

**The Papua New Guinea University of Technology**  
**Department of Electrical and Communications Engineering**  
**EE482 Advance Data Communications**

**Responses to Consultation Meeting by the Universal Access Scheme (UAS)  
Projects of 2019 by UAS Secretariat, NICTA**

**Overview**

A total of fourteen submissions were received from a class of twenty four students. The class suggested a wide range of areas that can form the basis of our project proposal. However, the top three would include, content creation using Apps for mobile devices, establishment of learning centres and cyber security. An important point mentioned in relation to project sustainability is training of technicians or programmers. Training of technicians at each community level ensures that the learning centre is cared for. The teaching of programming skills at the high school creates a wide base of logical and eventually critical thinkers. In the end, the universal access scheme should serve a purpose much higher than just connectivity.

Therefore, the class will pursue the topic of community ICT centres and mobile applications for learning at the community centres in conjunction with Department of Open and Distance Learning.

**Summary of Response**

**Describe two areas in ICT that NICTA should include in the UAS projects of 2019 to fulfil the objectives of UAS?**

**Response 1**

1. Cryptocurrency – to combat fraud/identity theft, high accessibility & lower fees
2. E-commerce – greater accessibility to the world market, develop and promotes tourism, lower operational cost, convenient and easy to manage.

**Response 2**

1. Build computer labs for grade 11 and 12 with the help of provincial government
2. Produce and distribute educational videos for primary school in the rural area with the department of education.

**Response 3**

1. Training of Local Engineers to sustain the projects – reduce cost of data
2. Upgrade cybersecurity – protection of user data

**Response 4**

1. Online library app – improve accessibility, share resources, multiple formats to enhance learning
2. IP TV Broadcast – as data for the connect the school project where current information is readily available for use by all schools

### **Response 5**

1. Digital Radio Broadcasting – improve range of coverage for backhaul networks
2. Policy Implementation – fair distribution of coverage or improved coverage with share antennas thus reducing capital cost

### **Response 6**

1. Cyber security – reduce network and data security risks with awareness and promotions
2. Service charges and rates- set up a policy to govern the charges on services offered by private companies

### **Response 7**

1. Unitech's DODL Center in National High School – reaching more than 20, 000 users and introducing ICT benefits in the formal setting to higher school graduates, establish learning hubs for the community in areas of agriculture, health and literacy
2. Affiliation with Higher Learning Institution for Content Development – reduces the need to access external data and attract international content providers to setup servers on shore leading to lower Internet charges

### **Response 8**

1. Cyber Security - Educating the majority with relevant cyber world knowledge would greatly help prevent many becoming victims of cybercrimes and also prevent some becoming cyber criminals.
2. Bandwidth Optimization – partner with ISPs to invest in technologies that optimizes their allocated bandwidth

### **Response 9**

1. Institutional Connectivity – Introduce NComputing to secondary schools
2. Community ICT Centres – Build community ICT centers in the local level government centers in the country. A place for ICT training, workshops and seminar to take place.

### **Response 10**

1. Biometric Time and Attendance – in schools to encourage students to become more accountable, proper records of organization and effective and efficient learning/working.
2. Mobile Learning System – Use of smart devices for learning at all levels.

### **Response 11**

1. Host nationwide Programming Competition Annually for High School Students – writing an program requires the programmer to think logically. Thus hosting programming competition will provide an avenue for students to evaluate their programming and soft skills.
2. User friendly Educational Application - In this apps, it should include additional features such as a quiz game or a test game related to each chapter. And for one to move to next chapter, the game in current chapter must be played so that one scored 70% or more should proceed to next chapter. At least this should motivate students to spend more time on reading more notes on that particular apps rather spending time on other android games on their phone.

### **Response 12**

1. Connect the schools project – include all secondary schools and high schools
2. DODL Regional Centers – allows students to download learning materials and upload assignments. Also functions as a community center for local community.

### **Response 13**

1. Use of Fibre on HV Poles – Backhaul for improved Internet connectivity
2. Use of VSAT to connect local remote schools – improved connectivity and to capitalize if smart devices are available.

### **Response 14**

1. Community Access – Setup community access 4G network instead of connect every node anywhere. Internet connectivity and mobile coverage to the community access site is sufficient for the community. Social problems would be controlled and life in the local community will be active still.
2. Educational App for Elementary – Offers an opportunity to broaden the world of the local children as they collaborate with other children in their community and within the country. These educational app can only be used live within the community access area. Offline data will also be accessible on the device any time anywhere.