

# SURUHANJAYA KOMUNIKASI DAN MULTIMEDIA MALAYSIA (MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION)

# INVITATION TO REGISTER INTEREST

AS

# UNIVERSAL SERVICE PROVIDER

Ref : MCMC/RDD/PDD(1)/T3\_Extn(P1)/TCA/03/14(01) Date: 17 March 2014 Invitation to Register Interest as Universal Service Provider MCMC/RDD/PDD(1)/T3\_Extn(P1)/TCA/03/14(01)

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ACAlternating CurrentAFSAntenna Feeder SystemBTSBase Transceiver StationC&SCivil And Structurec/wComplete WithCDCompact DiskCuCopperDiaDiameterIDIdentificationKVAKilo Volt AmpsLATLatitudeLEDLight Emitting DiodeLOALongitudeLOSLongitudeLOSLine Of SightM&EMechanical And ElectricalMCNCMultiple Operator Core NetworkMORANMultiple Operator Core NetworkMSP(I)Network Facilities Provider IndividualNoNumberNOCNetwork SpecifiedNSP(I)Network SpecifiedNSP(I)Network SpecifiedOMCOperation And Maintenance CentrePDHPlesiochronous Digital HierarchyPEProfessional EngineerPLMNPublic Land Mobile NetworkPVCPolyvinyl ChlorideQoSQuality Of ServiceRANRadio Access NetworkRefReferenceRFRadio Access NetworkRefReferenceRFRadio Access Network	AA	-	Apparatus Assignment
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QoS-Quality Of ServiceRAN-Radio Access NetworkRef-ReferenceRF-Radio Frequency	PLMN	-	Public Land Mobile Network
RAN-Radio Access NetworkRef-ReferenceRF-Radio Frequency	PVC	-	Polyvinyl Chloride
Ref-ReferenceRF-Radio Frequency	QoS	-	
RF - Radio Frequency	RAN	-	Radio Access Network
		-	
RNC - Radio Network Controller		-	
	RNC	-	Radio Network Controller

SESB	-	Sabah Electricity Sdn Bhd
SESCO	-	Syarikat Sesco Berhad
SMS	-	Short Message Service
SRSP	-	Standard Radio System Plan
SWG	-	Standard Wire Gauge
T3E	-	Time 3 Extension
TNB	-	Tenaga Nasional Berhad
USP	-	Universal Service Provision
UST	-	Universal Service Target

VSAT - Vey Small Aperture Terminal

#### SECTION I INTRODUCTION

#### 1 BACKGROUND

- 1.1 The Universal Service Provision (USP) project is an ongoing effort to promote the widespread availability and usage of network services and applications services by encouraging the installation of tower and infrastructure and the installation of equipment and electronics and applications services in underserved areas and/or for underserved groups within the community ("universal service targets").
- 1.2 Suruhanjaya Komunikasi dan Multimedia Malaysia (MCMC) had, pursuant to subregulation 4(1) of the Communications and Multimedia (Universal Service Provision) Regulations 2002 [*P.U.(A)* 419/2002] (as amended by *P.U (A)* 258/2008) ("the Regulations"), issued and published notifications specifying universal service targets under Notification Ref. No: NT/USP/1/04, Ref. No: NT/USP/08/01, NT/USP/2/02 and NT/USP/01/11 ("the Notifications"). The list of the universal service targets relevant to this Invitation and some relevant information in relation thereto are contained in Appendix 1 of this Invitation.
- 1.3 This Invitation is made pursuant to subregulations 3(1)(b), 5(1) and 19(2) of the Regulations ("this Invitation") to invite Interested Licensees to register their interest to be the universal service provider for the provision of Time 3 Extension (T3E) for Public Cellular Services nationwide.
- 1.4 Under this Invitation, the provision of radio communications and transmitters links shall be operated by using Radio Access Network (RAN) Sharing network as detailed out in this Invitation and Appendix 2 of this invitation.

#### SECTION II INVITATION TO REGISTER INTEREST

#### 2 GENERAL DESCRIPTION OF THE FACILITIES AND SERVICES TO BE PROVIDED

- 2.1 This Invitation is made with respect to the universal service objectives set out in subregulation 3(1)(a) of the Regulations. The facilities and services to be installed and provided under this Invitation are the installation of tower and infrastructure (Part 1) and the installation of equipment and electronics related to public cellular service under the concept of Radio Access Network (RAN) Sharing Technology (Part 2).
- 2.2 The scope of work pursuant to this Invitation is divided into PART 1 and PART 2 as set out in Appendix 2 of this Invitation.
- 2.3 The details of the specifications and technical requirements for the facilities under PART 1 and PART 2 in Appendix 2 are stipulated in Appendix 9 of this Invitation.
- 2.4 The installation of equipment and electronics under PART 2 to be provided in Appendix 2 shall meet the following requirements:
  - (a) Service requirements:
    - the provision of public cellular service comprising of 2G and 3G services with the capability of providing voice and data services to meet the requirements of the general public;
    - the provision of public cellular service shall be accessible in all of the universal service targets including the rural and remote parts of the universal service targets;
    - (iii) coverage of the public cellular services must include at the minimum of coverage objectives within the universal service targets as stipulated in Appendix 1;
    - (iv) the quality of public cellular service including the signal level and signal quality should be consistent with the Variation to Commission Determination on Mandatory Standards for Quality of Service (Public Cellular Service), [Determination No. 2 of 2002], Determination No.1 of 2013 or such other standards for quality of service on public cellular service as may be required by MCMC; and
    - the network services shall enable public cellular service, under normal operating conditions, to be made available 24 hours per day, 7 days a week and shall enable interconnection with networks of other licensed service providers;
  - (b) Continuity of service requirement during natural disaster :

- (i) the provision of public cellular service shall be made available 24 hours per day, 7 days a week at the area of coverage objectives within the universal service targets included to the area that is prone to natural disasters such as flood.
- (c) Technical requirement:
  - (i) the specifications in respect of cabins, power supply and etc. as stipulated in Appendix 9 of this Invitation.

## 3 RAN SHARING TECHNOLOGY INTRODUCTION

- 3.1 Radio Access Network (RAN) Sharing Technology provides the most suitable, cost-effective solution with reduced operating expenditure.
- 3.2 Through shared RAN, Public Cellular Network Providers can save the initial network construction investment, accelerate network construction speed, increase the initial coverage and attract more users in the new service provided areas.
- 3.3 Besides sharing the infrastructure; RAN Sharing can also support different services and applications from different Public Cellular Network Providers to maintain good competitiveness with adopting different RAN sharing solutions by considering the frequency resources, network resources and business strategy, and supporting multiple Public Cellular Network Providers sharing network resources simultaneously by flexible software and hardware configurations.
- 3.4 The RAN Sharing technology will also facilitate Public Cellular Network Providers to satisfy their obligation in providing basic communication services to the underserved community.

## 4 RAN SHARING SCOPE OF WORK PART 2

- 4.1 The RAN Sharing solution shall be based on the following basic principles:
  - a) The RAN sharing equipments shall have the capability to provide 2G and 3G services. It shall be configured so that it can serve a minimum of 1000 subscribers per site for 2G networks and a minimum of 1 number of carriers per sector for 3G networks.
  - b) RAN sharing equipment shall be able to cater the usage of minimum 3 Public Cellular Network Providers comprising of 2G and 3G services with the capability of providing voice and data services at broadband speed and 4G-LTE ready.
  - c) The Interested Licensee shall be able to understand the overall RAN Sharing system by having either the Multi – Operator Radio Access Network (MORAN) or Multi – Operator Core Network (MOCN) for 2G or 3G services with supporting multiple PLMN broadcast.

- d) Interested Licensees are encouraged to use microwave and/or leased line for transmission backhaul solution depending on the surrounding of line of sights (LOS) and availability of wired infrastructure to reduce the implementation cost.
- e) In the event of the unavailability of line of sight (LOS) and wired infrastructure, the Interested Licensees may opt to use very small aperture terminal (VSAT) as a transmission backhaul solution depending on the surrounding landscape terrain.
- f) Interested Licensees shall ensure that the transmission backhaul should capable to cater the usage of minimum 3 Public Cellular Network Providers in supporting 2G and 3G services.
- g) In the RAN Sharing system, billing system is independently controlled by each Public Cellular Network Provider.
- h) Any component related to 2G and 3G services are required to be included among others the BSC, RNC, the associated BTS, links, NOC and associated ancillaries facilities with full connectivity to the MSC of Public Cellular Network Providers.

# 5 STANDARD ACCESS OBLIGATIONS FOR FACILITIES AND SERVICES

- 5.1 The Designated Universal Service Provider for Part 2 shall makes a written access request to network facilities provider and network service provider to access to their network facilities or network services to achieve the interoperability and interconnection for the RAN sharing services according to Chapter 3 of Part VI of the CMA.
- 5.2 Notwithstanding the above, the Designated Universal Service Provider for Part 2 are encourage to develop a comprehensive commercial business model where the basis of commercial business model should be the operating expenditure involved for this project only. This commercial model may include the following items, but not limited to:
  - a) Land rental;
  - b) Utility rental and other administration;
  - c) Transmission backhaul lease;
  - d) Preventive and corrective maintenance services;
  - e) Managed services for the complete project;
  - f) AA fee for transmission backhaul and radios;

- h) Other necessary operating costs which are related to this project.
- 5.3 The above commercial business model may be the basis for Interested Licensees to determine the monthly operations and maintenance chargers to the Public Cellular Network Providers.

#### 6 INTEROPERABILITY AND INTERCONNECTION FOR THE OVERALL NETWORK

- 6.1 The Interested licensee should propose the interoperability and interconnection for the overall network. The mode of transmission from a Time 3 Extension location based on line of site, terrain and availability of infrastructure may depend and the options that most likely available will be VSAT, Microwave or Fiber.
- 6.2 The technology proposed should be flexible with different types of backhaul systems and should not be restricted to one. Interested Licensees must take care of the quality of service (QoS) for end-to-end system from BTS and NodeB to BSC and RNC. The BSC and RNC together with OMC should be at strategic location so that the interconnection with Public Cellular Network Providers can be easy and smooth. Public Cellular Network Providers and the Designated Universal Service Provider PART 2 should meet at common location for interconnect of the Time 3 Extension sites and BSC and RNC to Public Cellular Network Providers Core Network.
- 6.3 The proposal for interconnect and interoperability should include:
  - a) Site Location for BSC and RNC;
  - b) The architecture of connectivity from different transmission modes to the MSC, BSC and RNC;
  - c) Proposed design of interconnectivity from RAN Sharing BSC and RNC to MSC Public Cellular Network Provider's Core Network;
  - d) Bandwidth Dimensioning from BTS and Node-B to the BSC and RNC;
  - e) Proposed Network Block Diagram for RAN Sharing System;
  - f) Detailed Network Topology from Time 3 Extension BTS and e-Node B to BSC and RNC and from BSC and RNC to Public Cellular Network Providers Core Network;
  - g) Proposed Network Equipment; and
  - h) Detailed Implementation timeline.

# 7 SPECTRUM FREQUENCY AND AA PROCEDURE

- 7.1 The Designated Universal Service Provider for Part 2 is allowed to use the spectrum for the provision of the Work only after the issuance of the requisite Apparatus Assignment (AA) (s) in accordance with the Communications and Multimedia Act 1998 and the Communications and Multimedia (Spectrum) Regulations 2000.
- 7.2 The use of spectrum band for 2G and 3G services will be determined by MCMC or via collaboration with Public Cellular Network Providers and subject to requirements stipulated in the relevant Standard Radio System Plan or guideline issued by MCMC including any revision thereafter.

# 8 TESTING PROCEDURE

- 8.1 The Designated Universal Service Provider for PART 2 should propose the complete test procedures to be conducted during integration of RAN Sharing infrastructure with the Public Cellular Network Providers.
- 8.2 For the smooth integration of RAN Sharing network to the Public Cellular Network Providers, the Designated Universal Service Provider for PART 2 may propose, but not limited to, the following testing procedures:
  - a) Connectivity Test;
  - b) Functionality Test;
  - c) Network Test; and
  - d) Service Test.
- 8.3 The above test will be conducted by Designated Universal Service Provider PART 2 with individual Public Cellular Network Provider and subsequently with all the Public Cellular Network Providers.
- 8.4 All related cost for the testing conducted as stated in Item 8.2 shall be borne by the Designated Universal Service Provider for PART 2.
- 8.5 During the testing and any other procedure for the integration, the Designated Universal Service Provider for PART 2 must ensure to undertake certain precaution methods to avoid severe impact that affecting the subscribers of Public Cellular Network Providers.
- 8.6 All the Public Cellular Network Providers for each site must have given their prior written consent to the Designated Universal Service Provider for Part 2 based on the test conducted above before operation commencing the RAN sharing operation.

# 9 GREEN TECHNOLOGY

- 9.1 The Interested Licensees are encourage to include the use of the green technology pursuant to this Invitation to achieve the following objectives in line with the National Green Technology Policy Objective:
  - a) To reduce the energy usage rate and increase economic growth;
  - b) To facilitate the growth of the green technology industry and enhance its contribution to the national economy;
  - c) To increase national capability and capacity for innovation in green technology development and enhance Malaysia's competitiveness in green technology in the global arena; and
  - d) To ensure sustainable development and conserve the environment for future generations.
- 9.2 Notwithstanding the above, the proposed solution by the Interested Licensees should be proven to be feasible in provisioning the public cellular shall include but not limited to the following areas:
  - a) Techniques to enable energy efficiency such as to use high efficiency devices in electronic equipments;
  - b) Green energy and green facilities such as the optimization of hybrid power supply especially for the site without TNB/ SESCO/SESB supply; and
  - c) Providing total flooding fire suppression with automatic detection, control and eco-friendly to reduce the greenhouse gas emissions e.g. CO2.

## 10 ASSIGNMENT OF LOCAL CONTRACTOR

- 10.1 The Designated Universal Service Provider is encouraged to invite qualified local contractor(s) to carry out the work. This is in line with the Malaysia's Government Procurement Regime which prime objective is to obtain value for money through acquisition works, supplies and services.
- 10.2 In addition, the assignment of local contractor is to stimulate the growth of local industries through the maximum utilization of local materials and resources as well as to encourage and support the involvement of Bumiputera entrepreneurs.

# 11 REGISTRATION OF INTEREST REQUIREMENTS

- 11.1 The Interested Licensees who wish to register their interest to become the Universal Service Provider pursuant to this Invitation must hold the requisite licences that enable them to carry out the scope of work under this Invitation within the scope of their licences and meet the requirements as specified below: (a) The Interested Licensees are require to hold:
  - (i) A Network Facilities Provider Individual [NFP(I)] licence for the scope of work in PART 1, under the Communications and Multimedia Act 1998, and is authorized to own or provide ALL of the following network facilities under Regulation 19 of the Communications and Multimedia (Licensing) Regulations 2000, as amended:
    - i. Towers, poles, ducts and pits used in conjunction with other network facilities; and
    - ii. Fixed links and cables.
  - (ii) A Network Service Provider Individual [NSP(I)] and A Network Facilities Provider Individual [NFP(I)] licence for the scope of work in PART 2 under the Communications and Multimedia Act 1998.
    - The licensed area specified under both the [NFP(I)] licence and the NSP(I) licence of the licenses shall be within "Malaysia"; and
    - ii. The Interested Licensee should not limited to provide the last mile services only under the Special Licence Conditions in its [NFP (I)] licence.
  - (b) Notwithstanding the above, the Interested Licensees for Part 1 are required to have at least one (1) year experience with good track records in the telecommunication tower implementation and/or engage in a collaboration or Memorandum of Understanding (MOU) with other qualified contractors.
- 11.2 Notwithstanding the above, to be eligible to register an interest, the Interested Licensees shall not have any outstanding amount due to MCMC including but not limited to the following:
  - (a) any license fees due to MCMC under the CMA;
  - (b) Universal Service Provision Fund (USP Fund) Contribution; and
  - (c) AA Fees.
- 11.3 MCMC shall have the right to forfeit the registration or to disqualify the submission of the Interested Licensees who have failed to comply with the requirement stated in Item 11.2.
- 11.4 As mentioned in Item 2.2 above, the facilities and services pursuant to this Invitation as set out in Appendix 2.The Interested Licensees may register their interest to become the Universal Service Provider for:

- a) PART 1 Installation of Tower and Infrastructure in Appendix 2; or
- b) PART 2 Installation of Equipment and Electronics in Appendix 2.
- 11.5 For the purpose of this Invitation, MCMC has grouped the universal service targets into 32 clusters as stated in Appendix 1 of this Invitation The Interested Licensees may register interest for the scope of work in the manner as stipulated in Item 11.4 for each of the cluster(s) of their choice.
- 11.6 The Interested Licensees may register their interest to become the Universal Service Provider for:
  - (a) any one cluster; or
  - (b) two or more clusters; or
  - (c) all clusters

of the universal service targets listed in Appendix 1.

- 11.7 For the avoidance of doubt, MCMC will not accept registration of interest for **part** of a cluster or any combination of clusters which includes a part of a cluster. Similarly, in relation to the scope of work, MCMC will only accept registration of interest for **the entire of PART 1**, **the entire of PART 2** or **both PARTs**.
- 11.8 The Interested Licensees shall register their interest with MCMC by completing the form enclosed in Appendix 3 of this Invitation. Please note that the deadline for submitting the duly completed registration of interest form in relation to the universal service targets is stated in Item 14.1 of this Invitation.
- 11.9 The Interested Licensees are hereby reminded that pursuant to subregulations 6(1) and 7(2) of the Regulations, those who have registered their interest will be legally obliged to submit their draft universal service plan(s) for their scope of work and cluster(s) of the universal service targets and such further information requested by MCMC. The scope of the draft universal service plan and the manner of submission are specified in Item 12 and 13 of this Invitation.
- 11.10 The Interested Licensee who fails to comply with subregulations 6(1) or 7(2) commits an offence under Regulation 39 of the Regulations and shall on conviction be liable to a maximum fine of RM300,000.00 or imprisonment for a maximum term of 3 years or both.
- 11.11 All Interested Licensees shall register their interest with MCMC by submitting the duly completed form as enclosed in Appendix 3 of this Invitation to the following address:

Rural Development Division Suruhanjaya Komunikasi dan Multimedia Malaysia Ground Floor, Prima Avenue 1 Block 3507, Jalan Teknokrat 5 63000 Cyberjaya, Selangor Email : <u>tender@cmc.gov.my</u> (Attn: Secretary of the Tender Committee)

#### 12 SUBMISSION OF DRAFT UNIVERSAL SERVICE PLAN

- 12.1 The Interested Licensees should submit the draft universal service plan consists of PART 1 or PART 2 or both parts for each cluster as per outlined in Item 12.6 of this Invitation.
- 12.2 In preparing the draft universal service plan(s), the Interested Licensees shall include the appropriate information relating to the technical and financial proposal for each of the universal service target as per outlined in Item 13.2 of this Invitation.
- 12.3 For the avoidance of doubt, MCMC will not accept submission of draft universal service plan for **part of a cluster** or any combination of **clusters which includes a part of a cluster**. Similarly, in relation to the scope of work, MCMC will only accept submission of draft universal service plan for the entire of PART 1, or PART 2 or both Parts at its entirety.
- 12.4 Please take note that the deadline for the submission of the draft universal service plan(s) for the universal service targets are stated in Item 14.3 of this Invitation.
- 12.5 The draft universal service plan shall be divided into two separate documents as follows:
  - (a) Technical Proposal as per Item 13.2 (a) of this Invitation; and
  - (b) Financial Proposal as per Item 13.2 (b) of this Invitation.
- 12.6 Each technical and financial proposal mentioned above shall be submitted in DUPLICATE and the hard copies of the draft universal service plans shall be marked as follows:
  - (a) one copy to be marked "ORIGINAL TECHNICAL PROPOSAL";
  - (b) two copies to be marked "COPY TECHNICAL PROPOSAL";
  - (c) one copy to be marked "ORIGINAL FINANCIAL PROPOSAL";
  - (d) two copies to be marked "COPY FINANCIAL PROPOSAL";
  - (e) all pages of the Financial Proposal of the draft universal service plan shall be duly initialled and affixed with a rubber stamp of the Licensee;
  - (f) all pages of the Technical Proposal of the draft universal service plan shall NOT bear the Licensee's name, logo and stamp; and
  - (g) for ease of reference, the pages for the draft universal service plan shall be numbered in the following format: "1 of (total pages of draft universal service plan), 2 of ..., 3 of ..." and accordingly thereafter.

- 12.7 The submission shall be accompanied by a One Off Document which consist of :
  - (a) licensee's information and other supporting documents as detailed out in Appendix 4;
  - (b) company profile;
  - (c) a complete set of softcopy of the submission in CD Format; and
  - (d) Letter of Collaboration or MOU between the Licensee and contractor in collaborative activities (if applicable).
- 12.8 The submission of draft universal service plans shall be enclosed in a separate sealed envelope and superscribed as follows:
  - (e) Technical Proposal: (Cluster No. #/Scope of Work: PART 1 or PART 2 or both Parts );
  - (f) Financial Proposal: (Cluster No. #/ Scope of Work: PART 1 or PART 2 or both Parts ); and
  - (g) Licensee's Information (One-Off basis as per Item 12.7).
- 12.9 All submissions of the draft universal service plan(s) shall be prepared in the prescribed format and properly put in box(es) marked with:
  - (a) MCMC's Invitation reference (INVITATION REF. NO.: MCMC/RDD/PDD(1)/T3\_Extn(P1)/TCA/03/14(01) at the top left hand corner of the box(es);
  - (b) the description **"SUBMISSION OF DRAFT UNIVERSAL SERVICE PLAN -**(Cluster No. #)" at the central position of the box(es); and
  - (c) **"SUBMITTED BY: (Name of Licensee)**" at the central bottom position of the box(es).
- 12.10 In the event of discrepancies, the document marked "ORIGINAL" shall prevail.
- 12.11 All documents mentioned above, including any appendices annexed thereto, shall be taken as mutually explanatory of each other.
- 12.12 The Interested Licensees shall be deemed to have examined and understood all information and documents comprised in this Invitation.
- 12.13 All costs and expenses associated with and necessary for the preparation and submission of the draft universal service plan shall be borne by the Interested Licensees.
- 12.14 All corrections, changes, alterations and/or any other amendments whatsoever made in the draft universal service plan shall be initialled and affixed with the Interested Licensee's company stamp.

12.15 All documents which form part of the draft universal service plan shall be properly and securely bound. The draft universal service plan(s) shall be deposited in the box designated by MCMC for the receipt of the documents located at:

Rural Development Division Suruhanjaya Komunikasi dan Multimedia Malaysia Ground Floor, Prima Avenue 1 Block 3507, Jalan Teknokrat 5 63000 Cyberjaya, Selangor Email : <u>tender@cmc.gov.my</u> (Attn: Secretary of the Tender Committee)

12.16 Handbooks and any other literature, if any, shall be bound in separate covers.

## 13 SCOPE OF THE UNIVERSAL SERVICE PLAN

- 13.1 The draft of the universal service plan to be submitted by the Interested Licensees for both scope of work, shall contain the following information (as may be applicable):
  - (a) the coverage objectives (name of villages, settlement areas, plantations, highways, population etc) within the universal service target to which the universal service plan applies to;
  - (b) the exact location of the site within the universal service target, to be submitted in geographical coordinate in decimal format (Latitude/Longitude WGS84) with site name, address and photo; and
  - (c) a detailed description of the infrastructure and/or equipments to be installed at the site as follows:
    - (i) a detailed description of site infrastructure and ancillaries including access road to be provided at the site (applicable to PART 1 scope);
    - the source of AC power supply for each site; i.e. TNB, SESB, SESCO, generator set etc. (applicable to PART 2 scope);
    - (iii) a detailed description of cellular and other related equipments to be installed at the site, together with Malaysian Standard Type-Approval details (applicable to PART 2 scope);
    - (iv) a detailed of network facilities and network services with contingency plan must be established to facilitate for emergency preparedness in the event of a regional, national or international disaster i.e. flood;
    - detailed information and location of the existing network infrastructure, facilities and/or services owned or provided by the Interested Licensee within the universal service target and its adjacent areas; and

- (vi) a detailed site design and network configuration to be deployed within the universal service target. The Interested Licensee shall have regard to maximizing the use of existing network infrastructure and facilities in a cost-effective manner; under such circumstances, this should reflect the incremental capital cost.
- (d) a detailed description of the infrastructure and/or equipments to be installed at the site as follows;
- (e) the project implementation timeline for the provision of the public cellular services indicating site planning, design, acquisition, approvals, procurement of materials, installation, testing and commissioning;
- (f) the capital cost for the installation of network facilities or the provision of network services within the universal service targets. Cost information must include all breakdown, complete computation and nett figure for the total costs without any form of conditional discounts or options. If discounts are indicated, MCMC will disregard the discounts in considering the total cost proposed by the Interested Licensee. If any options are provided, MCMC reserves the right to disqualify the submission of the draft universal service plan;
- (g) the arrangement of the sharing of network facilities and network services with other licensees;
- (h) the details for maintenance and operational support plan to ensure that the facilities and services are continuously available for use in the universal service targets;
- (i) information on project management team of the Interested Licensee for the universal service target which include names, designation, address, contact numbers etc;
- (j) Information on the Interested Licensee's and the collaboration partner's (if applicable) track record and relevant experience related to public cellular projects for the past 3 years. The Interested Licensee should also:
  - (i) include information on its current projects;
  - (ii) distinguish their experiences as a contractor and as a network facilities provider;
  - (iii) specify the number of towers owned or provided by the Interested Licensee in the state where the universal service target is located; and
  - (iv) Letter of Collaboration or MOU between the Licensee and contractor in collaborative activities (if applicable).

- 13.2 The format of the draft universal service plan in relation to both scope of work in PART 1 and PART 2 shall be as follows :
  - (a) Technical Proposal

SECTION	DESCRIPTION
SECTION A	EXECUTIVE SUMMARY OF (CLUSTER #)
А	Executive Summary - Overview of the technical proposal
SECTION B	TECHNICAL PROPOSAL OF (CLUSTER #)
B1	<ul><li>Summary of Technical Proposal</li><li>Refer to Appendix 5 for summary proposal template</li></ul>
Β2	<ul> <li>Details of Technical Proposal</li> <li>1. Site A (Coverage Objective) <ul> <li>Details of Technical Proposal (as may be applicable)</li> <li>Coverage objectives</li> <li>Site location (Long/Lat)</li> <li>Site ID, name and address</li> <li>Site category (collector or spur)</li> <li>Tower type &amp; height</li> <li>Source of AC power supply</li> <li>Site footprint &amp; cabin size</li> <li>Information on existing facilities and/or services</li> <li>Equipment type, configuration &amp; capacity</li> <li>Details of supplier for materials and equipments</li> <li>Implementation timeline</li> <li>Equipment to be provided and installed as contingency plan for the natural disasters event such as flooding and etc</li> <li></li> </ul> </li> <li>2. Site B (Coverage Objective) <ul> <li>Details of Technical Proposal (as may be applicable)</li> </ul> </li> </ul>
B3	<ol> <li>Network Topology of Interoperability and interconnection for the overall network (VSAT, Microwave &amp; Fiber) from BTS and Node B – BSC and RNC – Core Network (Public Cellular Network Providers) for every cluster         <ul> <li>Bandwidth Dimensioning for each link</li> </ul> </li> <li>Proposed Network Block Diagram for RAN Sharing System</li> </ol>

SECTION	DESCRIPTION
SECTION C	OTHER INFORMATION
	Other Information
	1. Track record and relevant experience related to public cellular projects.
	2. Number of towers owned or provided by the Licensee in the state where the universal service target is located.
	3. Information on Project Management team.
	4. Information on cooperation between licensees.
	5. Detailed maintenance and operational support plan.
	6. Other information deemed necessary.

# (b) Financial Proposal

SECTION	DESCRIPTION
SECTION A	EXECUTIVE SUMMARY OF (CLUSTER #)
Α	Executive Summary 1. Overview of financial proposal
SECTION B	FINANCIAL PROPOSAL OF (CLUSTER #)
B1	Summary of Financial Proposal Refer to Appendix 6 for summary proposal template
B2	<ul> <li>1. Site A (Coverage Objective) <ul> <li>Details of Financial Proposal (itemized pricing by the following components) – please refer to Appendix 7 for detail proposal template (as may be applicable) <ul> <li>Preliminaries</li> <li>Tower</li> <li>Site Infrastructure and Ancillaries</li> <li>AC Power Supply</li> <li>Additional Works</li> <li>BTS Equipment</li> <li>Equipment Shelter</li> <li>Equipment to be provided and installed as contingency plan for the natural disasters event such as flooding and etc</li> <li></li> </ul> </li> <li>Details of Financial Proposal (itemized pricing) for maintenance and operation support plan for Part 2 only (as may be applicable)</li> </ul></li></ul>

SECTION	DESCRIPTION
	<ul> <li>Cost relevant to Part 2 scope of work and category B of Part 1 of scope of work as stipulated in Appendix 2.</li> <li>The preventive and corrective maintenance includes operational checking and testing as stipulated in Appendix 8.</li> <li>Site B (Coverage Objective )</li> <li>Details of Financial Proposal (itemized pricing by the following components) – please refer to Appendix 7 for detail proposal template         <ul> <li></li> </ul> </li> </ul>
B3	Details of Financial Proposal for Interoperability and interconnection for the overall network (VSAT, Microwave & Fiber) from BTS and Node B – BSC and RNC – Core Network (Public Cellular Network Providers)
SECTION C	OTHER INFORMATION
	Other information deemed necessary

- Note: Interested Licensees are required to list out details for each USP target under the Cluster(s).
- 13.3 The site locations (Latitude & Longitude) as set out in Appendix 1 are provided as a guide only. The Interested Licensees are responsible for the identification of actual site locations when preparing their draft universal service plans and the choice of the actual sites shall reflect cost efficiency inclusive sites with flood history. Where possible, the site locations stated in Appendix 1 should be followed by the Interested Licensees.
- 13.4 The Interested Licensees shall include in their draft universal service plans detailed information on the coverage objectives as required under Item 13.1(a) whether or not the site locations as set out in Appendix 1 are followed.

#### 14 CLOSING DATE

#### Registration of Interest

14.1 In relation to universal service targets listed in Appendix 1, all Interested Licensees shall register their interest with MCMC on or before 12.00 pm, 31 March 2014.

#### Submission of Draft Universal Service Plan(s)

- 14.2 All submissions of the draft universal service plan(s) shall be prepared in the manner prescribed and submitted at the place stipulated in Item 12.15.
- 14.3 All Interested Licensees who have registered their interest pursuant to the above shall submit the relevant draft universal service plan(s) on or before 12.00 pm, 14 April 2014.

#### 15 MATTERS FOR CONSIDERATION FOR APPROVING DRAFT OF UNIVERSAL SERVICE PLAN

- 15.1 MCMC will consider the matters specified in Regulation 7 of the Regulations and all information included in the draft universal service plans in deciding whether or not to approve the draft universal service plans.
- 15.2 In addition to those matters, MCMC will also consider factors including but not limited to the following:
  - (a) the Interested Licensee's financial capacity and capability to implement its draft universal service plan; and
  - (b) the Interested Licensee's track record and relevant experience related to public cellular projects including work performance in previous USP project, if any.

#### SECTION III PAYMENT FROM THE USP FUND

#### 16 CLAIM FOR PAYMENT

- 16.1 A universal service provider designated pursuant to this Invitation is entitled to claim its costs pursuant to subregulation 19(2) of the Regulations, more particularly the avoidable cost as specified in Table A of the Schedule in the Regulations. The Designated Service Providers are advised to refer to Part V and Table A of the Schedule in the Regulations in relation to the costing and claim for universal service provision.
- 16.2 In essence, 'avoidable cost' means the costs that a Designated Universal Service Provider would avoid if it had not been required to provide facilities and services in a universal service target and for purposes of this Invitation.
- 16.3 It is an obligation on every Designated Universal Service Provider to submit, not later than 31 March of the relevant calendar year(s), a written claim to MCMC in accordance with Regulation 20 of the Regulations for the cost of universal service provision for the previous calendar year. Interested Licensees are reminded that this obligation is applicable notwithstanding any payments that may be made by MCMC under Regulations 12 or 20A of the Regulations.
- 16.4 A Designated Universal Service Provider should submit the claims using the Claims Form that will be provided by MCMC and to be submitted together with necessary documents.
- 16.5 Payment will be made upon a duly verified claim less any payments already made under Regulations 12 or 20A of the Regulations not later than thirty (30) days from the date of the verification is completed by MCMC.

## 17 ADVANCE PAYMENT AND QUARTERLY PAYMENT(S)

#### Advance Payment

17.1 MCMC may, under Regulation 12 of the Regulations, consider making an advance payment to a Designated Universal Service Provider towards the capital cost of implementation of the universal service plan approved pursuant to this Invitation ("Advance Payment"). A Designated Universal Service Provider may submit its written application for Advance Payment to MCMC for its consideration.

#### Quarterly Payment(s)

17.2 MCMC may under Regulation 20A of the Regulations, consider making quarterly payments to a Designated Universal Service Provider for the capital costs of implementing the approved universal service plan ("Quarterly Payment"). A Designated Universal Service Provider may submit its written application for Quarterly Payment(s) to MCMC for its consideration.

#### Obligation to refund

- 17.3 In the event that a Designated Universal Service Provider receives payment under Regulation 12 and/or 20A of the Regulations of a total amount which exceeds the cost incurred for a calendar year that it is entitled to claim pursuant to this Invitation, the Designated Universal Service Provider is required under Regulation 21A of the Regulations to refund to MCMC the monies paid in excess in accordance with the notice that MCMC may issue.
- 17.4 A Designated Universal Service Provider who fails to comply with the notice issued by MCMC commits an offence under Regulation 21A (2) of the Regulations.

## SECTION IV GENERAL TERMS & CONDITIONS

#### 18 IMPLEMENTATION OF APROVED UNIVERSAL SERVICE PLAN

- 18.1 The Designated Universal Service Providers are reminded that in the event that MCMC approved the draft universal service plan(s) submitted under this Invitation, the Designated Universal Service Providers will be subject to an obligation under subregulation 11(1) of the Regulations to comply with the approved universal service plan(s).
- 18.2 Change of site location
  - (a) If the site locations and coverage objectives stated in Appendix 1 are found by the Designated Universal Service Providers to be unsuitable, the Designated Universal Service Providers may propose a change of the site location. The Designated Universal Service Providers shall first attempt to identify a site (within 2 kilometre radius from the site location identified in Appendix 1) which it considers suitable to meet the intended coverage objective in Appendix 1.
  - (b) If the coverage objective based on the proposed site location differs from the coverage objective in Appendix 1, the Designated Universal Service Providers are required to notify MCMC on the new coverage objective based on the proposed site location.
  - (c) The Designated Universal Service Providers must ensure that any new site location proposed is still within the same universal service target(s) as stated in Appendix 1.
- 18.3 The Designated Universal Service Providers are reminded that the selection of site locations and the corresponding coverage objectives shall be based on 2G and 3G network planning.
- 18.4 The Designated Universal Service Providers who fails to comply with subregulation 11(1) of the Regulations commits an offence under the Regulation 39 of the Regulations and shall on conviction be liable to a maximum fine of RM300,000.00 or imprisonment for a maximum term of 3 years or both.

## **19 ADDITIONAL SERVICES**

19.1 As stated earlier, this Invitation is made with respect to the installation of tower and infrastructure and installation of equipment and electronics only pursuant to this Invitation is entitled to claim only such related costs.

## Part 1 and Part 2

- 19.2 In the case of vandalism, the Designated Universal Service Providers for the both scope of work for PART 1 and PART 2 shall act accordingly on:
  - (a) the process to investigate and verify the damage caused by vandalism and the apportionment of the cost for repair or replacement of any facilities that are vandalized; and
  - (b) the mechanism to minimize the risk of vandalism including reasonable security measures to be implemented at the affected site. The Designated Universal Service Provider for the scope of work in both PARTs may recover costs and expenses for the agreed security measures.

#### Part 1

- 19.3 The Designated Universal Service Providers for the scope of work in PART 1 shall be subject to an obligation to provide, at its own costs, the following services:
  - (a) Responsible for facilities in Category A and Category B as stipulated in Appendix 2 and shall be valid within the warranty period; and
  - (b) The Designated Universal Service Provider is encouraged to invite qualified local sub-contractor(s) to carry out the work of PART 1 at the related site location.

#### Part 2

- 19.4 The Designated Universal Service Providers for the scope of work in PART 2 shall be subject to an obligation to provide the following services:
  - (a) provide maintenance and operation support services to ensure that all the facilities provided at sites for both PART 1 (Category B) and PART 2 are continuously available, accessible and in good condition for use in the universal service targets upon the commencement date of PART 2.
  - (b) subject to item 19.4 (a) as above, the Designated Universal Service Providers shall include in their draft universal service plans the details on the provisioning of maintenance and operation support services including but not limited to the response times, hotline numbers, contact personnel, site and compound maintenance and all other relevant information as per Appendix 8 of the Invitation.
  - (c) notwithstanding the above, the Designated Universal Service Providers for the scope of work in PART 2 have to install and maintain their equipments for the provision of network services, cabins, power supply and all its accessories such as fire extinguisher, air conditioning, and electrical system.
  - (d) ensure the availability of public cellular services for 24 hours per day, 7 days a week that under normal operating conditions, include the following features at all times (unless otherwise required by the customers):

- (i) the ability to make and receive voice and to the networks of other licensed service providers;
- (ii) the ability to make and receive automated national and international voice;
- (iii) the ability to make calls to emergency numbers, which gives the customer access to emergency services, free of charge;
- (iv) the ability to make calls to operator for directory assistance, national and international call connection and reporting of service difficulties; and
- (v) the ability to use data services which includes SMS and internet browsing within 2G and 3G networks.
- (vi) allow the sharing of towers with other licensed service providers.

## 20 QUALITY OF SERVICE AND RATES

- 20.1 The Designated Universal Service Providers shall comply with the quality of service standards as provided in any mandatory standards or consumer codes registered under the Communications and Multimedia Act 1998 including but not limited to the various Commission Determinations on the Mandatory Standards for Quality of Service.
- 20.2 The Designated Universal Service Providers must ensure that the services are setup and delivered with high quality of service.
- 20.3 The Designated Universal Service Providers shall comply with the Consumer and Content Codes registered under the Communications and Multimedia Act 1998.
- 20.4 In the event, any abstraction of coverage that includes the signalling level on Quality of Service must be adhere in consistent with the Commission Determinations on the Mandatory Standards for Quality of Service (Public Cellular Service) or such other standards for quality of service on Public Cellular Service as may be required by MCMC.

# 21 TECHNICAL COMPLIANCE

- 21.1 The Designated Universal Service Providers shall be solely responsible for the correct design and configuration of the network facilities, equipment and services offered as per the submitted Draft Universal Service Plan. Spectrum used for the equipment shall comply with the Standard Radio System Plan (SRSP) and any other relevant standards as and when required by MCMC.
- 21.2 If subsequent modifications or changes are necessary for the network facilities, equipment and services to function in accordance with the specifications, the Designated Universal Service Providers shall bear the additional cost involved in modifying the equipment and no such claims from the USP Fund shall be allowed.

# 22 AUTHORITY APPROVAL

- 22.1 The Designated Universal Service Providers shall be responsible to obtain the necessary approvals from the state authority, local authority, electrical authority or other relevant authority (if applicable) before commencing the work.
- 22.2 The Designated Universal Service Providers shall be solely responsible for any failure to obtain the necessary approvals including any additional costs to comply with the authority's requirements.
- 22.3 The Designated Universal Service Provider will be responsible for any additional costs incurred to ensure infrastructure and services continue to be available in the event a change of site location is required as a result of the Designated Universal Service Providers non-compliance to the authority's requirements.

# 23 SAFETY

- 23.1 The Designated Universal Service Providers shall:
  - (a) be responsible to take all reasonable steps at all times to ensure the safety of persons and property at the sites;
  - (b) enforce and take all reasonable steps to cause compliance of all safety measures for workmen, contractors and all other persons at the sites as stipulated in all relevant safety-at-work legislation and regulations; and
  - (c) indemnify and keep indemnified, protect and defend at its own cost and expense, MCMC and its authorized officers from and against all actions, claims and liabilities arising out of acts done, omission or breach of any conditions in this Invitation by the Designated Universal Service Providers, its employees or its agents.

## 24 CLARIFICATION

- 24.1 It is anticipated that some matters may have to be clarified following the evaluation of the submission and during the early stages of installation of the equipment. In this respect, MCMC reserves the right to issue written clarification on the specifications to formalize its requirements more precisely.
- 24.2 By registering its interest and submitting its draft universal service plans, the Designated Universal Service Providers is deemed to consent to the use of any of the information in the draft universal service plans or part thereof by MCMC for any purpose whatsoever.

#### 25 DATE FOR COMPLETION

- 25.1 The maximum time frame to complete the implementation of the entire scope of work in Appendix 2 (PART 1 and PART 2) shall not exceed a total of 7 months from the date of MCMC's approval based on the following breakdown:
  - (a) PART 1- Implementation Period: maximum of 5 months; and
  - (b) PART 2 Implementation Period: maximum of 2 months of the Completion date of Part 1.
- 25.2 Each Interested Licensee shall include a proposed detailed implementation timetable in its draft universal service plan.
- 25.3 The Designated Universal Service Provider shall complete the entire scope of PART 1 and PART 2 work **ON** or **BEFORE** the "Date For Completion" as stated in its Approved Universal Service Draft Plan or such extended of time may be allowed under the Item 26.2 of this Invitation.

#### 26 EXTENSION OF TIME

- 26.1 Notwithstanding anything contained in Regulation 38 of the Regulations, where a time period is specified under these Regulations or in any request by the Commission for an act to be done or a condition to be fulfilled, the Designated Universal Service Provider for scope of PART 1 and PART 2 may request for an extension of time in writing and MCMC may grant such extension of time as it deems fit.
- 26.2 Extension of time may be given to the Designated Universal Service Provider upon requested and subject to confirmation by MCMC if the completion of the entire scope of PART 1 and PART 2 work is likely to be delayed or has been delayed beyond the date for completion as stated in its Approved Universal Service Draft Plan and item 25.1 of this Invitation due to any or more of the following events:
  - a) force majeure as provided in Item 30 of this Invitation; or
  - b) exceptionally inclement weather.
- 26.3 **PROVIDED ALWAYS** that the Designated Universal Service Provider for scope of PART 1 and PART 2 has taken all reasonable steps to avoid or reduce such delay and shall do all that may reasonably required to proceed with the Work.
- 26.4 **PROVIDED THAT** all such delays are not due to any negligence, default or breach of contract at stated in the Letter Of Award (LOA) by the Designated Universal Service Provider for scope of PART 1 and PART 2.

26.5 **PROVIDED FURTHER** that the Designated Universal Service Provider for scope of PART 1 and PART 2 shall not be entitled to any extension of time where the instructions or acts of MCMC are necessitated by or intended to remedy any default of or breach of contract.

# 27 LIQUIDATED DAMAGES

27.1 In the event of a delay on the part of the Designated Universal Service Provider to complete the services in the stipulated time frame, the Designated Universal Service Provider shall pay MCMC liquidated damages at the rate of 0.002% per day, 5% per week, for a maximum of 2 weeks, of the value of the total cost and expenses of the approved universal service draft plan(s). In this respect, implementation time shall be of the essence.

## 28 WARRANTY PERIOD

- 28.1 A Designated Universal Service Provider for Part 1 shall be responsible to provide warranty for the items as stipulated in Appendix 2 as follows:
  - a) Category A for a period of warranty by tower manufacturer; and
  - b) Category B for a period of 12 months

from the date of completion work.

28.2 As stated in item 28.1 above, the obligation for a Designated Universal Service Provider for Part 1 under this warranty is to repair or replace for the items stipulated in Appendix 2.

## 29 PERFORMANCE BOND

- 29.1 A Designated Universal Service Provider is required to submit a performance bond in the form of Bank Draft or Bank Guarantee issued by a local licensed financial institution under the Banking and Financial Institutions Act 1989 prior to the execution of written notification of the approval of the universal service plan(s) with MCMC. This performance bond is equivalent in value of 10% of the approved universal service plan(s).
- 29.2 The Performance Bond **shall be kept** valid for a period of 12 months from the date of completion of the work.
- 29.3 In the event of a delay to complete the work upon the expiry of the performance bond, the Designated Universal Service Provider is required to renew and submit a new performance bond with the validity period of 12 months from the date of its expiry.
- 29.4 Notwithstanding the above, in the event that the Designated Universal Service Provider is being terminated under this Invitation hereof the said Performance Bond or any balance thereof shall be forfeited.

# 30 EFFECT OF FORCE MAJEURE

- 30.1 An "Event of Force Majeure" is an event beyond the control for the delay of scope of PART 1 and PART 2 work which are:
  - a) war (whether declared or not), hostilities, invasion, act of foreign enemies;
  - b) insurrection, revolution, rebellion, military, or usurped power, civil war, terrorism;
  - c) natural catastrophe including but not limited to earthquakes, floods, subterranean spontaneous combustion or any operation of the forces of nature against which an experienced contractor could not reasonably have been expected to take precautions;
  - d) nuclear explosion, radioactive or chemical contamination or radiation (unless caused by the negligence act, omission or default of the workmen, contractors and all other persons at all times during the execution of Works;
  - e) pressure waves caused by aircraft or other devices travelling at sonic or supersonic speeds; and
  - f) riot, commotion or disorder, unless solely restricted to employees of the workmen, contractors and all other persons for the execution of works.

#### 31 QUALITY OF MATERIALS AND EQUIPMENTS

31.1 The Designated Universal Service Provider shall ensure that all items to be used in the provision of universal service in the underserved area shall be of the highest quality, fit for the purpose which they are intended and be free from defects arising out of faulty design, faulty and inferior material or faulty workmanship.

## 32 OMISSIONS OR ERRORS

- 32.1 The Designated Universal Service Providers are advised to study all terms, conditions and specifications very carefully and to make all necessary site survey, clarification etc., before finalizing their draft universal service plan under the Communications and Multimedia (Universal Service Provision) Regulation 2002 [*P.U.* (*A*) 419/2002] (as amended by *P.U* (*A*) 258/2008).
- 32.2 The Designated Service Providers shall be solely responsible for all such omissions/errors without any additional cost chargeable to MCMC. MCMC reserves the right not to entertain any request for variation of price(s) or submission of additional quotes for items left out in the original plan on the grounds of lack of knowledge, oversight etc.

#### 33 CONDITION OF EQUIPMENTS

33.1 All items supplied shall be genuine, newly manufactured/factory fresh (i.e. not second hand, reconditioned and/or used items).

#### 34 SOURCE OF SUPPLY

34.1 The Designated Universal Service Provider shall state the country of origin, place of manufacture and the registered name and address of manufacturer in their draft universal service plans. All equipment proposed is required to be in line with the Malaysian Standards type-approved.

#### 35 INSPECTION AND AUDIT

- 35.1 MCMC shall have the right to inspect and verify that all obligations due from the Designated Universal Service Provider are fully complied with. The inspection and verification of the universal services provisioning may include:
  - a) <u>Technical Audit</u>
    - (i) Conducting a physical verification at the sites that the items and services are delivered according to the quantities, locations, timelines and specifications as contained in the approved universal service plan.
  - b) Commercial Audit
    - (ii) Verifying all relevant supporting documents submitted by the Designated Universal Service Provider in their claims for net universal service costs.

## 36 MONITORING AND REPORTING REQUIREMENT

- 36.1 The Designated Universal Service Provider shall, from time to time or upon request by MCMC, submit a report on the progress of the implementation of the Approved Universal Service Plan.
- 36.2 Notwithstanding the above, the Designated Universal Service Provider shall submit progress as may be determined by MCMC. The average number of different photographs to be taken shall be sufficient enough to show the progress of the works but in any case the average number per month shall not be less than five set. The digital qualities photographs in 4R size shall be all titled and dated and keep in album for safe keeping.

#### 37 DECLARATION

37.1 The universal service plan shall be signed by the Chief Executive Officer of the Designated Universal Service Provider or any other person authorised by the Company.

#### 38 INTERPRETATION

- 38.1 Any terms or words used in this Invitation shall, unless expressly stated or if the context otherwise requires, have the same meaning as in the Communications and Multimedia Act 1998, the regulation(s) and/or the instrument(s) made under it.
- 38.2 For avoidance of doubt, the word "Licensee" as used in this Invitation shall have the same meaning as in the Communications and Multimedia (Universal Service Provision) Regulations 2002.
- 38.3 "The Interested Licensees" means [any person who holds an individual license and interested to participate pursuant to this Invitation ].
- 38.4 "The Designated Universal Service Providers" means [any licensees designated pursuant to this Invitation ].
- 38.5 Glossary for the term or word used in this Invitation is stipulated in the List of Glossaries provided.

#### 39 ENQUIRIES

- 39.1 Should there be a need to seek clarification and additional information regarding this Invitation, all inquiries shall be directed to Secretary of the Tender Committee via email at tender@cmc.gov.my.
- 39.2 All relevant enquiries pertaining to this Invitation should reach MCMC at least 14 days before the closing date for the submission of the relevant draft universal service plan(s).

#### SECTION V COORDINATION OF PART 1 AND PART 2

#### 40 GENERAL

- 40.1 This section applies where MCMC designates two different Universal Service Providers for one cluster; that is where MCMC designates one universal service provider for the scope of work in PART 1 and another Universal Service Provider for the scope of work in PART 2 for the same cluster.
- 40.2 The Universal Service Providers for the same cluster shall cooperate in good faith and provide reasonable assistance to each other in a timely manner to enable the implementation of the universal service plans so as to ensure the universal service objective are achieved. This includes sharing relevant information, avoiding unnecessary disputes and resolving differences and disputes promptly.

## 41 CONDITIONS RELEVANT TO SCOPE OF WORK IN PART 1

- 41.1 The Designated Universal Service Providers for the same cluster shall cooperate at all times including before the commencement and during the implementation of the scope of work in PART 1 to ensure that the facilities to be installed can enable the requirements for the provision of network services set out in Item 2.4 to be met, particularly in the following areas:
  - (a) the Designated Universal Service Provider for the scope of work in PART 1 shall:
    - consult the Designated Universal Service Provider for the scope of work in PART 2 on all relevant matters before commencing the work; and
    - (ii) promptly notify the Designated Universal Service Provider for the scope of work in PART 2 when the tower and its associated site/facilities are ready for use and allow the Designated Universal Service Provider for PART 2 to install their equipments for the provision of network services.
    - (iii) shall assist the universal service provider for the scope of work in PART 2 in all relevant matters to the commencement of any physical work related to site/access to site/towers.
- 41.2 The relevant matters include but not limited to, the confirmation of suitability of site location (for example, clarity of line of sight).

# 42 CONDITIONS RELEVANT TO SCOPE OF WORK IN PART 2

- 42.1 The Designated Universal Service Providers for the same cluster shall cooperate at all times including before the commencement and during the implementation of the scope of work in PART 2 to ensure that network services can be provided consistent with the requirement set out in Item 2.4, particularly in the following areas:
  - (a) the Designated Universal Service Provider for the scope of work in PART 2 shall promptly attend to issues related to its equipments as and when notified by the universal service provider for the scope of work in PART 1.

#### SECTION VI NATURAL DISASTERS

#### 43 CONTINUATION OF SERVICES

- 43.1 Since the communication network is quite likely to be affected during disasters, disrupting the communication connectivity (which is the most crucial for response and relief work), this Invitation is made with respect to the Installation of Equipment and Electronics only pursuant to this Invitation subject to Item 2.4 (b), is entitled to claim only such related costs.
- 43.2 The primary terms and requirement are to establish and ensure the public cellular services still **IN-SERVICE**.
- 43.3 Notwithstanding the above and Item 30, the Designated Universal Service Providers shall establish a contingency plan as stated in Item 13.1 (c) (iv) with the following:
  - (a) the Designated Universal Service Providers for the scope of work in PART 1 to perform any work deemed necessary to improve resilience and to protect the infrastructure following the natural disaster such as flood, erosion due to the climate and others.
  - (b) the Designated Universal Service Providers for the scope of work in PART 2 to install and maintain the equipment or to equip with the contingency plan during natural disasters events such as flood period especially at low-lying flood prone areas;
  - (c) the Designated Universal Service Providers for the same cluster (PART 1 and PART 2) shall cooperate in good faith and provide reasonable assistance to each other in a timely manner especially when dealing with natural disasters event such as flooding etc to enable the public cellular coverage is **IN-SERVICE**.

## APPENDICES

## (which are to be taken and construed as an essential part of this invitation)

# APPENDIX 1 – LIST OF UNIVERSAL SERVICE TARGETS

Cluste	Cluster 1								
NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E			
1	T3E_0001	Johor	Batu Pahat	Kg Pt Hj Yusof	1.733417	103.251187			
2	T3E_0002	Johor	Kota Tinggi	Jalan Sg Waha ke Sg Mas	1.657724	104.133440			
3	T3E_0003	Johor	Kulaijaya	Kulai to Pekan Nenas (Ldg Kulai Young)	1.626165	103.531867			
4	T3E_0004	Johor	Muar	Kg Paya Lebar	1.983503	102.698525			
5	T3E_0005	Johor	Paloh	Ldg Kempas & Ladang Gunung Mas	2.204950	103.163350			
6	T3E_0006	Johor	Pontian	Kg Simpang Kiri	1.360710	103.496640			
7	T3E_0007	Johor	Segamat	Felda Plantation Palong Timur 5	2.782228	102.688163			
8	T3E_0008	Johor	Segamat	Felcra Sekijang, Segamat	2.529206	102.937770			
9	T3E_0009	Johor	Segamat	Kg Melayu Bukit Siput	2.461039	102.846966			
10	T3E_0010	Johor	Segamat	Kg Org Asli Segamat	2.545030	103.004370			

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0011	Negeri Sembilan	Gelami Lemi	Jeram Gading	3.081300	102.056900
2	T3E_0012	Negeri Sembilan	Gelami Lemi	Glami Lemi (Pusat Perikanan)	3.020239	102.009781
3	T3E_0013	Negeri Sembilan	Juasseh	Kg Rembang Panas & Kg Kuala Rembang Panas	2.754636	102.310375
4	T3E_0014	Negeri Sembilan	Kenaboi	Kg. Bintongan	2.603143	102.118974
5	T3E_0015	Negeri Sembilan	Kenaboi	Kg. Tohor	3.162110	101.993920
6	T3E_0016	Negeri Sembilan	Pantai	Bkt Tangga	2.829100	101.999400
7	T3E_0017	Negeri Sembilan	Peradong	Kg Chenor, Kg Relai	2.956211	102.108211
8	T3E_0018	Negeri Sembilan	Serting Ulu	Felda Pasoh Dua	2.942575	102.303325
9	T3E_0019	Negeri Sembilan	Terachi	Kg. Parit Istana (Seri Menanti)	2.724492	102.150742

Ciusie						
NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0020	Negeri Sembilan	Gemas	Felda Palong 1	2.689679	102.571147
2	T3E_0021	Negeri Sembilan	Gemas	Kg. Orang Asli Goodwood	2.590238	102.550622
3	T3E_0022	Negeri Sembilan	Gemencheh	Kg Ulu Rokan	2.568969	102.381997
4	T3E_0023	Negeri Sembilan	Jelai	Felda Bukit Rokan Barat	2.673300	102.381700
5	T3E_0024	Negeri Sembilan	Jempol	Kg. Langkap	2.611635	102.352086
6	T3E_0025	Negeri Sembilan	Jempol	Kg. Sg. Kelamah	2.727475	102.434060
7	T3E_0026	Negeri Sembilan	Johol	Kg Ulu Punggul	2.644145	102.251865
8	T3E_0027	Negeri Sembilan	Johol	Kg Kuala Johol	2.625169	102.260731
9	T3E_0028	Negeri Sembilan	Johol	Kg. Gemencheh Ulu	2.564004	102.299608
10	T3E_0029	Negeri Sembilan	Keru	Kg Keru	2.501422	102.282439
11	T3E_0030	Negeri Sembilan	Miku	Kg. Miku	2.605166	102.160848
12	T3E_0031	Negeri Sembilan	Pertang	Taman Guru, Simpang Pertang	2.947000	102.237100
13	T3E_0032	Negeri Sembilan	Rantau	Kg. Charik, Inas	2.603242	102.188444
14	T3E_0033	Negeri Sembilan	Sri Menanti	Kg. Gunung Pasir	2.666733	102.160392
15	T3E_0034	Negeri Sembilan	Ulu Jempol	Kg. Tengkek	2.857800	102.207600
16	T3E_0035	Negeri Sembilan	Ulu Muar	Kg. Sungai Dua Besar	2.733693	102.289964

0.0010								
NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E		
1	T3E_0036	Perak	Batang Padang	Pos Keding	4.003725	101.507040		
2	T3E_0037	Perak	Batang Padang	Pos Tenau	4.066465	101.530496		
3	T3E_0038	Perak	Batang Padang	Kg Poh, Bidor	4.087660	101.334248		
4	T3E_0039	Perak	Batang Padang	Kg Sg Dara, Tg Malim	3.788849	101.498521		
5	T3E_0040	Perak	Batang Padang	Lata Iskandar	4.326556	101.330917		
6	T3E_0041	Perak	Hilir Perak	Kg. Tebing Rebak/ Kg. Sg. Dulang Dalam	3.954810	100.877890		
7	T3E_0042	Perak	Hulu Perak	KM 24 - Baling-Gerik Highway	5.507706	100.930858		
8	T3E_0043	Perak	Hulu Perak	KM 29 - Baling-Gerik Highway	5.497819	100.969672		

9	T3E_0044	Perak	Hulu Perak	KM 34 - Baling-Gerik Highway	5.502458	101.006517
10	T3E_0045	Perak	Hulu Perak	KM 39 - Baling-Gerik Highway	5.495614	101.047542
11	T3E_0046	Perak	Hulu Perak	KM 44 - Baling-Gerik Highway	5.464892	101.080842
12	T3E_0047	Perak	Kampar	Kg. Seri Kampar	4.276944	101.170278
13	T3E_0048	Perak	Kerian	Kg. Alor Setanggol	4.994020	100.622125
14	T3E_0049	Perak	Batang Padang	Kg. Rasau, Slim River	4.820701	100.878330
15	T3E_0050	Perak	Kuala Kangsar	Kg.Pechah Batu	4.622282	100.875432
16	T3E_0051	Perak	Selama	Kg Ulu Mengkuang	5.213058	100.765070

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0052	Kedah	Baling	Kg. Charok Pendiat, Kg. Seniyek	5.543561	100.931053
2	T3E_0053	Kedah	Baling	Kampung Simpang Empat, Kuala Lesong, Mukum Teloi Kanan, Kuala Ketil	5.692200	100.667200
3	T3E_0054	Kedah	Changlun	Kg. Kangar	6.345352	100.394712
4	T3E_0055	Kedah	Telaga Mas	Kg. Bukit Teriak	6.173577	100.453868
5	T3E_0056	Kedah	Kubang Pasu	Kg Carok Tok Lateh	6.266667	100.483333
6	T3E_0057	Kedah	Padang Terap	Kg Kubang Panjang	6.266203	100.555061
7	T3E_0058	Kedah	Pendang	Kg Bukit Chengal	6.053204	100.564857
8	T3E_0059	Kedah	Pendang	Kg Lampam, Pendang	6.108445	100.605580
9	T3E_0060	Kedah	Sik	Kg Perangis/ Kg. Durian Burong	5.862861	100.748250
10	T3E_0061	Kedah	Sik	Kg Hujung Bandar SIK	5.776400	100.744400
11	T3E_0062	Kedah	Sik	Kg Beruna	5.830790	100.620230
12	T3E_0063	Kedah	Sik	Kg Batu Besar Mukim Teloi	5.726763	100.735174
13	T3E_0064	Perlis	Perlis	Wang Kelian	6.696288	100.179701
14	T3E_0065	Perlis	Perlis	Kg Guar Jentik	6.565153	100.208352

Cluste	Cluster 6								
NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E			
1	T3E_0066	Kelantan	Gua Musang	Between Kundur To Panggung Lalat	4.893769	101.911735			
2	T3E_0067	Kelantan	Gua Musang	Felda Aring 4	4.997694	102.494500			
3	T3E_0068	Kelantan	Gua Musang	Jln Felda Paloh 3 - Kg Lebir Kesedar, Gua Musang	5.009354	102.327009			
4	T3E_0069	Kelantan	Gua Musang	Pos Linggi / Miak (Sk Linggi) Kg. Lepar	5.105365	102.353198			
5	T3E_0070	Kelantan	Gua Musang	Pos Pasik (SK Sri Permai), Gua Musang	5.212600	101.761700			
6	T3E_0071	Kelantan	Jeli	Kg Kerilla	5.423933	101.957159			
7	T3E_0072	Kelantan	Jeli	Kg Pulau Tiga	5.531000	101.894000			
8	T3E_0073	Kelantan	Jeli	Pos Sg Rual (Sk Sg Rual)	5.653200	101.794000			
9	T3E_0074	Kelantan	Kuala Krai	Jelawang	5.216889	101.931361			
10	T3E_0075	Kelantan	Kuala Krai	Kg.Bt.Balai/ Kg. Bechah Salok	5.547750	102.257750			
11	T3E_0076	Kelantan	Kuala Krai	Sg Setong & Surrounding	5.253200	101.950000			

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0077	Kelantan	Bachok	Kg Chap	6.039206	102.331104
2	T3E_0078	Kelantan	Kota Bharu	Kg Chengal, Ketereh	5.977470	102.263703
3	T3E_0079	Kelantan	Kota Bharu	Kg Kota	6.087858	102.223090
4	T3E_0080	Kelantan	Kota Bharu	Kg Serian	6.018811	102.201862
5	T3E_0081	Kelantan	Machang	Kg. Joh	5.828661	102.194996
6	T3E_0082	Kelantan	Pasir Mas	Kg Gabus, Kg Bujuk, Bkt Jarum	5.966686	102.126155
7	T3E_0083	Kelantan	Pasir Mas	Kg Kolam, Chasi, Tasik Nibung	5.937805	102.117615
8	T3E_0084	Kelantan	Tumpat	Pulau Suri/Teluk Rajuna/Gorek	6.210700	102.208900

Clusie						
NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0085	Terengganu	Dungun	JIn AMBS-Pasir Raja (new site)	4.663334	103.076121
2	T3E_0086	Terengganu	Dungun	Jln Pasir Raja - Ambs3	4.658413	103.144252
3	T3E_0087	Terengganu	Dungun	Jln Pasir Raja - Ambs4	4.671216	103.130665
4	T3E_0088	Terengganu	Dungun	Kg Baru Kuala Abang	4.839548	103.394913
5	T3E_0089	Terengganu	Dungun	Lpt2 No.5	4.897199	103.145600
6	T3E_0090	Terengganu	Dungun	Lpt2 No.6	4.854967	103.186242
7	T3E_0091	Terengganu	Dungun	LPT2 No.8	4.781200	103.290300
8	T3E_0092	Terengganu	Dungun	Pulau Tanggol	4.809635	103.679890
9	T3E_0093	Terengganu	Kemaman	Jln Felda Bkt Kuantan - Felda Neram 2, Kemaman	4.012180	103.266687
10	T3E_0094	Terengganu	Kemaman	Jln Felda Cherul-Sg Lembing 1, Kemaman	4.096671	103.124057
11	T3E_0095	Terengganu	Kemaman	Jln Kg. Paman - Kemasik	4.272035	103.343225
12	T3E_0096	Terengganu	Kemaman	JIn Mak Lagam- Cheneh1	4.195426	103.343897
13	T3E_0097	Terengganu	Kemaman	Jln Mak Lagam- Cheneh2 (Kg. Lubuk Batu)	4.198213	103.289350
14	T3E_0098	Terengganu	Kemaman	Lpt2 No.10	4.548300	103.359200
15	T3E_0099	Terengganu	Kemaman	Lpt2 No.11	4.507246	103.375940
16	T3E_0100	Terengganu	Kemaman	Lpt2 No.12	4.189400	103.311000
17	T3E_0101	Terengganu	Kemaman	Padang Kubu, Kemaman	4.385089	103.262810

Cluster 8

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0102	Terengganu	Hulu Terengganu	Kampong Tok Randok	5.064900	103.096252
2	T3E_0103	Terengganu	Hulu Terengganu	Kg Bukit Tadok	5.184674	103.007330
3	T3E_0104	Terengganu	Hulu Terengganu	Kg Durian Kassim/Kg Pachat	5.021034	103.134460
4	T3E_0105	Terengganu	Hulu Terengganu	Kg Jerkah	5.247702	102.848554
5	T3E_0106	Terengganu	Hulu Terengganu	Kg Kuala Jeneris /Simpang ke Tasik Kenyir	5.194033	102.886140
6	T3E_0107	Terengganu	Hulu Terengganu	Kg Ulu Sat, Hulu Trg	5.187950	102.922259
7	T3E_0108	Terengganu	Hulu Terengganu	Kg. Bukit Nenasá / Jalan K. Berang Sg. Tong	5.314112	102.913821
8	T3E_0109	Terengganu	Hulu Terengganu	Lpt2 No.2	5.131732	103.051696
9	T3E_0110	Terengganu	Marang	Jln Jambu Bongkok- Rantau Abang, Marang	4.905303	103.365294
10	T3E_0111	Terengganu	Marang	Kg Alor Tembesu/Gong Balai, Marang	5.019366	103.302800
11	T3E_0112	Terengganu	Marang	Kg Batu Kelikir/ Jerung Seberang	5.136872	103.118135
12	T3E_0113	Terengganu	Marang	Kg Kubu/Kg Tanah Lot, Marang	5.089081	103.163827
13	T3E_0114	Terengganu	Marang	Kg. Undang	5.229188	103.132360
14	T3E_0115	Terengganu	Marang	Pulau Kapas	5.218586	103.261174

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0116	Terengganu	Besut	Kg Keluang	5.782329	102.613899
2	T3E_0117	Terengganu	Besut	Kg Kuala Kubang	5.642941	102.583760
3	T3E_0118	Terengganu	Besut	La Hot Spring	5.517183	102.534534
4	T3E_0119	Terengganu	Setiu	Jln Between Belara - Sg. Tong	5.344683	102.907010
5	T3E_0120	Terengganu	Setiu	Kg Permaisuri, Setiu	5.570745	102.769575
6	T3E_0121	Terengganu	Setiu	Kg Saujana And Surrrounding	5.606885	102.750845
7	T3E_0122	Terengganu	Setiu	Pulau Bidong	5.620428	103.063717
8	T3E_0123	Terengganu	Setiu	Pulau Lang Tengah	5.792258	102.896063

Cluster 11

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0124	Pahang	Bera	Bera Selatan 3	2.909200	102.682400
2	T3E_0125	Pahang	Bera	Felda Triang Selatan 1	3.126500	102.786800
3	T3E_0126	Pahang	Bera	Jln Bukit Serok ke sempadan Phg-Negeri Sembilan, Bera	2.907473	102.691726
4	T3E_0127	Pahang	Bera	Jln Pelangai ke Kemasul, Bera	3.256388	102.190742
5	T3E_0128	Pahang	Bera	Jln Tembangau 5 - Tembangau 8	3.025792	102.567875
6	T3E_0129	Pahang	Bera	Kg Menteri	3.288236	102.421325
7	T3E_0130	Pahang	Bera	Mengkarak Stesen	3.329200	102.419430
8	T3E_0131	Pahang	Pekan	Jln Sg Ganoh - Kg Chamau, Pekan	3.269946	102.891161
9	T3E_0132	Pahang	Pekan	Kg. Pulau Keladi/Tmn. Pelangkah, Pekan	3.516151	103.373366
10	T3E_0133	Pahang	Rompin	Ladang Chin Teck, Rompin	3.271800	102.808403
11	T3E_0134	Pahang	Rompin	Main Road Muadzam Gambang	3.125402	103.100061
12	T3E_0135	Pahang	Rompin	Sungai Puteri, Kg Sepakat Timur	2.780500	103.498900

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0136	Pahang	Jerantut	Kg Ulu Retang, Jerantut	4.097670	102.361775
2	T3E_0137	Pahang	Jerantut	Kg. Binjai, Jerantut	3.924902	102.331797
3	T3E_0138	Pahang	Jerantut	Kg. Pulau Mansok	3.976152	102.378859
4	T3E_0139	Pahang	Lipis	Ganding/Lik Kecil	4.091600	102.248300
5	T3E_0140	Pahang	Lipis	Kg Jeransang	4.010978	102.081778
6	T3E_0141	Pahang	Lipis	Pos Lenjang	3.965600	101.971400
7	T3E_0142	Pahang	Raub	Jln Lembah Klau - Bilut, Raub	3.654148	101.953132
8	T3E_0143	Pahang	Raub	Kg OA Batu Balung, Raub	3.709759	101.864294
9	T3E_0144	Pahang	Raub	Kg Orang Asli Ulu Yol	3.889908	101.978683
10	T3E_0145	Pahang	Raub	Kg Tanjung Putus, Raub	3.889329	101.919247
11	T3E_0146	Pahang	Raub	Kg. Temau, Dong	3.923330	101.913190

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0147	Pahang	Kuantan	Felda Lepar Hilir 2/3, Kuantan	3.644929	103.039542
2	T3E_0148	Pahang	Kuantan	Jln Felda Cherul-Sg Lembing 2, Kuantan	4.067510	103.049833
3	T3E_0149	Pahang	Kuantan	Jln Felda Cherul-Sg Lembing 3, Kuantan	4.022424	103.029786
4	T3E_0150	Pahang	Kuantan	Kg Paya Rambutan, Paya Bungor	3.718827	102.911015
5	T3E_0151	Pahang	Kuantan	Lepar Utara 4, Kuantan	3.867742	102.828523
6	T3E_0152	Pahang	Maran	JIn Sg Jerik-Kg Perak, Maran	3.824631	102.634107
7	T3E_0153	Pahang	Maran	Kg. Belembung	3.532200	102.774640
8	T3E_0154	Pahang	Maran	Kg. Seberang Chenor, Maran	3.483100	102.599900
9	T3E_0155	Pahang	Maran	Kuala Wau	3.484100	102.787100
10	T3E_0156	Pahang	Maran	Lubuk Ujid	3.651306	102.699026
11	T3E_0157	Pahang	Temerloh	Gunung Senyum	3.717560	102.398580
12	T3E_0158	Pahang	Temerloh	Kg Sg Cheh, Bukit Lada	3.607407	102.414028
13	T3E_0159	Pahang	Temerloh	Kg. Jebat	3.740540	102.362278
14	T3E_0160	Pahang	Temerloh	Main Road Temerloh - Jerantut	3.602523	102.390945

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0161	Pahang	Cameron Highlands	New Main Road ( Lipis To Cemeron Highland) 6	4.406807	101.434246
2	T3E_0162	Pahang	Lipis	Kg Betong Baru	4.226927	101.948744
3	T3E_0163	Pahang	Lipis	Kg Kenip	4.277400	101.683800
4	T3E_0164	Pahang	Lipis	Kuala Koyan	4.259700	101.858600
5	T3E_0165	Pahang	Lipis	New Main Road ( Lipis To Cemeron Highland) 3	4.348838	101.649252
6	T3E_0166	Pahang	Lipis	New Main Road ( Lipis To Cemeron Highland) 4	4.390578	101.617126
7	T3E_0167	Pahang	Lipis	Pos Lanai	4.403840	101.724581
8	T3E_0168	Pahang	Lipis	Pos Semui	4.311539	101.618419
9	T3E_0169	Pahang	Lipis	Pos Sinderut	4.183424	101.582408
10	T3E_0170	Pahang	Lipis	Pos Titom	4.290815	101.509908
11	T3E_0171	Pahang	Raub	Jln. Tersang-Sg. Koyan, Raub	4.147146	101.792248
12	T3E_0172	Pahang	Raub	Kg Padang Kela	4.025516	101.679360

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0173	Sabah	Beaufort	Kg Sg Gerama	5.363100	115.576700
2	T3E_0174	Sabah	Beaufort	Kg Karangan	5.145500	115.691940
3	T3E_0175	Sabah	Beaufort	Kg Bintuka	5.271700	115.415800
4	T3E_0176	Sabah	Beaufort	Beaufort3 (Kg Jabang)	5.287700	115.583683
5	T3E_0177	Sabah	Keningau	SK Kinaluan	5.591900	116.454000
6	T3E_0178	Sabah	Keningau	Kg Lanas	5.319610	116.499030
7	T3E_0179	Sabah	Papar	Kg.Kaiduan	5.783300	116.083300
8	T3E_0180	Sabah	Papar	Kg. Kinolosodon	5.555800	115.982800
9	T3E_0181	Sabah	Papar	Kg Ulu Bongawan Kimanis	5.333300	115.850000
10	T3E_0182	Sabah	Papar	Kg Gadong Kimanis	5.625800	115.911600
11	T3E_0183	Sabah	Penampang	Kg.Kalangaan	5.850000	116.272800
12	T3E_0184	Sabah	Penampang	Kg.Longkogungan	5.817540	116.308222
13	T3E_0185	Sabah	Penampang	Kg.Terian	5.810300	116.180900
14	T3E_0186	Sabah	Sipitang	SK Ulu Bole	4.826400	115.709000
15	T3E_0187	Sabah	Sipitang	SK Meligan	4.971200	115.671000
16	T3E_0188	Sabah	Sipitang	Long Pasia	4.406000	115.731400

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0189	Sabah	Pensiangan	Mukim Tibow	4.500000	116.733300
2	T3E_0190	Sabah	Pensiangan	Kg.Saliliran	4.572700	116.110300
3	T3E_0191	Sabah	Pensiangan	Kg Sibulu	4.470600	116.214200
4	T3E_0192	Sabah	Pensiangan	Kg Balahuyong	4.436800	116.330800
5	T3E_0193	Sabah	Pensiangan	Pekan Pensiangan	4.538980	116.312849
6	T3E_0194	Sabah	Pensiangan	Kg Sibugo	4.618600	116.229700
7	T3E_0195	Sabah	Pensiangan	Kg. Saliman	4.412740	116.433343
8	T3E_0196	Sabah	Pensiangan	Kg.Sumandi	4.539680	116.375136
9	T3E_0197	Sabah	Pensiangan	SK Longongon	4.380400	116.097000

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0198	Sabah	Kota Belud	Kg Taburan	6.612222	116.597778
2	T3E_0199	Sabah	Kota Belud	Kg Pituru	6.340280	116.338610
3	T3E_0200	Sabah	Kota Belud	Pulau Mantanani	6.364410	116.471976
4	T3E_0201	Sabah	Kota Belud	Lok Lunuk	6.297220	116.281600
5	T3E_0202	Sabah	Kota Marudu	Gana	6.341230	116.912700
6	T3E_0203	Sabah	Kudat	SK Sabur	6.720100	116.787000
7	T3E_0204	Sabah	Kudat	SK Manggis	6.454200	116.956000
8	T3E_0205	Sabah	Pitas	Kg Dandun Pusat	6.658330	117.016944
9	T3E_0206	Sabah	Ranau	Kg Bongkad/Kg Narawang	6.007320	116.779480
10	T3E_0207	Sabah	Ranau	Miruru	5.766944	116.978333
11	T3E_0208	Sabah	Ranau	Kg Pahu	5.942160	116.554900
12	T3E_0209	Sabah	Ranau	SK Pinawantai Ranau	6.123300	116.718000
13	T3E_0210	Sabah	Ranau	SK Nampasan	5.867000	116.685000
14	T3E_0211	Sabah	Tuaran	Tomis	5.996670	116.482778
15	T3E_0212	Sabah	Tuaran	Tiong Ratau	5.933060	116.400000
16	T3E_0213	Sabah	Tuaran	Kg Gonipis	5.943330	116.327222
17	T3E_0214	Sabah	Tuaran	Kg Sinorut	6.001390	116.312500
18	T3E_0215	Sabah	Tuaran	Kg Pangalan -North to Kg Betutai	6.243900	116.324400

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E			
1	T3E_0216	Sabah	Beluran	Meridian Plantation Labuk & Sugut	6.458440	117.405240			
2	T3E_0217	Sabah	Beluran	SK Abuan	6.242500	117.119000			
3	T3E_0218	Sabah	Beluran	Kg Tengkurus	6.312000	117.515400			
4	T3E_0219	Sabah	Beluran	Kg Pantai Boring	6.371800	117.620600			
5	T3E_0220	Sabah	Beluran	SK Golong	6.451500	117.283000			
6	T3E_0221	Sabah	Beluran	Kg Matanggal Lama	6.286300	117.231800			
7	T3E_0222	Sabah	Beluran	Melapi Sugut	6.219000	117.254300			
8	T3E_0223	Sabah	Beluran	Pamoi	6.015400	117.485800			
9	T3E_0224	Sabah	Sandakan	SK Ran Luboh	5.998117	117.964253			
10	T3E_0225	Sabah	Sandakan	Rosco Plantation	5.812909	117.505247			
11	T3E_0226	Sabah	Sandakan	Masang Estate	5.665400	117.868100			

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0227	Sabah	Kinabatanga n	Melewar Estate	5.324261	118.042100
2	T3E_0228	Sabah	Kinabatanga n	Kg Tangkong	5.218144	117.534800
3	T3E_0229	Sabah	Kinabatanga n	Kg Kuamut	5.219682	117.487900
4	T3E_0230	Sabah	Kinabatanga n	Tundun Bohangin	5.418710	118.077000
5	T3E_0231	Sabah	Kinabatanga n	SK Keramuak	5.914200	117.085000
6	T3E_0232	Sabah	Kinabatanga n	Pinangan Estet	5.099825	116.748100
7	T3E_0233	Sabah	Kinabatanga n	Abai Island -River Island	5.687300	118.383522
8	T3E_0234	Sabah	Tongod	Lalampas	5.439300	116.745900
9	T3E_0235	Sabah	Tongod	Tampasak	5.291000	116.883100
10	T3E_0236	Sabah	Tongod	Inarad	5.005200	116.857000

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0237	Sabah	Kalabakan	Km 10 Kalabakan- Nabawan	4.444200	117.417200
2	T3E_0238	Sabah	Kalabakan	Km 20 Kalabakan- Nabawan	4.494000	117.346800
3	T3E_0239	Sabah	Kalabakan	Km 30 Kalabakan- Nabawan	4.505500	117.273000
4	T3E_0240	Sabah	Kalabakan	Km 40 Kalabakan- Nabawan	4.522700	117.193500
5	T3E_0241	Sabah	Kalabakan	Km 50 Kalabakan- Nabawan	4.563500	117.138400
6	T3E_0242	Sabah	Kalabakan	Km 60 Kalabakan- Nabawan	4.547000	117.061200
7	T3E_0243	Sabah	Kalabakan	Km 70 Kalabakan- Nabawan	4.578000	116.991600
8	T3E_0244	Sabah	Kalabakan	Km 80 Kalabakan- Nabawan	4.584000	116.909100
9	T3E_0245	Sabah	Kalabakan	Km 90 Kalabakan- Nabawan	4.595700	116.823700
10	T3E_0246	Sabah	Kalabakan	Km 100 Kalabakan- Nabawan	4.617600	116.754800
11	T3E_0247	Sabah	Kalabakan	Km 110 Kalabakan- Nabawan	4.611700	116.679300
12	T3E_0248	Sabah	Tawau	Balong Cocos	4.375910	118.040090
13	T3E_0249	Sabah	Tawau	Kretam Kalabakan	4.299000	117.468000
14	T3E_0250	Sabah	Tawau	Kalabakan BS Estate	4.690000	117.300000
15	T3E_0251	Sabah	Tawau	Gunung Rara	4.534200	116.827700

Invitation to Register Interest as Universal Service Provider MCMC/RDD/PDD(1)/T3\_Extn(P1)/TCA/03/14(01)

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0252	Sarawak	Lubok Antu	Nanga Uyau, Nanga Patoh, Kekan	1.351836	111.813739
2	T3E_0253	Sarawak	Lubok Antu	Serubah, Rumah Joseph, Rumah Empaok, Lubok Subang	1.229980	111.782560
3	T3E_0254	Sarawak	Lubok Antu	Rumah Marian	1.110890	111.730180
4	T3E_0255	Sarawak	Sri Aman	Nanga Murat	1.338920	111.675310
5	T3E_0256	Sarawak	Sri Aman	Kampung Pulau, Kg. Maruji, Nanga Pelo, Nanga Kujuh	1.419459	111.675457
6	T3E_0257	Sarawak	Sri Aman	Rumah Lait, Rumah Beji, Rumah Sebangkoi, Rumah Gunong	1.044826	111.630065
7	T3E_0258	Sarawak	Sri Aman	Rumah Silit, Rumah Philip, Rumah Edward	1.055000	111.591499
8	T3E_0259	Sarawak	Sri Aman	Rumah Richard, Rumah Sanggau, Rumah Jawan, road to Paku	1.035529	111.581660
9	T3E_0260	Sarawak	Sri Aman	Rh. Tinchin, Rumah Sumel, Rh. Bruen, Rh. Ami	1.275170	111.207938
10	T3E_0261	Sarawak	Sri Aman	Rh. Abdul Rahman, Rumah Alam, Rumah Bager, SALCRA plantation	1.145763	110.994807
11	T3E_0262	Sarawak	Sri Aman	Kampung Gua Dalam, Sri Aman highway	1.083410	111.279029
12	T3E_0263	Sarawak	Sri Aman	Rumah Tungggang, Engkeramut	1.049920	111.385310
13	T3E_0264	Sarawak	Sri Aman	Skrang Betong Road	1.350300	111.616520
14	T3E_0265	Sarawak	Sri Aman	Tanjung Bijat, Kampung Bakong	1.337831	111.379310
15	T3E_0266	Sarawak	Sri Aman	Kampung Seduku, Lingga - Sri Aman road	1.384649	111.240265
16	T3E_0267	Sarawak	Sri Aman	Sri Aman Lidong road, Rumah Rambai	1.279404	111.532214

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0268	Sarawak	Betong	Rumah Beduru, Teberu, Rumah Pelandok, Pelawa, Jalan Ulu Paku	1.518100	111.517290
2	T3E_0269	Sarawak	Betong	Jambu Kerapa, Rumah Giri, Rantau Rayang, Nanga Bair, Rumah Panjang Jambu	1.576203	111.741428
3	T3E_0270	Sarawak	Betong	Kampung Manggut	1.512389	111.346946
4	T3E_0271	Sarawak	Betong	Rumah Philip Mujah, Rumah Renang, Rumah Sambang	1.569890	111.474910

5	T3E_0272	Sarawak	Betong	Nanga Bayor, Ulu Rimbas, Nanga Pek	1.636882	111.508661
6	T3E_0273	Sarawak	Betong	Kg. Setambak, Hilir, Setambak Hulu	1.427213	111.463742
7	T3E_0274	Sarawak	Betong	Rumah Dau, Rumah Ali, Rumah Ringkai	1.520040	111.659710
8	T3E_0275	Sarawak	Betong	Kampung Tuie, Kampung Dit	1.537786	111.357188
9	T3E_0276	Sarawak	Betong	Kampung Srui, Betong Suri road	1.530680	111.448670
10	T3E_0277	Sarawak	Betong	Kampung Supa, Kampung Medang	1.504519	111.283341
11	T3E_0278	Sarawak	Betong	Kampung Serabang, Ulu Dit	1.574835	111.347175

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0279	Sarawak	Saratok	Empayang Atas, Empayang Baroh, Empayang Pasir	1.871900	111.130050
2	T3E_0280	Sarawak	Saratok	Lubok Kerukoh, Rumah Lee, Rumah Jilan, Rumah Tangan	1.840032	111.455025
3	T3E_0281	Sarawak	Saratok	Rumah Sabai, Nanga Derau, Sungai Babang	1.731363	111.468572
4	T3E_0282	Sarawak	Saratok	Rumah Sandai, Rumah Budin, Rumah Kenchendai	1.853440	111.495110
5	T3E_0283	Sarawak	Saratok	Rumah Jawi, Rumah Unti, Rumah Inggot, Rumah Sang	1.700516	111.591918
6	T3E_0284	Sarawak	Saratok	Rumah Gimang, Rumah Ganya, Rumah Jangi	1.872750	111.469474
7	T3E_0285	Sarawak	Saratok	Lubok Kepayang, Rumah Medol, Rumah Seminai	1.811882	111.383219
8	T3E_0286	Sarawak	Saratok	Rumah Nyelang	1.789754	111.295374
9	T3E_0287	Sarawak	saratok	Simpang saratok, highway	1.787708	111.356636

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0288	Sarawak	Julau	Rumah Ayub, Rumah Enting, Rumah Nyandang	1.961170	111.788200
2	T3E_0289	Sarawak	Julau	SK Nanga Pedanum, Pakan-Pedanum road	1.913995	111.724425

3	T3E_0290	Sarawak	Julau	SK Nanga Meluan, Rumah Chuat,á Rumaah Randi, Rumah Genta	1.871424	111.927439
4	T3E_0291	Sarawak	Julau	Rumah Gani, Rumah Amba,á Rumah Nyikoh	1.754047	111.951088
5	T3E_0292	Sarawak	Julau	Rumah Eddy Madang, Julau Pakan road	1.879480	111.803440
6	T3E_0293	Sarawak	Matu	Feri Station, Igan - Matu road	2.829350	111.645970
7	T3E_0294	Sarawak	Matu	Kampung Kuala Matu	2.706803	111.466648
8	T3E_0295	Sarawak	Pakan	Rumah Beracok, Simpang Wak	1.906150	111.643270
9	T3E_0296	Sarawak	Pakan	Rumah George, Rumah Racak, Rumah Empati, Rumah Chabu	1.821085	111.645396
10	T3E_0297	Sarawak	Pakan	Nanga Dayu, Rumah Tindin, Rumah Samak, Rumah Senabong	1.734634	111.653662
11	T3E_0298	Sarawak	Pakan	SK Sungai Babai- Pakan road, Rumah Anyi	1.921320	111.640950
12	T3E_0299	Sarawak	Pakan	Rumah Dana	1.794604	111.853262

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0300	Sarawak	Dalat	Kg. Bungan Kecil, Kg. Bungan Besar	2.658960	111.812260
2	T3E_0301	Sarawak	Dalat	Kampung Medong Hilir, Medong Hulu	2.684436	111.938791
3	T3E_0302	Sarawak	Dalat	Kampung Teh, Ksampung Terus	2.822960	111.897320
4	T3E_0303	Sarawak	Kanowit	Durin-Kanaowit road	2.123850	112.070160
5	T3E_0304	Sarawak	Kanowit	Rumah Lambai, Rumah Minda, Ladang Mapai	2.108020	112.298100
6	T3E_0305	Sarawak	Kanowit	Nanga Jagau Settlement	1.881254	112.310220
7	T3E_0306	Sarawak	Kanowit	Nanga Dap, Rumah Jelan, Rumah Michael, Rumah Bantin	2.050489	112.322621
8	T3E_0307	Sarawak	Mukah	Rumah Sandin, Rumah Janin, Rumah Lili, Rumah Telajan	3.023574	112.623789
9	T3E_0308	Sarawak	Mukah	Matadeng - Kuala Balingian road	2.988800	112.412570
10	T3E_0309	Sarawak	Mukah	Kampung Sekai	2.837940	112.198240
11	T3E_0310	Sarawak	Mukah	Mukah - Selangau road	2.828790	112.333090
12	T3E_0311	Sarawak	Sibu	Nanga Tutus, Ladang Sawit	2.511974	111.850440
13	T3E_0312	Sarawak	Sibu	Tg. Penasu, Batu Burak	2.378270	111.795950
14	T3E_0313	Sarawak	Sibu	Rumah Malim, Rumah Takin, Rumah Jentau	2.464735	112.065473
15	T3E_0314	Sarawak	Sibu	Tamin, Rumah Nyawai, Rumah Dingun	2.510139	112.073013

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0315	Sarawak	Belaga	Tegulang Settlement (Murum Hydro Settlement)	2.695830	114.191670
2	T3E_0316	Sarawak	Belaga	Metalun Settlement (Murum Hydro Settlement)	2.656790	114.735080
3	T3E_0317	Sarawak	Belaga	Murum Dam	2.633199	114.363074
4	T3E_0318	Sarawak	Kapit	Pekan Nanga Merit	2.289690	113.129270
5	T3E_0319	Sarawak	Kapit	Skim Tunoh Settlement	2.050120	113.674790
6	T3E_0320	Sarawak	Kapit	Punan Ba, Nanga Ibun	2.369708	113.337515
7	T3E_0321	Sarawak	Kapit	Nanga Entawau, Rumah Nabau, Rumah Tijai, Nanga Merirai	1.823466	113.707821
8	T3E_0322	Sarawak	Kapit	Rumah Sait, Rumah Kupa, Rumah mamat, Rumah Jaing	1.798668	113.347300
9	T3E_0323	Sarawak	Kapit	Rumah Masam, Rumah Ugak, Rumah Enggam	2.074601	113.249697
10	T3E_0324	Sarawak	Song	Rumah Taboh, Nanga Embuau, Rumah Geruma	2.002249	112.656970
11	T3E_0325	Sarawak	Song	Nanga Bangkit, Rumah Sebastian, Arumah Janang	1.798328	112.645771
12	T3E_0326	Sarawak	Song	SK Lubok Bedil, RumahJinggai, Rumah Rantai	1.855606	112.617649
13	T3E_0327	Sarawak	Song	Nanga Engkuah	1.934360	112.534762

Clusie						
NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0328	Sarawak	Bintulu	Coastal Highway, plantation camp #1	3.330272	113.219538
2	T3E_0329	Sarawak	Bintulu	Coastal Highway, plantation camp #2	3.358303	113.290065
3	T3E_0330	Sarawak	Bintulu	Coastal Highway, plantation camp #3	3.442438	113.371635
4	T3E_0331	Sarawak	Bintulu	Coastal Highway, #4 Samalaju Industrial Park	3.564435	113.381952
5	T3E_0332	Sarawak	Bintulu	Kampung Maskat, Rumah Mandau, Rumah Agoh	3.206590	113.431740
6	T3E_0333	Sarawak	BIntulu	Rumah Libau, Rumah Bili, Rumah Mujah	3.042390	113.487550
7	T3E_0334	Sarawak	Bintulu	Coastal highway #5	3.727266	113.524849
8	T3E_0335	Sarawak	Niah Suai	Higwhway Bekenu Miri- Lambir, Peninjau	4.001225	113.893499

9	T3E_0336	Sarawak	Niah-Suai	Kg Bungai	4.064320	113.792963
10	T3E_0337	Sarawak	Niah-Suai	Kg. Selanyau, Kampung Danau	4.096180	113.850380
11	T3E_0338	Sarawak	Niah-Suai	Rh. Lingu, Rumah Tinggi, Rh. Jeli, Rh Duat, Hulu Sibuti, Sg. Pakut	3.917306	113.938914

		07475	USP	COVERAGE		LONGITUD
NO.	SITE ID	STATE	TARGET	OBJECTIVE	LATITUDE	E
1	T3E_0339	Sarawak	Marudi	Uma Bawang, LongTepen, Long Lunyim	3.605580	114.422650
2	T3E_0340	Sarawak	Marudi	Long Banga, Long Lamai	3.202750	115.369390
3	T3E_0341	Sarawak	Marudi	Long Bedian, Long Atip, Sungai Tenyok	3.793870	114.737890
4	T3E_0342	Sarawak	Marudi	Long Jegan	3.597187	114.126989
5	T3E_0343	Sarawak	Marudi	Long Jekitan, Long Bee, Ba Purau, Long Mekabar, Long Tikan	2.876599	114.930280
6	T3E_0344	Sarawak	Marudi	Long Kevok, Long Latei	3.799621	114.910438
7	T3E_0345	Sarawak	Marudi	Long Lellang A, Long Lellang B	3.421039	115.159634
8	T3E_0346	Sarawak	Marudi	Long Loyang, Long Batan, Apau Gun, Long Aya, Rumah Ugak Kalang	3.448180	114.122560
9	T3E_0347	Sarawak	Marudi	Longá San, Long Liam Keliman, Long Sektaong, Long Tap, Sungai Akah	3.303460	114.788580
10	T3E_0348	Sarawak	Marudi	Long Seridan	3.976400	115.069270
11	T3E_0349	Sarawak	Marudi	Long Sobeng, Tinjar, Long Dunin, Long Pejawai	3.324640	114.281050
12	T3E_0350	Sarawak	Marudi	Pa Dalih, Pa Mada	3.550000	115.550000
13	T3E_0351	Sarawak	Marudi	Rumah Jugah Anyi, Rumah Nyala Kedit, Sungai Belasoi	4.078419	114.378425
14	T3E_0352	Sarawak	Marudi	Rumah Entika, Rumah Hillary, Rumah Undak, Rumah Lansam	4.128953	114.347906
15	T3E_0353	Sarawak	Marudi	Rumah Sering, Ladang Bunut	3.820100	114.300469
16	T3E_0354	Sarawak	Marudi	Long Pila	3.483587	114.428793

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0355	Sarawak	Lawas	Ba Kelalan highland	3.983230	115.619330
2	T3E_0356	Sarawak	Lawas	Kampung Awat-Awat, Main Road Trusan- Awat-Awat	4.947020	115.230780
3	T3E_0357	Sarawak	Lawas	Long Semado, Kg Punang Trusan	4.235880	115.589550
4	T3E_0358	Sarawak	Lawas	Long Sukang, Long Lutok	4.552720	115.490900
5	T3E_0359	Sarawak	Lawas	Kampung Pengaleh	4.827610	115.449036
6	T3E_0360	Sarawak	Lawas	Kampung Bukit Naga, Kampung Sulai, Kudong	4.875600	115.356296
7	T3E_0361	Sarawak	Limbang	Rumah Agih, Rumah Insungai, Rumah Kuala Medalam, Melaban	4.397670	114.902480
8	T3E_0362	Sarawak	Limbang	Kampung Gadong, Kampung Buangabai	4.771243	114.938144
9	T3E_0363	Sarawak	Limbang	SK Ulu Lubai, Nanga Merit, Rumah Dalie, Klinik Nanga Merit	4.539255	114.973767

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0364	Sarawak	Bau	Kg. Skio, Segubang, Seromah, Sogo	1.384680	110.224700
2	T3E_0365	Sarawak	Bau	Kg. Stass Kecil, Kg. Stass Besar, Kg. Skibang,	1.396140	110.002580
3	T3E_0366	Sarawak	Bau	Kg. Suba Buan, Taiton, Suba Baru, Kg. Boring	1.400750	110.102930
4	T3E_0367	Sarawak	Bau	Bengoh Settlement, Plaman Skio	1.340722	110.223617
5	T3E_0368	Sarawak	Kuching	Kg. Bradek, Kg Semilang, Kg. Tiang Api	1.609460	110.504010
6	T3E_0369	Sarawak	Kuching	Kg. Duras	1.360580	110.389750
7	T3E_0370	Sarawak	Lundu	Kg. Serabang, Telok Melano	1.993250	109.655000
8	T3E_0371	Sarawak	Lundu	Jalan Lundu - Sampadi	1.625941	109.922440
9	T3E_0372	Sarawak	Lundu	Kampung Kandai, Engkeranji	1.570684	109.775447
10	T3E_0373	Sarawak	Lundu	Kampung Bwelungei Besar, Belungei Kecil	1.770541	109.835011
11	T3E_0374	Sarawak	Padawan	Kg. Sadir, Kg. Annah Semuti, Kg. Tindu/Sibakar	1.101940	110.281560
12	T3E_0375	Sarawak	Padawan	Kg. Kakas, Kg. Kiding, Kg. Tabak, Kg. Assom	1.190050	110.213990

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NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0376	Sarawak	Daro	Kampung Tebaan Besar, Tebaan Kec il	2.458469	111.532217
2	T3E_0377	Sarawak	Daro	Tanjung Manis - Sibu Road #1	2.269020	111.436260
3	T3E_0378	Sarawak	Daro	Tanjung Manis - Sibu Road #2	2.231730	111.384499
4	T3E_0379	Sarawak	Daro	Tanjung Manis - Sibu Road #3	2.280417	111.557215
5	T3E_0380	Sarawak	Daro	Kampung Paloh	2.413068	111.255911
6	T3E_0381	Sarawak	Sarikei	Rumah Jawa, Rumah Mudam, Rumah Lanyau	2.002470	111.389340
7	T3E_0382	Sarawak	Sarikei	Rumah Nanang, Nisau, Rumah Jarin	1.989741	111.514905
8	T3E_0383	Sarawak	Sarikei	Rumah Sigat, Giring, Gundi, Rumah Meringgai	2.082685	111.438581
9	T3E_0384	Sarawak	Sarikei	Rumah Nyuka, Rumah Girie, Rumah Sandai	1.943836	111.503424
10	T3E_0385	Sarawak	Sarikei	SJK Hua Kee, Rumah Mulong, Rumah Clement, Rumah Sumbang	2.003805	111.583660
11	T3E_0386	Rumah Jantan, Rum		Rumah Jantan, Rumah Sujang, Rumah Usay, Rumah Andit	2.054722	111.406008

NO.	SITE ID	STATE	USP TARGET	COVERAGE OBJECTIVE	LATITUDE	LONGITUD E
1	T3E_0387	Sarawak	Serian	Kg. Lanchang, Kg. Jenan, Kg. Pesah	1.156083	110.487238
2	T3E_0388	Sarawak	Serian	Kg. Karan Poneg, Kg. Koran Padang	1.088910	110.546530
3	T3E_0389	Sarawak	Serian	Kg. Mongkos, Kg. Mujat	0.885510	110.591000
4	T3E_0390	Sarawak	Serian	Kg. Paon Gahat, Pahan Rimo, Kerangan Ngurak, Palm Oil Mill	0.960435	110.667867
5	T3E_0391	Sarawak	Serian	Kg. Resak, Kg. Peridan, Kg. Sengai Mawang	1.048390	110.579660
6	T3E_0392	Sarawak	Serian	Kg. Reteh Mawang, Reteh Plaman	1.068700	110.449720
7	T3E_0393	Sarawak	Serian	Kg. Sejijak Plaman, Sejijak Mawang, Sejijak Kabuhu	1.066640	110.350150
8	T3E_0394	Sarawak	Serian	Kg. Semada Mawang, Semada Belatok, Kg. Tapang Lebat	1.102080	110.806250
9	T3E_0395	Sarawak	Serian	Kg. Kranji A, Kg. Kranji B, Kg. Tapang Lemaung, Kg. Linsat	0.968553	110.720477
10	T3E_0396	Sarawak	Serian	Kg. Temong Mawang, Kg. Tepoi, Kg. Nurul Huda	1.052716	110.303290

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11	T3E_0397	Sarawak	Sarawak Simunjan Kampung Mentu, Rumah Ligok,Muding		1.265419	111.029811
12	T3E_0398	Sarawak	Simunjan Kg. Lubok Punggor		1.339938	110.690109
13	T3E_0399	Sarawak	Simunjan	Kg. Tungkah	1.540710	110.789080
14	T3E_0400	Sarawak	Simunjan	Simunjan _ Kenion Main road	1.315065	110.861044

# APPENDIX 2 – SCOPE OF WORK

# A) PART 1 : Installation of Tower and Infrastructure

A1. The facilities to be provided shall include the following components:

NO.	CATEGORY	ITEM
1		Self-Supporting Tower
2	-	Fall Arrest System
3		Aviation Light
4	A	Lightning Protection System
5		Anti-Climb System
6		Tower Vertical Cable Gantry
7		Tower Structure Foundation
8		Concrete Plinth for Cabin / Outdoor BTS and Genset System
9		Basic Grounding and Earthing Systems
10	В	Civil Works and Drainage System
11		Fencing System & Entrance Gate
12		Access Road

## B) PART 2 : <u>Installation of Equipment and Electronics</u> (Radio Access Network (RAN) Sharing Approach)

B1. The equipment to be provided shall include the following components:

NO.	ITEM
1	Base Transceiver Station (BTS) Equipment
2	Backhaul via Microwave, VSAT or Fiber
3	Antenna and Feeder System
4	Antenna Support System
5	AC Power Supply
6	Feeder Pillar with Meter Panel
7	AC Main Distribution Board Systems – Outdoor or Indoor Type
8	DC Power System Including Back Up Batteries
9	Outdoor Cabinet or Cabin Complete With Accessories
10	Alarm Monitoring System
11	Any Necessary Upgrades or Additional Equipment As Required In The Core Network Inclusive For The Contingency Plan for Natural Disasters Situation Like Flooding and Etc.
12	Horizontal Cable Gantry

- B2) Cabin shall be deployed only at collector site. As for spur site, outdoor cabinet shall be used.
- B3) As for the antenna, the required configuration is 3 sector panel antennas with a separation of 60 to120 degrees between the antennas.
- B4) For satellite links, technical measures must be implemented to handle customer expectation with respect to propagation delay and latency.

## **APPENDIX 3 - REGISTRATION OF INTEREST FORM**

[To be printed on Interested Licensee's Letterhead]

# **REGISTRATION OF INTEREST**

#### To: RURAL DEVELOPMENT DIVISION Suruhanjaya Komunikasi dan Multimedia Malaysia Ground Floor, Prima Avenue 1, Block 3507, Jalan Teknokrat 5, 63000 Cyberjaya, Selangor

Date:

Dear Sir,

# UNIVERSAL SERVICE PROVISION - REGISTRATION OF INTEREST TO BE UNIVERSAL SERVICE PROVIDER FOR THE PROVISION OF PUBLIC CELLULAR SERVICE

We refer to the "Invitation to Register Interest as Universal Service Provider – Ref. no. "MCMC/RDD/PDD(1)/T3\_Extn(P1)/TCA/03/14(01)" ("the Invitation") issued by MCMC on [ to insert date ].

We hereby register our interest to be the universal service provider pursuant to subregulation 5(1) of the Communications and Multimedia (Universal Service Provision) Regulations 2002 ("the Regulations") in the following universal service targets :

Cluster	Scope of Work
[ Insert the Cluster No.]	[PART 1 and / or PART 2]
[ Insert the Cluster No.]	[PART 1 and / or PART 2]
[ Insert the Cluster No. ]	[PART 1 and / or PART 2]
	[ Insert the Cluster No.] [ Insert the Cluster No.]

4. .....

We are also aware that pursuant to subregulation 6(1) of the Regulations, we are legally obliged to submit the draft universal service plan(s) for the universal service targets chosen above on or before the time frame specified in the Invitation.

Signed for and on behalf of

by [ to be signed by the Chief Executive Officer or any other person authorized by the Company]

# **APPENDIX 4 – SUMMARY OF LICENSEE INFORMATION**

- 1. Full Company's Name:
- 2. Full Address:
- 3. E-Mail Address:
- 4. Homepage/Website:
- 5. Status of Incorporation: Sole Proprietor / Partnership / Enterprise /Sendirian Berhad / Berhad / Private Limited / Limited
- 6. Date Incorporated:
- 7. Date of Operation:
- 8. Paid up Capital (RM):
- 9. Status of Licences:
  - a) NFP(I): Yes / No
  - b) NSP(I): Yes / No
  - c) ASP(I): Yes / No
- 10. Collaboration Partner (If applicable) :
- 11. Number of Employees:
- 12. Bumiputera Status: Yes / No
- 13. Financial Details:
  - a) Asset (RM):
  - b) Liability (RM):
  - c) Worth (Asset Liability) (RM):

#### Note:

The Interested Licensee is required to enclose:

- the financial statement and audited account for the last 2 or 1 financial year in order to support the above information;
- a copy of individual license and it's conditions;
- track records (Interested Licensees and Collaboration Partner (if applicable).

# APPENDIX 5- SUMMARY OF TECHNICAL PROPOSAL FOR (CLUSTER #, Scope of Work: Part #)- where applicable

## PART 1

USP TARGET	SITE NAME	SITE ID	SITE LOC/	ATION	COVERAGE OBJECTIVE	TOWER TYPE AND HEIGHT	SITE CATEG (COLLE / SPUR)	CTOR	CABIN SIZE	SITE FOOTPRINT	COMPLETION DATE
(Name	Site A										
of	Site B										
USP Target 1)											
(Name	Site A										
of	Site B										
USP Target 2)											
(Name	Site A										
of USP Target 3)	•••••										

## PART 2

USP TARGET	SITE NAME	SITE ID	SIT LOCA	COVERAGE OBJECTIVE	TOWER TYPE AND HEIGHT	AC & DC POWER SUPPLY	SITE CATEGORY	SITE CAPACITY	INTER OPERABILITY & INTER CONNECTION	EQUIPMENT CONFIGU- RATION	COMPLETION DATE
(Name	Site A										
of	Site B										
USP Target 1)											
(Name	Site A										
of	Site B										
USP Target 2)											
(Name	Site A										
of USP Target 3)											

# APPENDIX 6 - SUMMARY OF FINANCIAL PROPOSAL FOR (CLUSTER # Scope Of Work: Part #)- where applicable

# PART 1

USP TARGET	SITE NAME	SITE ID	PRELIMINARIES	TOWER	SITE INFRASTRUCTURE AND ANCILLARIES	ADDITIONAL WORK (if any)	TOTAL (RM)
(Name of	Site A						
USP	Site B						
Target 1							
(Name of	Site A						
USP	Site B						
Target 2)							
					]		
TOTAL (RM)							

## PART 2

USP TARGET	SITE NAME	SITE ID	PRELIMINARIES	BTS EQUIPMENT	BACKHAUL	ANTENNA SYSTEM	AC & DC POWER SUPPLY	ALARM SYSTEM	INTER OPERABILITY & INTER CONNECTION	NECESSARY UPGRADES OR ADDITIONAL EQUIPMENT (IF REQUIRED)	TOTAL (RM
(Name of	Site A										
USP	Site B										
Target 1)											
(Name of	Site A										
USP	Site B										
Target 2)											
TOTAL (RM)											

# **APPENDIX 7 - DETAILS OF FINANCIAL PROPOSAL (PER SITE)**

PART 1 CLUSTER : USP TARGET : SITE NAME : SITE ID :

# Bill of Quantity for 76m Height Tower (20m x 18m footprint)

ITEM		DESCRIPTION	UNIT	QTY	UNIT COST	TOTAL (RM)
		1. PRELIMINARIES	-	-		
Α	General					
	1	Provision for Insurance during construction period	LS			
В	Site Plan	ning & Design				
	1	Site Survey	LS			
	2	Services of licensed surveyor for setting out of the Site Boundary	LS			
	3	Soil investigation	LS			
	4	C&S, M&E Consulting Engineer Services & Design including PE Endorsement	LS			
С	Site Acq	uisition				
	Deposits and Preliminary rental charges to landowner (prior to official site handover to P 2) - maximum 3 months + 2 months deposit		LS			
D	Site Man	agement				
	1	Site Monitoring and Inspection	LS			
	2	Monthly Reporting & Meetings	LS			
Е	Permittir	ng & Authority Fees				
	1	OSA Fees, Local Authority fee/charges, permit fees and other fees deemed necessary.	LS			
		TOTAL PRELIMINARIES				
		2. TOWER & ACCESSORIES				
Α	Tower Su					
	1	Supply, Delivery & Install 3 Legged Tower inclusive of:				
	а	Vertical Gantry	LS			
	b	Fall Arrest System				
	С	Stainless Steel Lightning Arrestor (3m x 16mm dia)				

ITEM		DESCRIPTION	UNIT	QTY	UNIT COST	TOTAL (RM)
	d	Anti-Climb devices consisting of cage & barb wire				
	е	Brackets for Aviation lights & Lightning Arrestor				
	f	Tower Erection				
	g	Paint				
	h	Delivery				
	i	PE Endorsement				
В	Tower Ea	arthing & Plates				
	1	To supply, install and commission tower grounding system:				
	а	Cu ground plate size 1200mm x 1200mm x 3mm thick at each leg	рс			
	b	Supply and install 355mm x 100mm x 6mm Cu busbar c/w 50mm pvc cable in 50mm diameter GI pipe at 3 levels of the tower	рс			
	с	70mm Cu Cable with one end cadweld to tower leg with expose cable run in 50mm diameter galvanised iron pipe and the other and cadweld to the cu plate	LS			
С	Tower Fo	oundation				
	machineri foundation timbering requireme complete	d Concrete Pad Foundation.To supply manpower, ies, necessary tools and equipments for normal n excavation up to 3m deep, place formworks, (if necessary), anchor bolt setting as per ent, supply and placing of minimum G30 concrete with reinforcement bars, dewatering, back filling, on including all necessary works.				
	1	Excavation for foundation maximum depth not exceeding 4m deep, backfill and remove surplus spoil and deposit, spread and level on site as specified	m3			
	2	Concrete:				
	а	Lean Concrete Grade 15P for foundation base - 75mm	m3			
	b	Concrete Grade 30P as specified in Foundation, Stump & Tie Beam	m3			
	3	Steel Bars in reinforcement to concrete works generally including all cutting, bending and placing in position				
	а	High Tensile - Pad Footing, Stump & Tie Beam	Kg.			
	b	Mild Steel - Stump & tie Beam	Kg.			
	4	Sawn Formwork				
	а	<ul> <li>To sides of foundation, stump &amp; tie beam</li> </ul>	M2			
		TOTAL TOWER				

ITEM		DESCRIPTION		QTY	UNIT COST	TOTAL (RM)		
	3. SITE INFRASTRUCTURE AND ANCILLARIES							
Α	Site Clea	rance						
	1	Excavate oversite average 150mm deep to level off formation or reduce level.	M2	590				
В	Concrete							
	1	200mm thk hardcore, one layer BRC A7 and 100mm thk grade 25 concrete over site - platform 24m x 20m						
	2	200mm Hardcore	M3	90				
	3	100mm Concrete Grade 25P	М3	35				
	4	BRC A8	M2	350				
С	Concrete	Plinth For						
	1	Cabin / Outdoor base (size: 5.4m x 4.8m x 0.40m thk)						
	а	50mm thk lean Concrete Grade 15P for foundation base – 5.4 x 4.8 x 0.05	M3	2				
	b	400mm thk reinforced concrete (G30) – from platform level	M3	11				
	С	To supply and lay 1 layer BRC A7 reinforcement for concrete platform	M2	35				
	d	Sawn formwork	M2	9				
	е	100m Dia, 1W PVC Duct	Nos	1				
	f	Inspection Type A	Nos	1				
	2	2 x Genset c/w skid tank (7m x 3m x 0.2m thk)						
	а	50mm thk lean Concrete Grade 15P for foundation base	M3	1				
	b	200mm thk.Reinforced concrete (G30) – from platform level	M3	4.5				
	С	To supply and lay 1 layer BRC A7 reinforcement for concrete platform	M2	28				
	d	Sawn formwork	M2	4				
	е	Inspection Type B	M2	4				
D	Premix A	rea / Rc Concrete (*To fill either Item 1 or Item 2)						
	*1	1st 30m Premix Access Road - 3m wide (1st 6m = 4.8m wide)						
	а	50mm thick sand spread, levelled and compacted to falls and chambers with an 8-ton roller	M2	105				
	b	200mm (finished) thick crusher run base course	M2	105				
	С	50mm asphaltic concrete wearing course	M2	105				
	d	Bituminous binder	M2	105				

ITEM	DESCRIPTION		UNIT	QTY	UNIT COST	TOTAL (RM)
	е	75mm thick premix	M2	105		- -
	*2	1st 30m RC Concrete Road - 3m wide				
	a 100mm hardcore		M2	105		
	b 50mm lean concrete Grade 15P		M2	105		
	С	100mm Concrete Grade 20P	M2	105		
	d	1 layer mesh fabric A6	M2	105		
Е	Perimeter Drainage					
	1	300mm width block drain thk including all necessary excavation	m	30		
2		To supply, excavate and construct 450mm x 450mm brickwall sump at as per drawings at suitable discharge point. The rate include lean concrete, concrete base complete with 1 layer cement mortar rendering to exposed brickwall as per drawings	Nos 1			
	3	Soakway pit 1200mm dia 1500mm deep c/w retractable cover (where necessary)	Nos	1		
F	Fence Ar	nd Gate				
	1	Supply and install 2600mm high 50mm x 50mm x 3.3/2.8mm PVC coated galvanised mesh chain link fencing with 75mm x 75mm x 5mm thick angle and 50mm x 50mm x 5mm thick bracing post both embedded in and including 450mm x 450mm x 600mm deep concrete footing	m	72		
	2	Extra Over for 4 strands barb wire on top	m	76		
	Supply and install 2600mm (H) x 4000mm (W) 50 x 50 SWG 10 galvanised mild steel chain link fencing gate in two leaf complete, including 2 bolts with PVC pocket sleeves, stainless steel h/duty padlocks, hinges, concrete foundation, 500mm high bard wire and ets including all other related items.		LS			
	4	Supply and install 3600mm (H) x 150mm (Ø) x 6mm (thk) steel pipe gate post both embedded in infill with concrete	LS			
G	Turfing					
	1	1500mm closed turfing to surrounding fencing at site level (75mm thk)	M2	72		
Н	Electrica	l Pit				

ITEM		DESCRIPTION	UNIT	QTY	UNIT COST	TOTAL (RM)
	1	450mm x 450mm Electrical Pit c/w retractable lifting handle (outdoor with hinges), inclusive necessary 100mm diameter PVC duct	No	1		
I	Basic Grounding And Earthing System					
	1	To supply and install common earthing system (compound area) c/w copper tape, copper rod, G.I pipe 50mm and cadweld jointing	No	1		
	2	To supply and install common earthing system (plinth) c/w copper tape, 3 units of MGB, vertical G.I pipe 50mm infill with concrete and cadweld jointing	No	1		
	3	300mm x 300mm Heavy Duty Earth Chamber	No	3		
	4	450mm x 475mm Inspection Pit c/w retractable lifting handle (outdoor with hinges), inclusive necessary 100mm diameter PVC duct	No	2		
	5	To supply and install earthing system for feeder c/w vertical 50mm GI pipe infill with concrete, copper cable, MGB and proper connection to the common earthing system using copper clamp with hidrolic cramping	No	1		
J	Compour	nd Lighting				
	1	Supply and install 6m hot dipped Galvanised column c/w 250W floodlight 2nos per each c/w accessories) and u/g cable 6mm <sup>2</sup> .	No	4		
K	Aircraft V	Varning Light				
	1	Supply and install Solar LED Aircraft Warning Lights c/w ultra high intensity 100,000 hours life expectancy, equipped with built-in back battery.	No	3		
		TOTAL SITE INFRASTRUCTURE AND ANCILLARIES				
	4. SITE	INFRASTRUCTURE FOR NATURAL DISASTERS	(to fill	if nece	ssary)	
L	Concrete	Plinth For				
	1	Cabin / Outdoor base (size: 5.4m x 4.8m x 0.70m thk)				
	а	50mm thk lean Concrete Grade 15P for foundation base – 5.4 x 4.8 x 0.05	М3	2		
	b	600mm thk reinforced concrete (G30) – from platform level	М3	11		
	С	To supply and lay 1 layer BRC A7 reinforcement for concrete platform	M2	35		
	d	Sawn formwork	M2	9		
	е	100m Dia, 1W PVC Duct	Nos	1		

ITEM		DESCRIPTION	UNIT	QTY	UNIT COST	TOTAL (RM)
	f	Inspection Type B	Nos	1		
	g	To supply and install "I" beam base (size: 4m x 0.2m x 0.2m x 0.01m thk)	Nos	6		
	h	Concrete steps	Nos	1		
	2	2 x Genset c/w skid tank (7m x 3m x 0.7m thk)				
	а	50mm thk lean Concrete Grade 15P for foundation base	М3	1		
	b	600mm thk.Reinforced concrete (G30) – from platform level	М3	4.5		
	с	To supply and lay 1 layer BRC A7 reinforcement for concrete platform	M2	28		
	d	Sawn formwork	M2	4		
М	Electrica	Pit				
	450mm x 450mm Electrical Pit c/w retractable lifting handle (outdoor with hinges), inclusive necessary 100mm diameter PVC duct		No	1		
Ν	Basic Gr	ounding And Earthing System				
	1	To supply and install common earthing system (compound area) c/w copper tape, copper rod, G.I pipe 50mm and cadweld jointing	No	1		
	2	300mm x 300mm Heavy Duty Earth Chamber	No	3		
	3	450mm x 475mm Inspection Pit c/w retractable lifting handle (outdoor with hinges), inclusive necessary 100mm diameter PVC duct	No	2		
	4	To supply and install earthing system for feeder c/w 50mm GI pipe, copper cable, MGB and proper connection to the common earthing system	No	1		
		TOTAL SITE INFRASTRUCTURE FOR NATURAL DISASTERS				
		SUMMARY				
1		TOTAL PRELIMINARIES				
2		TOTAL TOWER				
3		TOTAL SITE INFRASTRUCTURE AND ANCILLARIES				
	4	TOTAL SITE INFRASTRUCTURE FOR NATURAL DISASTERS (to fill if necessary)				
		SUMMARY OF TOTAL PART 1				

## <u> PART 2</u>

## CLUSTER : USP TARGET: SITE NAME: SITE ID: SITE CATEGORY: (SPUR/COLLECTOR)

NO	DESCRIPTION	UNIT	QTY	UNIT COST	TOTAL (RM)			
	1. PRELIMINARIES							
а	Insurance							
	1. Provision for Insurance during construction period	LS	1					
b	Planning & Design							
	1. Techical Site Survey - Pre and Post Award	LS	1					
	2. RF & TX Audit	LS	1					
	3. Network Design	LS	1					
С	Site Supervision and Management							
	1. Site Monitoring and Inspection	LS	1					
	2. Monthly Reporting & Meetings	LS	1					
d	Double handling charges - subject to site condition	LS	0					
	only applicable for sites not accessible by land							
е	Deposit / Contribution Charges for incoming power supply	LS	0					
	TOTAL ITEM 1 : PRELIMINARIES							
	2. BTS EQUIPMENT / NODE B							
а	Supply of Complete BTS Equipment (2G and 3G)	per site	1					
b	Installation, Commissioning & Integration	per site	1					
С	Optimisation	per site	1					
	TOTAL ITEM 2 : BTS EQUIPMENT							

NO	DESCRIPTION	UNIT	QTY	UNIT COST	TOTAL (RM)
	3. BACKHAUL (*To fi	ll either Item a o	or Item	b)	
*а	PDH Microwave System				
	1. Supply of Complete PDH Microwave System for Complete Link including necessary feeder cable, brackets and jumper.	per link	1		
	2. Frequency Scanning, physical LOS check, installation, commisioning & Integration of PDH Microwave System for complete link	per link	1		
	3. Supply and install complete antenna support system	set	1		
*b	VSAT Transmission System including plinth	per link	1		
	TOTAL ITEM 3 : BACKHAUL				
	4. ANTENNA SY	STEM			
а	Supply of Complete Antenna	set	3		
b	Supply of Complete antenna feeder system (AFS) including necessary feeder Cable, brackets and jumper	set	1		
с	Supply and install complete antenna support system	set	3		
с	Installation and Testing of complete antenna system	set	1		
	TOTAL ITEM 4 : ANTENNA SYSTEM				
	5. DC POWER SU	PPLY			
а	Supply of Complete Rectifier System and Battery Backup System	LS	1		
b	Installation and Commissioning of rectifier and battery system including necessary power and grounding cables.	LS	1		
	TOTAL ITEM 5 : DC POWER SUPPLY				

a	BSC Upgrade	LS	1	
)	RNC	LS	1	
2	Backhaul (Link Transmission Upgrade)	LS	1	
b	MSC Upgrade / EMS	LS	3	
5	RNC basic features	LS	per site	
	TOTAL ITEM 6 : UPGRADING/ ADDITIONAL EQUIPMENT			
	7. EQUIPMENT SHELTER & ALARM SYSTEM	/I (*To fill eith	er Item a	or Item b)
۱*	Supply & Install Cabin complete with all necessary accessories	set	1	
)*	Supply & Install Outdoor Cabinet	set	1	
С	Supply & Install horizontal cable gantry	set	1	
d	Supply & Install MGB at the edge of horizontal gantry	Nos	1	
Э	Supply and install of Intruder System	LS	1	
	*Note: To choose either Item a or Item b			
	TOTAL ITEM 7 : EQUIPMENT SHELTER & ALARM SYSTEM			
	8. AC POWER	SUPPLY	•	
a	AC Main Distribution Board System (* To fill either Item 1 or Item 2)			
*	To supply and install 3phase 60A TPN ACPDB indoor type (for Cabin)			
)* -	To supply and install 3phase 60A TPN Power Distribution Unit (PDU) Weather proof Outdoor Type (for Outdoor BTS)			
3	EL-4C x 35mm (u/g)PVC/SWA/PVC cable from meter box	LS	1	
1	To supply and install metering panel / meter box	LS	1	

b	Sourcing of Permanent Power Supply (To fill one item only)			
1	Power Supply sourced from National grid (3phase 60Amps) - overhead including concrete poles 35mm overhead cable, staywires and all necessary labour	Lot	1	
2	Supply and Install Hybrid Power System	Lot	1	
3	Supply & Install Generator Set System: 2 x15kVA Genset c/w 1,000L skid tank	Lot	1	
4	Supply & Install Generator Set System: 2 x20kVA Genset c/w 2,000L skid tank	Lot	1	
	TOTAL ITEM 8 : AC POWER SUPPLY			
	SUMMARY			
	TOTAL ITEM 1: PRELIMINARIES			
	TOTAL ITEM 2: BTS EQUIPMENT			
	TOTAL ITEM 2: BTS EQUIPMENT TOTAL ITEM 3: BACKHAUL			
	TOTAL ITEM 3: BACKHAUL			
	TOTAL ITEM 3: BACKHAUL TOTAL ITEM 4: ANTENNA SYSTEM TOTAL ITEM 5: DC POWER SUPPLY TOTAL ITEM 6 : UPGRADING/ ADDITIONAL EQUIPMENT			
	TOTAL ITEM 3: BACKHAUL TOTAL ITEM 4: ANTENNA SYSTEM TOTAL ITEM 5: DC POWER SUPPLY TOTAL ITEM 6 : UPGRADING/ ADDITIONAL			
	TOTAL ITEM 3: BACKHAUL TOTAL ITEM 4: ANTENNA SYSTEM TOTAL ITEM 5: DC POWER SUPPLY TOTAL ITEM 6 : UPGRADING/ ADDITIONAL EQUIPMENT TOTAL ITEM 7: EQUIPMENT SHELTER &			

# <u>APPENDIX 8 - MAINTENANCE AND OPERATION SUPPORT PLAN (where applicable)</u>

The preventive and corrective maintenance includes operational checking and testing as well as cleanliness and tidiness of the site and equipment.

## A. Preventive Maintenance

NO	ITEM	MANPOWER PER SITE	FREQUENCY	DESCRIPTION

#### **B.** Corrective Maintenance

NO	ITEM	MANPOWER PER SITE	RESPONSE TIME	OPERATING CENTER (OPERATING HOUR)

- C. Contact Personnel
- D. Hotline/Contact No. :

2

E. Others :

# **APPENDIX 9 – TECHNICAL SPECIFICATIONS**