

Establishment of Harmonized Policies for the ICT Market in the ACP Countries

Access to Submarine Cables: Guidelines

HIPSSA **Harmonization of ICT Policies in Sub-Saharan Africa**



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Sub-Saharan Africa



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Foreword

Information and communication technologies (ICTs) are shaping the process of globalisation. Recognising their potential to accelerate Africa's economic integration and thereby its greater prosperity and social transformation, Ministers responsible for Communication and Information Technologies meeting under the auspices of the African Union (AU) adopted in May 2008 a reference framework for the harmonization of telecommunications/ICT policies and regulations, an initiative that had become especially necessary with the increasingly widespread adoption of policies to liberalise this sector.

Coordination across the region is essential if the policies, legislation, and practices resulting from each country's liberalization are not to be so various as to constitute an impediment to the development of competitive regional markets.

Our project to 'Support for Harmonization of the ICT Policies in Sub-Sahara Africa' (HIPSSA) has sought to address this potential impediment by bringing together and accompanying all Sub-Saharan countries in the Group of African, Caribbean and Pacific States (ACP) as they formulate and adopt harmonized ICT policies, legislation, and regulatory frameworks. Executed by the International Telecommunication Union (ITU), co-chaired by the AU, the project has been undertaken in close cooperation with the Regional Economic Communities (RECs) and regional associations of regulators which are members of the HIPSSA Steering Committee. A global steering committee composed of the representatives of the ACP Secretariat and the Development and Cooperation – EuropeAid (DEVCO, European Commission) oversees the overall implementation of the project.

This project is taking place within the framework of the ACP Information and Telecommunication Technologies (@CP-ICT) programme and is funded under the 9th European Development Fund (EDF), which is the main instrument for providing European aid for development cooperation in the ACP States, and co-financed by the ITU. The @CP-ICT aims to support ACP governments and institutions in the harmonization of their ICT policies in the sector by providing high-quality, globally-benchmarked but locally-relevant policy advice, training and related capacity building.

All projects that bring together multiple stakeholders face the dual challenge of creating a sense of shared ownership and ensuring optimum outcomes for all parties. HIPSSA has given special consideration to this issue from the very beginning of the project in December 2008. Having agreed upon shared priorities, stakeholder working groups were set up to address them. The specific needs of the regions were then identified and likewise potentially successful regional practices, which were then benchmarked against practices and standards established elsewhere.

These detailed assessments, which reflect sub-regional and country-specific particularities, served as the basis for the model policies and legislative texts that offer the prospect of a legislative landscape for which the whole region can be proud. The project is certain to become an example to follow for the stakeholders who seek to harness the catalytic force of ICTs to accelerate economic integration and social and economic development.

I take this opportunity to thank the European Commission and ACP Secretariat for their financial contribution. I also thank the Economic Community of West African States (ECOWAS), West African Economic and Monetary Union (UEMOA), Economic Community of Central African States (ECCAS), Economic and Monetary Community of Central Africa (CEMAC), East African Community (EAC), Common Market for Eastern and Southern Africa (COMESA), Common Market for Eastern and Southern Africa (COMESA), Southern African Development Community (SADC), Intergovernmental Authority on Development (IGAD), Communication Regulators' Association of Southern Africa (CRASA), Telecommunication Regulators' Association of Central Africa (ARTAC), United Nations Economic Commission for Africa (UNECA), and West Africa Telecommunications Regulators' Association (WATRA), for their contribution to this work. Without political will on the part of beneficiary countries, not much would have been achieved. For that, I express my profound thanks to all the ACP governments for their political will which has made this project a resounding success.



Brahima Sanou
BDT, Director

Acknowledgements

The present document represents an achievement of a regional activity carried out under the HIPSSA project (“Support to the Harmonisation of ICT Policies in Sub-Sahara Africa”) officially launched in Addis Ababa in December 2008.

In response to both the challenges and the opportunities of information and communication technologies’ (ICTs) contribution to political, social, economic and environmental development, the International Telecommunication Union (ITU) and the European Commission (EC) joined forces and signed an agreement aimed at providing “Support for the Establishment of Harmonized Policies for the ICT market in the ACP”, as a component of the Programme “ACP-Information and Communication Technologies (@CP-ICT)” within the framework of the 9th European Development Fund (EDF). i.e., ITU-EC-ACP Project.

This global ITU-EC-ACP Project is being implemented through three separate sub-projects customized to the specific needs of each region: Sub-Saharan Africa (HIPSSA), the Caribbean (HIPCAR), and the Pacific Island Countries (ICB4PAC).

For this particular activity of the HIPSSA project, the Sector Project “ICT for development” of the Deutsche Gesellschaft für International Zusammenarbeit mbh (GIZ) on behalf of the German Federal Ministry of Economic Cooperation and Development (BMZ) provided technical and financial support. This GIZ collaboration is part of an on-going collaboration, which also includes other actions to the benefit of regional associations of regulators and national administrations of German development cooperation’s partner countries.

In 2009 West African Telecommunication Regulators’ Assembly (WATRA) identified access to submarine cables as one of the most pressing priorities of its members and initiated a consultative process to equip them with guidelines with a first workshop organised in collaboration with GIZ and HIPSSA and held in Accra, Ghana on 17-18 November 2009.

The present assessment report, the guidelines and the regulation have been prepared by Ms. Katia Barresi-Duhamel and Ms. Katarzyna Tyka of Bird & Bird on the one hand, and Mr. Russell Southwood of Balancing Act on the other hand. Additionally, Ms. Aïssatou Dieng Diop of ATELCO and Ms. Saïda Ouederni of Steer provided technical advice. These experts have been guided by the Commission of the Economic Community of West African States (ECOWAS) and WATRA Secretariat which are members of the HIPSSA Steering Committee co-chaired by the African Union’s Commission (AUC) and the ITU.

These draft documents have been reviewed, discussed and validated by broad consensus by participants during a workshop organised by WATRA in Monrovia, Liberia with the support of the Liberia Telecommunication Authority (LTA) on 7-9 December 2010 and the at the ECOWAS National ICT Experts’ consultative meeting in Lomé, Togo on 22-25 March 2011.

The WATRA Guidelines were adopted at the 9th WATRA Annual General Assembly in Accra, Ghana on 2-3 June 2011 and the ECOWAS Regulation at the 11th Meeting of ECOWAS Ministers of Telecommunication and ICT in Yamoussoukro, Côte d’Ivoire on 14 October 2011.

ITU would like to thank the workshop delegates from the WATRA members, the Commissions of the Economic Community of West African States (ECOWAS) and the *Union économique et monétaire ouest africaine* (UEMOA), ECOWAS information and communication technologies (ICT) and/or telecommunications ministries, academia, civil society and operators for their hard work and commitment in producing the contents of the final report. The contributions from the ECOWAS Commission and the WATRA Secretariat are gratefully acknowledged.

Without the active involvement of all of these stakeholders, it would have been impossible to produce a document such as this, reflecting the overall requirements and conditions of the ECOWAS/UEMOA region while also representing international best practice.

Acknowledgements

The activities have been implemented by Ms. Ida Jallow, responsible for the coordination of the activities in Sub-sahara Africa (HIPSSA Senior Project Coordinator), and Mr. Sandro Bazzanella, responsible for the management of the whole project covering Sub-sahara Africa, Caribbean and the Pacific (ITU-EC-ACP Project Manager) with the overall support of Ms. Hiwot Mulugeta, HIPSSA Project Assistant, and of Ms. Silvia Villar, ITU-EC-ACP Project Assistant. The work was carried out under the overall direction of Mr. Cosmas Zavazava, Chief, Project Support and Knowledge Management Department. The document was developed under the direct supervision of the then HIPSSA Senior Project Coordinator, Mr. Jean-François Le Bihan, and has further benefited from comments of the ITU Telecommunication Development Bureau's (BDT) Regulatory and Market Environment (RME) Division. Support was provided by Ms. Margarida Evora-Sagna, ITU Area Representative for West Africa. The team at ITU's Publication Composition Service was responsible for its publication.

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List of acronyms

CLS	Cable Landing Station
ECOWAS	Economic Community of West African States
EU	European Union
IDA	Infocomm Development Authority
IPLC	International Private Leased Circuit
IRU	Indefeasible Right of Use
ITU	International Telecommunication Union
NRA	National Regulatory Authority
RIO	Reference Interconnection Offer
SMP	Significant Market Power
WATRA	West African Telecommunication Assembly

Summary

Bandwidth is the petrol of the new global economy. Affordable international bandwidth is an essential component for any African country to remain competitive in a changing world. Access to competitively priced wholesale international bandwidth allows operators to provide cheaper Internet access to their users. More can clearly be done by countries if the cost of international bandwidth can be improved.

Integration of regional markets is essential to the growth of trade between ECOWAS countries and lowering the cost of communicating and transferring money is a key plank in that process. The goods traded are not simply luxury goods but also essential foodstuffs that make up the daily diet of all citizens. Cheap and accessible bandwidth allows access to both knowledge and opportunities that will help large numbers of West Africans increase their potential to succeed.

None of this will occur if there are barriers to affordable and equal access to the new international fibre cables coming to Africa. In 2011, there were five West African countries which had only one landing station and a number of others where all of the landing stations were controlled by a single company. Without a clear regulatory framework, there is a risk that the operators use their dominant market position to impede access and retain prices at non-competitive levels. Without addressing issues of market failure of this kind, West African countries run the danger of not being able to take advantage of the benefits that the new international cables should provide. It is essential that the new submarine cables create effective competitive pressure on price and service and that access to landing stations is properly dealt with through policies that encourage investment, enabling regulation and in some cases public-private partnerships.

Whilst the principles of open access are clear, there is no toolkit, which will allow all governments and regulatory bodies in West Africa to implement a framework favourable to an open access model. Therefore this study aims to provide flexible and practical approaches that will help African Governments implement this kind of approach.

In order to offer these regulators multiple approaches and a set of proposed guidelines, the study draws upon an extensive body of legal and regulatory statutes, guidelines and general documents from Africa and across the globe. It also examines international law and regulation from bodies such as the World Trade Organisation and the European Commission. The review of these documents focuses on: authorisations and licences (terms and conditions); access (interconnection and physical access); market power and monopoly; reasonable and transparent price-setting; and implementation (timeliness and transparency).

None of the legislation or regulation examined from the sixteen ECOWAS and WATRA member states deals directly with submarine cable regulation, although there are references to international connections in a number of instances. Legislation from elsewhere on the continent deals with the concept of essential facilities.

Although there are three very different legal traditions (Anglophone, francophone and lusophone), there are remarkably similar wordings for definitions, general principles, the concept of dominant market power; and interconnection frameworks, The proposed submarine cable guidelines address terms, conditions and pricing and these are all areas covered by interconnection agreement legislation. However, these rules should be adapted to apply to the specific situation of international cables to allow for the emergence of competitive offers for international capacity.

In legislation and regulation of developed countries, there is little that is specific to access to international cables. However, as with the African material reviewed, the general rules for interconnection and access can form the basis of a regulatory intervention for submarine cables with suitable adaptation.

It is essential to deal with the main bottleneck caused by landing stations but also to allow existing operators on land connected by submarine cable to access capacity held by other suppliers: i.e. consortium members of the existing submarine cable or of a new cable wishing to connect the country.

There are several possible methods for imposing the necessary rules for the creation of an environment that would facilitate open access to submarine cables: granting approvals and the modification of the reference offers of the operators using landing stations, the introduction of specific measures in their licence, and regulation with a general reach as demonstrated by the unbundling regulation of the European Commission.

Among the practices examined, the regulations implemented by the Indian and Singapore regulators offer a complete vision for the key issues to be dealt with and are worthy of attention because of the significant practical outcomes once it was implemented.

The proposed guidelines have been designed to fit within the context of wider Pan-African agreements including: the African Union Framework for Harmonisation of Telecoms and ICT Policies and Regulations in Africa; the Abuja Declaration 2010; the ECOWAS Supplementary Acts; and the UEMOA Directives. On the basis of the latter two, there are key statutes and directives that either have already or can be “domesticated”: in other words, passed into national law.

To provide access to international bandwidth in the WATRA context, the following issues require attention:

- Alternative service providers need to have access to the international bandwidth capacity under the same terms as the consortium members.
- Access facilitation (including to other consortium members) should not be unduly prevented or delayed by the consortium member having control over cable landing station;
- Transparent and non-discriminatory access with transparent charges at cable landing stations needs to be established;
- Co-location at landing facilities needs to be authorised;
- Responsibilities in terms of operational functioning should be well defined;
- Time limits for execution of access and co-location provision have to be defined as well as a minimum period of access and co-location.

The assessment report¹, a companion document to WATRA Guidelines makes the following recommendations:

- It is necessary to be clear on the geographic extent of the legislation, defining the wet and dry portions (see *Access to Submarine Cables: Assessment Report*, page 40);
- There are a number of tools for tackling submarine cable issues and these include: Reference Interconnection and Access Offers (see *Assessment Report*, page 41); licences (see *Assessment Report*, page 42); competition law (see *Assessment Report*, page 42); and the separation of ownership of the cable in a Special Purpose Vehicle funded through a Public-Private Partnership (see *Assessment Report*, page 43).

The adopted WATRA Guidelines are presented in this document. These include: definitions of key terms; objectives and spheres of allocation; the enforcement of regulation; charges for access facilitation; co-location; backhaul services and maintenance; minimum commitment period for co-location service; service level guarantees and dispute resolution.

¹ Available along with *Access to Submarine Cables in West Africa: ECOWAS Regulation on Condition to Access to Submarine Cables Landing Stations*, including HIPSSA implementation methodology, at www.itu.int/ITU-D/projects/ITU_EC_ACP/hipssa/index.html

Summary

Based on the work conducted by WATRA members in close collaboration of representatives from ECOWAS member states' ministries in charge of telecommunication and ICT, the ECOWAS Commission prepared a Regulation which was subsequently adopted by ECOWAS ICT Ministers at their 11th meeting in Yamoussoukro, Côte d'Ivoire on 14 October 2011. This legal instrument will be enforceable in all ECOWAS Member States once endorsed by the ECOWAS Council of Ministers to be held in June 2012.

Introduction

African countries must have access to affordable international bandwidth if they are to be competitive in global markets. Creating equal access to international submarine cables at a reasonable price depends on investment and a regulatory landscape that harmonises policies and frameworks. Key West African stakeholders acknowledge that an open-access approach to international submarine cables is likely to be the best way of achieving affordable international bandwidth.² However, while the principles of open access are clear, there has not been a toolkit that West African governments and regulatory bodies could use to implement the harmonised policies and frameworks favourable to such an approach. This report addresses this by presenting a draft set of guidelines that define a common basis for regulatory principles.

The ECOWAS Regulation, with the corresponding WATRA Guidelines as an intermediary result, is the culmination of three years' work that began with a workshop in Accra, Ghana, from 17 to 18 November 2009. The workshop was organised by WATRA and GIZ with HIPSSA actively participating in setting the agenda and contributing to discussions. A report by Balancing Act, an African telecommunications consultancy, *International Bandwidth: Tackling Blockages to Access*, was commissioned for the workshop. It identified three key recommendations:

- Equal access to international bandwidth;
- An increase in the amount of international bandwidth capacity;
- A significant reduction in the cost of international communications.

Based on the outputs from this workshop, HIPSSA initiated a detailed assessment of regulatory policies and frameworks relating to submarine cables to inform the development of the West African policy and regulatory guidelines. A team of experts was recruited by HIPSSA, in close collaboration with WATRA and GIZ, to carry out the assessment and produce the subsequent guidelines. Mr Russell Southwood, from Balancing Act, was responsible for policy-related aspects while Ms. Katia Barresi-Duhamel of Bird & Bird addressed the legal aspects. Technical advice was provided by Ms Aïssatou Dieng Diop of ATELCO and Ms Saïda Ouederni of Steer.

The consultants' assignment began with an assessment of the regulatory policies and frameworks in effect in WATRA countries so that existing West African best practices could be identified. These were compared with the best practices of other African countries before those in Europe, the United States, Asia and the Indian Ocean were analysed. The assessment, including examples of best practices from across the globe, forms a separate report: *Access to Submarine Cables in West Africa: Assesment Report*³ a companion document to *Access to Submarine Cables in West Africa: WATRA Guidelines on Access to Submarine Cables*.

The WATRA Guidelines, based on the assessment's findings, define a common basis for regulatory principles and are presented in this document. The assessment and guidelines were discussed and reviewed at a workshop for key stakeholders organised with the Liberia Telecommunication Authority (LTA) in Monrovia, Liberia, from 7 to 9 December 2010 and at the ECOWAS National ICT Experts' consultative meeting in Lomé, Togo from 22 to 25 March 2011. Most importantly, before being validated, the guidelines were evaluated by the stakeholders to ensure they met the objectives identified in the 2009 workshop in Ghana. The implementation of these guidelines, together with appropriate regional investment policies, would ensure WATRA countries have equal access at a reasonable cost to submarine cables.

² Cf. article by Mike Jensen : "Abaisser les coûts de la bande passante internationale en Afrique" Série APC "Thèmes émergents" 2006.

³ Available along with *Access to Submarine Cables in West Africa: ECOWAS Regulation on Condition to Access to Submarine Cables Landing Stations*, including HIPSSA implementation methodology, at www.itu.int/ITU-D/projects/ITU_EC_ACP/hipssa/index.html

Introduction

Integrated markets have social as well as economic benefits. Cheap and accessible bandwidth enables access to both the knowledge and opportunities that will help large numbers of West Africans increase their potential to succeed. Being informed about African and worldwide developments will enable Africans, from school children, students and academics to doctors and nurses, to influence progress in their countries.

In 2011 there were five West African countries with only one landing station and a number of others where the landing stations were controlled by a single company. This is of particular relevance to landlocked West African countries, which depend upon international bandwidth to connect to the landing station. The implementation of these guidelines will avoid operators being able to use their dominant market position to impede access and retain prices at non-competitive levels. A clear regulatory framework will enable all West African countries to take equal advantage of the benefits that the new international cables could provide. Harmonised policies and legislation can encourage investment, enable regulation and, where appropriate, result in beneficial public-private partnerships.

WATRA Guidelines on Access to Submarine Cables

Adopted by the 9th WATRA Annual General Assembly
in Accra, Ghana on 2-3 June 2011

1 Context

Broadband connectivity is a key component for the development, adoption and use of information and communication technologies (ICT) in the economy and in society. Broadband is of strategic importance because of its ability to accelerate the contribution of these technologies to growth and innovation in all sectors of the economy and to social and territorial cohesion.

This is especially important in emerging countries. But in Africa, where low-cost communications is needed most to accelerate socio-economic development; the prices are high due to the lack of national and international fibre optic infrastructure, both terrestrial and submarine.

The new submarine cables projects connecting Africa could disrupt this model and cut prices provided that the implementation of a regulatory environment allows open access and the development of competition on international routes.

In this context, these Guidelines focus on access to international submarine bandwidth. The Guidelines aim to provide to West African regulators tools to meet the following objectives:

- To increase the amount of international bandwidth capacity available to the country;
- To create a level playing field for access to international bandwidth that allowed a competitive market in the country;
- To secure significant drops in the cost of international communications for the country.

During the WATRA Workshop on Undersea Cable Regulation (Accra Ghana, November 17-18, 2009), the participants found problems of access, price and capacity at all levels, both with the cable landing stations and the capacity services offered.

The regulators face problems arising from insufficient competition and lack of specific regulation:

- The monopoly on cable stations, and backhaul resulting in prohibitive prices;
- Delay in the national transposition of ECOWAS Supplementary Acts and therefore lack of appropriate regulatory framework;
- The need for specific regulation tools.

Based on these observations, regulators decided to conduct studies and therefore make recommendations on these issues.

These Guidelines respond to these expectations in accordance with principle of harmonisation of ICT policies at national, regional and continental level reaffirmed at the last Conference of African Ministers in charge of Communications and Information Technologies held in Abuja⁴.

2 Necessity of regulation

In 2011 there were five West African countries which had only one landing station. There was also a number of others where all the landing stations were controlled by a single company. Without a clear regulatory framework, there is a risk that operators use their dominant market positions to impede access and retain prices at non-competitive levels. Without addressing issues of market failure of this kind, West

⁴ Conference of African Ministers in charge of Communications and Information Technologies held in Abuja, Nigeria, from 3rd to 7th of August 2010

African countries run the danger of not being able to take advantage of the benefits that the new international cables should provide.

It is essential that the new submarine cables create effective competitive pressure on price and service and that access to landing stations is properly dealt with through policies that encourage investment, enabling regulation and in some cases public-private partnerships.

There is an acknowledgement across a wide range of stakeholders that an open access approach for international fibre cables is likely to be the best way of getting the affordable international bandwidth that will help drive further growth in individual country markets. However, whilst the principles of open access are clear, there is no toolkit which will allow all governments and regulatory bodies in West Africa to implement a framework favourable to an open access model. Therefore the guidelines that follow will help WATRA member governments and regulators implement this kind of approach.

3 Enforcement of regulation

Pursuant to ECOWAS Supplementary Acts A/SA/3/01/07 of the legal regime applicable to network operators and service operators and A/SA/2/01/07 on access and interconnection in respect of ICT sector networks and services, NRAs should apply established rules to submarine cable access landing in their countries.

In accordance with above mentioned Supplementary Acts, NRA should seek to apply principles such as non-discrimination, transparency, cost-oriented pricing to submarine cables access.

4 Objectives and sphere of application

The Guidelines contribute to facilitate access to international low cost bandwidth on submarine cables by:

- boosting of competition and therefore reduction in the price of international private leased circuits (IPLCs);
- creating an appropriate regulatory environment to foster open access on submarine cable;
- and therefore providing broadband services to end users at competitive rates;

WATRA believes that competition in the international bandwidth segment could be enhanced if all the operators in each national market have adequate access to necessary facilities at cable landing stations.

To ensure this access, the interconnection and access regulation should impose on dominant suppliers who control or who are responsible for the operation of the cable landing station the obligation to provide third party operators with:

- access to CLS;
- the ability to physically or virtually co-locate their own equipment necessary for connection in the CLS;
- interconnection at the CLS to any operator's equipment in the CLS at any technically feasible point in order to allow them to acquire international capacities from the owner of the submarine capacity or from any member of submarine cable consortium or from any operator holding capacities on any cable system landing at the CLS and,
- access to backhaul circuits of all types in a timely fashion, under terms and conditions and rates that are cost-oriented, transparent, and non-discriminatory.

Moreover, it is necessary to allow new entrants to operate CLS and break the monopoly of incumbents on international gateways, therefore to award appropriate licences to National or International Long Distance Operators.

In this context, WATRA Regulators should seek to apply interconnection and access principles established by ECOWAS framework: non-discrimination, transparency, cost-oriented pricing, within the following:

- Reference Interconnection and Access Offers (RIO);
- Licenses of Cable Landing Stations' operators.

In the case of the landlocked countries, it is worth noting that the ECOWAS Supplementary Acts related to ICT framework provide that:

“The Member States shall ensure that regulatory functions for the sector are performed by the NRA (...) with the view of achieving the following objectives:

- (...)
- *the development of the interior market*
 - *by watching over the transition of the Member States towards the eliminations of the barriers;*
 - *by facilitating the installation and development of transnational networks and interoperability within ECOWAS*
 - *by ensuring that in similar circumstances there is no discrimination to operators and providers of telecommunications services with due allowance for ongoing transitional regimes (...)*” (see Article 10.2.C).

Moreover, the Supplementary Act A/SA 2/01/07 related to access and interconnection of network and services in the ICT sector provides non discrimination principle between companies established in different Member States (see Article 3).

5 Key priorities

The present guidelines address: firstly, the situation where an operator has significant market power (SMP) on the market of the access to international capacities available on the submarine cable landing in the concerned Member State, particularly where there is a single cable landing station in the Member State concerned or several cable landing operated or controlled by the same operator.

In this case the obligations mandated on operator operating or controlling one or several CLS are based on the significant market power of this operator. Therefore, it is necessary that the NRA takes the decision to declare this operator as holding a SMP position.

Notwithstanding the fact that an operator has been or not been declared to have SMP, the present guidelines also address the situation where there are several cable landing stations operated or controlled by different entities. In this case some obligations must be included:

- Either in the licenses of these entities by modifying the existing licenses of cable landing stations already established;
- Or, in the licenses of the new entrant requesting the authorisation to land a submarine cable system in the country.

For the sake of clarity:

- The notion of control refers to the situation where one company has sufficient share or rights of vote or of veto on strategic decisions which allow it to decide on the strategic orientations of

the one entity independently of the other shareholders of this entity; *Control of shareholders agreement of consortia owning and/or operating a CLS and submarine systems as well is dealt under the national competition legislation and authorities (and potentially national legal provisions may provide NRA oversight on shareholders agreement of these consortia)*

- For the purpose of the present guidelines the relevant market is the market of the access to international capacities available on the submarine cable landing in the concerned Member State;
- in order to designate a SMP operator on this market according to the article 19 of the Supplementary Act A/SA 2/01/07 related to access and interconnection of network and services in the ICT sector, the entity operating or controlling all the cable landing station in the country as defined above.

6 Definitions

For the purposes of the following Guidelines, the definitions contained in the Supplementary Acts shall apply.

Regulators should define other relevant terms, if need be, for specific purposes related to submarine cable access.

For example the operators operating a cable landing station (“CLS”) is named hereinafter the “CLS Operator”

Otherwise, taking into account specific needs and market situation in the country and the objective of fostering competition on international bandwidth, the National Regulatory Authority (“NRA”) should define:

- Operators to whom specific obligations of access to submarine cables capacities apply.
- Eligibility conditions to request access international capacities and co-location at CLS. For example:
 - The Eligible Operator operates network and/or provides services;
 - The Eligible Operator must hold beforehand some rights on the international capacity available from CLS either as capacity owner (consortium member), IRU holder or IPLC holder;
 - Any operator of an ECOWAS Member States is eligible if it is a holder of the license from its country granting it international connectivity.

For the sake of clarity, any of those operators is named hereinafter the “Eligible Operator”

- Services provided by the CLS Operator to the Eligible operator. For example:
 - Connection Services means services provided by the CLS Operator to the Eligible Operator for implementing, establishing and maintaining a connection between the Eligible Operator Co-Location equipment located at the CLS, or other such location contemplated in the CLS RIO and the Cable System for the purposes of enabling the Eligible Operator to:
 - access its own cable capacity on any cable system at the relevant CLS,
 - access the cable capacity owned by any third party on any cable system landing at the CLS.
 - Backhaul service means leasing of capacities between the CLS and the premises of the Eligible Operator.

- Co-location means facilities at the CLS (including building space, power, environment services, security and maintenance) offered by the CLS Operator to Eligible operator. In case where the CLS Operator cannot offer physical co-location due to the space limitations or any other legitimate reasons, the CLS Operator must take reasonable measures to propose an alternative solution. Such alternative solution may include option such as virtual or remote co-location, provisioning additional equipment space, optimising the use of existing space or finding adjacent space.

For this purpose remote or virtual co-location means

- a connection to the CLS by a link between the remote or virtual co-location point and the CLS
- outside the cable landing station, whether adjacent or at a reasonably distant location from such station; at which it is possible
- install its equipment so as to access the submarine cable capacity from the cable landing station;
- The Eligible Operator will bear the part of reasonable and relevant costs invested by the CLS operator to provide the virtual or remote co-location and the services associated (power, air conditioning etc).

For example, the tariff for virtual or remote co-location includes the expenses related to the works made partly by the CLS Operator to provide additional equipment space, optimising the use of existing space or finding adjacent space and, in this last case, to provide a link between the remote or virtual co-location point and the CLS

If these works are made for the exclusive needs of one Eligible Operator, this operator will be invoiced the total amount of the works.

If these works are made for several operators, every Eligible Operator is invoiced a *pro rata* of the above total amount calculated on a transparent and non discriminatory basis.

When, a new Eligible Operator moves into a co-location space that has been funded by operators already installed in this space, the entering operator agrees to pay to present operators a share of the expenses that they have engaged to access to the co-location space.

The services concerned by this refunding need to be précised in the RIO of the CLS Operator.

The Enforcement of this refund between the Eligible Operators is made without any intervention or responsibility of the CLS Operator.

7 WATRA recommendations on the national regulation related to submarine cable access

7.1 In any case and particularly in the case where there are several CLS operated and controlled by different operators

7.1.1 *NRA seeks to encourage the licensing of new CLS with appropriate provisions within licenses awarded.*

These licences and associated specifications include at least:

- According to the annex of the Supplementary Act A/SA/3/01/07 on the legal regime applicable to network and service operators, conditions aimed at preventing anti-competitive behaviour in telecommunication market and in particular measures designed to ensure that tariffs are not discriminatory and do not distort competition. For such purpose provisions on open access to CLS and international capacities on non discriminatory basis shall be included in the licences and/or in the associated specifications.
- An obligation of cooperation with the other CLS (established on the Member State territory) in order to provide redundancy in the case of serious breakdown on the cable landing at one landing station.

7.1.2 NRA modifies the existing licenses and associated specifications of the operators operating CLS in order to comply with the above principles.

Due to the necessity to be consistent with the provisions of the ECOWAS ICT regulatory framework and the general principles of the regulation set in article 10.2 of Supplementary Act A/SA/1/01/07 on the harmonization of policies and of the regulatory framework for the ICT sector in particular related to the establishment of an open and competitive market for telecommunication network and services, NRA modify the existing licenses of the operator operating CLS to introduce the above obligation of non discrimination and prohibition of competition distortion on the market of access to international capacities.

7.1.3 NRA seeks to withdraw any restriction to the access to international capacities, whatever the technology used (terrestrial or submarine fiber, satellite, microwave links, etc.) and shall not include such restrictions in any license or authorization issued to an eligible in the Member State territory.

7.2 In the case where there is a single CLS or several CLS operated or controlled by the same operator connecting the Member State.

7.2.1 Preliminary remarks

Beside the case where there is a single CLS or several CLS operated or controlled by the same operator connecting the Member State, National Regulators could seek to ensure in the conditions, described at the paragraphs below, fair and effective access to the available capacity on any cable system landing at any CLS operated or controlled by any CLS Operator holding more 25% (in volume) of the relevant market of the access to international capacities available on the submarine cable landing in the concerned Member State (*see supra*).

7.2.2 National Regulators seek to ensure fair and effective access to the available capacity on any cable system landing at these CLS.

Thus, NRA should declare this CLS operator as SMP operator and therefore ensure that:

- the CLS Operator provides to Eligible Operator Connection Services such as defined in the above paragraph 6 in order to give it access to international submarine cable capacity available on any submarine cable landing at CLS on fair and non-discriminatory terms and conditions;
- the CLS Operator allows all members of its cable consortium to sell their capacity in landing countries (in the form of either IRUs or IPLCs) or, anyone buying capacity is able to acquire it from any member of this consortium (no exclusive rights for national member of consortium or incumbent operator to sell capacities);

- For this purpose, NRA seeks to be informed of conditions of the consortium MoU and/or of the construction and maintenance agreement (C&MA) signed by its members, checks that there is no exclusive right for the CLS operator to sell capacities on the national territory.
- The CLS Operator provides Eligible Operator Co-location and Backhaul services such as defined in the above paragraph 6.
- In cases where the CLS Operator cannot offer physical co-location due to space limitation or any other legitimate reasons, the CLS Operator must take reasonable measures to propose an alternative solution. Such alternative solutions may include options such as virtual co-location, provisioning additional equipment space, optimising the use of existing space or finding adjacent space.
- Internet Access / Service Providers may also be eligible to request such access and interconnection depending on their scope of license in their national jurisdictions.

7.3 The SMP CLS Operator is required:

- To publish the terms and conditions of Connection Services, Co-location facilities including landing facilities for any submarine cables wishing to land at the CLS and Backhaul services in a “Cable Landing Station Reference Interconnect Offer” (CLS-RIO);
- To submit CLS-RIO for prior approval of the NRA; As a matter of course , the NRA can use its power to modify RIO in accordance with national regulation. The CLS operator, desirous of making any modification to its CLS RIO shall submit all such modifications for prior approval of the Authority.
- The CLS RIO covers at least following issues:
 - Detailed terms and conditions of provided Connection Services, Co-location facilities, Backhaul Services and maintenance of co-location equipment in co-location space on cost oriented basis;
 - Ordering and provisioning procedure;
 - Technical Information related to the installation and infrastructure of the CLS Operator needed by Third Operator to request above mentioned services;
 - Service Level Guarantees;
 - Tariffs of above mentioned services;
 - Payment conditions;
 - Time limit for execution;
 - Minimum period of access and co-location.
- NRA seeks to control respect of conditions attached to licenses and RIO provisions related to submarine cables and other obligation leading from ECOWAS framework.

7.4 Charges for access facilitation, co-location, backhaul services and maintenance

- Charges for Connection Services, Co-location facilities, Backhaul services and operation and maintenance respect the principle of the relevant cost calculation framework set by the NRA.
- On the basis of the cost calculation framework set by the NRA, the SMP CLS Operator will determine the charges taking into account the cost involved in Connection Services, operation and maintenance, provisioning of co-location facilities and Backhaul Services and submit these to the NRA.

- The SMP CLS Operator submits its CLS-RIO for approval to the NRA with the details of cost of network elements, costing methodology and calculation sheets etc.
- However, these charges will be approved by the NRA on the basis of the existing costing methodology already used by the NRA.
- Prior-approval of the NRA will ensure transparency, fairness and reasonability and also SMP CLS Operator will not tend to adopt an arbitrary approach in prescribing various charges.
- If an operator fails to provide the required documentation, the NRA can make its own cost calculations in order to estimate the cost on the basis of information in its possession.
- If an NRA lacks sufficient information or if it has not yet implemented methods for calculating costs in accordance with relevant provisions of the Supplementary Act on Access and Interconnection in respect of ICT sector networks and services, it can, in the transitional way, implement the control of tariffs proposed by the SMP CLS Operator on the basis of a regional benchmark in order to ensure consumer charges do not discourage uptake.

7.5 Minimum commitment period for co-location service

- In case of Co-location a large amount of resources need to be created by the SMP CLS Operator to fulfil the specific requirements of the Eligible Operator.
- On the other hand, reference capacity is being taken on Indefeasible Right of Use (IRU), on annual lease or on long lease basis; therefore, Co-located Operator would like to have a certainty for such facilities for as long as the arrangement exists in terms of the capacity bought.
- Moreover, taking into account that since the Co-located Operator would take international reference capacity on IRU basis or on lease basis for certain number of years, NRA should also ensure that extension of the time for Co-location may continue on fair, non-discriminatory, transparent and cost oriented charges to be determined by SMP CLS Operator and published after the approval of the NRA from time to time on completion of initial lease of minimum commitment period of three years.
- Therefore, the SMP CLS Operator shall ensure a minimum commitment period that would provide a reasonable balance between the need to encourage competition and ensure that Co-location arrangement are maintained for a period which do not exceed the time necessary for reasonable return on investments to CLS Operator. In case of a dispute between two co-locating operators, the owner of the infrastructure should give the other operator a reasonable time determined by the NRA to come up with an alternative arrangement before any termination of the co-location agreement.

7.6 Backhaul services

The NRA should seek that SMP CLS Operators provide leasing backhaul facility at cost oriented prices to ensure that Eligible Operator do not pay unreasonable charges for this service before the development of competitive backhaul services at each CLS.

7.7 Service Level Guarantees

The NRA should seek that SMP CLS Operators provide Service Level Guarantees equivalent to those applied to their own services or of those of their subsidiaries or partners.

7.8 Collaboration of National Regulatory Authorities

The National Regulatory Authorities of ECOWAS Member States shall define a framework for collaboration amongst the regulators regarding the rules or regulations governing access to the submarine cables in the sub-region.

7.9 Dispute resolution

In the case where the CLS Operator and Eligible Operator fail to reach agreement on access to the CLS and associated services such as co-location and backhaul, the NRA should seek to ensure that those operators can bring the dispute before the NRA according to dispute resolution mechanism provided for by the National Telecom Law.

Conclusion

Experience shows that appropriate regulation of the telecom sector, and in particular of bottlenecks which curb the development of competition, has positive effects in terms of investment, digital uses growth and therefore a positive impact in terms of economic and social development.

In the particular case of access to international capacity at affordable rates – necessary for a country to integrate the global digital economy – the success of the regulation established in Singapore is a good example (see page 21 in *Access to Submarine Cables in West Africa: Assesment Report*⁵ a companion document to *Access to Submarine Cables in West Africa: WATRA Guidelines on Access to Submarine Cables*).

The Singapore regulator (IDA) has mandated co-location at Dominant Licensee's CLS and required Dominant Licensee to provide Connection Services under the RIO and at cost-oriented prices determined by IDA.

After only a few years, the results achieved by this regulation are very positive:

- Many new players came to Singapore (7 CLSs in Singapore);
- There was a substantial increase in international bandwidth capacity and diversity (Total Submarine Cable Capacity increase from 53 Gbps in 1999 to 56 Tbps in 2010);
- Users have access to Competitive IPLC rates (which have fallen by more than 90 %) and IDD rates⁶ (which have also fallen by more than 90%);
- There has been a significant growth in the number of ISPs (from 10 to 95 between 1999 and 2010);
- Broadband Penetration (measured by household access) increased from 5% (1999) to 80 % (2009);

These guidelines and the related assessment study are intended to enable WATRA regulators to make the same positive impact on the telecoms markets and the economic development of their countries by providing them with the generic model for appropriate regulation of access to international capacity available through the submarine cable connecting West Africa.

The assessment study identifies potential bottlenecks in access at an affordable price to the international capacity of submarine cables and it suggests means and tools used by regulators to remedy them.

These solutions, which have proven themselves in other countries, must nevertheless be adapted by each regulator depending on the situation of the relevant national market.

However, work still remains to be carried out collectively within WATRA in order to complete the proposed measures and make them more operational.

In particular, the determination of relevant costs on which to base control of interconnection cost orientation, access and co-location charges is a complex task.

Moreover, the harmonisation of costing methods used by regulators would present the advantage of giving operators, most often present in several countries, visibility at a regional level, and avoid creating disincentive effects with regard to investment in one country over another.

⁵ Available along with *Access to Submarine Cables in West Africa: ECOWAS Regulation on Condition to Access to Submarine Cables Landing Stations*, including HIPSSA implementation methodology, at www.itu.int/ITU-D/projects/ITU_EC_ACP/hipssa/index.html

⁶ International Direct Dial

In this context it would be useful to extend this study by:

- developing a common method of relevant costs accounting to be taken into account in the pricing of co-location and access services at CLS as well as IPLC and IRU required by third operators;
- Recommending methods of control on wholesale rates provided by operators taking into account that Cost orientation is by far the most common method of price control, but not the only one. There are other methods with their advantages and disadvantages and they are not all mutually exclusive:
 - price cap
 - retail minus
 - both cost orientation and price cap
 - benchmarking etc.

Therefore, for a transitional period during which some operators do not yet have cost accounting, it would be useful for WATRA to monitor the market price per Mbit on submarine cables connecting Africa.

Finally, the implementation of the recommendations of this study involves completing the transposition into national law of the ECOWAS Supplementary Acts related to ICT for those countries which have not yet done so.

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