTP cable and passive components. Provide certification that entire installation of UTP cabling, equipment and jacks are NRTL certified meeting or exceeding a minimum of category performance specified on all four pairs of conductors.
- 1.2.3 Test all installed cable segments end-to-end, from each telecommunications room backbone patch panel/cross-connect block panel to respective main cross connect, with a Signal Injector, Graphical Link Testing Meter and Time Domain Reflectometer (TDR) for compliance to latest TIA/EIA performance requirements, as well as NEXT, ELFEXT, structural return loss, alternating power sum, opens, shorts, continuity, cable length, and characteristic impedance.
- 1.2.4 Provide report indicating failures and what actions were taken to ensure a passing horizontal cable and its terminations. Any cable failing the certification test (Fail, Fail* or, Pass*) must have remedial work done to provide a full pass test result; Remediation may include re-termination or replacement of the cable, which fails. No cables passing within tolerance only (Conditional Pass*) will be accepted.

1.3 Test results:

- 1.3.1 The test results information for each link will be recorded in the memory of the field tester upon completion of the test. The tester will be capable of storing test data in either internal or external memory. The external media used will be left to the discretion of the user.
- 1.3.2 Test results saved by the tester will be transferred into a Windows based database utility that allows for maintenance, inspection and archiving of these test records. A guarantee must be made that the measurement results are transferred to the PC unaltered as well as any printed reports generated from the software application.
- 1.3.3 Test Results will include the following:
 - Applicable room number of jack location (room number per Contract Documents)
 - Applicable Telecommunications Room number
 - Circuit I.D. number with corresponding jack identifier
 - Wire Map – will include the following:
 - Continuity to the remote end
 - Shorts between any two or more conductors
 - Crossed pairs
 - Reversed pairs
 - Split pairs
 - Any other mis-wiring
 - Length
 - Insertion Loss
 - Near-end Crosstalk (NEXT) Loss
 - PS-NEXT (Power Sum Near End Cross Talk)
 - ELFEXT (Equal Level Far End Cross Talk)
 - PS-ELFEXT (Power Sum Equal Level Far End Cross Talk)
 - Propagation Delay
 - Delay Skew
 - Return loss
- 1.3.4 The Owner and the Engineer reserve the right to observe testing and/or randomly sample completed links for conformance to project specifications.

1.4 Test Results:

- 1.4.1 The test results information for each link will be recorded in the memory of the field tester upon completion of the test. The tester will be capable of storing test data in either internal or external memory. The external media used will be left to the discretion of the user.
- 1.4.2 Test results saved by the tester will be transferred into a Windows based database utility that allows for maintenance, inspection and archiving of these test records. A

- guarantee must be made that the measurement results are transferred to the PC unaltered as well as any printed reports generated from the software application.
- 1.4.3 The test results information for each link will be recorded in the memory of the field tester upon completion of the test. The tester will be capable of storing test data in either internal or external memory. The external media used will be left to the discretion of the user.
- 1.4.4 Test results saved by the tester will be transferred into a Windows based database utility that allows for maintenance, inspection and archiving of these test records. A guarantee must be made that the measurement results are transferred to the PC unaltered as well as any printed reports generated from the software application.
- 1.4.5 Test results will include the following:
- a. IDF
 - b. Patch panel # and location
 - c. Connector type
 - d. Distance
 - e. Technician who performed the testing
- 1.4.6 The Owner and Engineer reserve the right to observe testing and/or randomly sample completed links for conformance to project specifications.

E: ACTIVE EQUIPMENT, STORAGE, BACK-UP POWER AND COOLING SYSTEM

E.1 MANAGED SWITCH (PoE)

- a. Branded
- b. 28 ports Gigabit Switch
- c. 192W power dedicated to Power over Ethernet (PoE)
- d. 28 autosensing 10/100/1000 ports (IEEE 802.3, IEEE 802.3u, IEEE 802.3ab)
- e. Duplex 10BASE-T/100BASE-TX:half or full; 1000BASE-T: full only
- f. Warranty and Support: Limited Lifetime Warranty

E.2 NETWORK CLOSED CABINET

- a. 3ft x 2ft
- b. Wall Mounted with adequate ventilation
- c. Two (2) exhaust fan for cooling purposes
- d. Can accommodate up to 4 cascaded switches
- e. With Power Strip, at least 4 outlets

E.3 UNINTERRUPTIBLE POWER SUPPLY

- a. 1400Va
- b. 230V
- c. Universal and IEC Sockets

E.4 VPN ROUTER

- a. Dual WAN: Link failover, load balancing, Protocol & IP binding to a WAN port

- b. Firewall: SPI (Stateful Packet Inspection), DoS (Denial of Service) prevention, Schedule-based access rules (50), Web filtering (URL and keyword blocking), Block Java, cookies, ActiveX, http proxy servers, IGMP proxy, UPnP
- c. Site-to-site VPN: 50 IPsec site-to-site tunnels, Split DNS over site-to-site tunnel, VPN backup for site-to-site tunnel, DPD (Dead Peer Detection), Keep alive, NAT-traversal
- d. Remote Access VPN: OpenVPN, PPTP, client-to-site IPsec, OpenVPN Mobile Client Support (iOS, Android)
- e. 802.1q VLAN: 5 tagged VLANs (supporting inter-VLAN routing, inter-VLAN access rules), VLAN trunking allowing connection to access points (with multiple SSIDs) and additional smart or managed switches.
- f. DHCP Server: Multiple address pools (one per VLAN subnet), MAC&IP binding, MAC filtering, DHCP relay
- g. Ports: One 10/100/1000 RJ45 WAN port, One 10/100/1000 RJ45 WAN/DMZ port, Four 10/100/1000 RJ45 LAN ports, OpenVPN for mobile platforms (iOS, Android), Reset button, Kensington Lock
- h. Warranty and Support: Limited Lifetime Warranty

E.5 WIRELESS CONTROLLER

- a. AP Plug and Play
- b. Compatible with Linksys LAPAC1750 AC1750 Dual Band Access Point
- c. Device Detection: Layer 3/2
- d. Scalability: can manage up to 60 APs
- e. Interface: 6 Ethernet ports, Serial console (RS232), USB 2.0
- f. Interface Standard: IEEE 802.3 / IEEE 802.3u / IEEE 802.3ab (10T / 100TX / 1000T)

E.6 WIRELESS ACCESS POINT

- a. Network Standards: IEEE 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac, WMM - Wireless Multimedia Prioritization, Power over Ethernet Plus (PoE+) IEEE 802.3at
- b. Radio Frequency Bands: 2.4GHz and 5GHz (Concurrent)
- c. Ports: 1 x Gigabit LAN Port with IEEE 802.3at PoE+, 1 x 12V/1.5A power port
- d. Antenna Type: Internal PCBA Antenna, 1.7dBi @2.4G, 1.9dBi @5G
- e. Maximum Power Consumption: 13W
- f. Mounting: Ceiling or Wall
- g. Quality Of Service: WMM, Bandwidth Management
- h. Warranty and Support: Limited Lifetime Warranty

E.7 VOICE OVER INTERNET PROTOCOL (VoIP) PHONE

- a. 2 lines, 2 SIP accounts, up to 2 calls appearances
- b. 3-way audio conferencing for easy conference calls
- c. Full-duplex speakerphone with HD audio to maximize audio quality and clarity
- d. Dual switched auto-sensing 10/100 Mbps Ethernet ports, integrated PoE
- e. Compatible with Grandstream VoIP PBX

E.8 VOICE OVER INTERNET PROTOCOL (VoIP) PBX APPLIANCE

- a. 2 ports (both with lifeline capability in case of power outage)
- b. 8 FXO Port
- c. Single Gigabit RJ45 port with integrated PoE Plus (IEEE 802.3at-2009)
- d. Peripheral: USB, SD
- e. Voice-over-Packet Capabilities: LEC with NLP Packetized Voice Protocol Unit, 128ms-tail-length carrier grade Line Echo Cancellation, Dynamic Jitter Buffer, Modem detection & auto-switch to G.711
- f. Voice and Fax Codecs: G.711 A-law/U-law, G.722, G.723.1 5.3K/6.3K, G.726, G.729A/B, iLBC, GSM, AAL2-G.726-32, ADPCM; T.38
- g. Video Codecs: H.264, H.263, H.263+
- h. QoS: Layer 3 QoS, Layer 3 QoS, Layer 2 QoS

- i. Universal Power Supply: Output: 12VDC, 1.5A; Input: 100 ~ 240VAC, 50 ~ 60Hz
- j. English Language Support
- k. Customizable Auto Attendant: Up to 5 layers of IVR (Interactive Voice Response)
- l. Maximum Call Capacity: 60 or 66% performance if calls are SRTP encrypted
- m. Conference Bridges: 6 password-protected conference bridges allowing up to 32 simultaneous PSTN or IP participants
- n. The same brand on VoIP Phone

E.9 CONFERENCE WEBCAM

- a. Full HD 1080p video calling (up to 1920 x 1080 pixels); 720p HD video calling (up to 1280 x 720 pixels) with supported clients
- b. 78° field of view with autofocus
- c. 1.2x HD zoom
- d. 228 mm extender stem for elevation / eye-level camera angle
- e. Rightlight™ 2 Technology for clarity in various lighting environments, even low light
- f. Camera LED for active streaming indication
- g. Integrated full duplex speakerphone with echo and noise cancellation
- h. Omnidirectional microphone with 2.4 m diameter range
- i. With remote control
- j. Plug-and-play USB connectivity
- k. Works with most any video conferencing application or meetings service, including Skype for Business, BlueJeans, Broadsoft, Cisco Jabber, Cisco WebEx, Fuze, LifeSize Cloud, Vido, and Zoom

E.10 VIDEO CONFERENCING MICROPHONE

- a. Type: USB power Mic
- b. Up to 25ft range audio pickup
- c. 3 capsule boundary design with 180-degree coverage
- d. Sampling rate: 44.1kHz – 48kHz
- e. Frequency response: 40Hz – 16kHz
- f. USB compatibility: USB 1.1 and 2.0
- g. USB powered

E.11 WIRELESS USB ADAPTER

- a. Up to 150mbps
- b. 2.4Ghz Single Band
- c. USB 2.0

E.12 DOCUMENT SCANNER WITH FEEDER

- a. Optical Resolution: 600dpi
- b. Maximum Resolution: 1,200 dpi
- c. Light Source: RGB LED
- d. Scanning speed: 35 ppm
- e. Document Feeder Capacity: 50 sheets
- f. Daily duty cycle: 4,000 sheets
- g. Interface: USB 2.0 and Wi-Fi

E.13 NETWORK ATTACHED STORAGE (NAS)

- a. Number of Drive Bays: 8
- b. CPU Frequency: Quad Core 2.4GHz / 64bit
- c. System Memory: 2GB up to 16GB DDR3
- d. Maximum Storage Internal Raw Capacity: 96TB
- e. Compatibility Drive type: 3.5", 2.5" SATA HDD and 2.5" SATA SSD
- f. Ports: Four (4) Gigabit LAN ports, Four (4) USB 3.0 and Two (2) eSATA
- g. Supported RAID type: RAID 0, 1, 5, 6, 10

E.14 NAS HARD DRIVE

- a. Interface: SATA 6GB/s
- b. Drive Bays Supported: 1 – 8 Bays
- c. RPM: 7,200

E.15 CLOSED CIRCUIT TELEVISION (CCTV) SET

- a. Camera:
 - i. 8 Camera (4 indoor and 4 outdoor)
 - ii. 2.0 Megapixel
 - iii. Analog HD output, up to 1080P resolution
- b. Digital Video Recorder
 - i. HDD Interface type: 2 SATA
 - ii. HDD Capacity: 6TB
 - iii. 8-ch, BNC interface connection
 - iv. Supported Camera Types: 720P25, 720P30, 720P50, 720P60, 1080P25, 1080P30, CVBS
 - v. Video Compression: H.265 Pro+/H.265 Pro/H.265/H.264+/H.264
 - vi. Network Interface: 10M / 100M self-adaptive Ethernet Interface
- c. Coaxial Cable and Power
 - i. 8 x 50 meters
 - ii. 8 way splitter with power adaptor
- d. With installation

E.16 FINGERPRINT DOORLOCK

- e. Fingerprint: Up to 200 prints
- f. Pincode: 3 to 10 digits
- g. RFID Key: 2 keys
- h. Mechanical Key: 3 pcs
- i. Compatible for Glass door with aluminum frame
- j. With installation and complete accessories

E.17 AIR CONDITIONER UNIT

- k. 2.0 HP
- l. Cooling Capacity: 18,540 kJ/h
- m. EER: 12.44 kJ/Hw
- n. Split Type Inverted Type
- o. Mechanical works (Installation included)

E.18 AIR CONDITIONER UNIT CONTROLLER

- a. Supports window-type or split-type airconditioning units
- b. Up to 2 airconditioning units can be connected per controller for load scheduling
- c. Digitally programmable timer setting of load schedules (from 12-hour intervals up to 2-hour Intervals)
- d. Digitally programmable HI & LO temperature set points with hysteresis (selectable to °C or °F)

E.19 PRINTER

- a. 3 in 1 (Print, Scan and Copy)
- b. Inkjet
- c. Ink Tank with 4 color capacity (Black, Yellow, Magenta and Cyan)

E.20 ID CARD PRINTER

- a. Printing Mode: Dual Sided Print

- b. Print Type: Direct Dye-Sublimation
- c. Print Area: Edge-to-edge
- d. Resolution: 300dpi
- e. Card Feeding: Automatic
- f. Card Size: ISO CR80
- g. Card Thickness: 0.38mm (15mil), .076mm (30mil)
- h. Card Type: PVC, PET, Composite PVC
- i. Input Card Capacity: 80 cards
- j. Memory: 64MB RAM
- k. Interface: 1 LED Buttons
- l. Supported Platforms: Microsoft Windows 7/8/10, Mac OS and Linux
- m. Communication: USB

E: SCOPE OF WORK

- 1.0 The specification covers the design, supply, installation, testing, commissioning and maintenance of the Structured Cabling System as described herein. The intent of this Contract is to provide for the construction and completion in every detail of the Works. The Contractor shall furnish all labour, superintendence, materials, tools, equipment storage, certificates, drawings, inspection, testing & commissioning and incidentals necessary to complete the Works in a proper, thorough and skilful manner.
- 2.0 The Works shall fully comply with all statutory obligations and regulations together with any amendments made thereto as required by the authorities for the safe and satisfactory standards of the work.
- 3.0 The Contract shall include the supply and installation of the Works in the following areas:

OFFICE	ADDRESS
North Luzon (Pampanga)	2/F Brother's 5 Building McArthur Highway, Dolores San Fernando City, Pampanga
National Capital Region (Quezon City)	3/F Bookman Building, Quezon Avenue, Quezon City
South Luzon (Rizal)	2/F Fortunil Bldg., Manila East Road, Sitio Ilog Pugad, Brgy. San Juan, Taytay, Rizal
Visayas (Cebu)	4/F 116-3 GTC Bldg., Borromeo St., Cebu City
Zamboanga	Elvira Drive, Upper Calarian, Zamboanga City
Sulu (Jolo)	2/F Tankee Bldg., Salih Yusah St., Jolo, Sulu
Davao	Pelayo Bldg., Juan Luna St., Davao City
Northern Mindanao (Cagayan De Oro)	Mezzanine Floor, Philippine First Insurance Co. Building, Aguinaldo Street, Cagayan De Oro, Misamis Oriental
Cotabato	Episcopal Bldg., Sinsuat Avenue, Cotabato City
Lanao – Moved to Iligan	3/F Gimeno-Gonzales Building, Tubod Highway, Iligan City
Caraga (Butuan)	106 WSL Building, T. Calo Extension, Butuan City
Central Office (Quezon City)	79 Jocfer Annex Building, Commonwealth Avenue, Diliman, Quezon City

These Works shall be fully commissioned, tested and handed over accordingly.

4.0 **STRUCTURED CABLING SYSTEM SOLUTION**

This Contract shall include the following scope of work but no be limited to provide the works described hereunder:

- 4.1 Design, Supply, Delivery and Installation of Wireless Local Area Network (LAN), Voice over Internet Protocol (VoIP) Telephone System and equipment according to the specifications for the following breakdown per NCMF's offices locations:

LOCATION	QTY / UNT	DESCRIPTION / ITEMS
North Luzon	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS
	2pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance
	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	15pcs.	Wireless USB Adapter
	15pcs.	Inkjet Printer
	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
National Capital Region	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS
	2pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance
	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	15pcs.	Wireless USB Adapter
	15pcs.	Inkjet Printer
	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
South Luzon	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS
	2pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance
	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	15pcs.	Wireless USB Adapter
	15pcs.	Inkjet Printer

	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
Visayas	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS
	3pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance
	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	15pcs.	Wireless USB Adapter
	15pcs.	Inkjet Printer
	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
Zamboanga	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS
	2pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance
	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	15pcs.	Wireless USB Adapter
	15pcs.	Inkjet Printer
	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
Sulu (Jolo)	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS
	2pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance
	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	15pcs.	Wireless USB Adapter
	15pcs.	Inkjet Printer
	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
Davao	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS
	4pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance

	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	15pcs.	Wireless USB Adapter
	15pcs.	Inkjet Printer
	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
Northern Mindanao (Cagayan De Oro)	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS
	2pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance
	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	15pcs.	Wireless USB Adapter
	15pcs.	Inkjet Printer
	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
Cotabato	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS
	2pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance
	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	15pcs.	Wireless USB Adapter
	15pcs.	Inkjet Printer
	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
Lanao (Marawi)	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS
	2pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance
	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	15pcs.	Wireless USB Adapter
	15pcs.	Inkjet Printer
	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
Caraga (Butuan)	14pcs. (2 per faceplate)	Cat6 I/O Ports
	2pcs.	Managed Switch
	1pc.	Network closed cabinet
	1pc.	UPS

	2pcs.	Wireless Access Points
	1pc.	VPN Router
	7pc.	VoIP Phones
	1pc.	VoIP PBX Appliance
	1pc.	Conference Webcam FHD
	1pc.	Video Conferencing Microphone
	10pcs.	Wireless USB Adapter
	10pcs.	Inkjet Printer
	Lot	Roughing ins, Pipes and fittings
	Lot	Labor, Design, Installation, Configuration and Engineering, and Project Management
Central Office	2pcs.	Wireless Access Points
	2pcs.	VPN Router
	2pcs.	Wireless Controller
	8pcs.	VoIP Phones
	4pcs.	Conference Webcam FHD
	4pcs.	Video Conferencing Microphone
	134pcs.	Wireless USB Adapter
	134pcs.	Inkjet Printer
	2pcs.	ID Card Printer
	5pcs.	Document Scanner with Feeder
	2pcs.	Network Attached Storage (NAS)
	16pcs.	NAS Hard Drive
	1set	CCTV
	2pcs.	Fingerprint Doorlock
	2pcs.	Air conditioner Unit
	1pc.	Air conditioner Unit Controller

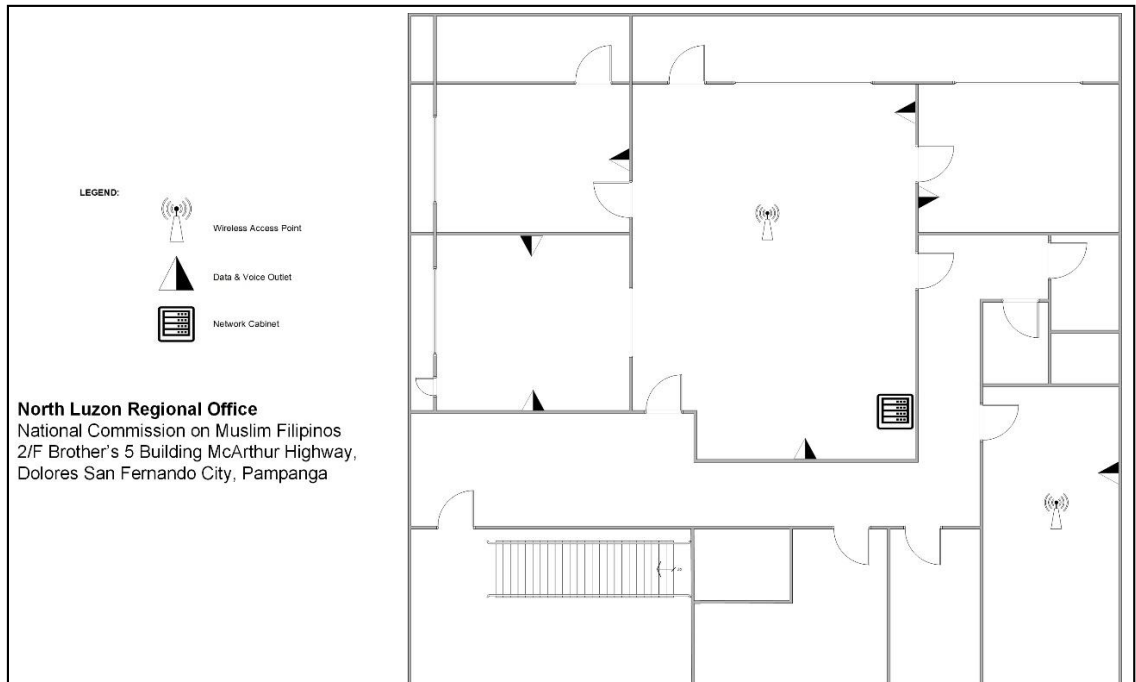
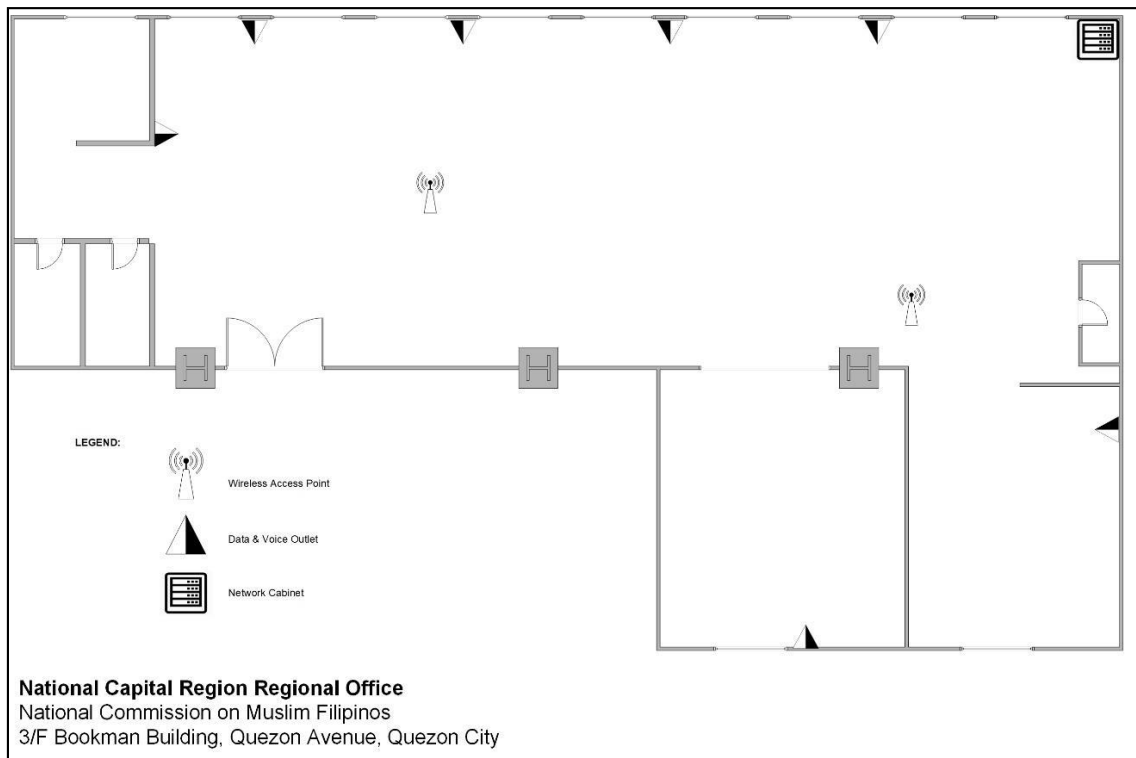
4.2 Horizontal Cabling

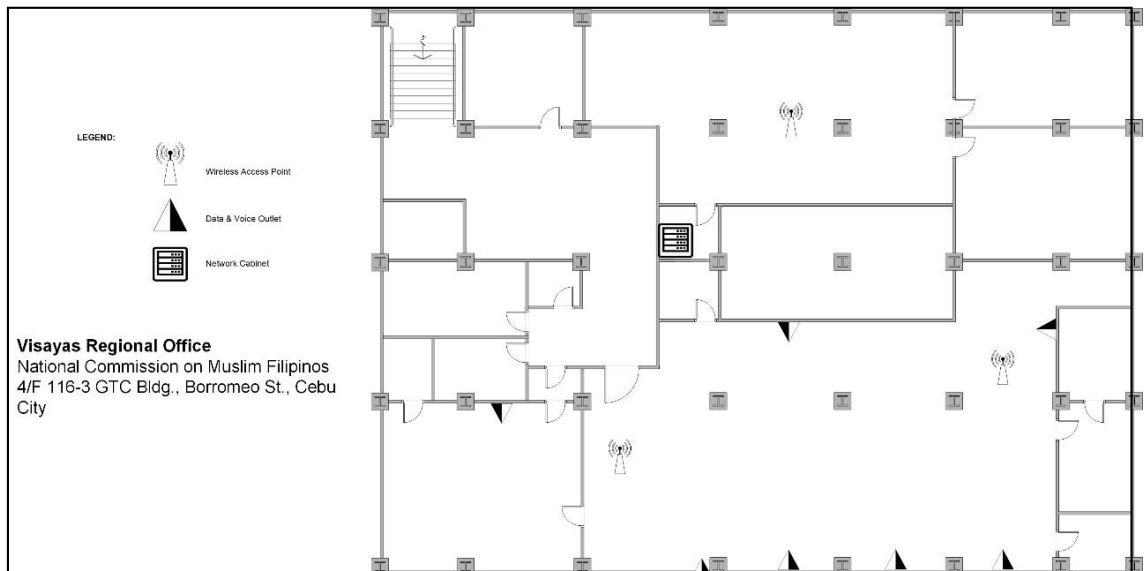
- 4.2.1 The Contractor shall supply, install and terminate of 4-pair Cat 6 UTP (Unshielded Twisted Pair) Horizontal Cables, faceplate, outlets, patch panel, cable management panel and all necessary accessories requires for the completion of works at eleven (11) regional office of the National Commission on Muslim Filipinos
- 4.2.2 The Contractor shall install a total of Fourteen (14) universal input-output (I/O) for Voice and Data per Regional Office
- 4.2.3 The Contractor shall supply and install the 24-Port Patch Panel at the Network Racks located at IDF.
- 4.2.4 The Contractor shall supply 100% quantity of Cat 6 Patch Cord of 6inches in length for patching work at the Data Distribution Patch Panel. The Contractor shall supply additional 5% of the total Cat 6 Patch Cord of 6inches in length as spare. The Contractor shall supply of 100% quantity of Cat 6 Patch Cord of 1.5 meters in length for patching work at the Work Area.

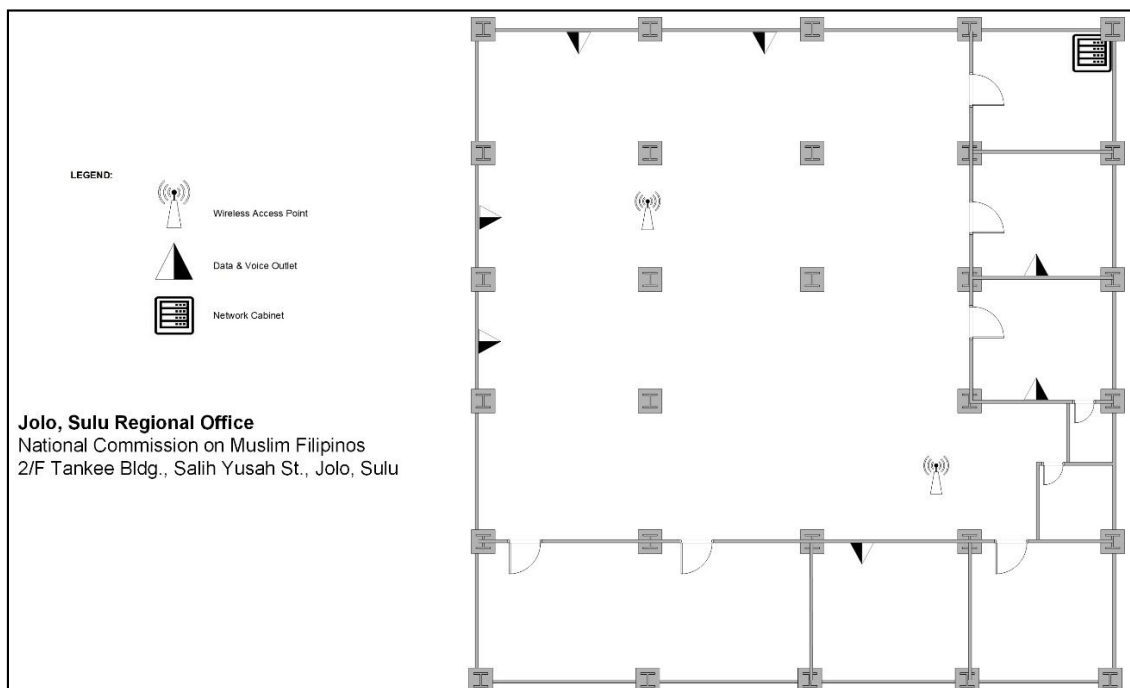
4.3 Backbone Cabling

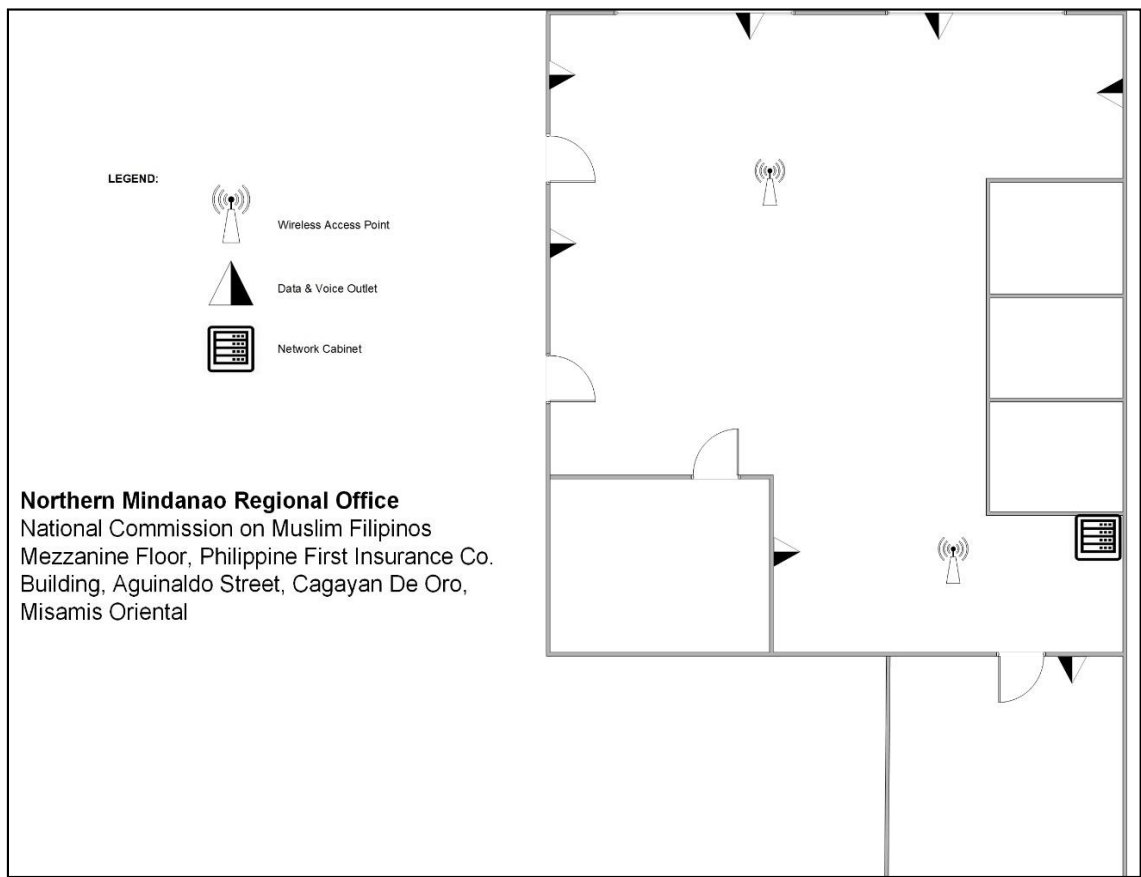
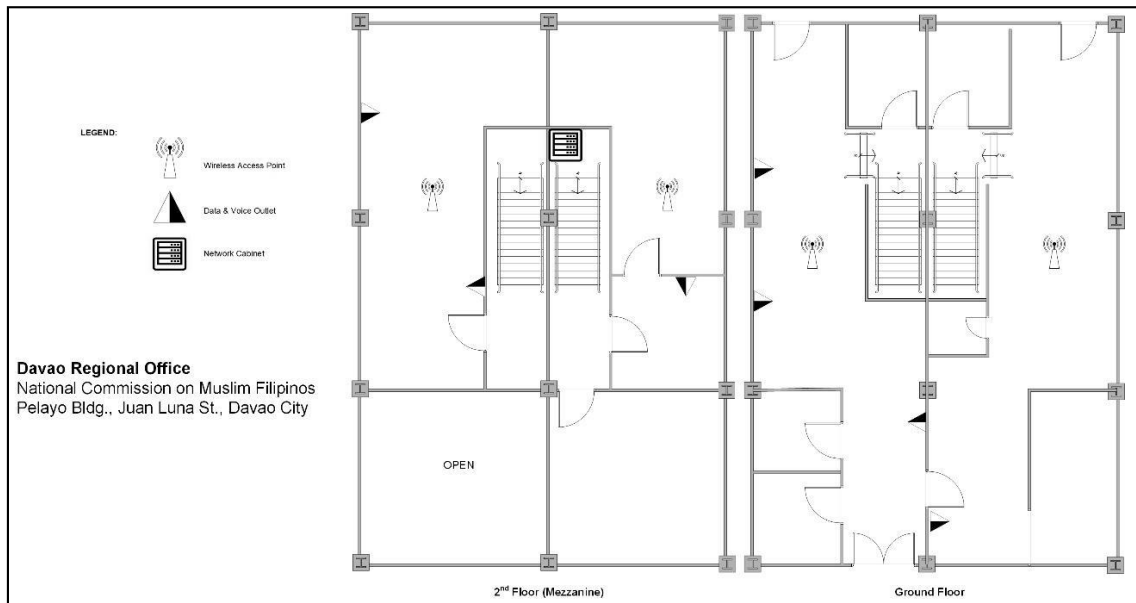
- 4.3.1 The Contractor shall supply and install of 2 x Copper Category 6 Cable for Backbone as needed. The installation shall come with all necessary accessories such as patch panels, and Category 6 patch cords required for the completion of works.
- 4.4 The Contractor shall supply and install Rack Cabinets and Accessories:
- 4.5 IDF shall be provided with dedicated earthing connection. Each equipment rack shall be connected to the clean earth terminal. The clean earth terminal shall be checked with the building administrator. A Megger Test Result shall be required to certify the earth resistance if acceptable for Telecommunications.
- 4.6 The Contractor shall supply and install all Works related to cable tray, piping and chipping/hacking of floor to be included in the proposal for the completion of works.
- 4.7 The Contractor shall include any necessary equipment, tools, devices and similar items to carry out the work without compromising the Safety regulation set by the Company.
- 4.8 The Contractor shall provide close-out documents (number of sets to be determined) as required herein and include the following:
 - 4.8.1 Project Documentation Manual
 - 4.8.2 As-Built Drawings
 - 4.8.3 Test Results/Reports
 - 4.8.4 Warranty Certification from the Cabling Solutions Manufacturer
 - 4.8.5 Factory Calibration Report of the Field Test Equipment Used

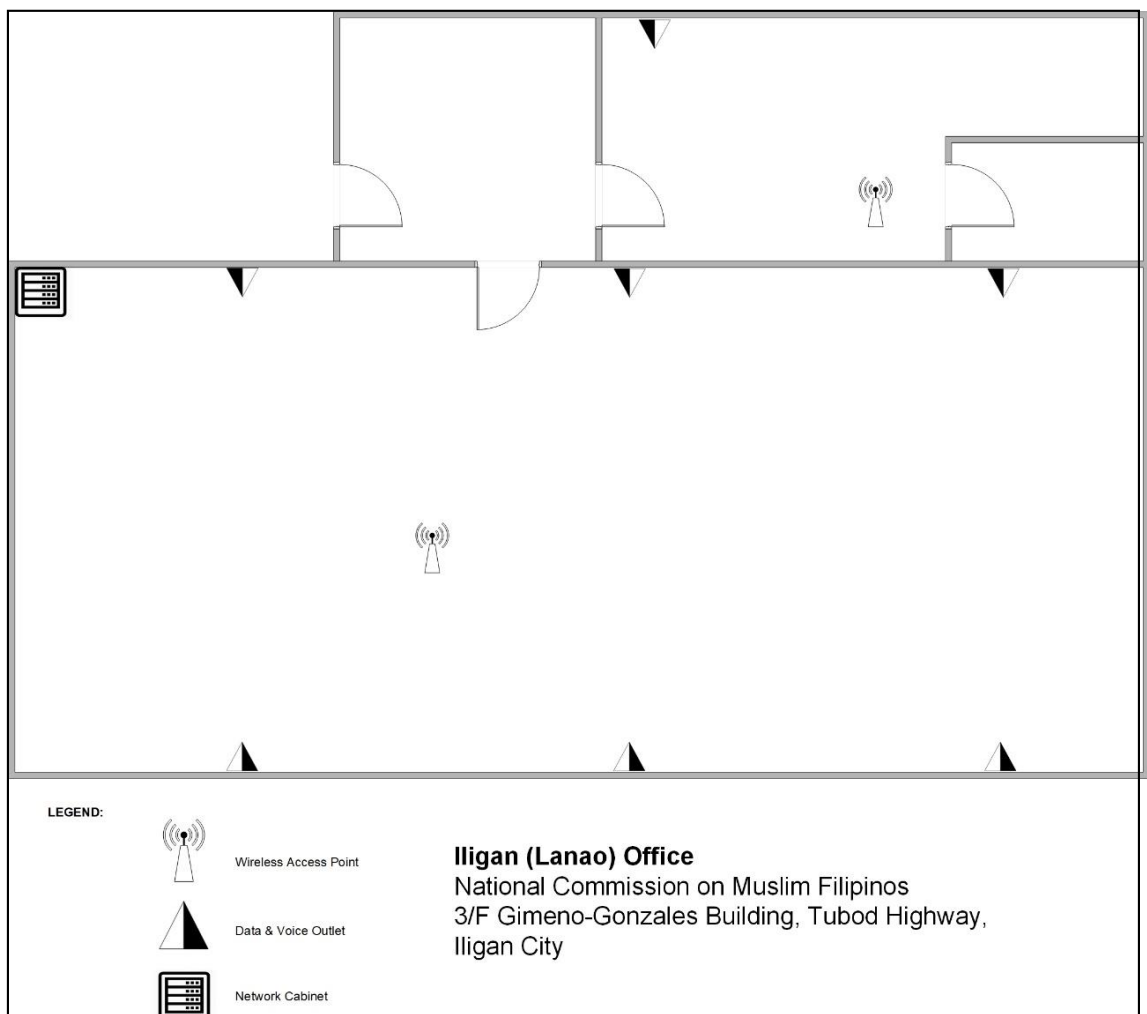
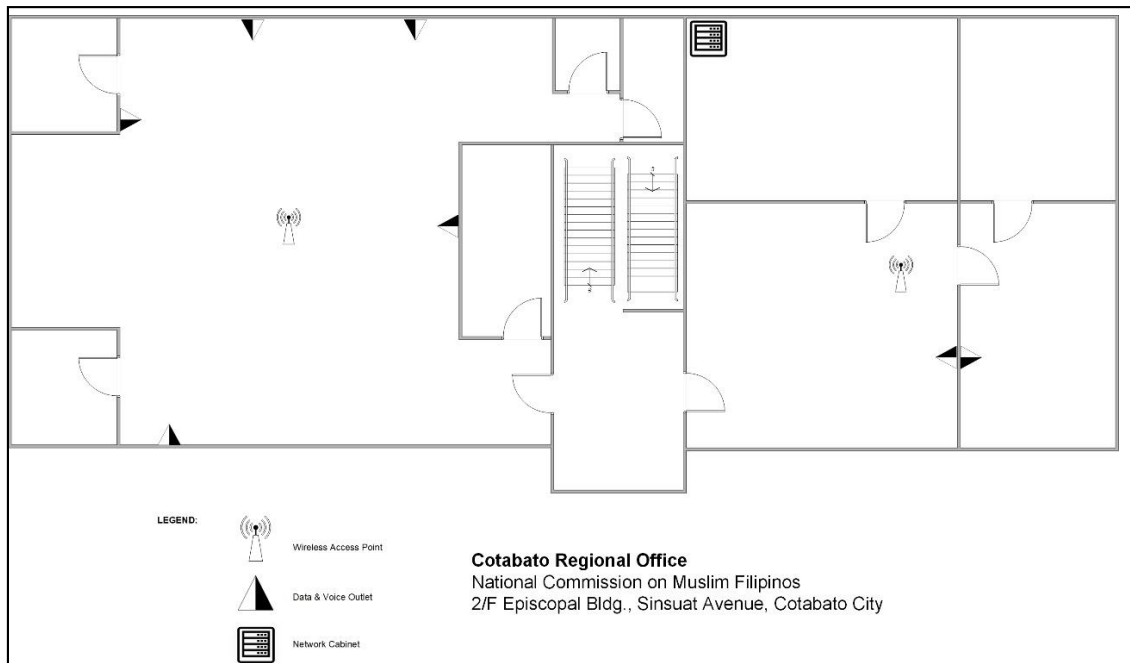
G. AREA/LOCATION/FLOOR LAYOUT WHERE SERVICES/ITEMS WILL BE PROVIDED AND DELIVERED

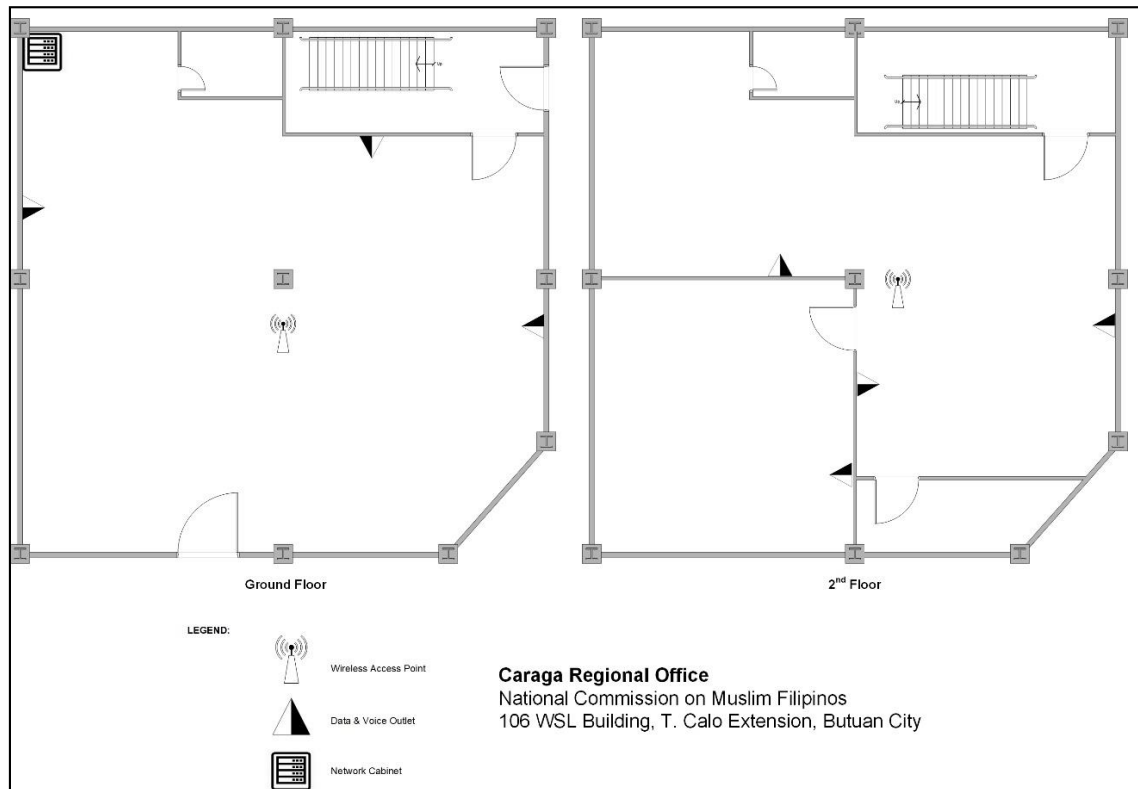












H. **EXPECTED DELIVERABLES (OUTPUTS)**

The expected deliverables (outputs) of this project are the following:

- An Inception Report describing the activities, methodology, milestones, time table and resources to implement this project;
- A fully operational Wireless Local Area Network (LAN) and Voice over Internet Protocol (VoIP) Telephone System for eleven (11) regional offices of the National Commission on Muslim Filipinos (NCMF);
- A total of One Hundred Fifty Four (154) universal I/O ports (VoIP and Data) for eleven (11) regional offices of the National Commission on Muslim Filipinos;
- Twenty Two (22) Managed Switch (PoE);
- Eleven (11) Network closed cabinet;
- Eleven (11) UPS;
- Twenty Five (25) Wireless Access points;
- Thirteen (13) VPN Routers;
- Two (2) Wireless Controller;
- Eighty Five (85) VoIP Phones;
- Eleven (11) VoIP PBX Appliance;
- Fifteen (15) Conference Webcam FHD;
- Fifteen (15) Video Conferencing Microphones;
- Two Hundred Ninety Four (294) Wireless USB Adapters;
- Two Hundred Ninety Four (294) Inkjet Printer;
- Two (2) ID Card Printer;
- Five (5) Document Scanner with feeder;
- Two (2) Network Attached Storage (NAS);
- Sixteen (16) NAS Hard Drive;
- Closed Circuit Television (CCTV) 8 Camera Set;

- u. One (2) Fingerprint Door Lock;
- v. Two (2) Server Airconditioner unit;
- w. One (1) Server Airconditioner unit Controller;
- x. Basic Training for at least one (1) System Administrator for each site in the following but not limited to:
 - i. Local Area Networking (LAN) Administration (UTP/STP)
 - ii. Maintenance management and Troubleshooting of LAN Cabling (UTP/STP)
 - iii. Proper color combination and crimping of UTP and STP cables
 - iv. Network Switch configuration, management and troubleshooting
- g. As built plan for the project, in hard and soft copy.

I. IMPLEMENTATION ARRANGEMENTS INCLUDING ROLES AND RESPONSIBILITIES:

A. Within the Project duration, the NCMF shall:

1. Provide a technical working committee to supervise and monitor the project, to wit:

ABDULAZIZ P. ABUBAKAR (Head) Computer
Maintenance Technologist III Management
Information System Division (MISD) Planning
Service
Cellphone No. 09176282148
Email: apabubakar@ncmf.gov.ph

ASHREFA RASMIA M. ALONTO
Computer Programmer III
Management Information System Division (MISD)
Planning Service
Cellphone No. 09176514048
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KATHERINE LAGMAN
Statistician I
Planning Service
Cellphone No. 09262094760
Email: kclagman@up.edu.ph

AHMAD S. LATIP
Supervising Administrative Officer
General Services Division (GSD)
Administrative Service
Cellphone No. 09177248752
Email: butch_latip@yahoo.com

ICT FOCAL PERSONS
Per Regional Office
(To be announce)

2. Provide person Administrative matters such as access to site, permits and payment etc.
3. Facilitate access to information, documents, facilities and others needed by the Prospective Bidder to perform services.

4. Approve the proposed working schedule of the provider.
5. Provide temporary ID to all personnel involved.
6. Grant authorized representative access to premises as well as equipment and all facilities located therein to perform the Prospective Bidder's obligations.

B. Within the Project duration the winning Prospective Bidder shall:

1. Perform services professionally based on industry standards and always protect the interest of the government in general and the NCMF in particular.
2. Provide list of certified engineers/technical support team with addresses and contact numbers, involved and other activities related to the project.
3. Secure for the permits, licenses and approvals which are or maybe necessary to perform services.
4. Provide a chief officer or program manager who will be directly in charge of managing the project, and a day-to-day contact personnel in charge of operations.
5. Submit a proposed working schedule for approval in order for NCMF to inform the involved parties and secure security pass and working permit.
6. Ensure that all personnel involved in the project must be in proper uniform, because it will be their identification from the rest of NCMF.
7. Protect privacy of NCMF and ensure that all confidential information and data on its ICT infrastructure are kept confidential. A Non-Disclosure Agreement shall be signed by the authorized representative of the supplier firm and duly notarized.

J. QUALIFICATION OF THE PROSPECTIVE BIDDER:

The Prospective Bidder must pass the following Qualifications:

Qualification	Document Required	When Required
Extensive knowledge, background and technical experience in a great number of projects covering Structured LAN Cabling infrastructure, and Network installation and configuration	Company Profile	Post Qualification
Must have an office branch in Luzon, Visayas and Mindanao		
Should have been at least engaged for three (3) years in various ICT services such as Structured LAN Cabling infrastructure, Fiber Optic installation and Network installation and configuration	Statement of completed and similar contract Statement of Similar Completed Contract	Technical
With 24x7 (including holidays) helpdesk system that accept cases and monitors the progress of each open case incident	Service Level Agreement proposal that will include Description of existing Help Desk system and Certification of the existence of a 24 x 7 (including holidays) helpdesk system that accept cases and monitors the progress of each open case incident.	Post qualification

K. SUPPLEMENTAL DOCUMENTS NEEDED FOR BIDDING

A. Technical documents:

1. Certification of After Sales Service and Parts;
2. After Sales Support

B. Post-qualification Requirement

1. Original Brochure or downloaded from the internet.
2. Warranty terms and conditions;

C. SCC for acceptance:

1. Warranty certificates of equipment for one (1) year
2. Service Level Agreement
3. Integration Test results including configuration diagram
4. Draft Maintenance Agreement after the warranty period.

L. INSTRUCTION FOR PROPOSAL PREPARATION :

- A. The Prospective Bidders are expected to examine all terms and instructions included in the bid documents. Failure to provide all requested information will be at the proponent's risk and may result in the rejection of his proposal.
- B. Project implementation arrangements. If a consortium or joint venture, additional discussion must be provided on working arrangements among parties to meet the project requirements.
- C. Company Profile

The proponent, as well as its partners if consortium or joint venture, is/are expected to discuss in detail their company profile giving emphasis to:

1. Organizational history, structure and staffing patterns, and affiliation, if any;
2. An outline of recent experiences similar to the nature, magnitude and scope of this project. The information should include a brief project
3. Major achievements, service portfolio or services offered by the firm, experience or engagements both local and international related to Structured LAN Cabling Infrastructure (Client Name, Client Address, Client Telephone No., Project Description, Programming Language used if applicable).

Prepared by:

ABDULAZIZ P. ABUBAKAR

Acting Chief
Management and Information System Division (MISD)

Noted by:

Recommending Approval:

HAIDEE V. AMPATUAN, MNSA

Director III, Planning Service

TAHIR S. LIDASAN JR., CESO II

Executive Director

Approved by:

SAIDAMEN B. PANGARUNGAN

Secretary
National Commission on Muslim Filipinos

NCMF REGIONAL OFFICE	OFFICE AREA (per Square Meter)
1. NCR (Quezon City)	300 m ²
2. North Luzon (Pampanga)	225 m ²
3. South Luzon (Rizal)	122 m ²
4. Visayas (Cebu)	560 m ²
5. Zamboanga	250 m ²
6. Sulu (Jolo)	270 m ²
7. Northern Mindanao (Cagayan De Oro)	146.46 m ²
8. Davao	275 m ²
9. Cotabato	309 m ²
10. Lanao (Iligan)	78.24 m ²
11. Caraga (Butuan)	200 m ²