



Collège International

PROJECT



AFRICAN DOMAIN NAME OBSERVATORY (A.D.N.O.)



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Within the framework of the development of the ccTLDs members of the International College, it was decided to set up a project relating to the implementation of an Observatory of African Domain Names (ONDA). This project aims to produce a data collection tool for monitoring the evolution of the African ccTLD market . The rest of the document gives a synthetic description of the project.

1. Presentation of the Project

1.1. context

The domain name is the key element of the presence on the Internet, the entry point of the website and the essential vector for an online identity. Domain names are ubiquitous in the operation of the Internet. It has become impossible for a structure wishing to exist on the Internet not to register the domain names associated with its name, its signs or its brands. Being present, identifying oneself, existing, are the three strategic objectives to which domain names make it possible to respond effectively, provided that the approach is part of a well-thought-out strategy and that a certain number of rules are respected.

Domain names are broadly divided into two categories: domain names representing country codes and following the ISO3661-1 standard, for example, *.ci* or *.sn* on the one hand, as well as so-called generic domain names such as *.com* or *.org* . The first category is ccTLDs and the second is gTLDs . The domain name ecosystem is marked by the management of convergence tables at the global level, called the Domain Name System (DNS) and the management of domain name allocations at the country level by specialized information centers , or by authorized distributors.

This ecosystem constitutes an important market that must be organized and structured in such a way that the individuals called registrant benefit from it in the conduct of their business and the development of activities related to the Internet. The global domain name market is worth millions of dollars.

In Africa, reliable data is still lacking in order to assess the market and take full advantage of the opportunities offered by the domain name economy and more generally, the digital economy. The establishment of an African domain name observatory is one of the mechanisms that can help to better understand the reality of the management and use of domain names in Africa.

1.2. Project description

This project consists in setting up an Observatory of African Domain Names (ONDA) within the International College of AFNIC in the form of an effective mechanism which would install in the long term the effort of information on the functions of management of African domain names and monitoring of their evolution.

The observatory will take the form of a specialized portal site run by a network of collaborators. It will be collaborative and accessible to the public. The establishment of the observatory will provide access to data specific to registries in order to carry out in- depth analyzes of the various domain name markets in Africa. In doing so, the observatory will be

able to benefit the market players themselves as well as the powers and development organizations of the Internet in Africa.

The updating of the observatory will be carried out in constant collaboration with each of the national registers of the members of the observatory.

1.3. Project Strategic Objectives

The main strategic objective is the establishment of an African ccTLD Observatory as a foundation for the development of African ccTLDs in a dynamic and evolving Internet ecosystem.

This main objective is broken down into the following secondary objectives:

- ccTLD development policies and strategies through reliable statistical data;
- Improve the collaboration of institutional Internet players at the national (ccTLDs , Registrars) and international (AFTLD, AFRINIC, ICANN, ISOC, OIF, CENTR, LACTLD, APTLD) levels with a view to the common development of the Internet;
- Improving Internet Security and Resilience in Africa;
- Strengthen the digital trust of all stakeholders in the domain name industry and the Internet more generally.

1.4. Project operational objectives

The objectives of the observatory are as follows:

- Constitute a database of information on African ccTLDs that can serve as a basis for the development of action plans for all AFTLD stakeholders;
- Produce reports whose content comes directly from the ccTLDs ;
- Monitor the evolution of African domain names;
- Periodically publish statistics on domain names in Africa;
- Become an international reference point for ccTLD statistics .

1.5. Project measurement indicators

The project measurement indicators are of several orders and can be classified into the following themes:

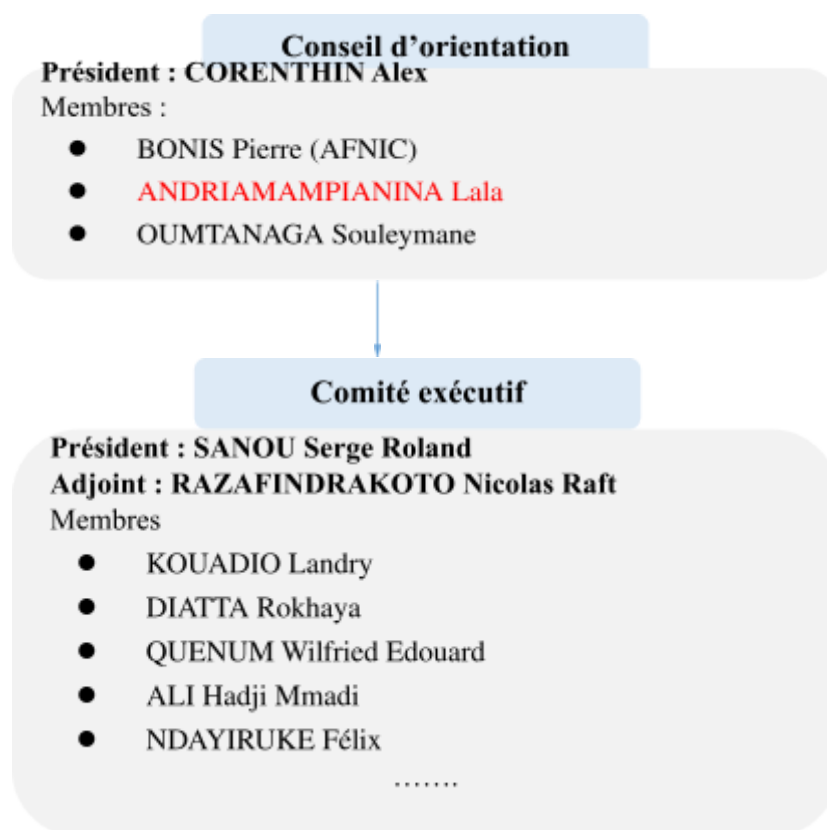
- Organizational model of ccTLDs (2R/3R, others, etc.);
- Type of Business Model adopted;
- Institutional inking;
- Pricing policy ;
- Accreditation procedure;
- Naming charter ;
- ccTLD automation process ;
- Whois service;
- Dispute resolution framework;
- ccTLD Governance Framework ;

- ccTLD Domain Name Database ;
- Additional services performed by the ccTLD ;
- Delegation / redelegation of ccTLD management ;
- e - reputation of the ccTLD ;
- ccTLD security ;
- Commitment to the development of internet governance policies
- Membership of regional and international organizations.

The details of the measurement indicators are given in the Appendix.

2. Workplan

2.1. Project Committee



2.2. Presentation of the activities of the Project Committee

Under the responsibility of the AFNIC International College, the project committee set up will put in place the mechanisms and tools for raising awareness, information and data collection. Sensitization will be done with the managers of NICs or national registers in order to obtain their support for the project. Awareness will be raised through virtual meetings that will share the expected results of the project, as well as the implementation modalities. It will mainly be:

- 1- Set up the AFNIC International College Project Committee;

- 2- Validate a work plan for the realization of the project;
- 3- Structure the data to be collected through a choice of conclusive indicators on the operation of ccTLDs ;
- 4- Make technological choices for the format of the observatory and its accommodation;
- 5- Implement a technical platform with a website to collect data and publish statistics;
- 6- Raise awareness among national and international collaborators and sign memorandums of understanding;
- 7- Animate the observatory;
- 8- Realize the by-products of the observatory (Market analysis, sector review, newsletter);
- 9- Conduct periodic project reviews for continuous improvement.

2.3. Potential partnerships and document analysis

We have thus identified the following potential partners, some of which have already concluded MOUs with the AFNIC IC:

- AFTLD
- AFNIC IC Member Registries
- AFRINIC
- CCNSO / ICANN
- ISOC
- OIF
- The other continental registers (CENTR, LAPTLD, APTLD).

We will request that the Project Committee be provided with documents from AFNIC's CI which may be useful and will serve as working support for the establishment of the domain name observatory.

2.4. Risk analysis

To guarantee the success of the project, a minimal risk analysis was carried out in order to circumscribe the major risks which could constitute a blockage of the project. Based on the previous study carried out by the International College of AFNIC in 2016 relating to data collection from its member ccTLDs , the following elements can be noted, ranked in order of importance:

	Potential risk	Classification (Major/Minor)	Actions required (Risk treatment)
1	Refusal to collaborate of the actors concerned	Major	Implement good communication with project stakeholders

2	Poor estimate of project implementation (Organization, Actions, Deadlines, Technical resources, other means, etc.)	Major	Ensure good project organization through quality project documents
3	Non-compliance with deadlines and schedule	Minor	Ensure proper monitoring of project implementation by the Steering Committee.
4	Insufficient budget	Major	Review the funding guarantee of the actors supporting the project (AFNIC CI, AFNIC)
5	Failures of the technical platform or administrators	Minor	Check the choice of technical solutions in terms of robustness, resilience and technical management

It appears that three (03) risks have been qualified as Major Risks.

At these levels, we plan to focus on communization and organization in order to mitigate these risks.

3. Presentation of the technical platform

The domain name observatory is a technical platform made up of a portal in the form of a web application accessible to partners. It will make available to the public a set of up-to-date statistical data on the African domain name market. This solution will include:

- A Backend : Function open to all registries wishing to use the application for statistics;
- A Frontend : intended for the public or any institution wishing to exploit the figures.

3.1. General operating scenario of the technical platform

In this section, we present the scenario that prevails when using the Domain Name Observatory:

a. Preliminary actions: Membership of the Observatory

- Registration Form
- Registry entry
- Authentication after registration
- Access to the REGISTER interface for the actions of:
 - o Consultation of the personalized dashboard
 - o Data Update Topics
 - o Observations and proposals
 - o Document Publishing Topics

b. Observatory operating actions

- Definition of the data update policy
 - Frequency of update requests
 - Support for transmission of updates
 - Update times
- Application of update policies
 - Update notifications
 - Update form
 - Data processing
 - Editing diagrams
 - Rankings
 - Publications
- Publications
 - Publication on the Frontend ;
 - Postings on social networks;
 - Editions of reports;
 - Registry specific report editions;
 - Edition of documents from a register.

3.2. List of functions and sub-functions

This system consists of two parts:

a. Back-end

- System registration
 - Registration Form
 - Registration confirmation
 - ✓ Register area
 - ✓ Data Update Topics
 - ✓ Proposals and suggestions section
 - ✓ Registry Statistics
 - ✓ Positioning of the registry by section in the set of African Registries member of the observatory
 - ✓ Publication controls
 - ✓ Editions - Mailing List

b. Front-end

- Publications
 - Rankings by number of domains
 - Level of variation of CcTLDs by heading

- Rankings by region
- Variations and evolutions

3.3. Technical platform of the observatory

We propose in order to carry out the project to consider the quantities of the elements of the following technical platform:

Designation	Kind	Amount	Role	Comments
VPS server	Material	01	Base server for hosting observatory applications	paying
Mirror/Backup Server (OPTIONAL)	Material	01	Secondary server for data duplication or backup.	Paid (Optional)
OS Linux Debian latest version	Software	01	Open source operating system	Free
SurveyMonkey Pro survey app	Software	01	Main survey application	paying
MySQL or PostgreSQL DB	Software	01	Platform database	Free
domain SSL	security resource	01	SSL electronic certificate	paying
Domain name “onda.africa”	internet resource	01	Domain name for the web portal	paying

3.4. Project schedule

The table below presents all the activities to be carried out for the execution of the project and the execution deadlines

No. _	Activities to do	Duration (days)
1	Drafting of the project sheet	1
2	Validation of the Project File	3
Data collections		
3	Information request	3
4	Data compilation	5
Conceptual analysis		
5	Data Dictionary	4
6	Database design	5
Technical analysis		
7	Functions to be developed	2
8	Reports to be produced and other editions	2

9	Technical checks	2
10	Definition of Design	3
11	Production of the model	5
12	Model demonstration	1
Programming – Backend		
13	Setting	3
14	Member Registration	2
15	Subscribers registrations	2
16	Register space	3
17	Programming of headings	5
18	Statistics	5
19	Publication Management	5
Programming – frontend		
20	Definition of rubrics	5
22	Application of the Template	3
23	Rankings	4
24	Diagrams	3
25	Variations	1
26	The most dynamic registers	1
27	Presentation and demonstrations	2
Project duration		80

3.5. Estimated Project Budget

Designation	Amount	COULD (EURO)	Total price excluding tax	Comments
GLOBAL BUDGET				
Technical platform acquisition	1	1548	1548	VPS/SSL/License/domain name
TOTAL PROJECT (1 YEAR)			€1,548	
COMPUTER PLATFORM DETAILS				
VPS server	01	500	500	
Mirror/Backup Server (OPTIONAL)	01	500	500	
SurveyMonkey Pro survey app	01	408	408	
domain SSL	01	120	120	
Domain name “onda.africa ”	01	20	20	
TOTAL Technical platform			€1,548	

The provisional budget in the previous table represents the overall budget of the project over a period of one (01) year, estimated at **1,548 Euros**.

4. Appendix: List of 71 ccTLD Measurement Indicators

The details of the project measurement indicators are as follows:

1. Organizational model of ccTLDs (2R/3R, others, etc.)

I1: Type of organizational model adopted by the Registry: 3R, 2R or others

I2: Existence of an accreditation process for Registrars

I3: Number of Registrars approved by the ccTLD

2. Type of Business Model adopted

I4: Description of the business model adopted

I5: In the 2R model, existence of a monopoly in the direct sale of NDs

3. Institutional inking

I6: Existence of a legal and regulatory framework relating to the management of NDs

I7: Period of validity of the legal and regulatory framework since its adoption

I8: Existence of a draft revision of this framework

4. Pricing policy

ccTLD Domain Names

ccTLD DN registration operations

I11: Fees applied in the operations of modification, deletion, renewal and transfer of ccTLD NDs

I12: Existence of an auction procedure for NDs

I13: Existence of a procedure for selling on advertising

I14: Existence of a procedure for selling premium NDs

5. Accreditation procedure

I15: Existence of an accreditation procedure for Registrars

Registrar accreditation procedure

I17: Number of Registrars accredited to the Registry

I18: Breakdown of Registrars accredited nationally, internationally, also accredited by ICANN, etc.

6. Naming charter

I19: Existence of a naming charter

I20 : Existence of a list of terms reserved or prohibited for registration

I21: Public or private nature of the list of reserved or prohibited terms

7. ccTLD automation process

I22: Type of technical, automated or manual management of NDs

I23: Technical solution adopted COCCA, FRED or Others

I24: Registration method by EPP Registrars , Others

I25: Total duration of the recording procedure

I26: Existence of an availability search tool for the national domain name

8. Whois service

I27: Existence of a functional Whois service

9. Dispute resolution framework

I28: Existence of a dispute resolution procedure

I29: Name of the entity responsible for the dispute resolution procedure

I30: Average duration of the dispute settlement procedure

I31: Number of dispute settlement files in progress

I32: Compatibility of the dispute resolution procedure with the ICANN UDRP procedure

10.ccTLD Governance Framework

I33: Creation date of the ccTLD

I34: Creation date of the current Register

I35: Legal status or structure of the Registry

I36: Origin of the Registry's financial resources

I37: Geographical location of the national or international register

I38: Registry operating budget

I39: Number of people working in the Registry

I40: Distribution of Registry staff in administrative, technical, marketing, sales and customer support functions

I41: Profit or deficit result of the Register for the last fiscal year

11.ccTLD Domain Name Database

I42: Number of domain names registered in the database

I43: Distribution of domain names by type of user (national, international, public, private, association, other)

12. Additional services performed by the ccTLD

I44: List of additional services offered by the Registry (hosting, DNS configuration, protection of domain names, email addresses, traffic optimization, DNS cache, trademark protection, etc.)

13. Delegation / redelegation of ccTLD management

I45: Existence of an ongoing delegation / redelegation process

I46: Date of last redelegation process

14.e - reputation of the ccTLD

I47: Accessibility of the ND to nationals, foreign nationals, other nationalities, natural or legal persons, etc.

I48: Credibility of the ND

I49: Degree of user confidence in the ND

I50: Existence of a communication policy

I51: Number of communication campaigns carried out in 2019

I52: Existence of a marketing policy

I53: Existence of a Registry website

I54: Existence of social network pages Facebook, LinkedIn, Twitter, Instagram, etc.

15. ccTLD Security

I55: Existence of an ND protection offer

I56: Existence of a security policy at the Registry level

I57: Assessment of the security level of the Registry

I58: Compatibility of the Registry's technical installations with the ISO 27000 standard

I59: Number of security incidents reported in 2019

I60: Existence of an implementation of the DNSSEC security protocol

I61: Number of ccTLD DNS servers

IPv6 compatible ccTLD DNS servers

16. Commitment to the development of internet governance policies

163 : Participation and contributions to ccnso lists

164: Participation and contribution to AfTLD lists ;

165: Participation and contribution to OIF mailing lists

166: Participation and contribution to Afrinic policies ,

I 67: The list and dates of memberships/accreditations of the Registry to regional and international Internet organizations: AFTLD, AFRINIC, OIF, ICANN, ISOC, IGF, UIT, other AF*, etc.

I68: The list and dates of membership/accreditation of ccTLD Registrars to regional and international Internet organizations: AFTLD, AFRINIC, OIF, ICANN, ISOC, IGF, UIT, other AF*, etc.

17.Other: Impacts of COVID-19 on the operation of the ccTLD

I69: Description of the impact of COVID-19 on the organization and operation of the ccTLD

I70: Description of the financial impact of COVID-19

I71: Description of the solutions put in place by the ccTLD to contribute to the fight against COVID-19.