

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

Access to Submarine Cables:

ECOWAS Regulation

HIPSSA

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



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Foreword

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 with broad consensus by participants during the 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 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.

Acknowledgements

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.

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
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 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 focus 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 deal 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 wider context of 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 the 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 ECOWAS Regulation which is based on the WATRA Guidelines is 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: WATRA Guidelines on Access to Submarine Cables*, 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 and 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: Assessment Report*³ a companion document to the ECOWAS Regulation on Conditions for Access to Submarine Cables Landing Stations.

The 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.

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: WATRA Guidelines on Access to Submarine Cables*, including HIPSSA implementation methodology, at www.itu.int/ITU-D/projects/ITU_EC_ACP/hipssa/index.html

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. The implementation of these Regulation and Guidelines, together with appropriate regional investment policies, would ensure WATRA countries have equal access at a reasonable cost to submarine cables.

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.

ECOWAS Regulation on Conditions for Access to Submarine Cables Landing Stations

Adopted by the 11th Meeting of ECOWAS Ministers of Telecommunication and ICT
in Yamoussoukro, Côte d'Ivoire on 14 October 2011

To be endorsed by the ECOWAS Council of Ministers
at their next meeting

THE COUNCIL OF MINISTERS,

MINDFUL of Articles 10, 11 and 12 of the amended ECOWAS Treaty establishing the Council of Ministers and defining its functions and composition;

MINDFUL of Article 33 of the said Treaty relating to Posts and Telecommunications, which provides that Member States shall undertake to develop, modernise, coordinate and standardise their national telecommunications networks with a view to providing reliable interconnection between Member States and promoting private-sector participation in the provision of telecommunications services;

MINDFUL of Supplementary Act A/SA/2/01/07 on access and interconnection of ICT sector networks and services;

HAVING REGARD to Supplementary Act A/SA/3/01/07 on the legal regime applicable to Telecom operators and service providers;

HAVING REGARD to the Community framework for the Telecom and ICT sector and, in particular, Supplementary Act A/SA/1/01/07 on the harmonisation of the policies and regulatory framework of the Information and Communication Technology (ICT) sector;

WHEREAS interconnection of modern telecommunications systems among Member States is a pre-requisite for economic integration in the sub-region;

CONSIDERING that the new sub-marine cable projects for connecting Africa could put an end to the high cost of ICT services due to lack of national and international fibre optic infrastructures - terrestrial as well as sub-marine - and help reduce prices on condition that a regulatory framework is established to enable free access and the development of competition on international routes;

CONSIDERING the adoption of the guidelines on access to submarine cables at the 9th WATRA Annual General Meeting in Accra, Ghana, held from 2nd to 3rd June 2011, further to their amendments at the ECOWAS meeting of national experts in charge of telecommunication and ICT in Lomé, Togo, from 22 to 25 March 2011 and their validation at the WATRA workshop in Monrovia, Liberia, from 7 to 9 December 2010.

RECALLING that the development of these guidelines was launched at the WATRA Workshop on Submarine Cable Regulation in Accra, Ghana, from 17 to 18 November 2009, taking into account issues of access, pricing and capacity identified by participants regarding cable landing stations, as well as the capacity services offered, particularly as a result of monopolies on cable landing stations and backhaul, leading to extremely high charges;

RECALLING the need for Member States to strive to apply the principles of interconnection and open access as enshrined in the ECOWAS Supplementary Acts, namely, non-discrimination, transparency and cost-oriented pricing in the context of Reference Interconnect Offers and access to submarine capacities, as well as the award of licences to cable landing station operators;

RECALLING the specific challenges of landlocked countries which can only have access to cable landing stations by going through other countries for the establishment of a common ICT market in the ECOWAS space

EQUALLY RECALLING the principles of interconnection and open access enshrined in the aforementioned Supplementary Acts, as well as the principle of non-discrimination among operators, including among those established in the different Member States;

CONVINCED that open access to capacities transported on submarine cables is necessary for rendering affordable international bandwidth, thereby encouraging the growth of each of the domestic markets;

DESIROUS of adopting a harmonised framework for submarine cable access in West Africa to promote the development of permanent and fair competition for the benefit of network operators and subscribers in the telecommunications and ICT sector;

UPON THE RECOMMENDATION of the meeting of Ministers responsible for Telecommunications held on the Yamoussoukro 14th October 2011;

HAVING CONSULTED the ECOWAS Parliament;

HEREBY ENACTS

Article 1: Objective

This Regulation is aimed at:

- increasing the international bandwidth capacity of each country;
- laying down conditions for fair access to international bandwidth with a view to facilitating the development of a competitive national market; and
- ensuring significant reduction in international communication charges for each Member State.

Article 2: Scope of Application

1. This Regulation shall apply to:

- the licensees operating submarine cable landing stations in a Member State;
- access to available broadband capacities on submarine cable(s) landing at sub-marine cable stations controlled by a single company or by operators considered as having Significant Market Power (dominant operator), as per Article 19 of Supplementary Act A/SA.2/01/07 on access and interconnection of networks and services in the ICT sector. The entity that controls all cable landing stations in a Member State, or the entity as defined in the above Supplementary Act, shall be presumed to wield significant market power. 2. This Regulation shall apply without prejudice to the Member States' right to maintain or introduce, in compliance with ECOWAS regulations, measures containing provisions more detailed than those set out in this Regulation and/or not falling within the latter's scope of application, particularly regarding other types of access to local infrastructures.

Article 3: Definitions

1. For the application of this Regulation, the definitions set out in Supplementary Act A/SA.1.01/07 on the harmonisation of the policies and regulatory framework of the Information and Communications Technology (ICT) sector, Supplementary Act A/SA.3.01/07 on the legal regime applicable to network operators and service providers, and Supplementary Act A/SA.2.01/07 on access and interconnection of networks and services in respect of the ICT sector, shall apply.

2. The following definitions shall equally apply:

- **CLS:** Submarine Cable Landing Station;

- **Co-location:** the facilities and resources (including the building space, power, environmental, security and maintenance services) offered by the cable landing station operator to an Eligible Operator;
- **Virtual Co-location:**
 - Connection to the cable landing station by a link between a remote or virtual co-location point and the cable landing station.
 - This point shall be located outside the cable landing station, whether adjacent to the station or at a reasonably distant location, depending on the options.
 - The Eligible Operator shall be authorised to install its equipment at that point so as to access the submarine cable capacity from the cable landing station.
- **RIO:** Reference Interconnection Offer
- **Cable Landing Station Operator:** an operator of a submarine cable landing station (CLS Operator).
- **Eligible Operator:** a telecommunications operator who can request access to international capacity and co-location on the site of a cable landing station.

An eligible operator must:

- be in compliance with the regulations in the country concerned or another ECOWAS Member State;
- be a network operator and/or telecommunications service provider;
- hold beforehand some rights on the international capacity available at the cable landing station either as capacity owner (consortium member), an Indefeasible Right of Use (IRU) holder, or an International Private Leased Circuits (IPLCs) holder.

Internet service providers and Internet Exchange Points are also eligible to request such access depending on the scope of the applicable legal regime in their national jurisdictions.

- **Access and connection services offered by Submarine Cable Landing Station Operators to Eligible Operators:** these are services provided by a CLS operator to an Eligible Operator for the deployment, establishment and maintenance of the connection between the Eligible Operator's co-location equipment located at the landing station site or any other location indicated in the Reference Interconnect Offer concerning the landing station, and the submarine cable system, to enable the Eligible Operator:
 - access capacities belonging to him, or on any one of the cables connected to the landing station system in question; and
 - access cable capacities held by third parties on any of the cables connected to the landing station.
- **Backhaul Services:** the location of the links between the landing station and the facilities of the Eligible Operator.

Article 4: Grant of landing station licences

1. Member States shall encourage the grant of licences to new cable landing stations with appropriate provisions within the licenses awarded.
2. The licenses and specifications shall at least include:
 - conditions, in conformity with the annexes to Supplementary Act A/SA/3/01/07 on the legal regime applicable to network operators and service providers, for preventing anti-competitive

behaviour in telecommunication markets, and particularly measures designed to ensure that tariffs are not discriminatory and do not distort competition.

- In that regard, provisions on open access to cable landing stations and on the offer of international capacities on non-discriminatory basis, must be included in the licences and/or associated specifications; and
- an obligation to cooperate with the other cable landing stations (established across the Member States' territories) in providing mutual assistance in case of breakdown.

Article 5: Modification of existing licenses

Member States shall amend the existing licenses and corresponding specifications of CLS operators to conform to the principles enshrined in this Regulation, and introduce the obligation of non-discrimination and prohibition of anti-competitive practices on the international capacity access market.

Article 6: Withdrawal of restrictions on access to international capacities

Whatever the technology used (terrestrial or submarine fibre, satellite, and microwave links), Member States shall not include any restriction on access to international capacities in any licences or authorisation (including the corresponding specifications) issued to any operator on that Member State's territory.

Article 7: Guarantee of fair and effective access

1. National Regulators must ensure fair and effective access to the available capacity on any cable systems landing at any landing station operated by an SMP Operator.
2. Consequently, the SMP-CLS operator shall:
 - provide Eligible Operators with access to the station and related international sub-marine cable capacity, and facilitate connection to any sub-marine cable landing at the cable landing station on fair and non-discriminatory terms and conditions;
 - allow all providers of capacities, holding right on capacities available on submarine cable landings on the CLS, to sell their capacities in the countries where the cable is landing (in the form of either Irrevocable Right of Use – IRU, or International Leased Circuits – IPLC) or any entity willing to buy capacity, to buy it from these providers provided that they are in compliance with the national regulation.

3. There shall be no exclusive rights for national members of the consortium to sell capacities.

In that regard, the National Regulatory Authority shall be informed of the conditions of the consortium MOU and/or construction and maintenance agreement (C & MA) signed by its members to ascertain that there is no exclusive right for the CLS operator to sell international capacity on the national territory.

4. The SMP-CLS operator shall provide the Eligible Operator with Co-location and Backhaul services as defined below:

Article 8: Co-location service

1. The SMP-CLS operator shall provide the Eligible Operator with Co-location and Backhaul services as defined in Article 3.
2. In cases where the SMP-CLS operator is unable to provide physical co-location due to space limitation or any other legitimate reasons, it 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.
3. The Eligible Operator shall bear the relevant and reasonable costs invested by related services (electricity, air conditioning, etc).
4. The virtual co-location tariff shall include expenses related to the works carried out by the SMP-CLS operator in providing additional space and equipment, optimising the use of existing space, or finding adjacent sites and, in the last case, providing a link between virtual co-location and the cable landing station.
5. Where the works are carried out for the exclusive needs of one Eligible Operator, the operator shall be invoiced for the total amount of works.
6. Where they are carried out by several operators, each Eligible Operator using the co-location service shall be invoiced in proportion to the above total amount calculated on a transparent and non-discriminatory basis.
7. Where a new Eligible Operator moves into a co-location space that has already been financed by operators already installed in that space, the new entrant shall pay the operators a share of the expenses they incurred in accessing the co-location space.

Article 9: Minimum period of access and co-location

1. The SMP-CLS operator must provide a minimum period of co-location ensuring a reasonable balance between the need to encourage competition and that of safeguarding a reasonable return on the investments made for the co-location.
2. National Regulatory Authorities shall ensure that the minimum period commitment above is no less than 3 years and the co-location offer can be extended beyond the initial period.

Article 10: Backhaul services

The National Regulatory Authority should ensure that the SMP-CLS Operator provides a leasing backhaul facility at cost-oriented prices in order that Eligible Operators do not pay unreasonable charges for the service.

Article 11: Transparency obligations

1. The SMP-CLS Operator shall be required to:
 - publish the terms and conditions of Connection Services and 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);

- submit its Reference Interconnect Offer for prior approval. The NRA may use its power to modify the RIO in accordance with national regulation. A CLS Operator desirous of making any modification whatsoever to its CLS-RIO shall submit all such modifications to the Authority for prior approval.
2. The CLS-RIO must include the following points:
 - the detailed terms and conditions of provided Connection services, co-location facilities (including virtual), backhaul services, and maintenance of co-location equipment in co-location space;
 - the ordering and provisioning procedure;
 - technical information connected with the installation and infrastructure of the SMP-CLS Operator needed by third operators to request the above-mentioned services;
 - service level guarantees;
 - charges for the above services;
 - payment conditions;
 - time limit for execution; and
 - minimum period of access and co-location.
 3. National Regulatory Authorities shall monitor compliance with the conditions attached to the licenses and provisions of submarine cable Reference Interconnect Offers, and other obligations under the ECOWAS regulatory framework.

Article 12: Tariff Monitoring

1. Charges for Connection services, Co-location facilities, Backhaul services, and operation and maintenance shall be in accordance with the principle of the relevant cost calculation framework set by the NRA.
2. On the basis of the cost calculation framework set by the National Regulatory Authority, the SMP-CLS Operator shall 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 them to the National Regulatory Authority.
3. The SMP-CLS Operator shall submit the CLS-RIO to the National Regulatory Authority for approval, setting out the details of cost of the network elements, costing methodology, and calculation sheets or any other calculation methods.
4. The charges shall be approved by the National Regulatory Authority on the basis of the existing costing methodology already in use at the NRA.
5. Prior approval by the National Regulatory Authority shall ensure transparency, fairness and reasonability, and also the SMP-CLS Operator shall not tend to adopt an arbitrary approach in prescribing various charges.
6. If an Operator fails to provide the required documentation, the National Regulatory Authority may make its own cost calculations in order to estimate the cost on the basis of information at its disposal.

7. If a National Regulatory Authority lacks sufficient information or has not yet implemented methods for calculating costs in accordance with the relevant provisions of the Supplementary Act on Access and Interconnection in respect of ICT Sector Networks and Services, it may, in a transitional way, implement the tariff monitoring proposed by the SMP-CLS Operator on the basis of an international benchmark in order to ensure that consumer charges do not discourage uptake.

Article 13: Guarantees of quality Service Level

National Regulatory Authorities shall ensure that SMP-CLS Operators provide a Service Level Guarantee consistent with international best practices and equivalent to those applied to their own services or to those of their subsidiaries or partners.

Article 14: Dispute resolution

1. Where the CLS Operator and an Eligible Operator fail to reach an agreement on access to the station and associated services such as Co-location and Backhaul, the dispute shall be brought before the National Regulatory Authority according to the dispute resolution mechanism provided for by the National Telecom/ICT Law.
2. In case of dispute between the CLS Operator and co-location operator, the former shall give the third party a reasonable time-frame determined by the National Regulatory Authority to propose an alternative arrangement before the termination of the co-location agreement.

Article 15: NRA collaboration

National Regulatory Authorities of the ECOWAS Member States shall define a framework for collaboration amongst the regulators regarding the rules or regulations governing sub-marine cable access in the sub-region. The Member States shall inform the ECOWAS Commission about any initiative taken on this matter.

Article 16: Publication

This Regulation shall be published by the ECOWAS Commission in the Official Journal of the Community within thirty (30) days of its signature by the Chairman of the Council of Ministers. It shall also be published by each Member State in its National Gazette within thirty (30) days after due notification by the Commission.

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 use 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 into 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*⁴ a companion document to *Access to Submarine Cables in West Africa: ECOWAS Regulation on Conditions for Access to Submarine Cables Landing Stations*).

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 rates⁵ (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);

This ECOWAS Regulation 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.

⁴ Available along with *Access to Submarine Cables in West Africa: WATRA Guideines on Access to Submarine Cables*, including HIPSSA implementation methodology, at www.itu.int/ITU-D/projects/ITU_EC_ACP/hipssa/index.html

⁵ 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.

International Telecommunication Union
Telecommunication Development Bureau (BDT)
Place des Nations
CH-1211 Geneva

E-mail: bdtmail@itu.int
www.itu.int/ITU-D/projects/ITU_EC_ACP/

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