



Universal Access and Service Projects for 2020

Date of Submission: **Insert Date**

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 | Guise Bake Vere | | |
| Organization | Village Community Network Project | Type of Organization: <input type="checkbox"/> Community/Village/Education Institution <input type="checkbox"/> Government <input type="checkbox"/> Private <input type="checkbox"/> NGO <input type="checkbox"/> Other | |
| Position | Community IT Consultant | | |
| Mailing Address | PO Box 1136, Boroko, NCD. | | |
| Telephone | 73068928 / 73068928 | Fax | 3253066 |
| Email | guisevere@gmail.com | | |

| | |
|----------------------------|--------------------------------|
| Project Information | |
| Project Title | Gabaspot Wireless Mesh Network |
| Project Location | |
| Province | Central |
| District | Rigo |
| LLG | Rigo Coastal |
| Ward | Ward1 (Gabagaba Village) |

Project summary

Please describe this summary within about 20 lines here. As for the detail, please fill in the Annex 1

Project Cost

K108,942.90

Requested Amount

K108,942.90

Own funding

K 0.00

Duration of the Project

From January 2020 To May 2020

(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

Guise Bake Vere

Organization

Gabaspot Wi-Fi

Address

Gabagaba Village

Position

Community IT Consultant

Telephone

76068928/75258047/71940866

Fax**Email**

guisevere@gmail.com

Date

20 May 2019

Signature _____

Project Details

| Please describe outline of the pilot project | |
|--|---|
| Objectives | <ul style="list-style-type: none"> • Trigger and enable foundations and organizations setting up, maintaining and spreading communications infrastructures (Local intranets and shared internet connections), especially in rural areas where commercial or public initiatives see no clear benefit of or are unable to setup such structures. • To create public consciousness about freedom of information and communication. • Improve the existing local social networks by enhancing social and technical communication structures. • Spread knowledge of how to set-up a successful community project through sharing the elements/methodology of running a non-hierarchical community network. |
| Purpose of Project | To provide ICT (Information Communication Technology) services using wireless mesh network technology and intranets by developing systems that can be functional in rural communities or villages and to break barriers in digital divide. |
| Outline of pilot project (Refer to attached project details) | Project description including equipment, networks / systems/ design and schematics needed for the Project. (You may attach another sheet if necessary.) |
| Appropriateness of the Project (Refer to attached project details) | <p>The extent to which the Project can support and improve the lives of persons in the project areas evidenced by</p> <ul style="list-style-type: none"> • Needs analysis (what is the problem, development opportunity, priorities that project seeks to address) • Project details • Applicability to community needs • Project location (attach maps where appropriate) |
| Number of Persons benefiting from the project (Refer to attached project details) | <p>How many persons would directly and indirectly be benefitting from the project evidenced by</p> <ul style="list-style-type: none"> • Proposed number of participants • Project impact on the community • Provide an idea of the cross section of persons in the community to benefit from the project (e.g. elderly, children, public servants, students, farmers, fisherman) |
| Project Benefits | (Refer to attached project details) |
| Partner organizations/institutions (if any) | Gabaspot is proud to be in working partnership with EMSTRET WI-FI, an authorized Satellite broadband (ISP) Internet service provider who provides VSAT satellite infrastructure deployments and hotspot services for rural communities in the country. |
| Milestone(significant phases of the project) | (Refer to attached project details) |
| Expected output | (Refer to attached project details) |
| Project Risks | What are the risks to the Project? How will they be overcome or managed? (See management table) |

| | | | | |
|---|---|---|---|---|
| | <p>Risk -List all possible risks you can think of</p> <p>Consequence</p> <p>4 – Extreme</p> <p>3 – High</p> <p>2 – Medium</p> <p>1 -Low</p> <p>Probability</p> <p>4 – Almost certain</p> <p>3 – Likely</p> <p>2 – Positive</p> <p>1 - Unlikely</p> <p>Risk Management/Mitigation plan</p> | | | |
| | Lack of political or administrative support | 1 | 1 | n.a |
| | Land not secured | 1 | 1 | n/a |
| | Security | 1 | 1 | n/a |
| | Project Equipment Personalized | 1 | 1 | n/a |
| | Lack of community support | 1 | 1 | n/a |
| | Maintenance & recurrent costs | 3 | 2 | Secured funding from donors or Government |
| Reporting Procedure | Provide outline of reporting (Refer to attached project details) | | | |
| Linkage to existing Government development policies (Refer to attached project details) | <p>How will the project contribute to development of 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><i>The documents are available on NICTA's Website</i></p> | | | |
| Financial Support (Refer to attached project details) | <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> | | | |
| Sustainability of Project (Refer to attached project details) | <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> | | | |

| Please describe project implementation plan (schedule) in detail. (Date, period, place, mission, etc.) | | | | |
|--|---|----------------------|---|---|
| Duration & month: | Activity undertaken: | Location: | Materials to be available: | Person handling the tasks: |
| 1 month Jan | Ordering & purchasing of network equipments | POM & Oversea | All essential network equipments both hardware and software | Datec PTY Ltd |
| 2 days Feb | Transportation of equipments to the site | From Pom to Gabaspot | Server Hardware and Software, Peripherals, Switches, Wireless access points, Routers, RJ45 cables, Patch Panels, Wireless cards + applications | Private transport hire |
| 2 weeks Feb | Installation of Windows O/S Local Web-server Software Local Email Server Software a Configuration of windows & network service components. | Gabaspot | XAMPP Web-Server, MYSQL Database, MacAfee Enterprise Version Anti-Virus System, Mercury Server for Emails, Backup Software and Hardware. | IT Consultant/Network Engineer Gabaspot Wi-Fi with EMSTRET Wi-Fi as working partners |
| 1 week Feb. | Testing and Integration of Server and Wireless Local Area Network, Configuring Client Computers, Wi-Fi devices and Setting up IP Protocols on them to log into the Server | Gabaspot | Developed and running Server with active user accounts, working Home directories, shared directories, active LAN ports with security policies imposed and firewall. All digital devices like mobile & laptops | IT Consultant/Network Engineer Gabaspot Wi-Fi with EMSTRET Wi-Fi as working partners |
| 1 week Feb. | Building and Mounting of Devices. | Gabaspot | Server, Switches, Routers, Outdoor wireless access points. Ethernet cables, POE, Poles | IT Technician / Network Engineers from partners EMSTRET Wi-Fi |
| 3 weeks Mar. | Development of local websites and village local database applications | 1 month Gabaspot | Wordpress CMS application With plug-in and themes Database applications + tools | IT Consultant/Network Engineer Gabaspot Wi-Fi + Developer outsource |
| 1 week Mar. | Training of users and administrators | Gabaspot | Run training on all features of the wireless network and intranet | IT Consultant/Network Engineer Gabaspot Wi-Fi + outsource IT trainers |
| Mar. | Open to community for public use | | | |
| 2 weeks April | Installation of Windows O/S Local Web-server Software Local Email Server Software a Configuration of windows & network service components. | School | XAMPP Web-Server, MYSQL Database, MacAfee Enterprise Version Anti-Virus System, Mercury Server for Emails, Backup Software and Hardware. | IT Consultant/Network Engineer Gabaspot Wi-Fi with EMSTRET Wi-Fi as working partners |
| 1 week Apr. | Testing and Integration of Server and Wireless Local Area Network, Configuring Client Computers, Wi-Fi devices and Setting up IP | School | Developed and running Server with active user accounts, working Home directories, shared directories, active LAN ports with security | IT Consultant/Network Engineer Gabaspot Wi-Fi with EMSTRET Wi-Fi as working |

Annex 1

| | | | | |
|-----------------|---|--------|--|--|
| | Protocols on them to log into the Server | | policies imposed and firewall. All digital devices like mobile & laptops | partners |
| 1 week Apr. | Building and Mounting of Devices. | School | Server, Switches, Routers, Outdoor wireless access points. Ethernet cables, POE, Poles | IT Technician / Network Engineers from partners EMSTRET Wi-Fi |
| 3 weeks May. | Development of local websites and village local database applications | School | Wordpress CMS application With plug-in and themes Database applications + tools | IT Consultant/Engineer Gabaspot Wi-Fi + Developer outsource |
| 1 week May. | Training of users and administrators | school | Run training on all features of the wireless network and intranet | IT Consultant/Engineer Gabaspot Wi-Fi + outsource IT trainers |
| May | Open to community school use | | | |

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

- The target project areas are learning institutions, local government institutions, local healthcare facilities and community base set ups who are ICT ready such as;
 - ✓ Universities
 - ✓ Colleges
 - ✓ Technical and Vocational Schools
 - ✓ National High Schools
 - ✓ Primary and Secondary Schools
 - ✓ Private/public setups
 - ✓ Villages/communities

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.

Program 03: ICT for Future Growth

- Target project areas include;
 - ✓ 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

- The target project areas include;
 - ✓ Unserved free to view (Digital Television) services areas in PNG;
 - ✓ Unserved free air Radio Broadcasting Services in PNG