



TERMS OF REFERENCE

SUPPLY, DELIVERY AND CONFIGURATION OF LOW EARTH ORBIT SATELLITE-BASED INTERNET CONNECTIVITY UNDER THE DIGITAL AGRICULTURE PROJECT (SUB-PROJECT: ENHANCED FARM-TO-MARKET ROAD (FMR) AND AGRI-COMMODITY GEODATABASE)

A. RATIONALE

Satellite-based internet connectivity is a wireless internet beamed down from satellites orbiting the Earth. It's a lot different from land-based internet services like cable or DSL, which transmit data through wires running underground. Since it's the only internet service that's available nationwide, satellite internet is a reliable way to get online for many rural homes and businesses, although it does still come with a few disadvantages. In a nutshell, satellite-based internet connectivity uses satellite dishes¹ to send internet signals wirelessly from the satellite network to your web-browsing device. Satellite internet uses a five-part relay system which includes internet-ready device, modem/router, satellite dish, satellite in space, network Operations Center (NOC).

At present, there are two major management information systems housed at the Bureau of Agricultural and Fisheries Engineering (BAFE), namely the Agricultural and Biosystems Engineering Management Information System (ABEMIS) and the Geographic Information System for Agricultural Machinery and Infrastructure (GEOAGRI) which are both utilized by BAFE on-site/field validations where sometimes, projects are located in remote areas and sometimes dead spot.

The use of satellite-based internet connectivity ensures the continuity of utilization of the web-based information systems during project validation and monitoring which are crucial stages of project implementation for both machinery and infrastructure projects.

B. SCOPE OF WORK

The supplier shall:

- Configure three (3) sets of Commercial Broadband Satellite;
- Install the Satellite Dishes and wireless routers in DA-BAFE Office to test speed and internet connectivity; and
- Provide hands-on training sessions for BAFE Staff on the operation and basic troubleshooting of the equipment.

C. APPROVED BUDGET FOR THE CONTRACT (ABC)

The ABC is **One Million Three Hundred Thirty-Nine Thousand Five Hundred Pesos Only (Php 1,339,500.00)**. The total ABC is inclusive of all applicable government



taxes and charges, professional fees, and other costs.

D. TECHNICAL SPECIFICATIONS

PARTICULAR AND TECHNICAL SPECIFICATIONS	QUANTITY	UNIT COST	TOTAL AMOUNT
1. Main Components			
Accessories:	3	446,500.00	1,339,500.00
1.1. Satellite Dish (User Terminal) <ul style="list-style-type: none">• Type: Phased Array Antenna (aka Dish) or better type• Weight: Approximately 7.9lbs (3.6 kg)• Material: with UV protection or better material<ul style="list-style-type: none">○ with weather-resistant housing• Connectivity:<ul style="list-style-type: none">○ Integrated Wi-fi router○ Ethernet port (for wired connections)• With Setup Guide• Antenna Tracking: Auto-aligns with Low Earth Orbit Satellite-based for optimal signal reception;			
1.2. Wi-Fi Router: <ul style="list-style-type: none">• Type: Built-in Wi-Fi router for seamless connectivity;• Wi-Fi Standard: 802.11 ac (with dual-band: 2.4 GHz and 5 GHz);• Coverage Area: at least 1,000 square feet.• Ports: 1x Ethernet port for direct connections• Users: at least 15 concurrent users			
1.3. Power Supply <ul style="list-style-type: none">• Type: Power adapter• Input Voltage: AC Input: at least 220 V/60Hz• Output: DC output suitable for user terminal needs			

<p>2. Subscription Plans – Standard Corporate Plan</p> <ul style="list-style-type: none"> • Monthly Subscription Fee (1TB) Premium Data Cap – Service Enterprise available fixed or in motion anywhere in the Philippines (Vat Inclusive) • Download Speed: 40-220 Mbps • Upload Speed: 8-25 Mbps • Latency: 3-10ms (variable depending on Location) • With Telemetry Dashboard for Customer Portal 			
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E. BIDDER'S ADDITIONAL REQUIREMENTS

- 1) Bidder must submit NTC Dealership Permit.
- 2) Bidders must have Local Technical Support to assure technical response time whenever a problem arises.
- 3) Provide 24/7 access to customer services with dedicated corporate support via phone, chat, and online helpdesk: Online guides and optional on-site services for complex set-up.
- 4) Provide 1-Year Warranty on workmanship and shall commence upon acceptance.
- 5) Bidders must have other eligibility requirements required by the Government Procurement Reform Act.

F. AFTER SALES SERVICE

ITEM DESCRIPTION	AFTER SALES SERVICE
<p>Satellite-based Internet Connectivity</p>	<ol style="list-style-type: none"> 1. Standard Warranty: at least One (1) year warranty on hardware components (dish) from the date of operation. 2. Coverage: The warranty covers defects in material and workmanship; does not cover damages caused by improper set-up, external factors, or usage outside of normal operating conditions.

G. INSPECTION AND TESTS PROCEDURE

1. The Inspector and/or Supply Officer can reject any satellite dish or part thereof that fails to pass any configuration, test and/or inspection or does not conform to the technical specifications.



2. The Inspector and/or Supply Officer will issue an Inspection and Acceptance Report (IAR) upon determining that the delivery and configuration of satellite-based internet connectivity is working in good condition.

H. PRODUCTION AND/OR DELIVERY SCHEDULE

Goods and services are to be delivered within sixty (60) calendar days from the receipt of the Notice to Proceed (NTP). All deliveries must occur on weekdays, specifically from Monday to Friday. The designated delivery location is the BAFE Office, located at the Sugar Center Compound, Annex II Building Extension, North Avenue, Diliman, Quezon.

I. CONTRACT DURATION

The contract duration for the **Subscription of Satellite-based Internet shall be (12) Twelve Months** from the issuance of the Certificate of Acceptance by the End-user.

J. DURATION OF THE EXTENSION OF CONTRACT

The contract for the Subscription of Satellite-based Internet for the Bureau of Agricultural and Fisheries Engineering (BAFE) may be extended for a period of three (3) months. This extension ensures continuity of service and allows for the uninterrupted operation of BAFE's various ICT infrastructure and Management Information Systems during this period.

K. PAYMENT TERMS AND CONDITIONS

The payment for the main component and its accessories will be processed as a one-time payment. The monthly subscription fee, on the other hand, will be billed on a monthly basis, subject to the submission of billing statement and any additional supporting documents by the service provider.

L. MODE OF PROCUREMENT / AWARDING

The supply, delivery, and configuration of Low Earth Orbit Satellite-Based Internet subscriptions will be procured through Public Bidding.

M. LIQUIDATED DAMAGES

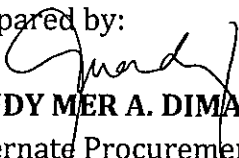
Liquidated damages are equivalent to one-tenth of one percent (0.1%) of the value of the goods and services not delivered within the prescribed delivery period shall be imposed per day of the delay. The DA-BAFE shall rescind the contract once the cumulative



Republic of the Philippines
BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING
SRA Compound, Annex II Building Ext,
North Avenue, Diliman, Quezon City
(02) 8351-8120, (02) 8294-9741

amount of liquidated damages reaches 10 percent (10%) of the amount of the contract, without prejudice to other courses of action and remedies open to it.

Prepared by:


JUNDY MER A. DIMASU-AY

Alternate Procurement Coordinator, PKMDD

Noted by:


ENGR. ARNEL L. TENORIO, EnP.

Chief, Interim PKMDD