



27th of May, 2019

Mr. Charles Punaha
Chief Executive Officer
National Information & Communications Technology Authority ("NICTA")
Level 4 and 5, Tower, Stratos Building
Savannah Heights, Waigani
National Capital District

Dear Mr. Punaha,

SUBJECT: SUBMISSION FOR UAS PROJECT FOR 2019-2020 - CONSTRUCTION OF A COMMUNICATION TOWER IN GONA BEACH, ORO PROVINCE

Following your acceptance of our letter of 1st March 2019, we are pleased to advise that we have met with your Team on 24th of May 2019 and have discussed how we can progress this under the UAS program.

In the discussion, NICTA provided a template for submission of UAS projects which we have now completed and submitting for your consideration. The completed Project Proposal is appended for your consideration.

The construction of a communication tower as contained in our proposal, should extend mobile 3/4G access to the community via a tower sharing arrangement with the mobile carriers. The communication tower will serve a total population of 2021 people (Church and Schools 88, Ward 17 population 831 & Ward 18 population 1,102) and will grow the local economy of the two LLGs. Visitors that are transiting as a result of the boom in the informal sector of the economy will piggy-back on the same.

Furthermore, the construction of the tower will be a catalyst for socio-economic growth in that locality. The local communities comprised of Catholic Church run institutions such as a Church (i.e. Holy Parish), a Primary School (i.e. Holy Cross Primary School) and a Hospital (i.e. St Raphael Hospital).

In the same meeting we had also discussed NICTA's desire for site visit to the Popondetta CLS site in Gona. Our Team would be happy to accompany the UAS project team for this Site Survey in the week beginning 3rd of June 2019.

We thank you for your consideration and await your decision with regards to this project proposal.

Sincerely,

PAUL KOMBOI
Managing Director





NATIONAL INFORMATION & COMMUNICATIONS
TECHNOLOGY AUTHORITY

Universal Access and Service Projects for 2020

Date of Submission: **May 2019**

Project Proposal Form – FORM 002

(All project proposals submitted MUST follow this format and sequence. Projects proposals which do not follow this format and sequence may not be considered. All questions must be answered)

Applicant Information			
Name	Paul Komboi		
Organization PNG DataCo Limited	Type of Organization: <input type="checkbox"/> Community/Village/Education Institution <input type="checkbox"/> Government <input type="checkbox"/> Private <input type="checkbox"/> NGO <input checked="" type="checkbox"/> Other - SOE		
Position	Managing Director		
Mailing Address	PO Box 1744, Port Moresby, NCD		
Telephone	+675 313 3900	Fax	
Email	enquiries@pngdataco.com		

Project Information	
Project Title	Communications Tower at Kikiri Beach, Gona
Project Location	
Province	Oro Province
District	Ijivitari
LLG	Oro Bay
Ward	Ward 17 & 18
Project summary	
The Cable Landing Station (“ CLS ”) for the Popondetta Branch is at Gona Beach, which is located in Wards 17 and 18 of the Oro Bay Local Level Government (“ LLG ”), Ijivitari Electorate, Oro Province. In	

spite of the CLS being located in this area, it is obvious that there is a lack of reliable communication services with no mobile coverage. The construction of a communication tower, will assist DataCo to monitor and maintain this key communication route.

Furthermore, the construction of the tower will be a catalyst for economic growth in that locality. The local communities comprised of Catholic Church run institutions such as a Church (i.e. Holy Parish), a Primary School (i.e. Holy Cross Primary School) and a Hospital (i.e. St Raphael Hospital). Informal economic activities include the trading of *betel nuts* and other agricultural cash crops which are vital to form part of their income in the local subsistence economy. Hence, DataCo is kindly recommending if the allocated funds from the Universal Access Secretariat (“**UAS**”) may be utilized for the construction of a communication tower going forward.

The communication tower will serve a total population of 2021 people and will grow the local economy of the two LLGs. Visitors that are transiting as a result of the boom in the informal sector of the economy will piggy-back on the same. The landowners are willing to make available a piece of land for the erection of the communication tower as communication services will increase their standard of living and for further economic growth.

The Table below provides a high level demographic of the Institutions, Wards 7 and 8 of the Oro Bay LLG.

No	Institutions	Pop.	Ward 17 Village	Pop.	Ward 18	Pop.
1	Holy Cross Parish Church	17	Onda Village	211	Otobejari	152
2	Holy Cross Primary School	49	Juminda Village	140	Tatogosusu	76
3	St Raphael Hospital	22	Binjapada	146	Konje	400
4			Mumburad/ Bora	197	New Site	246
5			Sebu/Gendada/Barida	137	Kora	97
6					Saroda	131
7	TOTAL	88	TOTAL	831	TOTAL	1,102

In addition, the communication tower will be backhauled to the Kumul Submarine Cable Project via the Popondetta Branch. Hence NICTA’s support to finance the construction of the tower through the UAS Fund will protect the CLS and also help the surrounding communities in terms of the socio-economic sector.

Project Cost	Requested Amount	Own funding
K 200,000	K	K

Duration of the Project

From August 2019 To November 2019

(The project is to be concluded within 12 months from the date of announcement of selection by the NICTA (UAS Secretariat)

Contact Point Information (If contact point is different from the applicant, please fill in as follows)

Name	Une O’Ome
Organization	PNG DataCo Limited
Address	PO Box 1744 Port Moresby, NCD
Position	General Manager Commercial

Telephone	+675 313 900	Fax	
Email	uome@pngdataco.com		
		Date	27 May 2019
	Signature		Paul Komboi

Project Details

Please describe outline of the pilot project																																																														
Objectives	The objective of the project is to extend communication access to a community outside of mobile signal coverage zones. This can be achieved through building of a Communications Tower to allow all mobile service providers to collocate.																																																													
Purpose of Project	The purpose of the project is to assist fulfil the UAS role in bridging the digital divide and extending communication access to unreached communities																																																													
Outline of pilot project	Project description including equipment, networks / systems/ design and schematics Needed for the Project.																																																													
Appropriateness of the Project	<p>The communication tower will serve a total population of 2021 people and will grow the local economy of the two LLGs. Visitors that are transiting as a result of the boom in the informal sector of the economy will piggy-back on the same. The landowners are willing to make available a piece of land for the erection of the communication tower as communication services will increase their standard of living and for further economic growth.</p> <p>The project is also appropriate given the proximity of the CLS, an initiative by the Govt under the National Transmission Network. Direct beneficiaries are the people and the communications tower will provide them that access to the use of NTN</p>																																																													
Number of Persons benefiting from the project	<p><i>The Table below provides a high level demographic of the Institutions, Wards 7 and 8 of the Oro Bay LLG.</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No</th> <th>Institutions</th> <th>Pop.</th> <th>Ward 17 Village</th> <th>Pop.</th> <th>Ward 18</th> <th>Pop.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Holy Cross Parish Church</td> <td>17</td> <td>Onda Village</td> <td>211</td> <td>Otobejari</td> <td>152</td> </tr> <tr> <td>2</td> <td>Holy Cross Primary School</td> <td>49</td> <td>Juminda Village</td> <td>140</td> <td>Tatogosusu</td> <td>76</td> </tr> <tr> <td>3</td> <td>St Raphael Hospital</td> <td>22</td> <td>Binjapada</td> <td>146</td> <td>Konje</td> <td>400</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td>Mumburad/ Bora</td> <td>197</td> <td>New Site</td> <td>246</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td>Sebu/ Gendada/ Barida</td> <td>137</td> <td>Kora</td> <td>97</td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td>Saroda</td> <td>131</td> </tr> <tr> <td>7</td> <td>TOTAL</td> <td>88</td> <td>TOTAL</td> <td>831</td> <td>TOTAL</td> <td>1,102</td> </tr> </tbody> </table>						No	Institutions	Pop.	Ward 17 Village	Pop.	Ward 18	Pop.	1	Holy Cross Parish Church	17	Onda Village	211	Otobejari	152	2	Holy Cross Primary School	49	Juminda Village	140	Tatogosusu	76	3	St Raphael Hospital	22	Binjapada	146	Konje	400	4			Mumburad/ Bora	197	New Site	246	5			Sebu/ Gendada/ Barida	137	Kora	97	6					Saroda	131	7	TOTAL	88	TOTAL	831	TOTAL	1,102
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Project Benefits	<p>Since Popondetta town is a inland township of a Coastal Province, Popondetta relies heavily on the seaport as well as the Airport for connectivity outside of the Province.</p> <p>When Cyclone Guba cut of the main Oro Bay Wharf and the Girua Airport in November 2007, the Kikiri Beach jetty and Wharf was the only other alternate through which relief supplies and restorations was channeled through.</p> <p>While the the Communications tower will benefit the communities for their day to day communications and for provision of e-services and applications, the communications in times of disaster recovery and restoration would be a great benefit to a disaster prone area.</p> <p>At the back of the successful APEC meeting with the theme of promoting Digital</p>																																																													

	Economy, this project will practically provide the platform for embracing and leveraging the digital economy at the village/community level			
Partner organizations/institutions (if any)	PNG DataCo is willing to talk to the landowners for the use of the land. PNG DataCo will also provide needed broadband internet access to the St. Raphael Hospital, and the Holy Cross Primary School.			
Milestone(significant phases of the project)	UAS to assist with the building of the Communications tower and for Mobile Service Providers to be invited to collocate on the tower to provide retail mobile access services.			
Expected output	The Communities in this location to be able to have much needed communications services. This UAS project to subsidize cost of provision of service in this area by building a communications tower through which retail service providers and use to provide mobile services.			
Project Risks	What are the risks to the Project? How will they be overcome or managed? (See management table)			
	Risk -List all possible risks you can think of 	Consequence 4 – Extreme 3 – High 2 – Medium 1 -Low	Probability 4 – Almost certain 3 – Likely 2 – Positive 1 - Unlikely	Risk Management/Mitigation plan
	Lack of political or administrative support	2	1	Exposure and awareness to the state ministers responsible for communication and SOE to lobby support if in the extreme case. Otherwise, project fulfills govt agendas and policies and will have the support
	Land not secured	2	2	Strengthen the land deal negotiation together with the Dept. of Lands and Physical planning
	Security	2	3	Transfer ownership to the community. Engage with Community policing.
	Project Equipment Personalized	2	1	DataCo's position as the wholesaler already places us as the neutral player for the management of the infrastructure for everyone's benefit
	Lack of community support	1	1	After community awareness sign a MOA with the community Chiefs for the upkeep of

				the infrastructure
	Maintenance & recurrent costs	1	2	A cost model built into the Co-sharing arrangement of the tower with the carriers
Reporting Procedure	The reporting structure of the project will be through the Office of the Managing Director for DataCo Limited. DataCo Engineering Projects Team will take charge of the actual design and implementation of the projects together with contractors.			
Linkage to existing Government development policies	<p>How will the project contribute to development of the Papua New Guinea?</p> <p>Please explain the linkage of the project to;</p> <ol style="list-style-type: none"> 1. The Medium-Term Development Plan III (2018-2022) on ICT (Section 3.2), 2. NICTA Strategic Planning Report (2018-2022), and 3. National Broadband Plan 2014, <p>This proposal of erecting this tower will immensely increase participation and reduce the many challenges by the community in Wards 17 and 18 of the Oro Bay Local Level Government (“LLG”), Ijivitari Electorate, Oro Province. The anticipated challenges as highlighted in the MTDP III about economic base depletion, disparity of wealth creation, law and order issues, high population growth and environmental factors can be finally managed through this one useful piece of infrastructure.</p> <p>At the back of APEC's theme on Digital Economy, this project practically gives leverage to promoting development in digital economy. Digital economy is realistically possible for the 2021 constituents of this electorate if this investment materializes.</p> <p>The goal of MTDP III to address sustainable, equitable and inclusive growth can be achieved by a greater portion. An informed and connected community has the potential to venture and create opportunities for growth in the economy, reducing law and order, managing high population growth and responsive to environmental challenges.</p> <p>NICTA strategies to enforce and ensure policies are delivered that would promote the economy through participation is possible through this initiative.</p> <p>DataCo was setup in 2014 to be an implementing agency of the National Broadband Plan. The charter of this plan is the heart and soul of what DataCo is passionate about and at the forefront as the implementing agency. This tower project proposal is commendable and gets our undivided support.</p>			
Financial Support	<p>Financial support from the organization/community/provincial governments/or any other source (if any):</p> <p>How will the project be supported by your organization/community/provincial government/administration?</p> <p>DataCo is willing to provide assistance with coordination on the land with the Church which we have current arrangements with for the Popondetta CLS.</p> <p>DataCo has power and Fibre trunks to the location and would be able to provide that to the Mobile Carriers willing to install BTS in the location.</p> <p>DataCo as part of its CSO/CSR program will also provide Broadband internet access to the Hospital and the Primary School in the Community.</p>			
Sustainability of Project	<p>How to ensure the sustainability of operation of the systems after this project ends? And how the results of this project may be used for enhancing development of your province/community/area?</p> <p>DataCo will enter into a co-sharing arrangement with the carriers for the sustainability of the infrastructure after project ends. As a neutral player in the industry it is advisable for DataCo to manage the communications tower for the benefit of everyone, the</p>			

community, and the telco carriers who will be co-sharing to achieve the greater objective. The operating model will be such that a fee will be charged to each carrier collocating on the towers to service the community. Any other associated costs for power, security, maintenance of the tower etc should be covered under this arrangement.

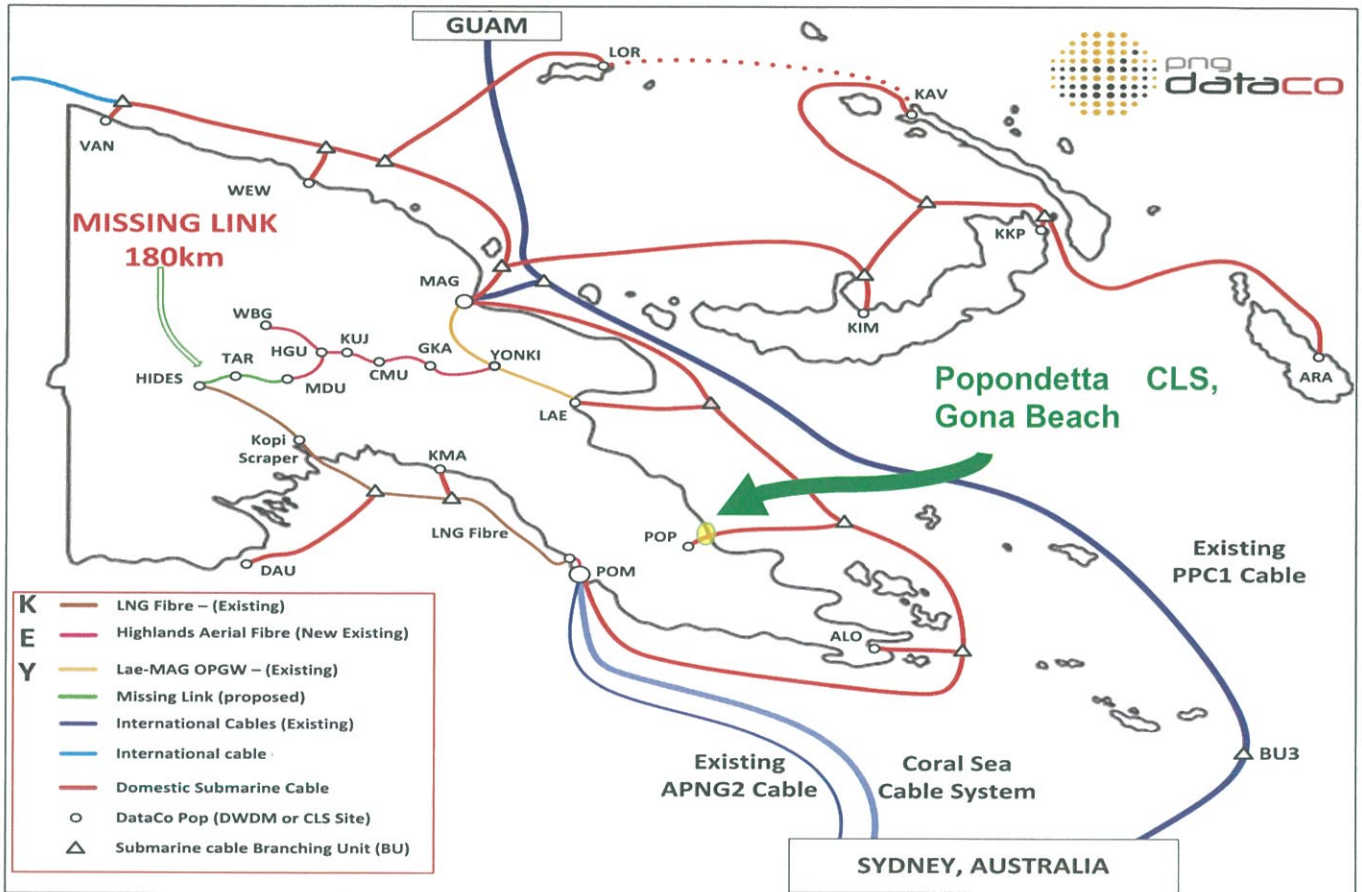
Please describe project implementation plan (schedule) in detail. (date, period, place, mission, etc.)

Gona Beach Area



THE NATIONAL TRANSMISSION NETWORK

Building a Modern and high Capacity Fibre Based network with PoPs in all Provincial capitals



Types of Projects That May Be Proposed

Program 01: Mobile Broadband Expansion and Upgrade

Under this program, the type of project that can be proposed are;

- Extension of broadband mobile services to unserved and underserved areas
- Upgrade of 2G network (voice + data) to 3G/4G network and
- Increase network backhaul capacity to cater for the increase traffic due to expansions and upgrades

Program 02: Community and Institutional Broadband Networks

The type of project that can be proposed are;

- 1) Broadband Network Access and Service
 - Expansion of national backbone network infrastructure:
 - Establishment of local broadband access network connections
 - Provision of public broadband communication services
- 2) Institutional Connectivity – Education, Health Facilities, Local Government Offices, Agriculture Centers
- 3) Community Information and Communications Technology Centers (CICs)
 - CIC construction, equipment, installation:
 - CIC operation and management:

Program 03: ICT for Future Growth

Type of projects that can be proposed are;

- 1) ICT Applications and Content
 - Original and translated web sites and other materials presented in local, indigenous languages, highlighting information of greatest interest to populations who speak these languages.
 - Information content made specifically for and by local community users, sharing local knowledge, history, and culture, as well as business and government information, ideally developed by local users themselves.
 - Projects focused on graphic interface, audio-video, and other non-written content aimed at engaging and assisting non-literate users; similar applications and content for disabled or uneducated users.
 - Entrepreneurial ventures focusing on creating innovative applications for mobile and smart phones, tablets, and other new devices.
- 2) Digital Literacy
 - Training classes and workshops
 - Public relations and awareness building programs
 - Entrepreneurial assistance and incubation initiatives
 - ICT applications and content development programs
 - Community-based technical support resources
 - Public administration training and application development

Program 04: Expansion and Upgrade of Broadcasting Network Coverage

Type of projects that can be proposed are;

- Expansion of free to view Digital Broadcasting (TV) Services to unserved areas
- Upgrade from analogue free to air broadcasting services to free to view Digital broadcasting services (TV)
- Expansion of free to air Radio broadcasting services to the unserved areas

Indicative Project Areas

Program 01: Mobile Broadband Expansion and Upgrade.

- Indicative project areas for 4G greenfield and Upgrade from 2G are prioritized from the maximum unserved population to minimum unserved served

- For Greenfield**

Region	Province	Uncovered Population	% Uncovered Population
Momase	Morobe	141,349	20.95%
Momase	East Sepik	118,238	26.24%
Southern	Milne Bay	94,946	34.34%
Momase	Madang	90,542	18.33%
Highlands	Eastern Highlands	89,936	15.51%
Highlands	Southern Highlands	85,300	16.72%
Momase	West Sepik	83,487	33.61%
Highlands	Enga	79,803	18.47%
Southern	Western	72,464	35.99%
Southern	Central	58,412	21.65%
Highlands	Hela	55,413	22.21%
Southern	Gulf	54,846	34.67%
Islands	East New Britain	52,257	15.91%
Islands	West New Britain	51,129	19.35%
Islands	Bougainville	48,644	19.51%
Highlands	Chimbu	44,576	11.84%
Southern	Oro	36,802	19.75%
Highlands	Western Highlands	35,232	9.71%
Highlands	Jiwaka	33,615	9.77%
Islands	New Ireland	29,314	15.11%
Islands	Manus	10,797	17.85%
Southern	National Capital District	878	0.24%

- For Upgrade**

Region	Province	3G Upgrade Uncovered Population	% 3G Upgrade Uncovered Population
Highlands	Eastern Highlands	291,003	50.19%
Momase	Morobe	240,062	35.57%
Momase	Madang	223,138	45.18%
Momase	East Sepik	148,575	32.98%
Highlands	Chimbu	139,066	36.94%
Highlands	Enga	122,332	28.31%
Southern	Milne Bay	113,122	40.91%
Islands	Bougainville	112,430	45.09%
Momase	West Sepik	91,195	36.71%
Islands	New Ireland	85,574	44.10%
Southern	Central	78,045	28.93%
Highlands	Southern Highlands	76,121	14.92%
Southern	Western	72,357	35.94%
Southern	Oro	71,628	38.45%
Highlands	Hela	70,872	28.41%
Islands	West New Britain	58,639	22.19%
Southern	Gulf	56,184	35.52%
Islands	East New Britain	54,012	16.45%
Highlands	Jiwaka	49,730	14.46%

Islands	Manus	27,966	46.24%
Highlands	Western Highlands	14,066	3.88%
Southern	NCD	0	0.00%
Program 02: Community and Institutional Broadband Networks			
<ul style="list-style-type: none"> • The target project areas are learning institutions, local government institutions, local healthcare facilities and community base set ups who are ICT ready such as; <ul style="list-style-type: none"> ✓ Universities ✓ Colleges ✓ Technical and Vocational Schools ✓ National High Schools ✓ Primary and Secondary Schools ✓ Private/public setups ✓ Villages/communities <p>ICT readiness refers to the basic infrastructure that the institution must have such as reliable power, ICT teachers, funding to help sustain, rooms for computers among others.</p>			
Program 03: ICT for Future Growth			
<ul style="list-style-type: none"> • Target project areas include; <ul style="list-style-type: none"> ✓ Universities with content creation programs/projects ✓ Technical Colleges with content creation programs/projects ✓ Local entrepreneurs with content creation programs/projects 			
Program 04: Expansion and Upgrade of Broadcasting Network Coverage			
<ul style="list-style-type: none"> • The target project areas include; <ul style="list-style-type: none"> ✓ Unserved free to view (Digital Television) services areas in PNG; ✓ Unserved free air Radio Broadcasting Services in PNG 			