

SPECIAL BIDS AND AWARDS COMMITTEE FOR FREE WI-FI INTERNET ACCESS IN PUBLIC PLACES PROJECT (BAC4FREEWIFI)

Supplemental Bid Bulletin No. 8

PROCUREMENT OF SYSTEM MANAGEMENT AND ACCESS PHASE 2 (SMA2)

Bid Reference No. BAC4FREEWIFI-2016-07-015 (REBID)

After considering the queries, clarifications, recommendations and suggestions, the BAC4FREEWIFI hereby decides to include, revise, amend, delete and/or adapt the following provisions:

ORIGINAL PROVISION					AMENDED PROVISION				
Section VII. Technical Specifications									
1.3. The SERVICE shall be necessarily interoperable and compatible with the SMA1 Service at no cost to the DICT; Interoperability Requirements such as but not limited to: 1. Authentication Authorization and Accounting (AAA) Service; 2.DNS and other necessary services; 3. Routing of SMA 1 MPOP traffic to SMA1 Core and 4. Priority routing of government services and applications such as but not limited to 8888 and 911 calling.					1.3. The SERVICE shall be necessarily interoperable and compatible with the SMA1 Service at no cost to the DICT; Interoperability Requirements such as but not limited to: 1. Authentication Authorization and Accounting (AAA) Service; 2.DNS and other necessary services; 3. Routing of SMA 1 MPOP traffic to SMA1 Core; 4. Priority routing of government services and applications such as but not limited to 8888 and 911 calling and 5. <u>use of SMA1 facility, equipment and network for some sites required in this tender;</u>				
2. APPROVED BUDGET FOR THE CONTRACT (ABC). The Approved Budget for the Contract (ABC) for service under this tender is PESOS: FOUR HUNDRED FORTY MILLION THREE HUNDRED NINETY-TWO THOUSAND FIVE HUNDRED (PHP 440,392,500.00)					2. APPROVED BUDGET FOR THE CONTRACT (ABC). The Approved Budget for the Contract (ABC) for service under this tender is PESOS: FOUR HUNDRED FORTY MILLION THREE HUNDRED NINETY-TWO THOUSAND FIVE HUNDRED (PHP 440,392,500.00)				
Table 1					Table 1				
No.	Component Managed Service (CMS)	# CMS Instances	Monthly Service Fee, PhP (MSF)	Sub-Total ABC, PhP (12 x MSF)	No.	Component Managed Service (CMS)	# CMS Instances	Monthly Service Fee, PhP (MSF)	Sub-Total ABC, PhP (12 x MSF)
1	Operations Management	1	124,149.00	1,490,100.00	1	Operations Management	1	<u>139,159.00</u>	<u>1,669,908.00</u>

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ORIGINAL PROVISION					AMENDED PROVISION				
2	Core	1	235,833.00	2,829,996.00	2	Core	1	<u>258,159.00</u>	<u>3,097,908.00</u>
3	Point of Presence (PoP)	18	22,042.00	4,761,072.00	3	Point of Presence (PoP)	18	<u>23,800.00</u>	<u>5,140,800.00</u>
4	Municipal Point of Presence (mPoP)	619 sites*	8,458.00*	62,826,024.00	4	Municipal Point of Presence (mPoP)	619 sites*	<u>9,150.00*</u>	<u>67,966,200.00</u>
5	Site Access (Wi-Fi)	4670 sites*	varies, see below	141,588,708.00	5	Site Access (Wi-Fi)	<u>4780 sites*</u>	varies, see below	<u>128,944,800.00</u>
-	Site Auxiliary Connectivity Service Add-On Option	18542 mbps*	varies, see below	226,896,600.00	-	Site Auxiliary Connectivity Service Add-On Option	<u>19062 mbps*</u>	varies, see below	<u>233,572,884.00</u>
Total ABC				440,392,500.00	Total ABC				<u>440,392,500.00</u>

* Maximum number of instances

* Maximum number of instances

Table 2

Table 2

No.	Wi-Fi CMS Concurrent User Capacity	# CMS Instances	Monthly Service Fee, PhP (MSF)	Sub-Total ABC, PhP (12 x MSF)	No.	Wi-Fi CMS Concurrent User Capacity	# CMS Instances	Monthly Service Fee, PhP (MSF)	Sub-Total ABC, PhP (12 x MSF)
5a	1 - 50 users	3,373	2,833.00	114,668,508.00	5a	1 - 50 users	<u>3,481</u>	<u>2,520.00</u>	<u>105,265,440.00</u>
5b	51 - 100 users	491	1,100.00	6,481,200.00	5b	51 - 100 users	491	<u>970.00</u>	<u>5,715,240.00</u>
5c	101 - 200 users	609	800.00	5,846,400.00	5c	101 - 200 users	<u>611</u>	<u>710.00</u>	<u>5,205,720.00</u>
5d	201 - 400 users	176	6,300.00	13,305,600.00	5d	201 - 400 users	176	<u>5,500.00</u>	<u>11,616,000.00</u>
5e	401 - 600 users	11	5,900.00	778,800.00	5e	401 - 600 users	11	<u>5,200.00</u>	<u>686,400.00</u>
5f	601 - 800 users	10	4,235.00	508,200.00	5f	601 - 800 users	10	<u>3,800.00</u>	<u>456,000.00</u>
Total ABC				141,588,708.00	Total ABC				<u>128,944,800.00</u>

2.1 While the DICT provisioned site connectivity, or that provided by a partner public institution, will in some cases be available, it can be expected that many sites shall not have the necessary connectivity available. At such sites, auxiliary connectivity add-on services shall be required as indicated in the Annexes and summarized as follows:

2.1 While the DICT provisioned site connectivity, or that provided by a partner public institution, will in some cases be available, it can be expected that many sites shall not have the necessary connectivity available. At such sites, auxiliary connectivity add-on services shall be required as indicated in the Annexes and summarized as follows:

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Table 3					Table 3				
No.	Wi-Fi CMS Auxiliary Connectivity Add-On Option Concurrent User Capacity	Total mbps per Income Class	Monthly Service Fee, PhP (MSF), per mbps	Sub-Total ABC, PhP (12 x MSF)	No.	Wi-Fi CMS Auxiliary Connectivity Add-On Option Concurrent User Capacity	Total mbps per Income Class	Monthly Service Fee, PhP (MSF), per mbps	Sub-Total ABC, PhP (12 x MSF)
5*a	Class 1 City Connectivity	3,399	1042.00	42,501,096.00	5* a	Class 1 City Connectivity	3,474	1042.00	43,438,896.00
5*b	Class 2 City Connectivity	637	1083.00	8,278,452.00	5* b	Class 2 City Connectivity	700	1083.00	9,097,200.00
5*c	Class 3 City Connectivity	828	1083.00	10,760,688.00	5*c	Class 3 City Connectivity	1024	1083.00	13,307,904.00
5*d	Class 4 City Connectivity	520	1167.00	7,282,080.00	5* d	Class 4 City Connectivity	520	1167.00	7,282,080.00
5*e	Class 1 Municipality Connectivity	10,022	1000.00	120,264,000.00	5* e	Class 1 Municipality Connectivity	10,077	1000.00	120,924,000.00
5*f	Class 2 Municipality Connectivity	3,084	1000.00	37,008,000.00	5*f	Class 2 Municipality Connectivity	3,114	1000.00	37,368,000.00
5*g	Class 4 Municipality Connectivity	9	1195.00	129,060.00	5* g	Class 3 Municipality Connectivity	48	1000.00	576,000.00
5*h	Class 5 Municipality Connectivity	15	1250.00	225,000.00	5* h	Class 4 Municipality Connectivity	37	1195.00	530,580.00
5*i	Class 6 Municipality Connectivity	28	1334.00	448,224.00	5* i	Class 5 Municipality Connectivity	40	1250.00	600,000.00
Total ABC				226,896,600.00	5* i	Class 6 Municipality Connectivity	28	1334.00	448,224.00
					Total ABC				
					233,572,884.00				
7.4 CONNECTIVITY SLA ENFORCEMENT SUB-SERVICE. This mission-critical sub-service shall provide the DICT with a monthly SLA compliance report for all contracted IP transport services across the network; and,					7.4 CONNECTIVITY MONITORING, FAULT ESCALATION and SLA ENFORCEMENT SUB-SERVICE. This mission-critical sub-service shall provide the DICT with a monitoring, escalation (including trouble ticketing) and monthly SLA compliance report for all contracted IP transport services across the network including iGOV (GOVNET) facilities; and,				
11.3 The List of Required Total Sites shall be final prior to the execution of the Contract.					11.3 The List of Required Total Sites shall be final prior to the execution of the Contract. No site shall be a duplicate (same site name and location; more than 60% overlapping coverage) of any from the prior SMA tenders.				

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All terms, conditions and instructions to bidders specified in the Bidding Documents inconsistent with this Bid Bulletin are hereby superseded and modified accordingly.

Please use the following forms attached in this Supplemental Bid Bulletin No. 8:

- Revised Technical Specifications as of 29 September 2016

Please refer to the following Revised Annexes uploaded in the DICT Website together with this Supplemental Bid Bulletin No. 8:

- Revised D.3. Municipal PoP CMS Instances as of 29 September 2016
- Revised D.4.1. Wi-Fi CMS Instances – Summary as of 29 September 2016
- Revised D.4.2. Wi-Fi CMS Instances - List of Mandatory Sites as of 29 September 2016
- Revised D.4.3. Wi-Fi CMS Instances - List of Non-Mandatory Sites as of 29 September 2016

Please note that the previously issued Annexes are hereby superseded. Bidders who bought the bidding documents will be provided with the Excel file of these Revised Annexes.

For information and guidance of all concerned.

Issued this 29th September 2016.

(Original Signed)

MARIA TERESA MAGNO-GARCIA

Chairperson, BAC4FREEWIFI

(Bidder's Company Letterhead)

Procurement of System Management and Access 2 (SMA2) Service

BAC4FREEWIFI-2016-07-015 (REBID)

**REVISED TECHNICAL SPECIFICATIONS
AS OF 29 SEPTEMBER 2016**

INSTRUCTION TO THE SUPPLIER: Indicate **"COMPLY"** per line number under **Bidder's Statement of Compliance** if Bidder can meet the technical specifications and project requirements. **DO NOT LEAVE ANY BLANK.** A **"YES"** or **"NO" ENTRY WILL NOT BE ACCEPTED. FAILURE TO CONFORM WILL RESULT IN A RATING OF "FAILED"**.

MINIMUM SPECIFICATIONS	STATEMENT OF COMPLIANCE
<p>1. GENERAL DESCRIPTION</p>	
<p>1.1. The Free Wi-Fi Internet Access in Public Places project, the "PROJECT", of the DICT aims to provide as a free public service Wi-Fi Internet access at select public places across the country. From 2016, the PROJECT is expanded in scope and now aims to cover municipalities in <u>all</u> Income Classes;</p>	
<p>1.2. This tender is for the supply of the "Phase 2 System Management & Access (SMA2) Service", (the SERVICE), that is composed of <u>interdependent</u> Component Managed Services (CMS), with <u>multiple instances</u> of them at <u>various locations</u>. The PROJECT's earlier tender for the SMA Service shall herein be considered the "Phase 1 SMA (SMA1) Service";</p>	
<p>1.3. The SERVICE shall be necessarily interoperable and compatible with the SMA1 Service at no cost to the DICT; Interoperability Requirements such as but not limited to: 1. Authentication Authorization and Accounting (AAA) Service; 2.DNS and other necessary services; 3. Routing of SMA 1 MPOP traffic to SMA1 Core; 4. Priority routing of government services and applications such as but not limited to 8888 and 911 calling and 5. use of SMA1 facility, equipment and network for some sites required in this tender;</p>	
<p>1.4. The SERVICE shall be composed of five (5) CMS: 1) Operations Management; 2) Core; 3) Point of Presence (PoP); 4) Municipal Point of Presence (mPoP); and 5) Site Access (Wi-Fi). The PoP CMS, mPoP CMS, and Wi-Fi CMS shall have multiple instances.</p>	

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1.5.	To aid BIDDERS, the following annexes are provided:	
1.5.1.	ANNEX A: System Service Stack Overview	
1.5.2.	ANNEX B.1: System Abstract Link Diagram	
1.5.3.	ANNEX B.2: Typical Link Diagram for Sites in Metro Manila	
1.5.4.	ANNEX B.3: Typical Link Diagram for Site in a PoPs	
1.5.5.	ANNEX C: General Schedule Diagram	
1.5.6.	ANNEX D.1: Core CMS Instance	
1.5.7.	ANNEX D.2: Point of Presence (PoP) CMS Instances	
1.5.8.	ANNEX D.3: Municipal PoP (mPoP) CMS Instances	
1.5.9.	ANNEX D.4: Site Access (Wi-Fi) CMS Instances	
1.5.9.1.	ANNEX D.4.1. Site Access (Wi-Fi) CMS Instances – Summary	
1.5.9.2.	ANNEX D.4.2. Site Access (Wi-Fi) CMS Instances – List of Mandatory Sites	
1.5.9.3.	ANNEX D.4.3. Site Access (Wi-Fi) CMS Instances – List of Non-Mandatory Sites	
1.5.10.	ANNEX E: Sample Captive Portal and Landing Page	
1.6.	An electronic workbook containing the raw data from which the Annexes D.1 – D.4 were generated will also be available on the DICT website to aid bidders. In case of any discrepancies, the digitally signed data contained herein, including the annexes, shall be considered authoritative.	
1.7.	This tender is composed of one (1) lot for itemized subscriptions to CMS instances;	
1.8.	The Mode of Procurement for this Project is Public Bidding.	
1.9.	The Nature of the Procurement is Services.	

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2. **APPROVED BUDGET FOR THE CONTRACT (ABC).** The Approved Budget for the Contract (ABC) for service under this tender is **PESOS: FOUR HUNDRED FORTY MILLION THREE HUNDRED NINETY-TWO THOUSAND FIVE HUNDRED (PHP 440,392,500.00)**

Table 1				
No.	Component Managed Service (CMS)	# CMS Instances	Monthly Service Fee, PhP (MSF)	Sub-Total ABC, PhP (12 x MSF)
1	Operations Management	1	139,159.00	1,669,908.00
2	Core	1	258,159.00	3,097,908.00
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4	Municipal Point of Presence (mPoP)	619 sites*	9,150.00*	67,966,200.00
5	Site Access (Wi-Fi)	4780 sites*	varies, see below	128,944,800.00
-	Site Auxiliary Connectivity Service Add-On Option	19062 mbps*	varies, see below	233,572,884.00
Total ABC				440,392,500.00

* Maximum number of instances

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Table 2				
No.	Wi-Fi CMS Concurrent User Capacity	# CMS Instance s	Monthly Service Fee, PhP (MSF)	Sub-Total ABC, PhP (12 x MSF)
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2.1. While the DICT provisioned site connectivity, or that provided by a partner public institution, will in some cases be available, it can be expected that many sites shall not have the necessary connectivity available. At such sites, auxiliary connectivity add-on services shall be required as indicated in the Annexes and summarized as follows:

Table 3				
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<p>2.2. The above add-on service options should not be considered as separate sub-services but rather as integral to the corresponding mPoP or Wi-Fi CMS instances specified. The DICT reserves the right to decline deployment of an add-on service option in case it is later determined that an option is no longer necessary, or to deploy the add-on option at another site where it is found necessary.</p>	
<p>2.3. BIDDERS should note that the ABC has been computed with the assumption that the DICT would be considered at most as the <i>anchor tenant</i> that would only provide "breakeven" revenue. The tender however has been designed so that the provider could share the facilities and services with other tenants, while meeting the DICT's requirements under this tender.</p>	
<p>2.4. Use of any or all data generated by this Project, shall be subject to the prior written approval of the Head of DICT, and other pertinent government rules and regulations.</p>	
<p>2.5. Information shared, transmitted and provided to between the Supplier and the DICT shall not be disclosed to any third party</p>	
<p>2.6. The captive portal is controlled and its contents determined by the DICT. However, the landing page created, administered and owned by the BIDDER through which the monetization aspect of the SERVICE is to be carried out, shall be operated under the following conditions:</p>	
<p>2.6.1. The landing page is private in nature, and for which reason, the BIDDER shall be solely responsible for its contents, and any liability or obligation arising there from is understood to be its own, and the DICT, its officials, agents and employees shall be free from all such liabilities and claims for damages and/or suits.</p>	
<p>2.6.2. BIDDER shall insure that the landing page shall be of such nature, form and design that it shall be of value to the end user or the general public, and any content which shall be offensive or contrary to law, morals and public policy must not be allowed and the same is strictly prohibited.</p>	
<p>2.7. A sample diagram and illustration of the design and ownership of the captive portal and the landing page is attached hereto as Annex E.</p>	

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<p>3. PROPOSAL SUBMISSION AND EVALUATION. A BIDDER should submit one proposal that 1) satisfies the specifications and requirements given herein; 2) provides a Monthly Service Fee (MSF) value for each CMS given above; and 3) results in a total BID PRICE, equal to the MSF of each CMS multiplied by the maximum number of instances thereof that does not exceed the ABC; PROPOSALS shall be submitted using the form provided and shall include the MSF of each CMS listed.</p>	
<p>4. DURATION AND EFFECTIVITY OF CONTRACT(S)</p>	
<p>4.1. CMS instances shall be <u>individually</u> contracted, under its Master Agreement, for TWELVE (12) months of service and can be extended while being subjected for government procurement process;</p>	
<p>4.2. The contract for a CMS instance shall start from the issuance of the Certificate of Acceptance and shall remain in effect until such a time that $12 * 365 / 12$ days of service shall have been received; and</p>	
<p>5. DELIVERY. CMS instances shall be made available as follows:</p>	
<p>5.1. Within SIXTY (60) DAYS from the NTP: 1) all mission-critical components of the Operations Management CMS; 2) Core CMS; 3) PoP CMS instances in Dagupan City, Batangas City, Mabalacat City, Cebu City, Cotabato City, Zamboanga City and Davao City;</p>	
<p>5.2. Within NINETY (90) DAYS from the NTP: all PoP CMS instances in all other locations; and,</p>	
<p>5.3. Within ONE HUNDRED TWENTY (120) DAYS from the NTP: all non-mission-critical components of the Operations Management CMS; and,</p>	
<p>5.4. All mPoP and Wi-Fi CMS instances shall be delivered according to the following schedule, which is given relative to the receipt of the Notice-To-Proceed (NTP) and the availability of the required upstream connectivity (IPTM):</p>	
<p>5.4.1. Within NINETY (90) DAYS, one third ($\frac{1}{3}$) of all CMS;</p>	
<p>5.4.2. Within ONE HUNDRED TWENTY (120) DAYS, two thirds ($\frac{2}{3}$) of all CMS; and,</p>	
<p>5.4.3. Within ONE HUNDRED FIFTY (150) DAYS, all CMS.</p>	

6. GENERAL REQUIREMENTS	
6.1.	<p>The SERVICE shall provide for at least 60 million registered users and 120 million registered device IDs, of which 145,000 users/devices can be concurrent at any given time, generating up to 25,000 Mbps of aggregated international and domestic Internet traffic and a minimum of 435,000 authenticated/non-authenticated sessions, across up to 4670 sites through up to 3,000 service providers.</p> <p>The SERVICE shall support the DICT central office, its eight (8) Field Operations Offices (FOO) and its eighty-one (81) FOO Provincial Offices (FOO-PO), and up to 5,000 other partner public institutions and service providers of the PROJECT;</p>
6.2.	The SERVICE shall secure an ASN number and use the public Internet IP addresses to be provided by the DICT.
6.3.	The SERVICE shall provide management and control access through a Virtual Private Network (VPN) service accessible through the public Internet with a dedicated internal VLAN to all CMS instances at all System Levels;
6.3.1.	VPN access shall use TLS authentication with machine and user digital certificates issued by the National PKI operated by the DICT to ensure security and accountability;
6.3.2.	VPN service at System Levels 1 and 2 (i.e. Core and PoPs) shall be considered mission-critical .
6.4.	The SERVICE shall monitor and provide a proactive solution against
6.4.1.	DOS/DDOS Attacks;
6.4.2.	Man-in-the-middle Attacks (including but not limited to SSID spoofing);
6.4.3.	Malwares; and,
6.4.4.	Other malicious threats, working closely with all connectivity providers. The service must be able to provide timely software or firmware updates to mitigate new and emerging threats.
6.5.	The SERVICE shall implement a Fair Usage Policy (FUP) that shall regulate user/device service parameters, including speed (bandwidth), data volume, and connection time, that will vary based on the Registration Level of a user/device, and possibly the time-of-day.

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6.5.1. An initial Fair Usage Policy (FUP) shall be implemented by imposing limits on the amount of data a user will be allowed as follows:

Level	Registration	Data Allocation	
		Daily	Monthly
3	Gov't Digital Certificate	300 MB	3 GB
2	Gov't ID / Passport	100 MB	2 GB
1	Device ID	50 MB	1 GB

6.6. These data limits will apply to traffic carried by the Domestic IP Transport (IPTD) Service or the International IP Transport (IPTI) Service of the PROJECT. Data sourced through the GovNet or PREGINET, or from any caches, or from PH OpenIX shall not impact a user's data limit.

6.7. The available bandwidth at a site shall be prioritized corresponding to its Registration Level of each users/device as follows:

Level	Registration	User/Device Traffic Priority
3	Gov't Digital Certificate	High
2	Gov't ID / Passport	Medium
1	Device ID	Low

6.8. All parameter and limit values given should be considered indicative and may be modified by the DICT during actual operations.

7. **OPERATIONS MANAGEMENT CMS.** This CMS shall provide various **mission-critical** and **non-mission-critical** sub-services:

7.1. QUALITY OF EXPERIENCE (QoE) OPTIMIZATION SUB-SERVICE. This sub-service shall seek to optimize the Quality of Experience (QoE), to be defined by the DICT, within the constraints of the available resources. On a monthly basis, a comprehensive report shall be submitted with all adjusted targets for the following month and the steps that will be taken to achieve those;

7.2. NETWORK OPERATIONS MANAGEMENT SUB-SERVICE. This **mission-critical** sub-service shall provide web-based real-time multi-user map- and table- based network management services for the entire network, and shall have the following characteristics, capacities and/or capabilities:

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7.2.1.	Scope-configurable real-time dashboards and on demand reporting for all activities/traffic across the entire network showing various pertinent Performance Information/Measures/Trends and Fault Management/Tracking, including, but not limited to, compliance to the Service Level Agreement requirements of all PROJECT IP Transport Services;	
7.2.1.1.	All metrics must and can be reported on different degrees of granularity such as, but not limited to the following:,	
7.2.1.1.1.	per user	
7.2.1.1.2.	per access point	
7.2.1.1.3.	per beneficiary site	
7.2.1.1.4.	per locality	
7.2.1.1.5.	per province	
7.2.1.1.6.	per region	
7.2.1.1.7.	per POP	
7.2.1.1.8.	per island group	
7.2.1.1.9.	overall network;	
7.2.1.2.	Also includes, but not limited to, success rate of captive portal users (i.e. attempts by end-user devices to associate with the SERVICE's access points and monitor if the end-user device were able to utilize the network and generate traffic); and	
7.2.2.	Also includes CPU and memory utilization for all network components.	
7.2.3.	A service dashboard shall be made publicly accessible via the Internet containing various real time metrics such as number of online users, total system traffic, QoS metrics, etc. including bandwidth usage, application/traffic usage and average throughput rate. All metrics must and can be reported on different degrees of granularity as specified above.	
7.2.4.	Remote network administration and testing across the entire network with an appropriate configurable multi-user privilege system;	
7.2.5.	Accessible throughout the PROJECT's private IP address space, and the through public Internet through a secure means; and,	
7.2.6.	Uses a cloud-based map service that is also used for public map services (e.g. OpenStreetMap, Google Maps, Bing Maps, etc.) to display network equipment locations specifically access points, with a color coding scheme to indicate access point status.	

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<p>7.2.7. The SERVICE must be able to dump raw data from system and network equipment to a DICT server in CSV or other delimited text file format.</p>	
<p>7.2.8. The SERVICE should be able to detect and report in real-time the location of DOS, DDOS, man-in-the-middle (inc. SSID spoof), rogue access points, malware and hacking attempts within the network.</p> <p>The report must specify which specific network element (router, switch or access point) or server (AAA, DNS, cache, DHCP, etc.) was threatened or affected by the malicious threat and the time it was detected.</p>	
<p>7.2.9. The SERVICE must be able to notify select group of people via email and/or SMS for changes in configuration, access point and network equipment alarms, downtime and restorations.</p> <p>The notification must be real time and have configurable tiers of severity, e.g. critical, major, minor. For example, notifications for minor items will be sent only to staff. However, notifications for major and critical items will be sent to both engineers and directors (service/FOO/PM).</p>	
<p>7.3. <u>USER SUPPORT (HELPDESK) SUB-SERVICE</u>. This mission-critical sub-service shall provide a multi-level web-based user/provider ticketing service that shall also be appropriately accessible through SMS, voice, e-mail and an online web-based forum channels.</p> <p>It will also allow multiple third parties to participate in operating the services based on from which site a request is made, from any location within the PROJECT;</p>	
<p>7.4. <u>CONNECTIVITY MONITORING, FAULT ESCALATION and SLA ENFORCEMENT SUB-SERVICE</u>. This mission-critical sub-service shall provide the DICT with a monitoring, escalation (including trouble ticketing) and monthly SLA compliance report for all contracted IP transport services across the network including iGOV (GOVNET) facilities; and,</p>	
<p>7.5. <u>SITE MONITORING & TESTING SUB-SERVICE</u>. This sub-service shall provide a custom smartphone application with geolocation information, with source code, that will be provided for use by Site Coordinators and other personnel.</p>	

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<p>7.5.1. Sites are expected to be operational 24x7. Initial troubleshooting will be done with coordination with the site coordinator. After initial troubleshooting and issue cannot be rectified by the site coordinator, the SERVICE is expected deploy ground personnel to further isolate and rectify the issue.</p>	
<p>8. CORE CMS. A single instance of this CMS shall comprise System Level 1 and shall provide network core services (sub-services) able to meet the GENERAL REQUIREMENTS. The CORE CMS instance shall be implemented as a 2-node symmetrical failover cluster, with load balancing, with each node hosted at different locations as given in "Annex: Core CMS Instance". The DICT shall provide access to two (2) unlit fiber cores, on an AS-IS basis that would form a physical ring between the two (2) nodes.</p>	
<p>This CMS shall provide the following sub-services: 8.1. ROUTING & SWITCHING SUB-SERVICE. This mission-critical sub-service shall provide general IP traffic handling and management services, and shall have the following characteristics, capacities and/or capabilities:</p>	
<p>8.1.1. Four (4) or more 10GbE ports <u>at each node</u>, with RJ-45 handovers, supporting link aggregation for the IPTI Service that will provide the international IP transport services to connect this Core CMS to the offshore Internet;</p>	
<p>8.1.2. Four (4) or more 10GbE ports <u>at each node</u>, with RJ-45 handovers, supporting link aggregation for the IPTD Service that will provide the IP transport service to connect the PoP CMS instances;</p>	
<p>8.1.3. Twenty four (24) or more GigE ports and forty eight (48) or more Fast Ethernet ports at each node, with RJ-45 handovers, supporting link aggregation, for the IPTM and/or IPTS services that will provide IP transport services that will provide the IP transport services to connect mPoP and Wi-Fi CMS instances;</p>	
<p>8.1.4. Supports IPv4 and native IPv6 traffic (dual stacked), and routing protocols RIP, OSPF, IS-IS, BGP, IPv6 BGP and OSPFv3 protocols; and,</p>	
<p>8.1.5. Supports the ITU-T Y.1564/RFC 5357 Two-Way Active Measurement Protocol (TWAMP) on all 10GbE ports, and provides an ITU-T Y.1564/RFC 5357 link testing and monitoring service.</p>	
<p>8.1.6. Must be highly resilient with a physical and logical separation of data and control plane with a minimum of four (4) dedicated processing units (cores)</p>	

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8.1.7.	Must be highly available with both hardware and software redundancy (back-up) easily activated/restored if necessary	
8.1.8.	Equipment supplier's quality management system must be ISO 9001 certified	
8.1.9.	The SUB-SERVICE must route SMA 1 traffic from any POP site thru their interconnection with SMA1	
8.1.10.	Must be capable of a minimum 100 Gbps aggregated throughput	
8.1.11.	Must be able to prioritize specific applications, including but not limited to voice, thru QOS and bandwidth allocation	
8.2.	<u>MASTER AUTHENTICATION, AUTHORIZATION AND ACCOUNTING (AAA) SUB-SERVICE.</u> This mission-critical sub-service shall provide master AAA services for all users, providers, and component equipment/services of the PROJECT, and shall have the following characteristics, capacities and/or capabilities:	
8.2.1.	A response time that shall not exceed 50 mS at full load conditions;	
8.2.2.	Uses open protocol standards, particularly RADIUS and optionally DIAMETER, throughout, and shall interoperate with the AAA services of the Single Sign-On (SSO) service of the iGovPhil Project, and shall be likewise capable of interoperation with other open standard AAA services such as those of Google, Microsoft, Facebook, etc.;	
8.2.3.	Detects and/or blocks access to lost, damaged, rouge or tampered Access Points from associating with the PROJECT's network; and,	
8.2.4.	Master for all redundant slaves at System Level 2.	
8.3.	<u>PH GOVERNMENT PKI VERIFICATION SUB-SERVICE.</u> This mission-critical sub-service shall provide verification services for digital certificates issued by the PH Government Root Certificate Authority (CA) under the Philippine National PKI (PNPKI), and shall have the following characteristics, capacities and/or capabilities:	
8.3.1.	Capable of handling at least five hundred 500 verification requests per second;	
8.3.2.	Integrates with the existing verification services operated under the Philippine National PKI (PNPKI);	

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<p>8.3.3. Uses Certificate Revocation Lists (CRLs) that conform to standards and specifications in RFC 5280 as updated by RFC 6818 published by Internet Engineering Task Force (IETF); Provides the verifications services through the Online Certificate Status Protocol (OCSP) that conforms to the standards and specifications in RFC 6960 as published by the Internet Engineering Task Force (IETF); and,</p>	
<p>8.3.4. Master for all redundant slaves at System Level 2.</p>	
<p>8.4. <u>MASTER DNS FORWARDER/CACHE (DNS-F/C) SUB-SERVICE</u>. This mission-critical sub-service shall provide DNS forwarding and caching services for all URL references by the system and its users, and shall have the following characteristics, capacities and/or capabilities:</p>	
<p>8.4.1. Prefers the use of root DNS servers peered at PH OpenIX;</p>	
<p>8.4.2. Implements a Whitelist/Blacklist; and,</p>	
<p>8.4.3. Master for all redundant slaves at System Level 2.</p>	
<p>8.5. <u>DHCP SUB-SERVICE</u>. This mission-critical sub-service shall provide private IP address space(s) sufficient to service the required user/device capacities for the PROJECT, and shall have the following characteristics, capacities and/or capabilities:</p>	
<p>8.5.1. All critical components of shall be assigned static IP addresses corresponding to their MAC address; and,</p>	
<p>8.5.2. Master for all redundant slaves at System Level 2. Alternatively, this service may be provisioned in whole or in part, at the Wi-Fi CMS instances (see Section 8) provided the APs used have built-in DHCP services, so that the DHCP servers at IP Core, PoP, and mPoP will only handover DHCP addresses to the APs and not to the users directly.</p>	
<p>8.6. <u>MASTER CAPTIVE PORTAL (CP-M) SUB-SERVICE</u>. This mission-critical sub-service shall provide capture portal services customizable on a per-Site basis with higher levels of groupings such as by municipality, by city, etc. possible, and shall have the following characteristics, capacities and/or capabilities:</p>	
<p>8.6.1. Has a landing page response time of no more than 5 seconds under full load conditions;</p>	
<p>8.6.2. Has an administrative and management web-based multi-user interface, with an appropriate multi-user privilege system;</p>	
<p>8.6.3. Implements a multi-level user registration & login system using the AAA sub-service as follows:</p>	

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	<p>8.6.3.1. <u>Level 1</u>: This will only require the machine ID (MAC address) of a device for a user to gain access after ensuring that the device shall actually be in use by a human through an appropriate method implemented at the Captive Portal greeting page;</p>	
	<p>8.6.3.2. <u>Level 2</u>: Registrations at this level shall require that a user provide Philippine government issued ID number, or in the case of a foreigner, a valid passport number, through a web-based registration system that would accept all vital information as compliant to the standards and protocols to be prescribed by the DICT; 2-factor authentication will required using an e-mail address; the e-mail address and a password defined by the user shall be used for the account which user will may then use on multiple devices; each account will initially be valid for a month upon which the SERVICE with its provided back office system will validate user information with the information gathered from the different National Government Agencies; Account management (e.g. data usage monitoring daily and monthly, change of password) for the user will also be provided; and,</p>	
	<p>8.6.3.3. <u>Level 3</u>: A user will be issued a Digital Certificate subject to the requirements of the National Public Key Infrastructure that will be used to gain access to the public service;</p>	
	<p>8.6.4. Has a template-based Content Management System (CMS) that allows global customization whose form and content shall be determined by the PROJECT, unless otherwise authorized in writing; CMS must have different degrees permission in drafting, publishing and editing the captive portal;</p>	
	<p>8.6.4.1. The CMS must enable and allow 24x7 simultaneous access from DICT and all LGUs. Each LGU under the SERVICE shall be given an exclusive account which can edit and publish only content and shall not allow them to edit other LGU's captive portal content;</p>	

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8.6.4.2.	The CMS must enable and allow DICT and/or its representatives to create content especially general public service announcements which can be broadcasted on different tiers, e.g. nationwide, region wide or at the municipal level.	
8.6.4.3.	The CAPTIVE PORTAL shall be multi-platform, able to adapt to desktop and/or mobile environments and maintain aesthetic form;	
8.6.4.4.	The CMS must enable and allow DICT and/or its representatives ability to monitor postings from other LGUs, directly access them for reviewing whenever violation reports are received against a certain content and putting down unwanted content;	
8.6.4.5.	The SERVICE shall not restrict DICT to change and optimize the CAPTIVE PORTAL experience as suited.	
8.6.5.	Has an end-user concern ticketing and messaging service; and,	
8.6.6.	Master for all redundant slaves at System Level 2.	
8.7.	MASTER CACHE (CACHE) SUB-SERVICE. This mission-critical sub-service shall include a transparent proxy caching service with a capacity of 4TB per cache per location, and shall have the following characteristics, capacities and/or capabilities:	
8.7.1.	Has a web browser display for reporting Cache statistics such as cache hit rate, bandwidth allocation, actual usage, and bandwidth savings graphs/report;	
8.7.2.	Shares content with other caches, both internal or external to the SERVICE; and,	
8.7.3.	Master for all redundant slaves at System Level 2.	
8.8.	NETWORK OPERATIONS CENTER (NOC) SUB-SERVICES. This sub-service this shall be provided through five (5) workstations each with two (2) 32" screens for dashboards and other purposes at the DICT Central Office;	
8.9.	MONITORING & TESTING SUB-SERVICE. This sub-service shall provide SNMP v2c or higher, LirneAsia, Ookla SpeedTest (server), M-Lab services, as well as, ITU-T Y.1564/RFC 2544 Two-Way Active Measurement Protocol (TWAMP) services for measuring/testing of SLR Agreements with connectivity services;	

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8.10.	<u>3RD PARTY CACHE HOSTING SUB-SERVICE.</u> This sub-service shall provide server hosting services as may be arranged on a case-by-case basis, and shall have the following characteristics, capacities and/or capabilities:	
8.10.1.	Capacity to host 18U of servers with a power capacity of 6 kW.	
8.11.	<u>CONNECTIVITY SERVICE HOSTING SUB-SERVICE.</u> This sub-service provides hosting of terminal equipment for connectivity service providers, and shall have the following characteristics, capacities and/or capabilities:	
8.11.1.	Provides at least 21U of EIA-310 ("19") rack space; and,	
8.11.2.	Provides up to 20A of 220 VAC utility electricity.	
8.12.	<u>UNINTERRUPTIBLE POWER SUPPLY SUB-SERVICE.</u> This sub-service shall be made available at all locations, and shall provide 220 VAC electric power with a power capacity of 15 kVA sustainable for 1 hour.	
8.13.	<u>AVAILABILITY.</u> Generally, all sub-services shall be made 99.5% available on a 24-hour basis. Mission-critical sub-services shall however be made 100% available on a 24-hour basis. Failure of a mission-critical sub-service at one node shall not be considered as a violation of the SLR provided the failure is mitigated by the other node, and the SERVICE continues to effectively provide the sub-service.	
8.14.	<u>LOCATIONS, PHYSICAL FACILITIES AND UTILITIES.</u> This service shall be implemented as symmetrical nodes at the following locations:	
8.14.1.	DICT, C.P. Garcia Avenue in Diliman, Quezon City; and,	
8.14.2.	DOST ASTI Office, C.P. Garcia Avenue in Diliman, Quezon City.	
8.14.3.	Each node of this sub-service shall have the following characteristics, capacities and/or capabilities:	
8.14.3.1.	Contained within no more than three (3) EIA-310 (19") racks of standard height (42U), or the equivalent, unless authorized by prior agreement;	
8.14.3.2.	Have a total power requirement of not exceeding 125% of the capacity of the Uninterruptible Power Supply Sub-Service; and,	

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<p>8.14.3.3. Complies with the section below entitled "GENERAL REQUIREMENT ON THE USE OF FACILITIES AND UTILITIES".</p>	
<p>9. POINT OF PRESENCE (PoP) CSM. Instances of this CMS shall comprise System Level 2, and shall provide network services (sub-services) and have an instance at each of the eighteen (18) locations as given in "Annex: Point of Presence (PoP) CMS Instances". Each CMS instance shall have the capacity to service at least one eighth (1/8) of the GENERAL REQUIREMENTS, and be implemented at each location as a 2-node symmetrical failover cluster, with load balancing.</p>	
<p>All instances of this CMS shall provide the following sub-services: 9.1. ROUTING & SWITCHING SUB-SERVICE. This mission-critical sub-service shall provide network routing and switching services, and shall have the following characteristics, capacities and/or capabilities:</p>	
<p>9.1.1. Four (4) or more 10GigE ports and Four (4) or more GigE ports with RJ-45 handovers, supporting link aggregation for the IPTD2 Service that will provide the IP transport services to connect to one or more PoP and/or Core CMS instances; and,</p>	
<p>9.1.2. Twenty four (24) or more GigE ports and forty eight (48) or more Fast Ethernet ports at each node, with RJ-45 handovers, supporting link aggregation, for the IPTM and/or IPTS services that will provide IP transport services that will provide the IP transport services to connect mPoP and Wi-Fi CMS instances;</p>	
<p>9.1.3. Must be highly resilient with a physical and logical separation of data and control plane with a minimum of four (4) dedicated processing units (cores)</p>	
<p>9.1.4. Must be highly available with both hardware and software redundancy (back-up) easily activated/restored if necessary</p>	
<p>9.1.5. Equipment supplier's quality management system must be ISO 9001 certified</p>	
<p>9.1.6. The subservice for the POPs in Cotabato City, Cauayan City, Lipa City and Butuan City shall accommodate termination from IPTM and IPTS which have MPOP CMS under SMA 1, traffic of which should be routed to the CORE</p>	

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9.1.7.	Must be capable of a minimum 5 Gbps aggregated throughput	
9.1.8.	Must be able to prioritize specific applications, including but not limited to voice, thru QOS and bandwidth allocation	
9.2.	<u>SLAVE AAA, DHCP, DNS-F/C, CP, CACHE SUB-SERVICES.</u> These mission-critical sub-services shall provide services that will be slaves to the master services provided by the Core Service. Slave services shall include the AAA, DHCP, DNS-F/C, CP, and CACHE services.	
9.3.	<u>3RD PARTY CACHE HOSTING SUB-SERVICE.</u> This sub-service shall provide general 3rd party cache/server hosting services, and shall have the following characteristics, capacities and/or capabilities.	
9.3.1.	Capacity to host 18U of servers with a power capacity of 6 kW.	
9.4.	<u>NETWORK OPERATIONS CENTER (NOC) SUB-SERVICES.</u> This sub-service this shall be provided through two (2) workstations each with two (2) 32" screens for dashboards and other purposes at each of the eighteen (18) instance of a Point of Presence CMS.	
9.5.	<u>MONITORING & TESTING SUB-SERVICE.</u> This sub-service provides SNMP v2c or higher, LinneAsia, Ookla SpeedTest (server) and M-Lab services, as well as, ITU-T Y.1564/RFC 2544 Two-Way Active Measurement Protocol (TWAMP) services for measuring/testing SLR Agreements with Site Connectivity services.	
9.6.	<u>CONNECTIVITY SERVICE HOSTING SUB-SERVICE.</u> This sub-service provides hosting of terminal equipment for connectivity service providers, and shall have the following characteristics, capacities and/or capabilities:	
9.6.1.	Provides at least 16U of EIA-310 ("19") rack space; and,	
9.6.2.	Provides up to 20A at 220 VAC utility electricity;	
9.7.	<u>UNINTERRUPTIBLE POWER SUPPLY SUB-SERVICE.</u> This sub-service shall be made available at all locations, and shall provide 220 VAC electric power with a power capacity of 10 kVA sustainable for 1 hour.	
9.8.	<u>AVAILABILITY.</u> Generally, all sub-services shall be made 99.5% available on a 24-hour basis. Mission-critical sub-services shall however be made 100% available on a 24-hour basis.	

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	<p>9.8.1. Failure of a mission-critical sub-service at one node shall not be considered as a violation of the SLR provided the failure is mitigated by the other node, and the SERVICE continues to effectively provide the sub-service.</p>	
<p>9.9.</p>	<p>LOCATIONS, FACILITIES AND UTILITIES. This service shall have an instance at each of the locations in the Annex "Point of Presence (PoP) CMS Locations". Each instance shall have the following characteristics, capacities and/or capabilities:</p>	
	<p>9.9.1. Contained within no more than three (3) EIA-310 (19") racks of standard height (42U), or the equivalent, unless authorized by prior agreement;</p>	
	<p>9.9.2. Have a total power requirement of not exceeding 125% of the capacity of the Uninterruptible Power Supply Sub-Service; and,</p>	
	<p>9.9.3. Complies with the section below entitled "GENERAL REQUIREMENT ON THE USE OF FACILITIES AND UTILITIES".</p>	
<p>9.10.</p>	<p>WIRED INTERNET ACCESS SUB-SERVICE This sub-service provides three (3) GigE ports and five (5) usable IP addresses. Internet traffic will be allowed and routed to the ports but should provide same security features and protection as provided by the IP Core. The throughput is nominally at full capacity and may change as per agreed with DICT.</p>	
<p>10.</p>	<p>MUNICIPAL POINT OF PRESENCE (mPoP) CMS. Instances of this CMS shall comprise System Level 3 and shall be made available at each location as given in "Annex: Municipal Point of Presence (mPoP) CMS Instances". All instances of this CMS shall provide the following sub-services:</p>	
<p>10.1.</p>	<p>ROUTING & SWITCHING SUB-SERVICE. This sub-service shall provide network core services with the capacity to handle a minimum of 1 Gbps of aggregated backhaul traffic, up to 1 Gbps of aggregated local IP traffic, and shall have the following characteristics, capacities and/or capabilities:</p>	
	<p>10.1.1. Provides two (2) or more GigE/Fast Ethernet ports as appropriate, with RJ-45 handovers, supporting link aggregation for the IPTM service that will provide the IP transport services to connect one or more PoP and/or Core CMS instances;</p>	

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10.1.2.	Provides twenty (24) or more Fast Ethernet or better ports, with RJ-45 handovers, for the IPTS services that will provide the IP transport services to connect Wi-Fi CMS instances.	
10.1.3.	Equipment supplier's quality management system must be ISO 9001 certified	
10.1.4.	Must be highly resilient with a physical and logical separation of data and control plane, with multiple, dedicated processing units	
10.1.5.	Must be remotely manageable by SNMP, TELNET and/or SSH especially during under full and heavy load	
10.1.6.	Must be able to prioritize specific applications, including but not limited to voice, thru QOS and bandwidth allocation	
10.2.	<u>MONITORING & TESTING SUB-SERVICE.</u> This sub-service provides SNMP v2c or higher, LinneAsia, Ookla SpeedTest (server) services, as well as, ITU-T Y.1564/RFC 2544 Two-Way Active Measurement Protocol (TWAMP) services for measuring/testing SLR Agreements with connectivity services.	
10.3.	<u>CONNECTIVITY SERVICE HOSTING SUB-SERVICE.</u> This sub-service provides hosting of terminal equipment for connectivity service providers, and shall have the following characteristics, capacities and/or capabilities:	
10.3.1.	Provides at least 8U of EIA-310 ("19") rack space;	
10.3.2.	Provides up to 20A of 220 VAC utility electricity;	
10.4.	<u>UNINTERRUPTIBLE POWER SUPPLY SUB-SERVICE.</u> This sub-service shall be made available at all locations, and shall provide 220 VAC electric power with a power capacity of 500 watts, and an additional 100 W per 100 concurrent user, sustainable for 1 hour.	
10.5.	<u>AVAILABILITY.</u> The SERVICE shall be available at 97.9% on 24-hour basis.	
10.6.	<u>LOCATIONS, FACILITIES AND UTILITIES.</u> These services shall be implemented within the premises of the DICT or a partner public institution designated by the DICT, or in public space such as on a sidewalk, or on utility facilities such an electric pole, with the outdoor installation preferred, and shall have the following characteristics, capacities and/or capabilities:	
10.6.1.	Contained within no more than one (1) EIA-310 (19") rack of half (21U) the standard height (42U), or the equivalent, unless authorized by prior agreement;	

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	<p>10.6.2. Have a total power requirement of not exceeding 125% of the capacity of the Uninterruptible Power Supply Sub-Service; and,</p>	
	<p>10.6.3. Complies with the section below entitled “GENERAL REQUIREMENT ON THE USE OF FACILITIES AND UTILITIES”.</p>	
	<p>10.7. <u>FINAL TESTING & ACCEPTANCE (FTA)</u>. FTA for an instance of these services will be performed only after connectivity between the instance and an instance in each of the higher system levels has been established. It is only upon completion of the FTA that a Certificate of Final Acceptance approved by the Head of the DICT will be issued to mark the commencement of the billing period.</p>	
	<p>10.8. <u>WIRED INTERNET ACCESS SUB-SERVICE</u>. This sub-service provides three (3) GigE ports and five (5) usable IP addresses. Internet traffic will be allowed and routed to the ports but should provide same security features and protection as provided by the IP Core. The throughput is nominally at full capacity and may change as per agreed with DICT.</p>	
	<p>11. SITE ACCESS (Wi-Fi) CMS. Instances of this CMS shall be capable of providing Wi-Fi access service as specified for each Site in “Annex: Wi-Fi CMS Instances”.</p>	
	<p>11.1. The SERVICE shall establish a Site Access CMS instance for each locality with a predetermined number of mandatory and non-mandatory sites specified to terminate at each given termination point (i.e. mPoP, PoP, Core) CMS in the aforementioned annex.</p>	
	<p>11.2. The DICT shall provide the list of Mandatory and Non-Mandatory (predetermined) Sites. The Bid Offer shall comprise of the Required Total Sites (Mandatory+Non-Mandatory Sites) as stated in Annex D. In the event that the Bidder cannot connect a Mandatory Site beyond its control, the substitution for the Mandatory Site shall only be from the predetermined Non-Mandatory Site which shall be of equivalent Bandwidth AND User Capacity.</p>	
	<p>11.3. The List of Required Total Sites shall be final prior to the execution of the Contract. No site shall be a duplicate (same site name and location; more than 60% overlapping coverage) of any from the prior SMA tenders.</p>	
	<p>11.4. All instances of this CMS shall provide the following sub-services:</p>	

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<p>11.4.1. <u>WI-FI ACCESS SUB-SERVICE</u>. This sub-service shall use a single uniform SSID (Service Set ID) that shall default to "PHFreeWiFi", and shall be provided through Wi-Fi Access Point (AP) equipment having the following characteristics, capacities and/or capabilities:</p>	
<p>11.4.2. Has a factory programmed MAC address that is permanent and not field modifiable;</p>	
<p>11.4.3. Provides Next Generation Hotspot (NGH) Passpoint™ (Release 1 or higher) services (refer to the Wi-Fi Alliance website); (802.11u-2011, 802.11i, 802.1X w/ EAP-SIM) at all locations;</p>	
<p>11.4.3.1. 11.4.3.1 Provides Wi-Fi CERTIFIED™ 802.11 B, G, and N service, with 40 MHz operation in 2.4 GHz, with coexistence mechanisms in the 2.4 GHz band for sites. In addition, provides 40 MHz 802.11 N operation in 5 GHz for locations with a specified capacity of twenty five (25) or more concurrent users and 802.11 N and AC operation in 2.4 and 5 GHz with bandwidths 40MHz (2.4GHz 802.11n), 40 MHz (5GHz 802.11n) and 80 MHz (802.11ac) respectively for locations with a specified capacity of one hundred (100) or more concurrent users; To ensure sufficient coverage, access points (indoor or outdoor) must comply with the following maximum receive sensitivity: 802.11n @2.4GHz @40MHzBW: -92 dBm 802.11n @5GHZ @40MHzBW: -94 dBm 802.11ac @80MHzBW: -84 dBm</p>	
<p>11.4.3.2. Provides 802.1X-RADIUS services supporting at least: EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2;</p>	
<p>11.4.3.3. Capable of SNMP v2c or higher;</p>	

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<p>11.4.3.4. Ability to detect channel interference and adjust accordingly and automatically to maintain the quality of user experience; Detection of channel interference and automatic frequency adjustment must not incur service interruption for our users; also, in case of multiple access points in one beneficiary site, access points must be able to "self-heal" the network via mesh and other means should a failure in the network arise.</p>	
<p>11.4.3.5. Provides AP isolation or similar that prevents client devices connected to same AP from communicating directly with one another; and,</p>	
<p>11.4.3.6. Are of the same brand and product line.</p>	
<p>11.4.3.7. Equipment supplier's quality management system must be ISO 9001 certified</p>	
<p>11.4.3.8. Must be able to prioritize specific applications, including but not limited to voice, thru QOS and bandwidth allocation</p>	
<p>11.4.4. <u>SIGNAGE</u>. Each site shall be provided a weatherproof sign, no less than A1 in size of print, compliant to the Communications Standards and Protocols to be prescribed by the DICT that shall bare the contact information to be provided by the DICT.</p>	
<p>11.4.5. <u>CONNECTIVITY SERVICE HOSTING SUB-SERVICES</u>. These sub-services provide hosting of terminal equipment for IPTS-C/MC/R service providers, and shall have the following characteristics, capacities and/or capabilities:</p>	
<p>11.4.5.1. Provides at least 4U of EIA-310 ("19") rack space, or the equivalent thereof; and,</p>	
<p>11.4.5.2. Provides up to 100 watts of 220 VAC utility electricity;</p>	
<p>11.4.6. <u>UNINTERRUPTIBLE POWER SUPPLY SUB-SERVICE</u>. This sub-service shall be made available at all locations with a User Capacity greater or equal to ten (10), and shall provide 220 VAC electric power with a power capacity of 100 watts, and an additional 100 W per 100 concurrent user, sustainable for 1 hour.</p>	

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<p>11.4.7. <u>AVAILABILITY</u>. These services shall be made available on 24-hour basis at:</p>	
<p>11.4.7.1. 97.9% for a Wi-Fi CMS terminating at a PoP CMS;</p>	
<p>11.4.7.2. 95.8% for a Wi-Fi CMS terminating at a mPoP CMS within the town proper boundary; and,</p>	
<p>11.4.7.3. 91.6% for a Wi-Fi CMS terminating at an mPoP CMS outside the town proper boundary.</p>	
<p>11.4.8. <u>LOCATIONS, FACILITIES AND UTILITIES</u>. These services shall be implemented within the premises, or in the immediate vicinity of, the DICT or a partner public institution designated by the DICT, or in public space such as on a sidewalk, or on utility facilities such an electric pole, and shall have the following characteristics, capacities and/or capabilities:</p>	
<p>11.4.8.1. Contained within no more than one (1) cubic meter per 100 concurrent user capacity, unless authorized by prior agreement;</p>	
<p>11.4.8.2. Have a total power requirement of not exceeding 125% of the capacity of the Uninterruptible Power Supply Sub-Service; and,</p>	
<p>11.4.8.3. Complies with the section below entitled "GENERAL REQUIREMENT ON THE USE OF FACILITIES AND UTILITIES".</p>	
<p>11.4.9. <u>FINAL TESTING & ACCEPTANCE (FTA)</u>. FTA for an instance of these services will be performed only after connectivity between the instance and the Core Service has been established.</p>	
<p>11.4.10. <u>TESTING AND TROUBLESHOOTING TOOL SUB-SERVICE</u> This sub-service shall be made available at all locations and shall provide tools to conduct basic tests such as access point speed and ping test and also basic spectrum analysis for the frequency utilized in the area. Conduction of the tests using such tools shall not interrupt the service.</p>	

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<p>12. OPTIONAL ADD-ON SERVICES</p>	
<p>12.1. SITE AUXILIARY CONNECTIVITY ADD-ON SERVICE. This add-on service shall be made available at the locations indicated in the Annex, and optionally as requested by the DICT, and shall provide the appropriate backhaul connectivity from a site to its specified upstream termination point. The capacity of the connectivity shall be equal or better than that specified for each site, but may be lower with corresponding MSF adjustments and subject to the approval of the DICT;</p>	
<p>12.1.1. <u>Subcontracting</u> shall be allowed; and,</p>	
<p>12.1.2. <u>Wireless</u> solutions may be used, and provided that such shall not be used for non-public-sector purposes outside the scope of the PROJECT. Spectrum usage fees and radio station license fees for wireless links as specified by the NTC shall be borne by the DICT provided these links are not carrying commercial traffic and utilized exclusively for this PROJECT. Solutions may use any wireless technology, including but not limited to TV White Space (TVWS) technologies.</p>	
<p>12.2. TVWS technologies using the VHF TV bands may be used, subject to issuance of the corresponding Memorandum Circular to be issued by the National Telecommunications Commission, and guidelines to be issued by the DICT;</p>	
<p>12.2.1. TVWS technologies using the UHF TV bands may also be used on a PILOT BASIS in the broadcast service areas that do <u>not</u> include Metro Manila, Metro Cebu and Metro Davao, subject to the approval of the DICT; and,</p>	
<p>12.3. Other wireless technologies may be used.</p>	
<p>13. GENERAL REQUIREMENT ON THE USE OF FACILITIES AND UTILITIES</p>	
<p>13.1. Facilities and premises of the DICT and its partner institutions shall be made available on an "AS-IS" basis, with no explicit or implied guarantees, unless explicitly stated, or given by prior written agreement(s);</p>	
<p>13.2. In cases where indoor installation at a designated location will be necessary, the SERVICE shall be responsible for all necessary coordination with the designated location, with when necessary, with reasonable assistance from the DICT and/or its partner institutions;</p>	
<p>13.3. All CMS instances in System Levels 1-3 shall have a separate, duly certified, electric meter, subject to requirements of the DICT and/or its partner institutions;</p>	

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13.4.	Electricity and rent shall be charged once a CMS instance will be used to provide services to non-public sector parties.	
13.5.	Electricity consumptions at System Levels 1-3 shall be charged based on an actual consumption measured less a baseline consumption established prior to the start of commercial service, and the actual electric utility bill of the host institution;	
13.5.1.	Electricity consumptions at Level 4 shall contracted with the supplying institution, which may be by the methodology given previous utilizing an electric meter, or by an agreed upon flat monthly rate; and,	
13.5.2.	Rent shall be charged on a per location basis according to prevailing government regulations.	
13.6.	The SERVICE shall be responsible for any necessary permits and other contractual arrangements required, with reasonable assistance from the DICT and/or its partner institutions;	
14.	OTHER TECHNICAL REQUIREMENTS	
14.1.	The SERVICE shall provide periodic forecast percentage of completion targets, detailed plans, implement and monitor key progress indicators for all related service deliveries & provisions;	
14.2.	The SERVICE shall monitor and provide a proactive solution against DDOS attacks, MAC flooding, ARP spoofing, DNS Cache poisoning, malware-infected sites and other malicious threats transiting through the PROJECT's network; and,	
14.3.	The SERVICE may implement any of the services/sub-services using the domestic public cloud provided all service requirements will be met, and <u>any traffic required for the use thereof</u> shall be to the account of the BIDDER.	
15.	SUPPORT SERVICES	
15.1.	The SERVICE shall coordinate with, and capacitate if necessary, the DICT, in the use of the web-based HELPDESK, the configuration and content provisioning of the CAPTURE PORTAL, and/or other services/sub-service which involve personnel of DICT or its partners; and,	
15.2.	The SERVICE shall provide a fault escalation procedure to DICT in case of downtime, and make available specific name(s), e-mail address(es), landline(s) and mobile number(s).	
16.	CHARGING AND REBATES	
16.1.	Charging shall be made on a monthly basis and shall start upon acceptance of the said CMS instance.	

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16.2.	Computation of Allowable Downtime and Liquidated Damages	
16.2.1.	Computation of Allowable Downtime shall be based on a 24-hour 7 days a week (24x7) work week.	
16.2.2.	Computation of Liquidated Damages shall also be based on a 24-hour 7 days a week (24x7) work week and shall be deducted from the WINNING BIDDER's monthly subscription costs for every violation incurred. Computation shall be as follows: DAILY LIQUIDATED DAMAGES COST (DLDC) = 12 * MONTHLY SUBSCRIPTION COST / 365 DAYS	
16.2.3.	Downtime or outages at fault by the SERVICE will have a corresponding rebate.	
16.2.4.	For mission-critical CMS instances or sub-services, a rebate equal to the 1-day penalty of DLDC shall be credited to the DICT for each day of failure;	
16.2.5.	For non-mission-critical CMS instances or sub-services, a rebate equal to the 1/20 of a 1-day penalty of DLDC shall be credited to the DICT for each day of failure;	
16.2.6.	A sample computation should be provided; and,	
16.2.7.	The computation of rebates should be transparent to the DICT.	
16.2.8.	The Monthly Billing Statement shall cover the first day of Service until the thirtieth day of the month and subscription for any fraction of a month shall not be billed for the full month. Pro-rated bill.	
17.	OTHER REQUIREMENTS	
17.1.	<u>Full Disclosure.</u> The SERVICE shall provide all technical information and access as may be required by the DICT to 1) appropriately determine compliance to the specifications (e.g. redundancy, failover, etc.) of this tender; and, 2) monitor the operations and performance of CMS instances and their sub-services. Full disclosure shall also include, when applicable, all technical information and actual usage by all other tenants;	

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17.2.	<p><u>Open and Fair Access.</u> Access to the SERVICE or any CMS instance, in part or whole, by 3rd parties, particularly cache content providers and consumers, shall be non-discriminatory on a first-come first-served actual usage basis, subject to the approval and periodic review of the DICT. Per Unit Charges shall be uniform for all tenants and shall not exceed those offered to the DICT under this tender;</p>	
17.3.	<p><u>Without Interest in Connectivity Services.</u> To ensure checks and balances shall be in place, a BIDDER shall submit a sworn affidavit that it has no interest and/or participation, direct or indirect, in any of the connectivity services provisioned under the PROJECT, including but not limited to, IPTI, IPTD and IPTM, which the SERVICE shall be tasked to monitor and enforce the SLR agreements of those services.</p>	
17.4.	<p><u>Franchise Requirements.</u> Non-franchise holders may participate in this tender but without prejudice to other legal requirements, particularly with respect to the provisioning of commercial services outside the PROJECT;</p>	
17.5.	<p><u>Installations Costs and Other One Time Charges (OTC).</u> All OTCs, including but not limited to, installation costs and other fees, should be factored into the MSF; and,</p>	
17.6.	<p><u>Taxes & Other Fees.</u> All proposals shall be inclusive of all taxes.</p>	
18.	OTHER MATTERS	
18.1.	<p>Ocular inspection of related facilities is recommended. Please coordinate with Project Manager Eric Toledo (eric.toledo@dict.gov.ph) or Director Philip Varilla (philip.varilla@dict.gov.ph) for the site survey schedule and permits.</p>	

I hereby certify that the statement of compliance to the foregoing technical specifications are true and correct, otherwise, if found to be false either during bid evaluation or post-qualifications, the same shall give rise to automatic disqualification of our bid.

Name of Company	Signature Over Printed Name Of Authorized Representative	Date
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Note: Annexes specified in this Technical Specifications shall be referred to in another document.

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**DICT BAC4FREEWIFI
REVISED CHECKLIST OF REQUIREMENTS FOR BIDDERS
AS OF 29 SEPTEMBER 2016**

Name of Company : _____
Name of Project : **Procurement of System Management and Access 2 (SMA2) Service**
Bid Reference No. : **BAC4FREEWIFI-2016-07-015 (REBID)**
ABC : **₱440,392,500.00**

Ref. No.	Particulars	
ENVELOPE 1: ELIGIBILITY AND TECHNICAL DOCUMENTS		
ELIGIBILITY DOCUMENTS		
CLASS "A" DOCUMENTS		
	(a.1.) ELIGIBILITY DOCUMENTS	
12.1	i. Registration certificate from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives	
	ii. Business/Mayor's permit for 2016 issued by the city or municipality where the principal place of business of the prospective bidder is located	
	iii. Valid and Current Tax Clearance per Executive Order 398, Series of 2005, as finally reviewed and approved by the BIR.	
	iv. Statement of all its Ongoing (including awarded contract/s not yet started, if any) Contracts within the last three (3) Years, (Annex I)	
	v. Statement of Single (1) Largest Completed Contract Of Similar Nature Within The Last Ten (10) Years From Date Of Submission And Receipt Of Bids Amounting to at Least Fifty Percent (50%) of the Approved Budget for the Contract (ABC) Or Statement of at Least Two (2) Completed Contracts of Similar Nature Within The Last Ten (10) Years from the Date of Submission and Receipt Of Bids, The Aggregate Of Which Should Be Equivalent to at Least Fifty Percent (50%) of the ABC, and the Largest of these Similar Contract Must Be Equivalent to at Least Twenty Five Percent (25%) of the ABC . (Annex I-A)	
	vi. Copy of 2015 Annual Income Tax Return submitted through BIR's Electronic Filing and Payment System (EFPS) together with the following Audited Financial Statements for 2015 and 2014 (in comparative form or separate reports): a) Copy of Independent Auditor's Report; b) Balance Sheet (Statement of Financial Position); c) Income Statement (Statement of Comprehensive Income); Each of the above statements must have stamped " received " by the Bureau of Internal Revenue (BIR) or its duly accredited and authorized institutions	
	vii. Duly signed Net Financial Contracting Capacity Computation (NFCC) per Annex II , in accordance with ITB Clause 5.5 $NFCC = [(Current Assets minus Current Liabilities) (K)] \text{ minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract to be bid.}$ Where: K: 10 for a contract duration of one year or less, 15 for a contract duration of more than one year up to two years, and 20 for a	

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	contract duration of more than two years.									
	<p>Notes:</p> <ol style="list-style-type: none"> The values of the bidder’s current assets and current liabilities shall be based on the data submitted to BIR through its Electronic Filing and Payment System. Value of all outstanding or uncompleted contracts refers those listed in Annex-I. The detailed computation using the required formula must be shown as provided above. 									
CLASS “B” DOCUMENTS (FOR JOINT VENTURE)										
	<p>i. For Joint Ventures, Bidder to submit either:</p> <ol style="list-style-type: none"> Copy of the JOINT VENTURE AGREEMENT (JVA) in case the joint venture is already in existence, or Copy of Protocol / Undertaking of Agreement to Enter into Joint Venture signed by all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful. (Annex III) <p><u>The JVA or the Protocol/Undertaking of Agreement to Enter into Joint Venture (Annex III) must include/specify the company/partner and the name of the office designated as authorized representative of the Joint Venture.</u></p> <p>For Joint Venture, the following documents must likewise be submitted:</p> <p>For Joint Venture <u>Between Two (2) Local Companies</u>, each partner should submit:</p> <ol style="list-style-type: none"> Registration Certificate from the Securities and Exchange Commission (SEC) for corporations, Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives; Business/Mayor's permit for 2016 issued by the city or municipality where the principal place of business of the prospective bidder is located; Valid and Current Tax Clearance per Executive Order 398, Series of 2005, as finally reviewed and approved by the BIR. 									
	For item (iv) to (vii) of the required eligibility documents, submission by any of the Joint Venture partner constitutes compliance.									
TECHNICAL DOCUMENTS										
12.1 (b)(i)	<p>Bid security shall be issued in favor of the DEPARTMENT OF DEPARTMENT OF INFORMATION AND COMMUNICATIONS TECHNOLOGY (DICT) valid at least one hundred twenty (120) days after date of bid opening in any of the following forms:</p> <ol style="list-style-type: none"> BID SECURING DECLARATION per Annex IV; or Cashier’s / Manager’s Check equivalent to at least 2% of ABC issued by a Local or Universal or Local Commercial Bank. <table border="1"> <thead> <tr> <th>Description</th> <th>Qty</th> <th>ABC Total Price</th> <th>Bid Security: Cash, Cashier’s / Manager’s Check, (2%) (P)</th> </tr> </thead> <tbody> <tr> <td>Procurement of System Management and Access 2 (SMA2) Service</td> <td>1 Lot</td> <td>440,392,500.00</td> <td>8,807,850.00</td> </tr> </tbody> </table>	Description	Qty	ABC Total Price	Bid Security: Cash, Cashier’s / Manager’s Check, (2%) (P)	Procurement of System Management and Access 2 (SMA2) Service	1 Lot	440,392,500.00	8,807,850.00	
Description	Qty	ABC Total Price	Bid Security: Cash, Cashier’s / Manager’s Check, (2%) (P)							
Procurement of System Management and Access 2 (SMA2) Service	1 Lot	440,392,500.00	8,807,850.00							
12.1 (b)(x)	<p>Proof of Authority of the Bidder’s authorized representative/s:</p> <ol style="list-style-type: none"> FOR SOLE PROPRIETORSHIP (IF OWNER OPTS TO APPOINT A REPRESENTATIVE): Duly notarized Special Power of Attorney FOR CORPORATIONS, COOPERATIVE OR THE MEMBERS OF THE JOINT VENTURE: Duly notarized Secretary’s Certificate evidencing the authority of the designated representative/s. 									

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	c) IN THE CASE OF UNINCORPORATED JOINT VENTURE: Each member shall submit a separate Special Power of Attorney and/or Secretary's Certificate evidencing the authority of the designated representative/s.								
12.1 (b)(xi)	Omnibus Sworn Statements using the form prescribed. (Annex V)								
	a) Authority of the designated representative								
	b) Non-inclusion of blacklist or under suspension status								
	c) Authenticity of Submitted Documents								
	d) Authority to validate Submitted Documents								
	e) Disclosure of Relations								
	f) Compliance with existing labor laws and standards								
	g) Bidder's Responsibility								
	h) Did not pay any form of consideration								
	i) Company Official Contact Reference								
12.1 (b)(xii)	Compliance with the Schedule of Requirements as per Section VI								
12.1 (b)(xiii)	Compliance with the Revised Technical Specifications as of 29 September 2016 as per Section VII								
ENVELOPE 2: FINANCIAL DOCUMENTS									
13.1 (a)	Completed and signed Financial Bid Form. Bidder must use, accomplish and submit Financial Bid Form hereto attached Annex VI .								
	<table border="1"> <thead> <tr> <th rowspan="2">Description</th> <th rowspan="2">Qty</th> <th>ABC P (VAT Inclusive)</th> </tr> <tr> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Procurement of System Management and Access 2 (SMA2) Service</td> <td>1 Lot</td> <td>440,392,500.00</td> </tr> </tbody> </table>	Description	Qty	ABC P (VAT Inclusive)	Total	Procurement of System Management and Access 2 (SMA2) Service	1 Lot	440,392,500.00	
	Description			Qty	ABC P (VAT Inclusive)				
Total									
Procurement of System Management and Access 2 (SMA2) Service	1 Lot	440,392,500.00							
The ABC is inclusive of VAT. Any proposal with a financial component exceeding the ABC shall not be accepted. Further, the sum of bid for each item indicated in the Detailed Financial Breakdown per Revised Annex VII as of 15 September 2016 must be equal to the signed and submitted Financial Bid Form per Annex VII.									
13.1 (a)	Detailed Financial Breakdown per Revised Annex VII as of 15 September 2016								
13.1 (b)	If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a Certification from the DTI, SEC or CDA to be enclosed pursuant to the Revised IRR of R.A. 9184.								
NOTE:	In case of inconsistency between the Checklist of Requirements for Bidders and the provisions in the Instruction to Bidders/Bid Data Sheet, the Instruction to Bidders/Bid Data Sheet shall prevail								