REPUBLIC OF RWANDA



GUIDELINES FOR SHARING BROADCASTING INFRASTRUCTURE

Table of Contents

1.	Introduction	3
2.	Definitions	4
3.	Abbreviations	5
4.	Types of Infrastructure Sharing	6
	4.1. Passive Infrastructure Sharing	6
	4.2. Active Infrastructure Sharing	6
	4.3. Minimum shared components and services	7
	4.3.1. Infrastructure & Services provided by the government	7
	4.3.2. Provided & Possible shared infrastructure on site	. 8
5.	Terms and Conditions for Infrastructure Sharing	9
	5.1. Infrastructure provider obligations	9
	5.2. Infrastructure seeker obligations	10
6.	Procedure for Infrastructure Sharing	11
7.	Infrastructure pricing methodology	12
7.	CAPEX and OPEX of shared infrastructure	12
	7.1.1. Government_capital_investment_on_shared_infrastructure	12
	7.1.2. Government operational expenditure (OPEX)	13
	7.2. For FM broadcasters	16
	7.3. Digital TV broadcasters	20
	7.3.1. TV_content_providers	20
	7.3.2. Signal_distributors	23
1.	Infrastructure Sharing Forms	25
	1.1. Infrastructure sharing form A	25
	1.2. Infrastructure sharing form B	26

1. Introduction

The broadcasting and telecommunication sectors in Rwanda are expanding dramatically. This has resulted into an increase in number of service providers with more services, increased competition and expansion of the telecom and broadcasting infrastructure network. In order to sustain such dramatic growth, the regulatory authority in Rwanda (Rwanda Utilities Regulatory Agency: RURA) developed an Infrastructure Sharing Policy to make easy the expansion of broadcasting and telecom services.

Sharing infrastructure from a Regulator's main objective is to ensure optimum utilization of broadcasting and telecom resources and Infrastructure, to minimize the investment and operational costs, to achieve higher economies of scale, to promote healthy competition by reducing the entry cost for new entrant and to reduce the wastage of land route to develop broadcasting and telecom networks infrastructure.

It will reduce cost and allow better and efficient network management for the operators. It will also enhance competition amongst telecommunication operators by reducing the entry barriers allowing for efficient services for the customers and possible expansion of coverage to previously uncovered geographical areas. It could also provide an additional source of revenue for owners of the infrastructure.

Infrastructure sharing shall include requirement to lease out/ rent out / swapping infrastructure on a nondiscriminatory basis to other service providers. These broadcasting guidelines are to be read along with the existing telecom infrastructure sharing regulations and in conjunction with the respective operator's license conditions.

Infrastructure Sharing also must contribute to a reduction of environmental degradation due to unnecessary developments.

In this regard, infrastructure providers have the mandate to share with other broadcasters and telecom operators the available passive or active infrastructures as set by regulatory guidelines.

2. Definitions

Unless the context otherwise requires, the different terms and expressions used in these document shall have the following meaning assigned to them.

"Infrastructure Sharing" means the joint use of telecommunication and broadcasting infrastructures and facilities by two or more operators.

"Active Infrastructure Sharing" means the sharing of electronic infrastructure & facilities.

"Passive Infrastructure Sharing" means the sharing of non-electronic infrastructure.

"Infrastructure Provider" means the broadcaster or telecom operator who owns and is in control of facilities or infrastructure.

"Infrastructure Seeker" means any operator who is desirous to enter or has entered into an agreement with the infrastructure provider.

"Depreciation" means a method of allocating the cost of a tangible asset over its useful life.

"Broadcast license" is a type of spectrum license granting the licensee permission to use a portion of the radio frequency spectrum in a given geographical area for broadcasting purposes.

"Operator" is an institution or an organization who owns radio and TV broadcasting or telecommunication facilities.

"Content Provider" is a company involved in providing content only not involved in its distribution or transmission.

"Signal distributor" is a company responsible for rolling out the digital network infrastructure on behalf of content providers.

3. Abbreviations

DTT: Digital Television Terrestrial

FM: Frequency modulation

AVR: Automatic Voltage Regulator

UPS: Uninterruptable Power Supply

RURA: Rwanda Utilities Regulatory Agency

CAPEX: Capital Expenditure

OPEX: Operating Expenditure

TV: Television

VAT: Value Added Tax

KVA: Kilovolt ampere

BTU: British thermal unit

Kwh: Kilo Watt Hour

ROI: Return On Investment

4. Types of Infrastructure Sharing

The types of infrastructure tenable for sharing are those that can be shared without an attendant risk of lessening competition or hindering of service provision to the population.

The infrastructure provider shall execute the infrastructure sharing in non discriminatory and competitively neutral manners.

4.1. Passive Infrastructure Sharing

Passive infrastructure includes basic site components such as towers, shelters and space in or out of the house, generators, air-conditioners, Automatic Voltage Regulator, Uninterruptable Power Supply (UPS), feeders and combiners in FM transmission and electrical power supplies are already commonplace in the broadcasting industry in Rwanda. The sharing of those networks would greatly reduce the timeframe for service provision that is dependent on the infrastructure. The larger telecommunication companies and broadcasters in Rwanda could, through infrastructure sharing and collocation with the infrastructure provider have available an additional source of revenue. Other providers planning to expand nationwide would also benefit in a reduced timeframe for rollout of services.

4.2. Active Infrastructure Sharing

Active Infrastructure Sharing covers all the electronic telecommunication and broadcasting elements of infrastructure. As the technology changes for better performances, it is not only the passive infrastructure which is shared but the broadcasting sector can share active infrastructure such, antennas; DTT transmitters and spectrum are part of the active shared infrastructure among aggregated and competing content providers.

4.3. Minimum shared components and services

All involved operators (broadcasters) must agree upon which components of the passive or active infrastructures to be shared.

4.3.1. Infrastructure & Services provided by the government

A. Common Services

- 1. DTT Transmitters' maintenance repair, upgrade and replacement
- 2. Antennas, cables and connectors replacement
- 3. DTT spectrum fees
- 4. DTT license fees
- 5. DTT system and spare parts services
- 6. National electrical grid connection and distribution (where possible)
- 7. AVR maintenance services
- 8. UPS maintenance services
- 9. Generators services an upgrade
- 10. Air-conditioning services and upgrade
- 11. Tower maintenance and refurbishment (reinforcement of the foundation, painting, member legs replacement, tower lights, lightning arrestor and electrical grounding system);
- 12. Security of the site
- 13. Insurance of the site
- 14. Cleaning and gardening of the site
- 15. Maintenance and repair of the roads
- 16. Land and districts taxes
- 17. Contribution for the functioning of the Regulatory Agency fees
- 18. Site operators' remuneration
- 19. House maintenance (painting, windows, doors and roof repair or replacement & expansion)
- 20. Maintenance of house electrical system (power meter, bulbs, cables and fuses replacement)
- 21. Maintenance of the house grounding system
- 22. Maintenance of the house lavatories
- 23. Water supply system repair
- 24. Transmission equipment electrical distribution maintenance (replacement of the fuses, electrical cables, automatic transfer system repair and replacement)

B. Non-compulsory services (done on infrastructure seeker request)

- 1. Installation services of the equipment
- 2. Preventive Maintenance, Operations, adjustments, troubleshooting and repair of the equipment
- 3. Physical coverage study

4.3.2. Provided & Possible shared infrastructure on site

- 1. Tower
- 2. Lighting arrestor
- 3. House
- 4. Tower lights
- 5. National electrical grid and cables system connection
- 6. Power meters
- 7. Electrical Distribution boards
- 8. Circuit breakers,
- 9. Grounding system
- 10. Air-conditioners
- 11. Generators
- 12. Uninterruptable Power Supply (UPS)
- 13. Automatic Voltage Regulator (AVR)
- 14. Water and Electricity
- 15. Transmission equipment (transmitters, combiners, splitters, inteys & feeder cables and antennas)
- 16. Land & Space

A. Sharing tower & Transmitting and receiving antenna system

Transmitting antennas

- 1 Antenna space occupied on the tower (Vertical line/ meters)
- 2 Antenna space occupied on sides of the tower (number of sides)
- 3 Antenna height position on the tower (in meters)
- 4 Antennas Weight (in Kg)
- 5 Splitters, inteys & Feeder cables

Receiving antennas

- 1 Dishes (Diameter in meters)
- 2 Yagi (Length in meters)
- 3 Antenna (Weight in Kg)

B. Shared Cooling and electrical systems

- 1 Air conditioners
- 2 Generators
- 3 Electrical Distribution boards
- 4 Automatic Voltage Regulator
- 5 Uninterruptable Power Supply (UPS)
- 6 National electrical grid
- 7 Circuit breakers,
- 6 Power meters
- 7 Tower lights
- 8 Grounding system
- 9 Lighting arrestor

Paid components

- 1 Return on investment and depreciation (Capital expenditure)
- 2 Profit margin
- 3 Taxes for the district and regulators
- 4 Services

5. Terms and Conditions for Infrastructure Sharing

The Broadcasting Infrastructure Sharing shall respect the "Guidelines for Sitting and Sharing of Broadcasting Infrastructure" if the infrastructure seeker is a broadcasting company and if the infrastructure seeker is a Telecommunication company the "Guidelines for Sitting and Sharing of Telecommunication Infrastructure, 2011" shall be applied.

5.1.Infrastructure provider obligations

- ➤ Infrastructure provider shall have capacity on its infrastructure to host other operators on a nondiscriminatory "first come, first served" basis and that Service providers with existing broadcasting network facilities shall allow other service providers to co-locate their broadcasting or telecommunication network facilities on their existing facilities.
- > The Infrastructure Provider and the Infrastructure Seeker shall enter into an agreement for sharing infrastructure. Charges for Infrastructure Sharing shall be mutually agreed in accordance with directives issued or authorized by the Regulatory Authority from time to time.

- ➤ Infrastructure provider shall avail the necessary space in a house for infrastructure seeker equipment and build or make an extension to the existing house to host other broadcasters when required.
- ➤ Infrastructure provider shall provide the UPS, AVR, Generators and air-conditioning system upgrade for the infrastructure seeker to operate in good working environment whenever there is an application from the infrastructure seeker with willingness to pay such demand.

5.2. Infrastructure seeker obligations

- > The Infrastructure Seeker must hold a valid Broadcasting or Telecommunication License, to provide broadcasting or telecommunication services in Rwanda.
- ➤ Infrastructure Seeker shall provide and attach to the contract the following documents:
 - Request for infrastructure sharing form
 - A list and technical specifications of all equipment at the shared infrastructure
 - Given license from the regulatory authority complying with the regulation in use
 - A list of personnel who have access to his equipment
 - Proof from the regulator that equipment is in compliance with national and international standards.
- ➤ The Infrastructure Seeker shall pay an invoice issued by the infrastructure provider in accordance with these guidelines. The payment date shall not exceed two weeks from the date of the reception of the invoice by the infrastructure seeker. If the infrastructure seeker fails to pay the due amount on due time, the infrastructure shall issue a warning letter to stop the infrastructure seeker operations on hosted site with the effect from two weeks after receipt of the warning letter by the infrastructure seeker.
- The Infrastructure Seeker shall have to fulfill all of their individual obligations including but not limited to rollout obligations as contained in their individual licenses.

- According to the nature or output power of the equipment, the infrastructure seeker may request the infrastructure provider to install additional equipment to improve the working conditions of his installed equipment. The infrastructure provider shall invoice the quotation for the services requested by the infrastructure seeker.
- > The infrastructure seeker must prove the infrastructure provider that his equipment is insured for a contracted period
- The infrastructure seeker is not allowed to build any house at the shared site, install any additional equipment or raise the power of the broadcasting transmitters without modification of the agreement and consent by the infrastructure provider.

6. Procedure for Infrastructure Sharing

- The Infrastructure Seeker shall submit a written request to the Infrastructure provider and reserve a copy (CC) to the regulatory authority expressing the interest of sharing infrastructure. The Infrastructure Provider shall invite the Infrastructure Seeker to come for negotiations with respect to requested infrastructure sharing. All communications concerning the infrastructure sharing must be in written and signed notice.
- > The Infrastructure Provider may accept or reject an application for infrastructure sharing depends on the site status and tower capacity after site visit by both parties confirming that the site can or cannot accommodate the infrastructure seeker requirements.
- The response period (either acceptance or rejection) to any request for Infrastructure Sharing shall not exceed two weeks from the date of reception and the parties may enter into negotiations of infrastructure sharing agreement and sign the contractual agreement within a timeframe not exceeding four weeks.
- In the event of any misinterpretation or disputes between the Infrastructure Provider and Infrastructure Seeker and failure to resolve the disputes amicably among themselves, either or both parties shall refer the matter to the Regulatory authority (RURA), and if not settled in this manner then it shall be settled in accordance with Rwandan law being

decided by the Courts of Rwanda having proper jurisdiction over the dispute. Such decision shall be binding to both parties.

> A copy of agreement between both parties shall be submitted to the regulatory authority for reference.

7. Infrastructure pricing methodology

The charges proposed by the Infrastructure Provider for infrastructure sharing should be reasonable based on the pricing value of the Infrastructure, Services and Facilities to be shared. These charges shall be revised at any time to meet the market requirements and whenever there are variations on taxes, licenses and other related market factors.

7.1. CAPEX and OPEX of shared infrastructure

7.1.1. Government capital investment on shared infrastructure

Shared infrastructure	Capital investment (\$) (customs duties & taxes excluded)
Land acquisition	91,994
Houses construction and renovation of existing houses	570,528
Distribution Boards	34,356
Electrical power connection to national electrical grid (Huye,	240,215
Rubona, Karongi, Rebero, Jari, Byumba, Mugogo,	
Nyarupfubire, Gihundwe, Kinanira and Nyabitimbo)	9
Grounding	42,000
Generators	323,330
Air-conditioners	301,546
Automatic Voltage Regulator (AVR)	219,100
UPS, DTT transmitters and microwave link equipment	6,674,983.9
FM feeder cables	84,680,09
FM antennas	302,500.98
Combiners	455,099.48
Tower lights	215,772
Full installation	708,162
Towers construction & towers renovation	1,472,981.84
TOTAL	11,652,568.5

Summary of government investment on shared infrastructure without customs&duties taxes: eleven million six hundred fifty two thousand five hundred six eight and five tens US dollars \$ 11,652,568.5 (USD) i.e. seven billion four hundred fifty seven million six hundred forty three thousand eight hundred forty Rwandan francs (7,457,643,840 Frw).

From fourteen sites, ROI in fifteen years per month for one site is equal:

 $ROI=CAPEX/Nr \ of \ the \ sites/Nr \ of \ Years/12 months \ 7,457,643,840 FRW/14/15/12=2,959,382.48$ Rwf

7.1.2. Government operational expenditure (OPEX)

Nº	Type of service	Expenses amount (FRW) per month
1	DTT Transmitters' maintenance repair, upgrade and replacement	368,044
2	Antennas, cables and connectors replacement	120,000
3	DTT spectrum fees	1,400,000
4	DTT license fees	369,778
5	Contribution for the functioning of the Regulatory Agency fees	1% of Turnover
6	National electrical grid connection and distribution (where possible)	36,826,000
7	AVR maintenance services	27,800
8	UPS maintenance services	2,389,333
9	Generators services an upgrade	13,000,000
10	Fuel transportation and consumption	31,136,000
11	Air-conditioning services and upgrade	6,836,000
12	Tower maintenance and refurbishment (tower inspection, reinforcement of the foundation, painting, member legs replacement, tower lights, lightning arrestor and electrical grounding system);	833,333
13	Security of the site	400,000
14	Insurance of the site	250,000
15	Cleaning and gardening of the site	2,500,000
16	Maintenance and repair of the roads	300,000
17	Land and districts taxes	200,000
18	DTT system and spare parts replacement and services	7,040,000
19	Site operators' remuneration	400,000
20	House maintenance (painting, windows, doors and roof repair or replacement & expansion)	500,000

21	Maintenance of house electrical system (power meter, bulbs, cables and fuses replacement)	150,000
22	Maintenance of the house grounding system	50,000
23	Maintenance of the house lavatories	50,000
24	Water supply system repair	5,000
25	Transmission equipment electrical distribution maintenance (replacement of the fuses, electrical cables, automatic transfer system repair and replacement)	
		1,500,000
ТО	TAL	106,651,289

The operational expenditure per month is equivalent to one hundred six million six hundred fifty one thousand two hundred eighty nine Rwandan francs (106,651,289 FRW) for fourteen sites i.e. the average OPEX for one site is 7,617,949.21 FRW.

The service cost is calculated by applying the following formula:

Service Cost = Operating Cost + Annualization Factor * Capital Expenditure

Equation for Annualization Factor:

$$a(r,n) = [r(1+r)n] / [(1+r)n - 1]$$

Where:

a(r,n) = Annualization Factor r = prevailing rate of interest n = usable life of capital asset

Basing on the usable life of the capital asset in the Telecom guidelines for sitting and Infrastructure sharing of telecommunication base station infrastructure we estimated an average of 15 years for equipment and towers shared to minimize the cost at maximum. The rate of interest is done at 0.5%.

Anualization factor would equal to: a = [0.5(1+0.5)15]/[(1+0.5)15-1] = 0.5

Service cost per month and per site = [7,617,949.21) + (0.5*2,959,382.48)]Rwf= 9,097,640.45FRW

Service cost includes twenty four possible services and sixteen equipment to be shared; therefore the average cost of each item is equivalent to 9,097,640.45/ (24+16) = 227,441.01FRW

To operate efficiently, this cost must be shared among the broadcasters sharing the infrastructure. The amount to be paid shall be based on the equipment of each broadcaster taking into account the quantity and value of the equipment in place and whoever has valuable equipment or many equipment will pay more than others.

Following the request and complaints to Minister of Local Government from private investors in broadcasting sector on high pricing in regulatory Guidelines for Sitting and Sharing of Telecommunication Base Station Infrastructure, the cost of the infrastructure sharing in the broadcasting sector has been reduced to cater for the market size and income generation of the broadcasters without considering the CAPEX and OPEX of Government investment.

The paid amount is discounted from 100% to 0.22% meaning that instead of charging 227, 441.01Frw, it was reduced to 500Frw. This shall be modified and increased if the market becomes profitable.

The charges would be commercially agreed by both parties and subject to guidelines for the infrastructure sharing in broadcasting sector set or authorized by the Regulatory authority.

The charges shall be based on the type of infrastructure to be shared Passive or active infrastructure and mandatory services required on the shared site such as Security, permanent engineer on site, Cleaning and gardening, tower maintenance, etc. The infrastructure seeker may request additional services like Repair, Preventive Maintenance and other support services to be agreed by both parties at affordable cost.

The pricing shall depend also on the space occupied inside or outside the house, height on the tower, number and volume of the equipment at infrastructure seeker request. For the FM broadcasters, they can choose to share antennas or install their own depending on the space availability on the tower.

For DTT content providers, it is mandatory to share Passive and active infrastructures in case the government transmitters are used.

The infrastructure seeker shall make a choice of the components to be shared depending on his payment capacity and in accordance with the minimum requirements to run his services.

The pricing scheme shall be modified in line with the pricing variation of taxes, live standard, electricity and fuel after consultation with both parties and approval from the regulatory authority. For the compulsory services on site the contribution of each operator shall depend on the capacity and quantity of his installed equipment.

7.2. For FM broadcasters

The infrastructure sharing consists in sharing combiners, towers and antennas, rooms, outside space in the existing land.

The relative consequence is the sharing of the cost of some services like electricity, airconditioning while the equipment is hosted in the room, tower maintenance, security and site cleaning.

To promote the investment in the broadcasting sector and considering the broadcasting market in Rwanda which is not yet vibrant for income generation, the government of Rwanda decided to reduce the cost at the investors' benefits without considering the CAPEX and OPEX of the government investment.

The cost of the contribution from the infrastructure seeker shall be benchmarked based on the following principle:

- The space allocated to the antenna system (Transmitting and receiving antenna system):
 Five hundred (500 Rwf) Rwanda francs will be charged for every meter occupied in length and in diameter.
- The height of the antenna system (Transmitting and receiving) on the tower
 Five hundred (500 Rwf) Rwanda francs will be charged for every meter in height of the center of the antenna system.
- The weight of the antenna system(Transmitting and receiving)
 The cost of every kg of the antenna system will be considered and charged Five hundred
 Rwanda francs (Frw 500).

In case of sharing the Infrastructure Provider's antenna system (Transmitting), the infrastructure seeker will bring his equipment and share the cost with other operators using the same combiner and antennas.

In case of sharing the same transmitting room and the same electricity meter:

Space occupied by his equipment in the room
 The space occupied by equipment is measured in m³ and each m³ will be charged five hundred Rwanda francs every month (500Frw).

• RF output power of the equipment and the technical specification of other equipment to estimate the consumption in power

Based on electrical power consumption data and statistics collected by the regulator (RURA), the forum of broadcasters have proposed the basic price of power consumption of 1W transmitter at 600RFW per month, standby generator included.

The pricing shall vary with the cost of electricity and fuel in Rwanda.

All users of the site will share the cost of the maintenance and the security of the site. Shared services and passive or active infrastructure costing shall vary in accordance with the number and size of equipment of the infrastructure seeker. The repair, troubleshooting and maintenance of equipment will depend on the infrastructure seeker willingness and payment capacity.

- A flat depreciation of ten thousand Rwandan francs will be charged the infrastructure seeker every month without taking into account the cost of services.
- For all categories of FM broadcasters, a flat profit margin of 0.5% of the infrastructure sharing cost will be included in the invoice to the infrastructure seeker.
- 18% of V.A.T. will also be considered in accordance to the law governing taxes in Rwanda.

The following is a proforma invoice format to the recapitulation case:

BROADCASTER'S INFRASTRUCTURE SHARING INVOICE				
FM and other equipment				
Date:				
Customer:				
Site:				

Item Description	Size	Cost/Unit(Frw)	S/TOTAL COST(FRW)
Transmitting Antenna syste	em		_
Space occupied on the tower (Vertical line/10 meters)	0	500	-
Number of sides occupied on the tower	0	500	-
Height on the tower (in meters)	0	500	-
Weight (in Kg)	0	500	-
Sharing the RBA antenna sys	tem		0
Number of Broadcasters at site	1		
Antenna system space occupied	0	500	-
height (in meters)	0	500	-
diameter(in meters)	0	500	-
weight(in Kg)	0	500	-
Combiner			-
Receiving antenna system (space occupied, height and weight)			-
Dishes (Diameter in meters)	0	500	-
Yagi (Length in meters)	0	500	-
(Weight in Kg)	0	500	-

Transmitting System and accesso	ries		<u>-</u>
Room Volume (Cubic meter)		500	-
Output RF Power (W)			
Electricity (National Electrical Grid and Generator)			-
Power consumption for other equipment			
UPS (Per KVA)	0		-
Air conditioner (Per BTU)	0		-
Receivers and other accessories (Number of units)	0	500	_
Automatic Voltage Regulator (kW/h of Reactive Power)	0		-
Maintenance and Security			_
Staff at Site			_
Number of broadcasters at site	1		
Number of RBA staff	0	300,000	-
Preventive Maintenance, Operations and repair of the equipment (Nr of visits)	0	150,000	_
Cost of depreciation, Maintenance and Refurbishment of the tower per month (FRW)	0	10,000	-
Contribution for the Security of the site	0	200,000	-
Others			_
Site maintenance (Cleaning and Gardening)		-	-
Space (land) location for transmitter room, generator, dishes,		1,200	-
SUB TO	TAL 1		
Profit Margin			
SUB TOTAL 2			-
VAT (18%)			-
GRAND TOTAL			-

Annual cost

RFW:	-	
US\$:	_	

7.3. Digital TV broadcasters

7.3.1.TV content providers

The infrastructure sharing consists in using one or many channels from the Infrastructure Provider DTT network.

Sharing this infrastructure means sharing the cost of transmitters, spectrum, towers, air-conditioning, electricity and services (maintenance, security, gardening and cleaning ...).

The cost of the contribution from the infrastructure seeker must be based on the following principle:

• The space allocated to the antenna system (Transmitting and receiving):

All channels will share the same antenna system at all sites across the country. According to the antenna technical specification and location the average of height, weight and space occupied on the tower have been charged 500 Rwf each meter and 50 Rwf each m of the feeder.

The cost will vary with the cost of fuel and the price given by the electricity provider (EWSA). After sharing the total RF power across the country, each program will be charged as using one transmitter of 2,250Watts as the total power for the 14 sites equals 31,500 Watts

All users of the site will share the cost of the maintenance and the security of the site.

The following is a format of the proforma invoice to one TV channel in the infrastructure provider's DTT network having a capability of 8 channels:

Broadcasters Infrastructure	Sharing I	nvoice Form	
DTT			-
Date:			
Customer:			
Site:			
Item Description	Size	Cost/Unit(Frw)	S/TOTAL COST(FRW)
Antenna system			
Sharing of RBA antenna system			
Antenna system space occupied:			
Total height (in m at all sites)		500	-
Total space occupied on the tower(m)		500	-
Total weight(Kg)		500	-
Total feeder cable (m at all sites)		50	-
Transmitting System and accessories			787,500
Room Volume (Cubic meter)	0	500	0
Number of content providers at site	8		
Output RF Power (W)	2,250		
National Electrical Grid(Kwatth)			90,000
Generator (Fuel, maintenance services and repair)			697,500
Power consumption for other equipment			
UPS (Per KVA)			0
Air conditioner (Per BTU)	0	84.404468160	-
Receivers and other accessories (Number of units)	0		0
Automatic Voltage Regulator (kW/h of Reactive Power)	0		0
Maintenance and Security			-
Number of content providers at site	8		
Number of RBA staff	0	300,000	-
Preventive Maintenance, Operations and repair of the equipment (Nr of visits)	0	150,000	-

Cost of Maintenance and Refurbishment of the tower per month (FRW)	0	1,000	-
Security of the site (Number of staff:200,000FRW/Staff)	0	200,000	-
Others			
Site maintenance (Cleaning and Gardening)	0		-
Transmitter & STL depreciation			
CAPEX			
Spectrum fees			
Licensee's annual contribution		2.00	
License fees			
SUB TOTA	L1		
Profit Margin			_
International broadcasters	1		-
Commercial TVs			0
Faith TVs			0
Community TVs			0
SUB TOTAL 2			-
VAT (18%)			-
GRAND TOTAL			-
		Annual c	ost
	RFW:		- 1
	US\$:		-

7.3.2. Signal distributors

In case the Infrastructure seeker is a commercial digital signal distributor, the following costing provisions shall be applied.

BROADCASTER'S INFRASTRUCTURE SHARING INVOICE

Signal Distributor

Date:	•••••				
Custon	Customer:				
Site:	•••••	and the contract of the contract of the			

Item Description	Size	Cost/Unit(Frw)	S/TOTAL COST(FRW)
Transmitting Antenna syste	em		_
Antenna space occupied on the tower (Vertical line/10 meters)	0	1,000	-
Antenna space occupied on the tower (number of sides)	0	1,000	-
antenna height position on the tower (in meters)	0	1,000	-
Antennas Weight (in Kg)	0	1,000	-
Receiving antenna system (space occup and weight)			-
Dishes (Diameter in meters)	0	1,000	-
Room Volume (Cubic meter)	0	1,000	_
Maintenance and Security			600,000
Number of operators at site	1		
Number of RBA staff	2	300,000	600,000
Output RF Power (W)	0		
Electricity (National Electrical Grid and generator)			-
Cost of depreciation, Maintenance and Refurbishment of the tower per month (FRW)	0	50,000	-

			1
Total value of equipment on site		1	
Equipment Value of the hosted broadcaster		1	
Security of the site (Number of staff:300,000FRW/Staff)	0	-	-
Others			50,000
Site maintenance (Cleaning and Gardening)	0	-	-
Lightning arrestor		1,000	-
Tower lights	0	2,000	-
Grounding system		10,000	10,000
Maintenance of the house		10,000	10,000
Access to the site (Road)		10,000	10,000
District taxes		10,000	10,000
Land center		10,000	10,000
SUB TOTA	AL 1		650,000
Profit Margin			T
Commercial TV	1		130,000
Faith TV	0		-
Community TV	0		-
SUB TOTAL 2			780,000
VAT (18%)			140,400
GRAND TOTAL			920,400

Annual Cost

RFW: 11,044,800 US\$: 17,339

8. Infrastructure Sharing Forms

8.1. Infrastructure sharing form A

Request for Infrastructure sharing (to be filled by the Infrastructure Seeker)

1. Details of Infrastructure Seeker:

- a. Name of the Licensee/Company:
- b. License Number and Date of Issue/Renewal:
- c. Type(s) of broadcasting or Telecom services provided by the Infrastructure Seeker:

2. Details of Infrastructure Provider:

- a. Name of the Licensee/Company:
- b. License Number and Date of Issue/Renewal:
- c. Type(s) of broadcasting or Telecom services provided by the Infrastructure Provider:

3. Details of the Infrastructure:

SI. No.	Items	Description
1	Reference Number of the Request	X
2	Type of the Infrastructure sharing(s)	
3	Location/Address of the Infrastructure to be shared	
4	Purpose of Sharing the Infrastructure	
5	Duration of Sharing	
6	Date of Request by the Infrastructure Seeker	
7	Last date of Approval/Rejection by the Infrastructure Provider	
8	Last date of Negotiation	
9	Inspection or Survey to the Infrastructure is Required by the Infrastructure Seeker	Yes/No
10	Any Other Information	

Authorized Signature of the Infrastructure Seeker

8.2.Infrastructure sharing form B

Approval / Rejection of Infrastructure sharing (to be filled the Infrastructure Provider)

1. Details of Infrastructure Provider:

- a. Name of the Licensee/Company:
- b. License Number and Date of Issue/Renewal:
- c. Type(s) of broadcasting or Telecom services provided by the Infrastructure Seeker:

2. Details of Infrastructure Seeker:

- a. Name of the Licensee/Company:
- b. License Number and Date of Issue/Renewal:
- c. Type(s) of broadcasting or Telecom services provided by the Infrastructure Provider:

3. Details of Approval by the Infrastructure Provider:

SI. No.	Items	Description
1	Reference Number of the Infrastructure Seeker' Request	
2	Reference Number of Approval	
3	Type of the Infrastructure (s)	
4	Location/Address of the Infrastructure	
5	Duration of Sharing	
6	Date of Agreement / Negotiation	
7	Any Other Information	14.

Authorized Signature of the Infrastructure Provider

4. Details of Rejection by the Infrastructure Provider:

SI. No.	Items	Description
1	Reference Number of the Infrastructure Seeker' Request	
2	Reference Number of Rejection	
3	Type of the Infrastructure (s)	
4	Location/Address of the Infrastructure	
5	Reasons of Rejection	
6	Any Other Information	

The Policy for sharing Broadcasting infrastructure is here by approved by,

Mr. innocent BULIND

Chairman Board of Directors

RBA.

Date: 11/04/2014