

First Session of the Asia-Pacific Information Superhighway Steering Committee, 1-2 November 2017, Dhaka, Bangladesh.

**DRAFT SUBMISSION OF [PAPUA NEW GUINEA]
Broadband Priorities for the Asia-Pacific Information Superhighway Master Plan
[25th October 2017]**

Objective: This form is sent to the representative of each country in order to prioritise activities and better align broadband connectivity gaps with solutions. All country submissions will be consolidated as per AP-IS Pillar and subregion to develop an implementation plan for 2018 and will be presented by the Secretariat during the First Session of the Asia-Pacific Information Superhighway (AP-IS) Steering Committee, 1-2 November 2017, Dhaka, Bangladesh. A similar template is sent to partners to identify their planned activities.

Please complete this form and submit to ESCAP (escap-ids@un.org) by **no later than 25 October 2017**.

(a). Background Information

(i). Government Ministry/Organization in charge of ICT connectivity: [Department of Communication & Information/DataCo]

(ii). National Broadband Policy: [PNG National Broad-Band Policy]

(iii). Completed/Current/planned fibre-optic broadband project: [PPC-1 Pipe Cable System]

1. Telikom's PPC-1 Pipe Cable System is a fibre-optic under-sea direct cable link that has a total capacity of 10Gbps and connects Madang to Guam and Madang to Sydney. It offers a more improved quality and high-speed broadband data and voice services to customers in Papua New Guinea and across Oceania, Asia, Pacific and the Atlantic Regions.

Services provided on PPC-1 are:

1. IPLC – dedicated point to point links
2. TRANSIT SERVICE

Traffic that is routed to its intended destination by TPNG via Madang.

Dedicated Link connects carriers/service providers in Sydney to Guam's and USAs carrier/service providers. This service is available to customers from the Point of Interconnection (POI) located in Madang PPC-1 tail ending

3. IP Link

Dedicated link that carries Internet traffic

2. The APNG-2 submarine communications cable was constructed to link Papua New Guinea directly to Australia and indirectly to New Zealand and the rest of the world, and has been in service from late 2006. The new cable is a collaboration between Telikom PNG, Telstra (in Australia), and Telecom New Zealand. APNG-2 replaces the APNG-1 cable, a coaxial copper cable of 16 Mbit/s, retired in early 2006.

Construction

APNG-2 reuses part of the PacRimWest optical fibre cable that formerly linked Australia to Guam and on to Japan.

Recovery and relaying

An 1,800 km section of the PacRimWest has been recovered from just south of Guam, with the ship sailing towards the Solomon Islands. The ship then recovered a loop of the PacRimWest cable off Rockhampton, Queensland, broke it, spliced to the Sydney end the recovered 1,800 km section, and sailed towards PNG, making landfall at Ela Beach near Port Moresby, where a terminal station from Guam has been re-established to link to the Telikom PNG network.

Capability

PacRimWest is a fibreoptic cable with two fibre pairs. These are used to provide APNG-2 with around 1100 Mbit/s data capability, consisting of 2 x 565 Mbit/s PDH systems with all electronic regeneration.

Cost

The reuse of the cable is expected to save about 80% of the cost of a new cable: USD\$11 million v \$60 m.

Testing

A 300 km segment of the PacRimWest cable was recovered and tested from a section south of the intended recovery route. It was found to be sound and suitable for reuse.

Cable ship

The cable ship used is CS Ile de Re (named after the French west coast island, Île de Ré.)

(b). Challenges and Opportunities on promoting broadband connectivity:

Within the scope of the AP-IS four pillars

- (1). Connectivity;
- (2). Internet Traffic & Network Management;
- (3). E-resilience; and
- (4). Broadband for all,

ESCAP member countries and partners outlined seven strategic initiatives in the AP-IS Master Plan (http://www.unescap.org/sites/default/files/pre-ods/CICTSTI1_2E_rev1.pdf) to be implemented between 2016-2018 (please refer to attached chart of AP-IS 4 Pillars and AP-IS Strategic Initiatives).

The AP-IS seven strategic initiatives are as follows:

1. Identification, coordination, deployment, expansion and integration of the regional backbone networks at the cross-border intra- and interregional levels, in collaboration with member countries and subregional organizations;
2. Establish a sufficient number of Internet exchange points at the national and subregional levels and set out common principles on Internet traffic exchange to prevent Internet traffic tromboning, decrease transit costs and improve service quality
3. Regional social and economic studies;
4. Enhancing ICT infrastructure resilience in the Asia-Pacific region;
5. Policy and regulations for leveraging existing infrastructure, technology and inclusive broadband initiatives;
6. Capacity-building; and
7. Asia-Pacific information superhighway project funding mechanism based on public-private partnerships

(c). AP-IS 7 Strategic Initiatives Implementation Plan 2016-2018: priority challenges and proposed activities

In order to match country's sub-region's and region's priorities within the scope of the AP-IS seven strategic initiatives, please complete the matrix below accordingly. Please add a row as deemed necessary.

Priority Challenges	Focus Area	AP-IS Strategic Initiatives (1-7)	AP-IS Pillars (1-4)	Remarks
Priority Challenges:	(i) [For example, "limited technical capacity on developing cyber security regulation"].	(i) [For example, Cyber security is categorised under Strategic Initiative 7.].	(i) [For example, Cyber security can be categorised as an issue under Pillar 2: Internet	Papua New Guinea has in 2015 pass a law on the Cyber Crime. The challenges the country now have is to

	<p>(ii) [For example, “limited technical capacity on developing cyber security regulation”].</p> <p>(iii)</p>	<p>(ii) [For example, Cyber security is categorised under Strategic Initiative 7.].</p> <p>(iii)</p>	<p>Traffic & Network Management Please refer to attached AP-IS Initiatives chart for linkages to the AP-IS four pillars].</p> <p>(ii) [For example, Cyber security can be categorised as an issue under Pillar 2: Internet Traffic & Network Management Please refer to attached AP-IS Initiatives chart for linkages to the AP-IS four pillars].</p> <p>(iii)</p>	<p>implement the Law by the Institution entrusted to carry out the task. Like the police prosecution and the court system to understand the background of Cyber Crime and prosecute or implement.</p> <p>As for the Cyber Security, the agency entrusted need to step up to protect the users and the network from abusers.</p>
<p>Opportunities</p>	<p>(i) [For example, and if applicable, list any opportunity for collaboration with national/sub-regional/global stakeholders, to address this priority challenge].</p> <p>(ii) [For example, and if applicable, list any opportunity for collaboration with national/sub-regional/global stakeholders, to address this priority challenge].</p> <p>(iii)</p>			
<p>Proposed solutions/actions</p>	<p>(i) [For example, list of proposed actions to address priority challenge identified above, either at the national/sub-regional/regional levels with appropriate stakeholders].</p> <p>(ii) [For example, list of proposed actions to address priority challenge identified above, either at the national/sub-regional/regional levels with appropriate stakeholders].</p> <p>(iii)</p>			<p>To effect that a National IXP has been installed to entrap the national websites and ISP and also to sreen those illicit activities under took by perpetrators.</p>
<p>(d). Update to terrestrial/submarine fibre-optic cable projects: Based on the ESCAP/ITU interactive transmission map (access via link: http://www.unescap.org/our-work/ict-disaster-risk-reduction/asia-pacific-information-superhighway/asia-pacific-information-superhighway-maps),</p>				

please check and list down if there is any recent fibre-optic cable project completed/planned for your country, which is not reflected in the interactive map. The input provided below will be used to update the interactive map accordingly.

- (i) [For example, terrestrial/submarine cable project X, connecting country A and country B, location(s) (city) of landing station(s) in all countries involved , estimated cost USDX million, if not completed, indicate estimated date of completion].

(e). Any other suggestions/issues:

- (i) [List any additional suggestions].