

## **Terms of Reference**

### **ICT Equipment and Peripherals**

#### **Background**

The Department of Tourism (DOT) is the national government agency responsible for tourism development planning, implementing standards and regulations, evaluating and facilitating the formulation of policies that will enable sustainable tourism development and the provision of a healthy business environment.

In order to do this, DOT employees must have functioning and updated ICT equipment such as but not limited to desktops, laptops, servers, productivity software and uninterrupted power supplies (UPS) to be able to work efficiently and provide access analyze and process data to produce relevant statistics, thereby providing the necessary service needed from the DOT.

#### **Justification**

The current ICT equipment situation at the DOT central office through the inventory conducted by the IT Division showed that most of the desktops, laptops, UPS, and other ICT peripherals are beyond its maximum life span with some equipment as old as 1993. This has render the old equipment as non-functional, beyond repair, obsolete, and could not meet the demand of the workload and the current technology. Among others, breakdown of equipment that can result in data loss that can hamper the DOT operating units' operations. There is an issue concerning security and insufficient productivity software such as but not limited to Microsoft Office and security update which needs immediate action.

The lack of ICT equipment at the DOT central and regional offices result to sharing of ICT equipment such as but not limited to desktop, laptop, printer and tablets with a ratio of 3:1 resulting to inefficiency the operation of the agency. Further, the newly created offices are lacking desktop and laptop for their daily operations.

#### **Objective**

- To provide efficient and reliable delivery of service to the different tourism stakeholders and the general public.
- To provide officials and staff of the DOT with functional and working ICT equipment, which can aid the different operating units in the performance of its functions.

## I. Technical Specification

### A. Managed 24-Port Gigabit POE Switch

Description
Standard - IEEE 802.3, 802.3u, 802.3x, 802.3ab, 802.3az, 802.3AF/AT
Number of Ports- 24 Gigabit
MAC Address Table Size- 8,000 entries
Power Over Ethernet: Standards – 802.3af/at Capable Ports – Ports 1 – 12 Power Budget – 100 W
Switching Capacity – 48Gbps
Max. Forwarding Rate – 35.71 Mpps
Quality of Service- 802.1p and DSCP
Status LEDs- Link, speed, and activity indicators
Power Supply- Internal
Power- 110–240V AC, 50/60Hz
Max. Power Consumption – 128.3 W (PoE on), 21.2 W (PoE off)
Standby Power Consumption – 13.0 W
Ventilation – One Fan
Temperature (Operating)- -5 to 50°C (23 to 122°F)
Temperature (Storing)- -40 to 70°C (-40 to 158°F)
Humidity (Operating)- 10 to 90% (non-condensing)
Mounting- Rack mount
Warranty – 1 year

### B. Mesh (3 Pcs. Per Pack)

Description
Simultaneous Tri-band : WiFi 6 AX3600 (1800 + 1200 + 600Mbps)
Explicit Beamforming : 2.4GHz & 5GHz bands
MU-MIMO capable: For simultaneous data streaming
Processor: Router & Satellites- Powerful quad-core 1.5GHz processor each
Ports: Three (3) 10/100/1000Mbps Gigabit Ethernet LAN ports One (1) 10/100/1000Mbps Gigabit Ethernet WAN ports
Uplink & downlink OFDMA <sup>1</sup>
Ethernet backhaul
Dynamic QoS

<b>Security:</b> Standards-based WiFi Security (802.11i, 128-bit AES encryption with PSK) WPA3 Secure Boot Push Button WPS/SYNC support
Warranty and Support - 1 year

### C. Network Test Kit

Description
<b>General Specs</b>
Operating temperature: 32 °F to 104 °F (0 °C to 40 °C)
Storage temperature: -4 °F to +140°F (-20 °C to °C)
Operating relative humidity (% RH without condensation) 95 % (50 °F to 95 °F; 10 °C to 35 °C) 75 % (95 °F to 104 °F; 35 °C to 40 °C) Uncontrolled < 50 °F (< 10 °C)
Vibration: Random, 2 g, 5 Hz-500 Hz
Shock: 1 m drop test
Safety: EN 61010-1, Category: None
Altitude: 3000 m
EMC: EN 61326-1, FCC Part 15 B
Battery type and life: 9 V alkaline (NEDA 1604A or IEC 6LR61); 20 hours typical
<b>Applications</b> Copper cabling media including; 75 or 50 Ohm Coaxial cable; Two Conductor control, security, generic cabling. 10 Base-T or 10/100 Base-T datacom networks. UTP cable. Shielded Twisted Pair supported in Cablemap function of the IntelliTone 200.
<b>TONER SPECS</b>
Dimensions: 5.54 in x 2.94 in x 1.25 in (14.1 cm x 7.5 cm x 3.2 cm)
Display: LED
Control: Thumbwheel switch
<b>Toner interface:</b> Main Mod8 port for tone generation on all 4 pairs of UTP / STP cabling. F Connector for coaxial cabling Banana Jack Plugs (2) - two conductor wiring
<b>Toner frequency:</b> IntelliTone™ signal: encoded digital signal Analog SmartTone signal: 500 - 1200Hz, 4 songs
Output power: 5 V p-p
Auto power down: Turns off automatically after 2 1/2 hours of inactivity
<b>PROBE SPECS</b>
Dimensions: 8.73 in x 1.88 in x 1.26 in (22.2 cm x 4.8 cm x 3.2 cm)
Display: (8) LED indicators, Sync LED indicator

Audio: IntelliTone: Microprocessor controlled audio files Analog: Detected toner signal
Control: Thumbwheel switch, volume control wheel
Tone detection: Detects IntelliTone™ digital signal for Locate, Isolate, and CableMap Detects analog SmartTone signal (500-1200Hz) and other analog toners.
Toner interface: Main Mod8 port for cablemap on all 4 pairs of UTP / STP cabling.
Auto power down: Turns off automatically after 1 hour of inactivity

#### D. All-in-One Colored Printer

Description	
<b>Ink</b>	
Number of Nozzles	Total 1,792 nozzles
Ink Bottles (Type / Colours)	GI-71 (Pigment / Black),(Dye-Based Ink / Cyan, Magenta, Yellow)
Maintenance Cartridge	MC-G02
<b>Maximum Printing Resolution</b>	4,800 (horizontal)*1 x 1,200 (vertical) dpi
Document (ESAT/Simplex)	9.1 / 5 ipm (mono/colour)
Document (FPOT Ready/Simplex)	9 / 16 sec (mono/colour)
Photo (4 x 6") (PP-201/Borderless)	45 sec
<b>Printable Width</b>	Up to 203.2 mm (8") Borderless: Up to 216 mm (8.5")
<b>Printable Area</b>	
Borderless Printing*3	Top/Bottom/Left/Right margin: each 0 mm
Bordered Printing	Envelope (COM10/DL): Top margin: 8 mm, Bottom margin: 12.7 mm, Left/Right margin: 3.4 mm  Envelopes (C5/Monarch): Top margin: 8 mm, Bottom margin: 12.7 mm, Left/Right margin: 5.6 mm  Square 5 x 5" (127 x 127 mm): Top/Bottom/Left/Right margin: 6 mm  Square 3.5 x 3.5" (89 x 89 mm): Top/Bot/Left/Right margin: 5mm

	<p>LTR/LGL/Foolscap/B-Oficio:  Top margin: 3 mm,  Bottom margin: 5mm,  Left margin: 6.4 mm,  Right margin 6.3 mm</p> <p>M-Oficio:  Top margin: 3 mm,  Bottom margin: 5 mm,  Left/Right margin: 6.4 mm</p> <p>Others:  Top margin: 3 mm,  Bottom margin: 5 mm,  Left/Right margin: 3.4 mm</p>
<b>Support Media</b>	
Rear Tray	<p>Plain Paper (64-105 g/m<sup>2</sup>)  Photo Paper Pro Luster (LU-101)  Photo Paper Plus Glossy II (PP-201/PP-208)  Matte Photo Paper (MP-101)  Double Sided Matte Paper (MP-101D)  Glossy Photo Paper "Everyday Use" (GP-508)  High Resolution Paper (HR-101N)  Photo Paper Plus Semi-Gloss (SG-201)  Photo Stickers (PS-208/PS-808)  Envelope</p>
<b>Paper Size</b>	
Rear Tray	<p>A4, A5, A6, B5, LTR, LGL, Executive (184.2 x 266.7 mm), Legal (India) (215 x 345 mm), Foolscap (215.9 x 330.2 mm), F4 (215.9 x 330.2 mm), Oficio2 (215.9 x 330.2 mm), B-Oficio (216 x 355 mm), M-Oficio (216 x 341 mm), 4 x 6", 5 x 7", 7 x 10", 8 x 10", Envelopes DL, Envelopes COM10, Envelopes C5, Envelopes Monarch (98.4 x 190.5 mm), Square (3.5 x 3.5", 5 x 5"), Card Size (91 x 55 mm)</p> <p>Custom size:  width 55 - 216 mm,  length 89 - 1200 mm</p>
Paper Size (Borderless)	<p>A4, LTR, 4x6", 5x7", 7x10", 8x10" Square (3.5 x 3.5", 5 x 5"), Card Size (91 x 55 mm)</p>
<b>Scan</b>	
Scanner Type	Flatbed

Scanner Method	CIS (Contact Image Sensor)
Optical Resolution*6	600 x 1,200 dpi
Scanning Bit Depth (Input/Output)	
Grayscale	16 bit/8 bit
Colour	RGB each 16 bit/8 bit
Line Scanning Speed	
Grayscale	1.5 ms/line (300 dpi)
Colour	3.5 ms/line (300 dpi)
Maximum Document Size	
Flatbed	A4/LTR
<b>Network</b>	
Protocol	SNMP, HTTP, TCP/IP (IPv4/IPv6)
<b>Wireless LAN</b>	
Network Type	IEEE802.11b/g/n
2.4GHz Channel (1 - 11)	US/HK/TW/LTN/BR/CAN
2.4GHz Channel (1 - 13)	JP/KR/EUR/AU/ASA/CN/EMBU
Security	WEP 64/128 bit WPA-PSK (TKIP/AES) WPA2-PSK (TKIP/AES)
Direct Connection (Wireless LAN)	Available
<b>System Requirements</b>	
<p>Windows 10 / 8.1 / 7 SP1  (operation can only be guaranteed on a PC with  a pre-installed Windows 7 or later)  macOS 10.12.6 ~ 10.15  Chrome OS</p>	
<b>General Specifications</b>	
Operational panel	
Display	2-Line LCD
Language	32 Selectable Languages: Japanese / English / German / French / Italian / Spanish / Dutch / Portuguese / Norwegian / Swedish / Danish / Finnish / Russian / Czech / Hungarian / Polish / Slovene / Turkish / Greek / Simplified Chinese / Traditional Chinese / Korean / Indonesian / Slovakian / Estonian / Latvian / Lithuanian / Ukrainian / Romanian / Bulgarian / Thai / Croatian / Vietnamese
Interface	USB 2.0

<b>PictBridge (Wireless)</b>	Available
<b>Operating Environment</b>	
Temperature	5 - 35°C
Humidity	10 - 90% RH (no dew condensation)
<b>Power</b>	AC 100-240 V, 50/60 Hz
<b>Power Consumption (Approx.)</b>	
OFF	0.2 W
Standby (scanning lamp is off) USB connection to PC	0.6 W
Copying* <sup>13</sup> USB connection to PC	16 W
Duty Cycle	Up to 3,000 pages/month
<b>Dimensions (WxDxH) (Approx.)</b>	
Factory Configuration	445 x 330 x 167 mm
Output/ADF Trays Extended	445 x 555 x 238 mm
<b>Weight (Approx.)</b>	6.4 kg

### E. UTP Cable Cat5e

Description
<p><b>CONDUCTOR :</b>  Number of Pairs: 4  Total Number of Conductors: 8  AWG: 24  Stranding: Solid  Conductor Material: BC - Bare Copper</p>
<p><b>INSULATION :</b>  Insulation Material: PO - Polyolefin</p>
<p><b>Number Color</b>  1 White/Blue Stripe &amp; Blue  2 White/Orange Stripe &amp; Orange  3 White/Green Stripe &amp; Green  4 White/Brown Stripe &amp; Brown</p>
<p><b>OUTER SHIELD :</b>  Outer Shield Material: Unshielded</p>
<p><b>OUTER JACKET :</b>  Outer Jacket Material: PVC - Polyvinyl Chloride  Outer Jacket Ripcord: Yes</p>
<p><b>OVERALL NOMINAL DIAMETER :</b>  Overall Nominal Diameter: .195 in.</p> <p>Operating Temperature Range: -20°C To +75°C  Bulk Cable Weight: 29 lbs/1000 ft.  Max. Recommended Pulling Tension: 35 lbs.  Min. Bend Radius (Install): 0.5 in.</p>
<p><b>APPLICABLE STANDARDS :</b></p>

NEC/(UL) Specification: CM, UL444 CEC/C(UL) Specification: CM IEC Specification: 11801 Category 5 TIA/EIA Specification: 568-B.2 Category 5e Other Specification: NEMA WC-63.1 Category 5e, UL verified to Category 5e
<b>FLAME TEST :</b> UL Flame Test: UL1685 UL Loading CSA Flame Test: FT1
<b>PLENUM/NON-PLENUM :</b> Plenum (Y/N): N Plenum Number: 1585A <b>ELECTRICAL CHARACTERISTICS :</b>
Nom. Mutual Capacitance @ 1 KHz: 15 pF/ft Maximum Capacitance Unbalance (pF/100 m): 330 pF/100 m Nominal Velocity of Propagation: 70 % Maximum Delay (ns/100 m): 538 @ 100MHz ns/100 m Maximum Delay Skew (ns/100m): 45 ns/100 m Maximum Conductor DC Resistance @ 20 Deg. C: 9.38 Ω/100 m Maximum DCR Unbalance @ 20 Deg. C: 3 % Max. Operating Voltage - UL: 300 V RMS

#### F. External Hard Disk Drive

- 2TB Capacity - USB 3.0 or higher - Form Factor: 2.5 inch
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#### G. Rj45 (1000pcs)

#### H. Rj45 Rubber Boots (1000pcs)

### Summary

Item	Qty	Total Amount
Managed 24-Port Gigabit POE Switch	2	Php 55,618.00
Mesh (3 pcs. Per pack)	1	Php 33,479.00
Network Test Kit	1	Php 40,987.00
All-in-One Colored Printer	2	Php 26,190.00
UTP Cable Cat5e	3	Php 22,098.00
External Hard Disk Drive	3	Php 12,150.00
Rj45	1000	Php 10,000.00
Rj45 Rubber Boots	1000	Php 5,000.00
<b>Total Amount</b>		<b>Php 205,522.00</b>




**Project Cost:**

Total budget **PhP 205,522.00** inclusive of VAT chargeable against ITD 2023 funds.

**Mode of Payment:** Government Procedure


**Delivery:** 45 days upon receipt of Purchase Order

Project Officer:



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