Report on Proposed 2017 UAS Projects

Pursuant to Section 108(1) of the National Information and Communications Technology Act 2009

From NICTA to the UAS Board

26 April 2017

1. Introduction

NICTA through the UAS Secretariat has undertaken, for the 2017 year, the tasks listed in Section 108 (1) of the **National Information and Communications Technology Act 2009** (the 'Act'), namely to:

   a) *identify, develop and estimate the indicative cost of UAS Projects; and*

   b) *receive from stakeholders' submissions on proposals for UAS Projects; and*

   c) *undertake public consultation, if NICTA considers it necessary or desirable, to identify UAS Projects and their indicative costing; and*

   d) *estimate the proposed aggregate budget for all UAS Projects to be undertaken under this Part for the relevant period identified by the UAS Board; and*

   e) *rank the UAS Projects identified and developed under Subsections (1)(a) or (b) in order of priority with regard to –*

      i) *their affordability within the proposed budget; and*

      ii) *the remaining factors listed in Subsection (4); and*

   f) *prepare for consideration by the UAS Board, a report which summarises the UAS Projects under consideration, their respective indicative costing, their proposed ranking (and the reasons for their ranking), and the proposed aggregate budget, as identified above.*

This Report refers to and reflects the above work by NICTA, and is prepared pursuant to Section 108 (1) (f) for consideration by the UAS Board.

For the 2017 Year, NICTA has identified three UAS Projects that it believes should be implemented in 2017.   NICTA also has ranked these three projects, and provided a total budget for them, as set out below.

NICTA has identified these three projects having regard to the relevant portions of the Act, including Section 90 (1), which states:

> *The objective of the Universal Access and Service Fund is to promote the long-term economic and social development of Papua New Guinea by funding approved UAS Projects that will encourage the development of ICT infrastructure and improve the availability of ICT services within Papua New Guinea, including in rural communities."*

The three projects proposed for 2017 are described further below. NICTA notes that, among other things, these three projects promote the objective of Section 90 (1) by:

   i) Facilitating an enabling environment for ICT;

   ii) Promoting Universal Access and Universal Service;

   iii) Promoting Universal Coverage; and

   iv) Facilitating connectivity for development.

NICTA also has given consideration to the following criteria relating to selection and/or implementation of UAS Projects.

- Co-location and infrastructure sharing: Projects will wherever feasible be ones that involve infrastructure sharing by service providers at reasonable prices to prevent or reduce UAS funds being used to create local monopolies.

- Social inclusion: All UAS projects shall be designed and implemented in a manner which enables equitable access to ICT services by vulnerable groups and disadvantaged interests, that is, the elderly, physically challenged, women and children in the community.

- Geographic coverage: UAS programs and projects will be developed for provinces and wards, and will provide service to un-served and underserved areas and communities.

- Promote private sector investment: UAS programs and projects will stimulate increased private sector investment in un-served and underserved areas.

- Encourage competition: UAS programs and projects will encourage competition, as much as possible, between operators and by using transparent and competitive mechanisms to allocate UAS financing and subsidies.

- Promote consumer interest: UAS programs and projects will promote consumer interest by facilitating access to affordable, readily available and reliable ICT services.

- Sustainability: the UAS plan will give priority to programs and projects that are self-sustaining and do not require subsidies on a continuous basis.

- Foster economic and social development: UAS programs and projects will stimulate productive use of ICTs for economic, social and cultural development.

- Consultation, transparency and accountability: the UAS plan will develop and periodically update its programs and projects through public consultations with all key public, private and civil society stakeholders.

- Quality of service: the UAs will enforce compliance with quality of service standards with respect to its projects.

- Technology neutrality: UAS programs and projects will be guided by the principle of technology neutrality and allow the market place to define the best technology solutions.

2. Proposed Project: Voice Connectivity

The project was commenced under World Bank funding in 2014. It is NICTA's proposal that the project be extended into 2017. The project also is of such a nature that it may be appropriate to continue after 2017, although at this stage no decision needs to made beyond 2017).

This project is directed to unserved or unconnected areas or communities. The benefits of the Project will be to provide affordable telecom services particularly for low income users and potential users in rural and remote areas of PNG. The communities involved will be able to engage in the social, economic and cultural development of the nation to a much larger extent than currently. In addition, they will have better access to information and services such as health, education, security and public services generally.

There are a large number of unserved and unconnected areas and communities in PNG. NICTA has identified, as shown in Attachment A, a list of 20 such communities or areas with lower average capital cost per person of providing connectivity. The costs have been taken from the average costs that have been recently bid for specific projects in the earlier part of this program in 2014. It should be noted that this list is not exhaustive.

The average capital cost per site is estimated to be PGK400,000, and it is estimated that 12 sites from Attachment A can be implemented in 2017. Accordingly, the 2017 budget for this proposed project is PGK4.8 million. For the 2017 Year, the first 12 sites in the above list are proposed to be implemented, unless relevant considerations such as land owner issues warrant selecting other sites from the list.

3. Proposed Project: Accelerated Mobile Phone Expansion and Upgrades

This Project is aimed at upgrading base stations from 2G (effectively voice and limited data) to 3G or 4G in areas where, but for UAS funding, this would not happen on a commercial basis.

The budget of PGK 2 million is based on upgrading 40 sites at an average capital cost of PGK 50,000. A single contract is proposed to be offered, with specific sites negotiated at the time. The costs have been taken from the average costs that have been recently bid for specific projects in the earlier part of this program in 2016.

The benefits of these upgrades will be to enable customers in the service areas to better engage in the economy and with government services through internet access.

4. Proposed Project: Connect the Schools

This Project aims to provide internet connectivity and broadband services to all primary, secondary and tertiary institutions in the country that currently do not have such access and are not planned to have such access during the period of the project.

The Project is expected to be undertaken with the active partnership of the Department of Education whose main role will be to ensure that the educational outcomes of the project are maximized.

The project involves providing internet access, and the provision at each school of a computer laboratory equipped with PCs and printers.

In consultation with the Department of Education, a total of 14 schools around the country have been initially selected to benefit from this project.
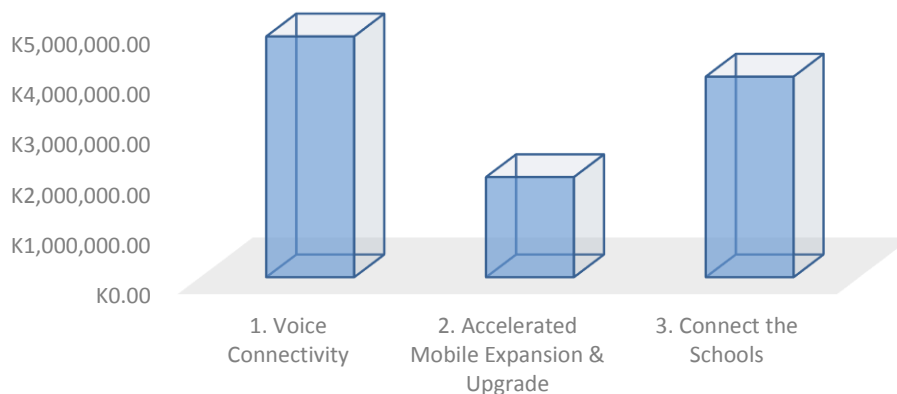
NICTA expects that a minimum of 10 schools can be covered in the remaining time available in 2017 at an average cost of PGK400,000 per site. A list of the schools can be found in Attachment B.

The costs have been taken from the average costs that have been recently tendered for specific projects in the earlier part of this program in 2017.

5. Project Ranking

NICTA proposes that each of the above UAS Projects be implemented in 2017, as each of these projects make strong and effective contributions to the UAS objectives in somewhat different and complimentary ways.

NICTA also has ranked these three (3) Projects, having regard to the matters referred to in Sections 108 (1) (e) and 108 (4) of the Act. The results of NICTA's ranking are that the 'Voice Connectivity' Project is ranked first; the 'Accelerated Mobile Phone Expansion and Upgrade Project is ranked second; and the 'Connect the Schools' Project is ranked third.

The matters considered by NICTA include that the first ranking project delivers services to a significant number of unconnected and unserved areas in a highly affordable manner, whereas the latter two projects are more focused on enhancing key services to under-served customers.

6. Estimated Total Budget required for Projects in the remainder of 2017

In identifying the proposed scope and budget for the above projects, NICTA has taken into consideration that only part of the 2017 year remains for project implementation, and has based its

Project	PGK (millions)
Voice Connectivity	4.8
Accelerated Mobile Phone Expansion and Upgrade	2
Connect the Schools	4
Grand Total	**10.8**

Project implementation will be subject to availability of funds. In this respect, NICTA has advised operators recently that NICTA will issue, for comment, a proposed decision regarding a UAS Levy for 2017.   If the above project budget were to come solely from such a levy, it likely would represent a levy of less than 1% of eligible operator revenue.

7. Stakeholders' Submissions on proposals for UAS Projects

In preparing this Report, and reaching the conclusions herein. NICTA considered and addressed the submissions received on NICTA's Public Consultation paper (of 23 December 2016) concerning UAS Projects for 2017.

Written submissions were received from:

- Mr Christopher Odorry; and

- Digicel (PNG) Limited ('Digicel')

NICTA Responses to those comments can be found in its separate document being issued to conclude that public consultation

Attachment A: **List of Communities under the Voice Connectivity Project**

No.	Province	District/Area	LLG	Villages/Census units	Population Served	Capital Cost (PGK)	Cost per head (PGK)
1	Northern	Ijivitari	Oro Bay Rural	41	5335	650, 000	122
2	Madang	Bogia	Yawar Rural	17	5260	650, 000	124
3	Morobe	Nawae	Nabak Rural	23	5190	650, 000	125
4	Northern	Sohe	Kokoda Rural	35	4940	650, 000	132
5	Central	Abau	Cloudy Bay Rural	18	4733	650, 000	137
6	Southern Highlands	Kagua/Erave	Erave Rural	25	4627	650, 000	140
7	Morobe	Markham	Wantoat/Leron Rural	27	4457	650, 000	146
8	Madang	Middle Ramu	Arabak Rural	22	4315	650, 000	151
9	East New Britain	Pomio	Central Inland Pomio	24	4257	650, 000	153
10	East Sepik	Angoram	Keram Rural	19	3648	650, 000	178
11	Madang	Middle Ramu	Josephstaal Rural	16	3638	650, 000	179
12	East New Britain	Pomio	West Pomio/Mamusi Rural	20	3530	650, 000	184
13	Chimbu	Karimui/Nomane	Karimui Rural	11	3016	650, 000	216
14	Western Highlands	Dei	Dei Rural	15	2750	650, 000	236
15	East Sepik	Ambunti/Drekikir	Tunao Hustein Rural	19	2749	650, 000	236
16	West New Britain	Kandrian/Gloucester	Kandrian Inland Rural	15	2428	650, 000	268
17	West Sepik	Aitape/Lumi	West Wapei Rural	10	2224	650, 000	292
18	Central	Goilala	Tapini Rural	19	2088	650, 000	311
19	Northern	Sohe	Higaturu Rural	16	2066	650, 000	315
20	Central	Goilala	Guari Rural	18	2035	650, 000	319

Attachment B   **List of Schools**

SCHOOL NAME	PROVINCE /District	POPULATION
Awaba Secondary	Western/Middlefly	414 stds 24 trs
Kwikila Sec	Central/Rigo Central Rural	792 stds 35 trs
Holy name (Dogura)	Milne bay/Alotau	581
Martyrs sec	Oro/Sohe	717
New hangover high	NIP/Kavieng	329
Palmalmal high	ENB/Pomio	432/596
Kandrian high	WNB/KANDRIAN/GLOUCESTER	281
Buin sec	AROB/SOUTH BOUGAINVILLE	753
Markham valley sec	Morobe/Markham	1199
Malala sec	Madang/Bogia	720
Maprik sec	East Sepik/Maprik	935
Telefomin high	Sandaun/Telefomin	412
Ialibu sec	Southern highlands/Ialibu-Pangia	1050 stds 37 trs
Foursquare sec	Enga	