INFRASTRUCTURE SHARING AND OPEN ACCESS IN GHANA

REPORT ON PUBLIC CONSULTATION

A REPORT BY

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and

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A4AI-Ghana Infrastructure Sharing and Open Access Study

Report on Public Consultation

I. Scope

This Report on the Public Consultation (the "Report") summarises the relevant feedback and input received by the drafters of this Report during the public consultation held on 25th October in Accra, in the presence of the various stakeholders in the Ghana telecommunications market and in the context of the Ghana Infrastructure Sharing and Open Access Study project (the "Project").

It further provides a brief outlook on general next steps and recommendations with relation to areas and topics to be addressed in Ghana to fully promote infrastructure sharing in the country, following the conclusion of the Project. This Report also provides the backdrop for the main recommendations to be included in the Final Report.

II. Pre-consultation interviews with stakeholders

Prior to the public consultation, several stakeholder interviews were conducted, either by phone of face-to-face in Accra, in order to obtain inputs from the various types of persons and entities acting in the telecommunications market in Ghana and on whom the legal, regulatory and market scenario applicable to infrastructure sharing has a direct impact.

One of the consultants also participated in the IEEE Internet inclusion conference in Washington DC from 5-6 October 2016 attended by the CEOs and VPs of some major global and regional infrastructure companies with a presence in Ghana. Face to Face interviews were conducted with some of these key stakeholders on the sidelines of the conference.

In addition, three focus group discussions were also held with specific groups.

The purpose of these stakeholder interviews was to arrange for an informal, complete and open discussion on the status, challenges and outlook on infrastructure sharing in the country.

While an interview script was used in order to facilitate discussions, stakeholders were encouraged to provide their opinions on any additional relevant topics.

Stakeholder interviews were carried out with representatives of the following entities/working groups, who provided significant in-depth input on the matter on infrastructure sharing in Ghana, the country's challenges and potential:

Mobile Network Operators	National Communications Authority
ISPs	Ministry of Communications
TowerCos	Ghana Infrastructure Trust Fund
The Chamber of Telecommunications	Ghana Data Protection Commission
A4AI Ghana Tax Working Group	A4AI Ghana National Coordinator and Deputy
A4AI Consumer Advocacy working Group	A4AI Infrastructure Sharing and Open Access Working Group
Environmental Protection Agency	MainOne
National IT Agency (NITA)	American Tower Company (Parent company of ATC)
Google	GIFEC

In general, the main input received in this context was essentially the following:

- Infrastructure sharing is essentially a market-driven practice in Ghana, with most arrangements being determined by the intervening parties' commercial and strategic interests (although some matters still need streamlining, such as regulatory bottlenecks, pricing and commercial trust issues between operators);
- Existing policy, legal and regulatory framework do not reflect the current status and challenges of the Ghana telecommunications market;
- There are issues with information dissemination (such as availability of coverage and sites mapping) and stakeholder trust and communication;
- Cross-sector initiatives are already in place, but should be capitalized and incentivised;
- There are significant asymmetries in coverage (urban/rural and north/south divide), which arise from lack of profitability associated with certain areas;
- Certain assets are underused and/or their potential as an asset for the sector in Ghana has not yet been determined (Submarine Cables, Eastern Corridor Fibre Project, backbone sharing).

III. The Public Consultation

The public consultation held in Accra was attended by representatives of various Ghanaian stakeholders (list of attendees included as Attachment I to this Report).

The public consultation was conducted in two parts. An initial section included presentations on some principles applicable to infrastructure sharing and a brief overview of the Ghanaian telecommunications market (including available data on coverage, consumer data and pricing and ICT user profile) and policy/legal/regulatory framework. Preliminary comments and contributions were elicited from stakeholders during the presentation.

A second part of the public consultation consisted of a breakout and brainstorming session. To this effect, different groups were set up so as to include representatives of a diverse group of stakeholders (participant distribution included as Attachment II to this Report).

Each group held internal discussions over part of a total 12 questions included in the discussion script prepared for this purpose (copy of said script included as Attachment III to this Report) and general outputs and conclusions were presented to the remaining attendees, with time allocated for discussion and clarifications.

Overall, the main outputs from the debate sessions were as follows:

1. ***Need for new Ghana Infrastructure Sharing Policy***

   Overall consensus by the participants was that it was necessary to overhaul the existing framework for infrastructure sharing, so as to harmonise and improve on existing materials.

   This overhaul should consider and try to instate in Ghana: (i) a better and clearer definition of the role of the Government in the sector and in the specific context of infrastructure sharing, towards an active Governmental role; (ii) a general principle of continuity of governmental plans and policies beyond the duration of electoral cycles; (iii) a multi-sector approach to infrastructure sharing; centralized administrative diligences and functions such as tax, permits, rights of way managements; (iv) revision of the terms in which the Universal Service Fund operates; (v) spectrum sharing terms.

   The policy should have a clear end-game: increasing reliable access for end-users and incentivizing activity and investment by the market players. It should also be well implemented with built in mechanisms to cater for dynamic changes.

2. ***Current impact of infrastructure sharing on consumers***

Overall, the feedback received was that consumers were not fully receiving the potential benefits on infrastructure sharing.

In some areas and for some services, quality of service is poor and it is difficult to understand what the service standards are. Moreover, prices for some services are still too high for the average Ghanaian user, due to some costs eroding financial gain for operators (such as utility bills).

3. ***Need for new Ghana broadband policy***

Some participants were uncertain in this respect, with a section unsure if a policy existed and was being implemented. Others stated that a new broadband policy is a priority for Ghana and that such a policy would be instrumental in revising penetration and innovation targets for the Ghanaian telecommunications market and in introducing FTTH (fibre-to-the-home).

A group however emphasized no need to reinvent the wheel to develop a new policy, preferring instead to enhance existing ones to accommodate new developments.

4. ***Backbone sharing***

Backbone sharing was considered desirable for Ghana and should be viewed under a regional and capital approach (i.e. backbone sharing should ensure links and ramifications into every region and capitals).

Some participants pointed out that any project in this context should be carried out only following a public consultation to this effect and managed by an independent 3rd party to ensure non-discrimination in pricing and service. Few participants mentioned the need to establish guidelines for fibre rollout including well enforced standards (management and maintenance) to ensure quality of service.

5. *The TowerCo model*

Generally, participants believed that, due to the popularity and commercial importance of the TowerCo model, the activity of towercos in the express context of infrastructure sharing initiatives should be subject to specific regulation. The main issue mentioned in this respect was transparency and communication on price determination, since some participants mentioned that the price applied by TowerCos was higher than the growth rate for all MNOs in Ghana.

From the TowerCos' perspective, it was mentioned that a lot of variables go into the determination of the applicable price, including: significant costs associated with acquiring sites and building the passive infrastructure, price for purchase of equipment and raw material, as well as inflation.

It was suggested that sharing pricing formulas applied by TowerCos should be subject to regulation. However, some participants suggested that regulation in this respect was not necessary, stating that infrastructure sharing is currently working well on a commercially-driven basis and regulators should only intervene in the event of inefficiencies.

6. *The challenge of coverage*

Coverage expansion is a need for Ghana, due to the asymmetries currently existing throughout a country with different and challenging population densities.

Some participants suggested that allocation of GIFEC funds (namely, the fee collected from mobile operators, in the amount of 1% the annual net revenues) would be adequate for this purpose, since the areas that are either unserved or underserved are not profitable for operators and would not raise revenue.

GIFEC, due to its institutional mission and budget, would be most suited towards the achieving coverage expansion, by investing directly in unserved or underserved areas and by promoting dialogue with the various stakeholders in the market, so as to ensure synchronized building (dialogue with operators) and finding commercially viable options for investment in these non-profitable areas (dialogue with TowerCos).

Other participants suggested having a national infrastructure planning office with an official mandate and budget. This entity would be responsible for coordinating public works, managing construction and anticipating industry shifts and trends in this scope.

7. *Deployment bottlenecks / A one-stop-shop mechanism*

The participants agreed that existing bottlenecks cut down on time to market, result in revenue loss and discourage roll-out – therefore, they should be addressed through NCA guidelines to be prepared/reviewed and subject to a strict enforcement culture.

Roll-out should be streamlined under a "*1 application, 1 fee*" principle: applicants should submit one sole request and pay one sole fee to the NCA (through an existing NCA body or new body to be created therein for this purpose).

This application would include all necessary data and information for NCA to coordinate and synchronise its decision with relevant agencies and authorities, thereby eliminating the need for each applicant to obtain separate authorisations and licences from municipal, environmental, fiscal and other authorities.

8. *The Eastern/Western Fibre Corridors*

Some participants stated that the main challenge for the existing and planned fibre corridors were how to contribute to ensuring last mile coverage, by creating incentives for operators to invest and deploy in areas that would typically not be attractive or profitable from a commercial standpoint. The fibre corridors could do so by ensuring connections between the main structure and district capitals and reference points such as schools, health facilities, public institutions, internet cafés.

These participants believed that the fibre corridors have the potential to incentivise private investment, by lowering the cost of extension (due to the possible connections with the fibre corridors). Moreover, they see a potential for this fibre project in the context of launching and extending e-government initiatives.

9. ***Stakeholder dialogue***

Participants agreed that dialogue between stakeholders was essential in order to coordinate initiatives and rationalize investments, as well as bringing certainty to the market and facilitating trust between the various different stakeholders, particularly considering the significant investments and projects currently in force in Ghana, such as the 5 existing submarine cables , fibre corridors, Base stations, datacenters etc.

This can be carried out through establishing different forums for communication and discussion across sectors such as Transport, Utilities, Communication and Environment. The publication of market information and carrying out public consultations should also come as a result of possible new policies and regulation on the matter of infrastructure sharing. The concern of participants was who the convener of these dialogues should be. Some suggested the NCA.

Overall, the input received in the context of the public consultation focused on the different market dynamics in Ghana in what concerns infrastructure sharing (including interaction between legal and commercial dynamics, practical enforcement of existing provisions and challenges arising from existing investments and projects), as well as the measures that may be undertaken to address and accommodate gaps in infrastructure sharing, to the ultimate benefit of consumers and users of electronic communications services in Ghana.

IV. Next steps

Following the analysis carried out in this Report, the Report and Recommendations will focus on best practices and suggested course of action in the context of infrastructure sharing, taking into account the input and feedback received from the stakeholders, both prior to and in the main Public Consultation.

These recommendations will be noted both from three perspectives:

- Policy – need for new policies in the sector and/or adjustments to existing policies;
- Legal – set-up of different entities and mandates; adjustments to existing laws, in order to correct market distortions in infrastructure sharing terms;
- Regulatory – new standards and guidelines, towards a culture of dialogue and enforcement.

Recommendations will also take into account the extent of the rights and obligations applicable to operators and other stakeholders - specifically, in what concerns the extent and scope of infrastructure sharing obligations throughout the various types of market players.

Attachments:

Attachment I – **List of Public Consultation Attendees**

Attachment II **– Breakout sessions (group distribution)**

Attachment III – **List of questions for breakout sessions**

ATTACHMENT I

LIST OF PUBLIC CONSULTATION ATTENDEES

Name	Title	Company
Hon. Ato Sarpong	Deputy Minister of Communications	Ministry of Communications
Nana Defie Badu	Director, Consumer & Corporate Affairs	NCA
Kwasi Agyei	Director, Finance	Ministry of Comunications
Mwiya Mukunyandela	Manager - ePMP Business Development & Sales	Cambium Networks
Philip Engmann	Telecom Engineer and Founder of GISPA	GISPA
Sherrie Thompson	Founder/CEO	Global Reslove Africa
Kobe Sam	Software Engineer	Capital One
Pascal Ametorwogo	Solutions Architect	ATC Ghana
Victor Kwabena Nimo	Director	Dream Keepers Network
Yusif Amadu	ICT Officer	University of Ghana
Afua Koranteng	Head of Legal	ATC Ghana
John Ayitevie	Head of Sales & Business Development	Nokia
Abenaa Vondee	Project Officer	C Squared
Fatima Sani	Business Development Manager	Google
Kwaku Agbesi	Sales Manager	Google
Ama Sekyere-Boateng	Deputy Manager	National Communications Authority
Francois van Zyl	CEO	ATC Ghana
Frederick Asumanu	Snr Manager	NCA
Precious Ankomah	Program Manager	Penplusbytes Ghana
Eric Kwabena Agbozo	Chie Executive Officer	Defence Against AIDS Poverty and Underdevelopment (DAAPU)

Name	Title	Company
Wolako Dake	Marketing/Advocacy Officer	Education Support Services
Daniel Ganyoame	Executive Director	Africa ICT Right
Prosper Legbedze	Network Planning and Design Engineer	Airtel
Emmanuel Ahugah	Country Coordinator	ENO Ghana
Joachim Doe	IP/NMS Engineer	NITA
Clara Pinkrah-Sam	Innovation/Digital Entrepreneurship and BPO Expert	E- Transform Project,
Kwame Boakye	President	Ghana Institution of Engineers
Teki Akuetteh Falconer	Executive Director	Data Protection Commission
Kwame Owusu-ansah	Technical Consultant	Bluetone Communications Ghana Limited
Wisdom Donkor	IT Manager / Technical Lead Ghana Open Data Projec	National Information Technology Agency
Cassandra Mensah-Abrampah	Commercial Operations Program Manager	Google
Shola Sanni	Public Policy Manager	GSMA
Kojo Boakye	N/A	Facebook
Brian Dzansi	Social Media Manager	Imani Ghana
Derek Laryea	Head of Research	Ghana Chamber of Telecommunications
Charles Kwame Affum Aboagye	CEO	The Perfect Example Environmental Foundation
Emmanuel Berning	Programme Cordinator	The Perfect Example Environmental Foundation
Samuel Yeboah	Program Manager	Google Ghana Ltd
Peter Osei Mensah	Developments Director	ALL FOR US AFRICA Foundation
Eleanor Afful	ICT trainer in network engineering	AITI-KACE

Name	Title	Company
Kojo Akoto Boateng	Presenter	Citi FM
Eben Ankrah	Head of Communisations	SOG Organisation
Solomon Richardson	Head of Infrastructure	NITA
Kwaku Antwi	Researcher	GIMPA
Kafui Tsekpo	Advocacy and Communications Manager	Participatory Development Associates
Ahmed Futa	Valuer	Oasis Property Consult
Eric Kumah-Baku	Public Relations/Protocol	National Information Technology Agency
Nanjira Sambuli	Digital Equality Advocacy Manager	Web Foundation
Wilfred Glover-Akpey	RAN & IP Engineer	National Information Technology Agency (NITA)
Sam Koranteng	Senior Manager, Regulatory Affairs	MTN Ghana
Charles Asque	Network Group	MTN Ghana
Mohammed Bun Bida	Programmes Director	Muslim Family Counselling Services
Victor Teppeh	N/A	N/A
Emmanuel Larbi Offei	Administrative Manager	Manbah Gas Co. Ltd
Benjamin Ato Afful	Government Relations Specialist	AIRTEL
Obed Nyarko Antwi	Founder	ALL FOR US AFRICA FOUNDATION
Ofoe Dorgble	NA	N/A
Mavis Obeng Aidoo	N/A	N/A
Abed Bandim	N/A	N/A

ATTACHMENT II

BREAKOUT SESSIONS GROUP DISTRIBUTION

GROUP 1

- Fatima Suni (Google)
- Sherrie Thompson (Global Resolve Africa)
- John Ayitevie (NOKIA)
- Kwaku Ofosu-Adakwa (A4AI)
- Philip Engmann (Vodafone/GISPA)
- Shola Sanni (GSMA)
- Mawis Openg Aidoo (NCA)
- Magda Cocco (VdA)

GROUP 2

- Eleanor Sarpong (A4AI)
- Ato Afful (Airtel)
- Mwiya Mukunyandela (Cambium)
- Estelle Akofio-Soloah (Google)
- Derek Laryga (Telecoms Chamber)
- Kwame Owusu-Ansah (Bluetone)
- Mohammed Bun Bida (MFCS)
- Yusif Amadu (University of Ghana)
- Daniel Ganyoame (Africa ICT)

GROUP 3

- Charles Asque (MTN)
- Wilfred Glover-Akpey (NITA)
- Abeda Mensah (Participation Development Associates)
- Brian Dzansi (Imani Ghana)
- Kojo Akoto Boadeng (Citi FM)
- Abed Bandim (NCA)
- Augustine Sekyene (AIRTEL)
- Emmanuel Ahugah (AIRTEL)
- Loro Osei-Ofori (Google)
- Sonia Jorge (A4AI)

GROUP 4

- Obed Nyarko Antwi (All for us Africa Foundation)
- Ofoe Dorgble (Ada FM Network)
- Kwaku Antwi (GIMPA)
- Peter Osei Mensah (All for us Africa Foundation)
- Wolako Dake (Education Support Services)
- Isabel Ornelas (A4AI)
- Emmanuel Ahugah (ENO Ghana)
- Joachim Mensah Doe (NITA)
- Cassandra Mensah-Abrampah (Google)
- Afua Koranteng (ATC)

GROUP 5*

- KOJO BOAKYE (FACEBOOK)
- PHILIP PREMPEH (GIFEC)

*LIST INCOMPLETE

ATTACHMENT III

LIST OF QUESTIONS FOR GROUP DEBATES

ALLIANCE FOR AFFORDABLE INTERNET
GHANA COALITION

GHANA INFRASTRUCTURE SHARING CONSULTANCY STUDY

Questions for debate by Discussion groups

Public Consultation Workshop - Accra 25th October 216

1. Do you think a new infrastructure sharing policy would be useful to infrastructure sharing in Ghana? If so, which matters should be addressed therein?

2. Are consumers receiving the full benefits of infrastructure sharing (price reduction, more services and better quality of service) across the board and for all telecom services?

3. Does Ghana need a broadband policy? If so, which matters should be addressed therein?

4. Do you think backbone sharing is currently desirable for Ghana? Do you think this will become a reality for Ghana in a near future?

5. How can infrastructure sharing contribute to accommodate current national roaming and national coverage needs in Ghana?

6. TowerCos are the most common sharing mechanism in Ghana. Do you think this model is sufficiently regulated? Is regulating sharing prices a desirable option?

7. How do you think coverage expansion can take place without additional costs to operators?

8. Would a one-stop-shop mechanism be an accurate tool for cutting down time-to-market and deployment costs? If so, which do you find to be the biggest market bottlenecks?

9. What challenges/advantages do you think the Eastern/Western Fibre Corridor may bring to infrastructure sharing?

10. What can the regulator and/or Government do in the short term to address the current barriers to infrastructure sharing in Ghana?

11. How can government ensure better synergies between the Telecoms, Utilities and Roads and Transport sector to ensure infrastructure sharing and access? (e.g. Is data readily available?)

12. What do you think the various shareholders could do to promote a more transparent, dialogue-based market?