Access to Broadband Connectivity in Liberia in the Post-Ebola context:
A Roundtable with Public, Private and Civil Society Sector Stakeholders

Summary Report

Introduction

This report provides a summary of expert presentations, stakeholder discussions and conclusions from the *Access to Broadband Connectivity in Liberia in the Post-Ebola context: A Roundtable with Public, Private and Civil Society Sector Stakeholders* event. The Roundtable, which was hosted by the Liberian Ministry of Post and Telecommunications (MoPT), the Liberian Telecommunications Authority (LTA) and USAID, was held on Friday, May 16, 2015, in Monrovia, Liberia. It brought public, private and civil society sector stakeholders together in order to examine the impact of Ebola on future investment in the digital economy, as well as to articulate a commitment toward collaboration and coordination in the sector.

Section 1 of the report provides an overview of the objectives for the Roundtable, and the agenda. Section 2 briefly summarizes the various presentations made during the Roundtable. Section 3 outlines the conclusions drawn during a breakout session, in which participants formed four groups and developed positions on four topics:

- policy alignment required to ensure a conducive policy environment for broadband development in Liberia;
- the development of e-Government and shared services in Liberia;
- last mile connectivity in Liberia and how it might be improved; and
- digital backbone Infrastructure and how this might be developed

During the breakout session, participants discussed what objectives Liberia might need to achieve in respect of the above four areas, what challenges it might face in trying to achieve the objectives and what measures are required to surmount the challenges. Each of the groups, through a rapporteur, provided a verbal report during the Roundtable. The key conclusions from each group have been develop into a number of recommendations that should guide the Government of Liberia (GoL), Liberian stakeholders and the International community in the Post-Ebola Context. These are found in section 4 of this report.

1. Context and Workshop Objectives

On May 9, a week before the Access to Connectivity in the Post-Ebola Context Roundtable, and some 42 days after the last laboratory-confirmed case was buried, Liberia was declared Ebola-free. The elimination of Ebola transmission in Liberia provides a unique opportunity for stakeholders to take stock and consider how the substantial resources flowing into the region can be used to address ongoing recovery needs and how Liberia can strengthen government systems to respond to any future emergencies, disasters and public health threats.

Prior to the Ebola outbreak, Liberia and its neighbors experienced a weak and poorly integrated baseline digital infrastructure. The Ebola outbreak further degraded what existed, with mobile network operators (MNOs) and Internet service providers (ISPs) in particular experiencing substantial losses in revenue due to a sharp downturn in GDP. High-value accounts scaled back or closed completely. Operating costs increased significantly in the form of fuel, security, equipment maintenance, cash management, and technical personnel. Rural communities, often living in sparsely populated and remote areas, are particularly disadvantaged with regard to access to digital services.

In addition to improving response capability, improved digital infrastructure will bolster citizen confidence in government, improve integration of rural citizens into the national economies, stimulate urban and rural economies, and improve preparedness to handle future crises. Of course, the key to building resilience is to strengthen the broader digital infrastructure and create the levels of usage that are central to Liberia achieving its socio-economic goals. Liberia requires an integrated strategy with mobile networks, broadband backbone, digital financial payment systems, data/mapping systems, e-governance platforms, and human capacity in the workforce in order to expand connectivity and provide a diverse range of high-quality services.

The Government of Liberia's commitment to advancing the digital economy is evidenced by the approval of a National ICT/Telecommunications Policy that recognizes the strategic importance of national broadband rollout and the development of a national broadband plan. Policymakers at the MoPT and the LTA need to now commence consultations for the development of a national strategy plan for broadband adoption.

The elimination of Ebola transmission in Liberia provides a unique opportunity to take stock and consider how the substantial resources flowing into the region can be used not only to address ongoing recovery needs but to strengthen the broader digital infrastructure – with the objective of dramatically strengthening government systems to respond to future emergencies, disasters and

public health threats. In addition to improving response capability, the digital infrastructure will bolster citizen confidence in government, improve integration of rural citizens into the national economies, stimulate the urban and rural economies, and improve preparedness to handle future crises.

1.1   Specific Objectives

Accelerating the development of Liberia's digital infrastructure will require an integrated strategy with mobile networks, broadband backbone, digital financial payment systems, data/mapping systems, e-governance platforms, and human capacity in the workforce in order to expand connectivity and provide a diverse range of high quality services. Consensus for action, policy commitment, co-investment in shared infrastructure are necessary prerequisites for progress in the sector.

The roundtable provided a platform for stakeholders to collaboratively build consensus on actions required, policy commitments and co-investment in shared infrastructure. This consensus is a prerequisite for progress in the sector. The specific objectives for the Roundtable were:

- to convene under the auspices of the Government of Liberia (GoL) (MoPT and LTA), a half-day workshop for public, private and civil society sector stakeholders related to connectivity in the post-Ebola context;
- to present key findings from the review of the impact of Ebola on the national digital infrastructure and associated services;
- to support the policy framework to ensure improved affordability and access to broadband infrastructure and related services to all citizens; and
- to identify the short-term network investments to improve network performance and services, and to build the attractiveness of inward direct foreign investment in the sector

1.2   Anticipated Outcomes

The anticipated outcomes from the workshop were:

- raised awareness of NetHope network assessment, Partnership for Digital West Africa (PDWA);
- increased political will and consensus around a common investment plan and harmonized approach;
- a shift in policy stance toward people-focused connectivity based on shared public good investments, affordability and accessibility; and
- the development of an action plan with concrete commitments/agenda

1.3   Agenda

The workshop took place on the morning of May 16. The final agenda is below:

8:30-9:00 Opening Remarks/Protocol
- HON. Minister Dr. Frederick B. Norkeh - MoPT
- HON. Commissioner Angelique Weeks - LTA
- Ms. Ann Mei Chang - Executive Director, USAID, Global Development Lab

9:00-9:15 Country Overview
- Deputy MinisterMr. Zotawan D.Titus- MoPT

9:15-10:00 Impact of Ebola on Digital Infrastructure
- Mr.Eden Reeves, NetHope

9:30-9:50 Global Overview of Trends Toward Expanded Access
- Ms. Sonia Jorge, A4AI
- Mr. Andrew Karlyn, USAID/PDWA

9:50-10:00 Tea Break (working)

10:00-10:30 Scenario Planning
- Mr. Mike Jensen, NetHope
- Mr. Steve Song, NetHope

10:30-11:30 Sectoral Analysis --> Breakout Sessions
- Policy alignment
- Infrastructure prioritization
- Last mile distribution
- eGov/shared services

11:30-12:30 Report Back
- Reporting from sectoral breakout sessions
- VIP/Expert response
- Consensus statement
- Conclusion

12:30- 13:30
Lunch & Event Conclusion

2. Expert Presentations

2.1 Welcome Remarks

Dr. Frederick B. Norkeh, Honorable Minister of Post & Telecommunications

Hon. Minister Frederick B. Norkeh's opening remarks highlighted the importance of ICTs, and broadband in particular, for the future development of Liberia. He noted that 35 percent of Liberians are under the age of 24, and ICTs can be used to give young Liberians opportunities to fulfill their aspirations. Moreover, he suggested that ICTs and broadband in particular could be used to provide opportunities to all Liberians.

Minister Norkeh highlighted the ways in which the Roundtable was facilitating the type of stakeholder consultation that was necessary if Liberia is to achieve its objectives. He noted the importance of developing the right policy and regulatory environment and stressed the need to develop Public Private Partnerships (PPPs). The Minister thanked the Liberian private sector, most notably mobile operators, for their commitment to Liberia, even in the face of the Ebola crisis. He concluded this remarks with a call for the international community, most notably USAID, to continue supporting Liberia and reiterated the willingness of the GoL to partner with them.

Ms. Angelique Weeks, Honorable Chairperson, Liberian Telecommunications Authority

In her opening remarks, Chairperson Weeks warmly welcomed participants to the Roundtable. She noted that although the Ebola crisis was a terrible time for Liberia, its aftermath presented an opportunity for the country to build resilience to future shocks, but also to catalyze the broader development of broadband services.

Chairperson Weeks detailed some of the steps the GoL, and LTA in particular, has taken in order to improve broadband. The most noticeable of these was the landing of the ACE cable, but only 20 percent of the capacity of the cable was being used. This under-utilization created a number of challenges for Liberia, including undermining its ability to pay back loans from the World Bank that were used to finance the cable. She urged the audience to work towards using more capacity on the cable.

Like Minister Norkeh, Chairperson Weeks thanked the private sector for their commitment to Liberia during the Ebola crisis. She noted that Liberia's plight would have been far worse if the

mobile operators had suspended services. Yet, she also noted that many of Liberia's mobile operators were making "good money" in Liberia.

She concluded her comments by remarking on the importance of having more stakeholder consultative events like the Roundtable and the need to use the outcomes of such events in the development of PPPs.

Ms. Ann Mei Chang, Executive Director, USAID Global Development Lab

Ms. Chang described the impact of Ebola and the death toll in Liberia, Sierra Leone and Guinea. She told participants that the region remains at risk until Ebola is fully eliminated across the three countries and noted that limited broadband and mobile telephone connectivity throughout the region severely hampered the national response and prevention efforts. It was partly because of these limitations and their effects that USAID and the GoL recognize the digital infrastructure as a priority response tool in the Ebola crisis, as well as an engine to drive the recovery of the regional and national economies. The infrastructure facilitated broadband and mobile telecommunications, real-time data management systems and digital payment services. In turn, the infrastructure and services facilitate the critical functions of supporting command and control; case reporting and contact tracing; population-level social mobilization.

Like Chairperson Weeks, Ms. Chang told participants that the end of the Ebola crisis presented Liberia with an opportunity. Not only could Liberia develop its broader digital infrastructure and facilitate its socio-economic development, it could use the lessons learned to build resilience. To do this, however, stakeholders must have consensus for action, policy commitment and co-investment in shared infrastructure. She remarked that she hoped participants at the Roundtable would make a commitment toward collaboration and coordination in the sector. This commitment will feed into a concrete Action Plan for the actors in this room to take forward.

Ms. Chang concluded by telling participants that USAID was ready, willing and able to support initiatives in Liberia and that the agency has gained useful experience. The Leland Initiative and the Asia/Near East Bureau ICT4D Program, for example, assisted scores of countries throughout Africa and Asia to modernize policy, attract private investors, promote sustainable rural access, and strengthen the utility of digital access to rural households and businesses. The same could be done in the Ebola-affected region.

2.2   Country Overview

Mr. Zotawan D. Titus, Honorable Deputy Minister for Technical Services, Ministry of Posts & Telecommunication

Deputy Minister Titus gave participants an overview of Liberia's state of connectivity prior to the landing of the ACE cable –satellites provided the country's international connectivity and were prohibitively expensive. The high cost of services was one of the key reasons why broadband penetration was less than 1 percent.

Since the landing of the cable, the cost of broadband connectivity has radically dropped, and the average Internet connection speed has improved dramatically. The fall in the cost of services and the introduction of mobile broadband services has led broadband penetration to increase to 30 percent. However, Deputy Minister Titus noted that broadband is concentrated in densely populated cities –cities with mobile broadband penetration constitute less than 10 percent of Liberia's 38,000 square miles. Clearly, there is work to be done if Liberia is to build on its recent developments and spread the use and benefits of broadband more widely.

The GoL has taken steps to develop a policy and regulatory framework that will facilitate increased access and use of broadband. For example, as recently as 2014, the GoL developed the National Universal Access Program, which should help address gaps in access and promote infrastructure sharing. Deputy Minister Titus acknowledged that the overarching 2010 National Telecommunication and ICT Policy was in need of updating and told participants the development of a new policy was a priority.

Deputy Minister Titus concluded by telling participants that access to broadband connectivity is a necessity, and therefore, building a national backbone and improving rural access in Liberia was urgent. To meet this urgent need, the GoL and its development partners needed to intervene to address the access gap by investing in sustainable broadband infrastructure.

2.3   Impact of Ebola on Digital Infrastructure

Mr. Eden Reeves, NetHope

Mr. Reeves highlighted the challenges within the ICT sector due to the impact of the Ebola crisis; the impact on the human, financial and systems aspects of digital infrastructure; current and potential opportunities; and lessons learned for future emergency response situations.

Mr. Reeves noted that the Ebola crisis revealed weaknesses in the country's telecoms/digital infrastructure and emphasized the need for a better and fully digitized Liberia. The crisis also heightened the need for more investments in the sector to allow for better crisis management. Mr. Reeves concluded by describing some potential priorities for the country to focus on including expanding digital services to underserved areas; expanding digital services to include resources and support for health, education, community awareness, and access to government services; expanding trained human capacity through higher education; and improving the legal and regulatory environments to support a digitized Liberia.

2.4 Global Overview of Trends Toward Expanded Access

Ms. Sonia Jorge, Executive Director, Alliance for Affordable Internet

Ms. Jorge provided an overview of the work the Alliance for Affordable Internet (A4AI) is doing to support countries in Africa, shared A4AI's research findings on the drivers of affordability around the world, and suggested an initial set of opportunities Liberia should seize to increase affordable access in the country:

- Update the ICT Policy to include a clear vision for affordable broadband access for all Liberians
    - Addressing challenges associated with low incomes and low literacy levels
- Develop regulatory incentives for broadband infrastructure deployment and sharing;
- Approve and implement the UAF, as one option to finance public access in rural and unserved areas; and
- Develop a broadband strategy that incentivizes investment from private and public sectors

Mr. Andrew Karlyn, USAID/PDWA

Mr. Karlyn gave a brief presentation on the Partnership for Digital West Africa (PDWA), which is intended to support the development of digital infrastructure in West Africa, beginning in Ebola-affected and neighboring countries with a specific focus on vulnerable populations and especially in regards to public health threats. The Partnership will helpreduce risks and support digital infrastructure through a number of investments and activities. USAID will provide at least $10 million in funding and partner with other investors to attract approximately $100 million in funding to the region.

Some of PDWA's activities include targeted assistance in removing barriers to entry for ICT investments; digitallyfast tracking investments; providing alternative financing mechanisms, such as de-risking via credit guarantees; first-loss financing; leveraging USFs; and providingsupport for new business models for data and payment systems.

Mr. Mike Jensen, NetHope

Mr. Jensen gave an outline of the potential options for addressing the international and national connectivity needs of Liberia. In respect of international connectivity, the recent service interruption on the ACE cable has highlighted the necessity of obtaining alternative international connections. Having different international routes not only addresses needs for network resiliency but also helps drive down the cost of international capacity by providing a more competitive market.

However, no other new cables are currently planned for West Africa, and the cost of a submarine landing making use of an existing cable is high – a potential option is the MainOne cable, but extending the branch from its current location to the north would likely put the total cost of the landing at about $50 million. It remains an option, but considering that cross border connectivity to Liberia's neighbors is also required, this should present a cheaper option for obtaining international connectivity via the landing stations in Sierra Leone, Guinea and Cote d'Ivoire. The latter appears to be the best option because it already has extensive fiber infrastructure close to the Liberian border, an IXP and access to four different landing stations in Abidjan (SAT-3, WACS, MainOne and ACE). In this respect, the international perspective also provides focus for the prioritization of needs for building out the Liberian national backbone.

Achieving a fully redundant national backbone with broad coverage of the population will likely cost at least $60 million, assuming the ability to make use of alternative/utility infrastructure such as roads, power grids and rail lines, which can massively reduce the cost of 'green-field 'digging. It is vital to ensure that opportunities with road building projects to include ducts are not lost, and that all new utility infrastructure has budgetary provision for the inclusion of ducts. A phased approach will also be needed to address the most urgent needs such as the routes to the borders and along the commercial corridors.

Mr. Jensen also pointed out that there is considerable interest among a variety of international community members and regional projects that can be leveraged to help build the necessary international and national infrastructure. These include the African Development Bank's support for connectivity amongst the Mano River Union Member States (Guinea, Sierra Leone, Liberia, and Cote

d'Ivoire), the ECOWAS's Regional Infrastructure Master Plan that is currently under development, along with the ECOWAN programme, the World Bank's WARCIP and the African Union's PIDA.

Mr. Steve Song, NetHope

Mr. Song gave an overview of the challenges facing affordable, pervasive delivery of last mile access to voice and data. He highlighted the extent to which affordable last mile infrastructure was dependent on the development of a robust national fiber backbone. He emphasised that not just fiber infrastructure was needed to lower telecommunications costs but also better transport and power infrastructure that would lower the overall cost of maintaining towers in remote areas.

Mr. Song pointed out that while efforts to share towers among operators had been attempted, there were no ongoing successful tower sharing efforts. He emphasized the cost savings that might be achieved through this. He spoke about the wireless Internet Service Provider (ISP) market and how it had shrunk from 17 ISPs to three operators, which are mostly using unlicensed spectrum to deliver broadband services.

Lastly, Mr. Song spoke about the challenges of affordable access in rural areas where literacy rates are extremely low and where ability to pay for services is also very limited. He mentioned alternative access strategies underway in other countries that are attempting to address this issue. In Mexico, a community organisation is now delivering low-cost GSM services to communities not serviced by incumbent operators. The government of the Philippines has just announced a nation-wide rollout of public access infrastructure based on a combination of fiber, WiFi and dynamic spectrum technologies. He concluded by emphasizing the important of embracing diversity in the access ecosystem.

3.   Breakout Session Summary

This section summarizes the conclusions drawn during the breakout session, in which participants formed four groups and developed positions on four topics:

- policy alignment required to ensure a conducive policy environment for broadband development in Liberia;
- the development of e-Government and shared services in Liberia;
- last mile connectivity in Liberia and how it might be improved; and
- digital backbone infrastructure and how this might be developed

During the breakout sessions, participants examined the objectives Liberia might need to achieve in respect of the four areas, what challenges it might face in trying to achieve the objectives, and what measures are required to surmount the challenges.

3.1   Policy Alignment

The conclusions from the group that discussed "policy alignment required ensuring a conducive policy environment for broadband development in Liberia" are:

- The national ICT policy needs to be revised.
- There is an overwhelming need for a national backbone.
- There is a funding challenge, and one solution is a legal framework for PPPs.
- All road construction should have a common conduit access, including for a fiber backbone.
- The MoPT needs to coordinate amongst the GoL cabinet and other stakeholders with support from LTA.
- Liberia needs broadband because it is a driver of e-education, e-health, e-government and the benefit of these can only be derived when there is access to affordable and accessible broadband.
- Liberia is not alone in the world anymore. To be nationally, regionally and globally competitive, it needs ICT digital literacy as a critical component to be driven forward.
- USAID has experts/experience to develop responsive broadband strategies. We would like USAID's expertise to support the GoL and private sector support for the national broadband strategy.
- A national PPP strategy has been drafted by the national investment commission and presented to the cabinet and legislature.

3.2   Backbone Infrastructure

The conclusions from the group that discussed "digital backbone infrastructure and how this might be developed in Liberia" are:

- A clear plan and strong public/private sector collaboration are required to build out the national backbone.
- As a starting point, there is a need to fast track the current World Bank supported feasibility study to develop a plan for national backbone in the country. The private sector also needs to be involved in the development of this study.

- In terms of existing plans, Libtelco already is planning to put 300km of fiber in place, which will reach the country's ICT Center of Excellence and the city of Buchanon.
- There is lack of clarity on the license exclusivity conditions in Libtelco's rights for operating a national backbone, and clarification of how the backbone will be managed is required.
- Liberia also needs an Open Access Framework to ensure reasonable pricing for wholesale connectivity.
- PPPs could be established and the GoL and Liberia's network operators are willing to collaborate to develop a plan for these.
- Regular multi-stakeholder consultations like this working group facilitated by the Roundtable should continue.

3.3   Last Mile

The conclusions from the group that discussed "last mile connectivity in Liberia and how it might be improved: are:

- Last mile was defined as the final stage in the delivery of broadband services to the user (comparable to the transmission of power).
- Overall, the aim should be to provide last mile solutions that are appropriate to the context.
    - The gold standard is fiber, but the group notes the high costs associated with implementing FTTH.
    - Wireless solutions (e.g. microwave) will often provide a cheaper alternative in the last mile.
- Challenges in Liberia include:
    - Coordination: We need to coordinate with other infrastructure development in-country, particularly with power infrastructure (and other infrastructure works, e.g. road).
    - Licensing environment: We need to improve licensing, particularly for spectrum management.
    - Funding model: There is discussion on the role of the government vs. private enterprise in this area, looking at the need for PPP models for delivery will be important.
    - Infrastructure co-sharing: We looked at the role of co-sharing of services with existing local GSMs and its ability to increase affordability for the end-user.

- Technical capacity: There is a need for local capacity and capability. Building technical capacity could save significant costs with infrastructure development.

3.4   e-Governance and Shared Services

The conclusions from the group that discussed "the development of e-Government and shared services in Liberia" are:

- The GoL should develop an e-Government and Shared Services strategy from which both urban and rural areas can benefit.
- The development of the strategy will require coordination, cooperation and information-sharing simultaneously.
- Currently, e-Government is limited to websites that are mainly sources of information (and often not updated regularly), rather than providing useful services.
- There is little synergy between the creators of these websites and the citizens and businesses that were intended to benefit from them.
- A major challenge posed by the lack of e-Government today is that there is a long paper trail for citizens and businesses to interact with government. If you need to interact with the government in some way (e.g. obtaining a birth certificate, renewing a license), you must travel to the right Ministry in person, wait in long queues, and often pay for the forms you are filling in. This is even more challenging in rural areas that are less serviced by government. The stakeholders believe a holistic e-Government and communications approach, integrated across government agencies, is the place to start.
- Low levels of literacy and ICT literacy present a challenge to the development and use of e-government services. Yet the stakeholders feel that if the services are provided citizens will use them – "if you build it, they will come".
- The best possible approach to e-Government is to focus on user-friendliness and implementation.
- If the Government of Liberia starts with an e-Portal, the content must be developed with the target audience in mind and placed in the hands of the right people to ensure that the content is managed and updated.
- To implement and facilitate uptake, radio can be used as a medium for teaching people to learn about the government's ICT strategy and how they can use it.
- In rural areas, where there are few cybercafés, we suggest that schools be used as centers of learning for key ICT efforts. This has two purposes: first, students, the new generation, must learn to be technologically literate. Second, they will teach the adults in their lives.

4.   Stakeholder Recommendations

The following recommendations were developed using stakeholders' inputs to the four breakout sessions at the Roundtable.

Affordability and Consultation

- The Ministry of Post and Telecommunications (MoPT), the Liberia Telecommunications Authority (LTA) and participating stakeholders will strive to <u>affordably</u> connect all our citizens – urban and rural, wealthy and poor – to their families and each other, to government and private sector services, and to the world.

- The *Access to the Connectivity in the Post-Ebola Context: A Roundtable Discussion with the Public and Private Sector*, hosted by MoPT and LTA on Friday, May 16, 2015 proved the important of having stakeholder consultative processes. It is important that multi-stakeholder processes are held regularly in the future.

National Backbone Development

- The development of a national backbone in Liberia is a matter of urgency, and a clear plan that stimulates strong public/private sector collaboration to build out the national backbone must be developed in order to better utilize the spare capacity in the ACE submarine cable.

- A feasibility study for the development of the backbone must be completed. This study should resolve continued ambiguity concerning the development and management of the Libtelco backbone.

- Libtelco backbone and any other backbone infrastructure that is to be developed through public private partnership should be managed using a clear and transparent open access framework.

Last Mile

- A Large proportion of Liberians live in rural areas, and it is imperative that measures are taken to connect those in the last mile. In Liberia the last mile solutions that are used must

be context-specific and the last mile should be defined as the final stage in the delivery of broadband services to the user.

- Wireless is the obvious technology for serving the last mile in Liberia and the wide range of wireless solutions present Liberia with opportunities to connect all Liberians, even those in rural areas where the challenges posed by topography and low population density are most acute. It is imperative that opportunities to use the full range of wireless technologies, including licensed, unlicensed and dynamic spectrum technologies are seized. In some cases, even Fibre To The Home/Neighbourhood may be appropriate in some urban environments like Monrovia.

- Measures must be taken to reduce the capital investment and time needed to roll out fixed and wireless last mile solutions. The benefits of using these measures must be assessed, and where feasible, undertaken in the shortest possible time. Amongst other things, these measures include MoPT and LTA facilitating greater inter-ministerial and interagency coordination in the provision of infrastructure in Liberia, particularly with power, roads and water works. It is also imperative that aspects of the licensing environment are rationalized so that Liberia can, for example, further improve its spectrum management and usage.

- Infrastructure sharing presents one way in which the cost of providing access to those in the last mile might be reduced and, where possible, operators must be incentivized to share infrastructure. Where these incentives do not work, the GoL should have the option to use other measures to increase sharing.

- The private sector must be given further opportunities to extend access and build upon the considerable investment and infrastructure it has already provided. Yet Public Private Partnerships (PPPs) have an important role play in meeting the last mile. The GoL, national and international private sector stakeholders must do their utmost to develop such PPPs.

E-governance Services

- Usage of the ACE Cable, national backbone infrastructure and last mile solutions will call for Liberians to use a wide range of ICT services. Therefore, actions must be taken to stimulate the development of, and demand for, commercial services such as mobile money and e-Government services, which have the potential to create benefits for government and citizens by, amongst other things, saving time and financial resources.

- The GoL, in collaboration with stakeholders from the private, civil society and the international community, should build upon efforts such MoPT's Draft Policy Directive on

the National Policy on the Use of the gov.lr Domain Name and the launch of the Executive Mansion website, to mainstream e-government services so that, where feasible, each Ministry is able to provide interactive services that are beneficial to citizens.

- Stimulating demand for e-Government services is important, but low levels of ICT Literacy pose a significant challenge. GOL must develop a holistic communication strategy that uses a range of media -Internet, radio, television, and print - to educate citizens about the benefits of using such services and how to use the services.

- Public institutions, most notably schools should be given the necessary resources to become centers of learning in efforts to train citizens on how to use services and improve ICT Literacy. Liberia's Universal Service/Access Fund (UAF) should be used to support this effort.

Policy Alignment

- MoPT must develop a new National ICT policy that makes the development of broadband a priority.

- This new ICT policy must be developed through deep stakeholder consultation in order to foster a sense of ownership amongst stakeholders, especially those from the private sector who will be central to achieving its objectives.

- In addition to a new ICT Policy, MoPT must develop a comprehensive Broadband Plan with time-bound targets, prepared in consultation with all stakeholders, so that various movements towards a ubiquitous, affordable and useful broadband could be coordinated to achieve the desired goals.

- GoL must make policy interventions that are designed to:
  - catalyze the development of backbone infrastructure,
  - establish mechanisms through which the backbone could be shared by all,
  - avoid discrimination, and
  - encourage the lowest possible cost.

  These interventions are a matter of urgency because of, amongst other things, the need for a national backbone and the impending privatization of Libtelco.

- In light of Liberia's recent Ebola crisis the need for it to build resilience, the new National

ICT Policy and the Broadband Plan must reflect the ways in which ICTs are used in all stages of emergency response.

- A draft PPP strategy by the national investment commission has been developed and presented to cabinet and the legislature. GoL must develop the appropriate legal framework for the development of PPPs.

- In light of the need to establish PPPs, GoL and Liberian stakeholders must do their utmost to explore and establish opportunities for partnership with the international private sector and development community, including USAID.

- It is imperative that USAID and other international stakeholders make known, through concrete commitments, the support they are prepared to provide to Liberia's effort to increase broadband access and usage.