

**ASIA PKI INTERNATIONAL SYMPOSIUM
NOVEMBER 28, 2023
BENGALURU**

**BORDERLESS DIGITAL TRANSACTIONS:
PKI'S ROLE IN A GLOBALIZED WORLD**

**CAMEROON'S INITIATIVES ON
DIGITILIZATION WITH THE POWER OF PKI**



BOUMNDJEL Eric Josue
Director of the Cameroonian PKI Centre

AGENDA



I.

CYBERCRIMINALITY OVERVIEW

II.

LEGAL FRAMEWORK AND ORGANISATION

III.

PRODUCTS AND SERVICES

IV.

INTEROPERABILITY AND MUTUAL RECOGNITION

V.

ACHIEVEMENTS

VI.

DIFFICULTIES AND CHALLENGES

I. CYBERCRIMINALITY OVERVIEW (1/4)



CAMEROON



- Localization

Cameroon is situated in Central Africa, at juncture of the Gulf of Guinea.

- Languages

French and English are the two official languages, spoken by 70% and 30% of the population, respectively.

- **Total area : 475 442 km²**

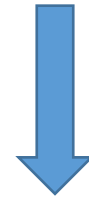
- **Demography: 30 135 732 of population**

- **Internet penetration rate: 46.5 %**

I. CYBERCRIMINALITY OVERVIEW (2/4)



**National Agency for Information
and Communication Technologies**



PROMOTION OF ICT



SECURITY WATCH



**MANAGEMENT OF
.CM & IP
ADDRESSES**



**SECURITY AUDIT OF
INFORMATION
SYSTEMS**



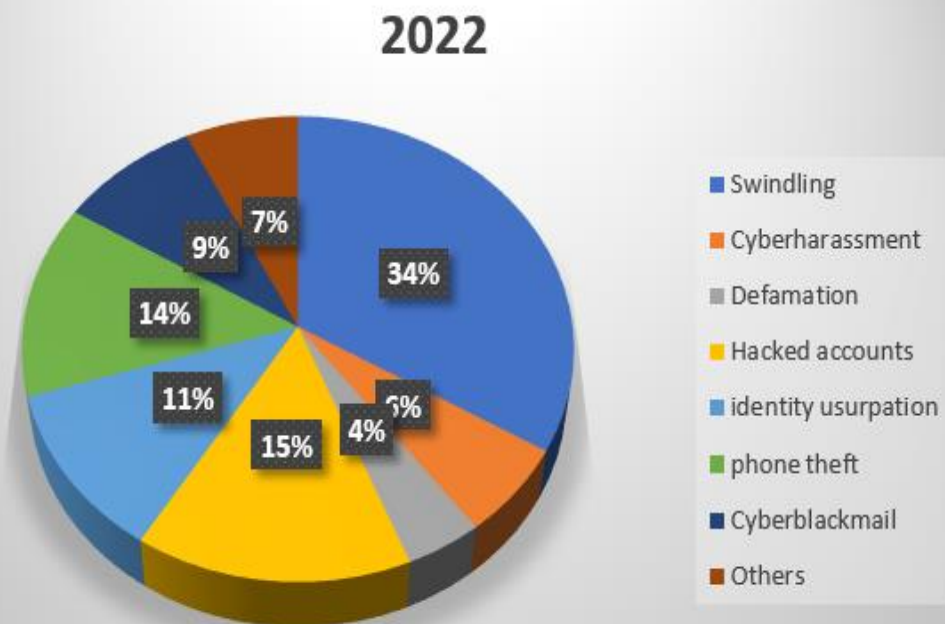
**ELECTRONIC
CERTIFICATION**

I. CYBERCRIMINALITY OVERVIEW (3/4)



The Cameroonian economy lost approximately 5.7 million \$ in 2022 due to acts of cybercrime perpetrated against Cameroonian companies and public institutions

Mapping of incidents recorded in 2022



- 1.7 million \$ in financial losses due to phishing ;
- 2.8 million \$ in financial losses due to skimming
- 1.2 million \$ in financial losses due to system intrusions ;

10 788 vulnerabilities were discovered on the information systems of companies during the security audits carried out by AN TIC

I. CYBERCRIMINALITY OVERVIEW (4/4)



In 2023,

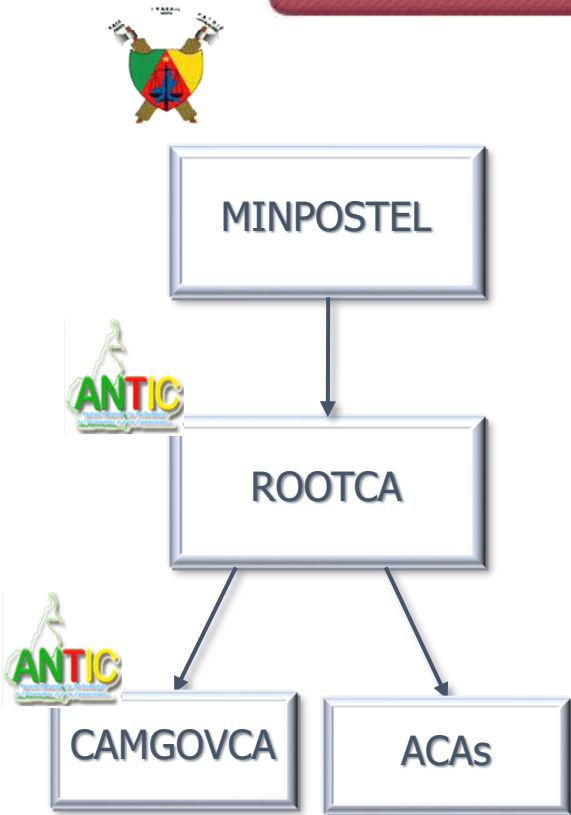
ANTIC received and processed :

- ✓ more than 16 050 requisitions relating to cybercrime in 2023;
- ✓ 800 requests from users through our toll-free number;
- ✓ 37 complaints about financial scams;
- ✓ 823 complaints about the hacking of user's accounts on social networks such as Facebook, Instagram, WhatsApp, Gmail and Yahoo mail;
- ✓ 721 complaints relating to the hacking of professional messaging systems inflicting heavy financial losses on the victim companies;
- ✓ 80 complaints about phishing of websites, email addresses of Public and private companies.

II. LEGAL FRAMEWORK AND ORGANISATION (1/3)



Institutional and legal fields



Two laws have been adopted in December 2010

- Law n° 2010/012 relating to cybersecurity and cybercriminality;
- Law n° 2010/013 governing electronic communications in Cameroon;
- Law N° 2010/021 on Electronic Commerce of Cameroon.

Institutional status

- **MINPOSTEL** elaborates policy and supervises ICT and Security sector among others;
- **ANTIC** is responsible for applying regulations on security activities and Promotion; and awareness of ICT.
- **Accredited Certification Authorities.**

II. LEGAL FRAMEWORK AND ORGANISATION (2/3)



The Law N° 2010/012 relating to cybersecurity and cybercriminality



Article 17: The advanced electronic signature has the same legal value as the handwritten signature and produces the same effects as the latter.

The Law N° 2010/021 of 21 December 2010 on Electronic Commerce of Cameroon

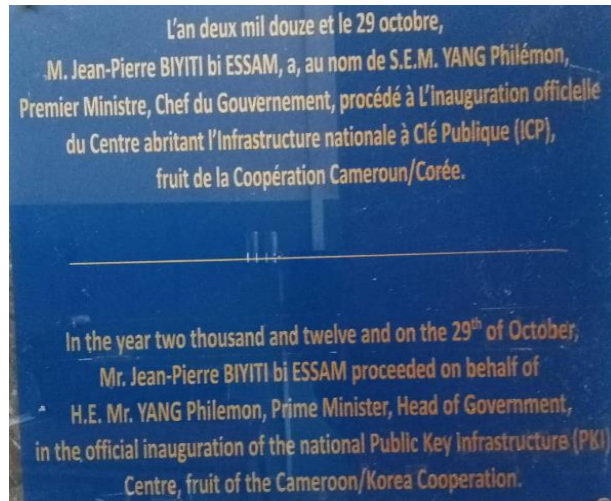
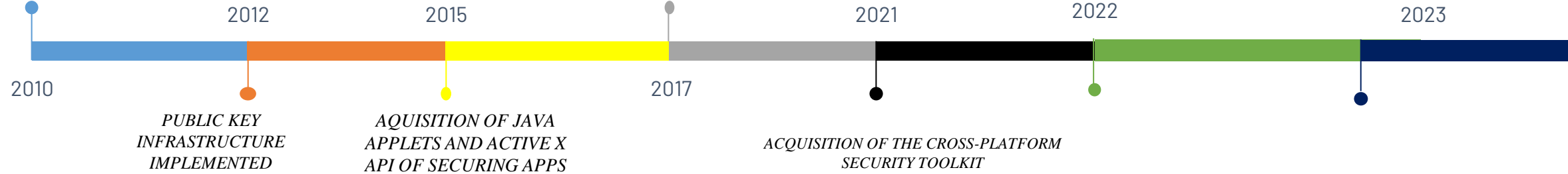
Article 35: Official documents may be authenticated in Government services using electronic certificates and signatures.



II. LEGAL FRAMEWORK AND ORGANISATION (3/3)



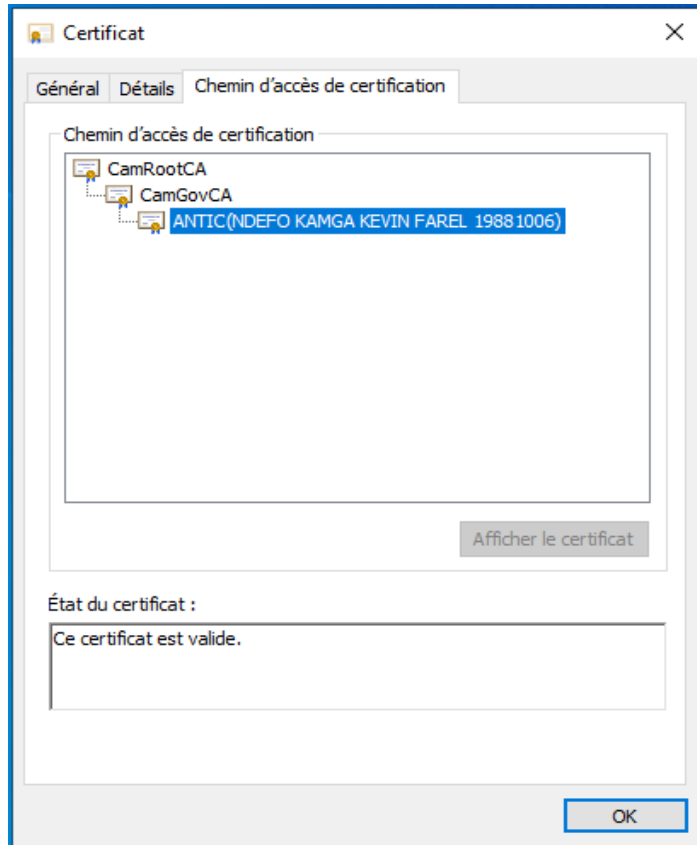
LEGAL AND REGULATORY FRAMEWORK *Laws, Decrees, Orders*



III. PRODUCTS AND SERVICES (1/2)



Our products



```
ICEFOVE1DIENBMTQwMgYI  
YXRpb24gQXV0aG9yaXR5  
MDBaFw0xNzEyMjIyMzUz  
ISUMgQOExDjAMBgNVBAEz  
CwwKUEtJIEN1bnRlcjEz  
VSAxOTg3MDEyOjA0OjEz  
!4vUhK84aVI1phA0k03yC
```

Advanced Electronic
Signature



TLS Certificates



Doc@uthANTIC

Qualified electronic certificates

III. PRODUCTS AND SERVICES (2/2)



OUR SERVICES



Securing applications



Securing online transactions



Securing websites



Timestamping



Document authentication



Approval of cryptographic means

VI. INTEROPERABILITY AND MUTUAL RECOGNITION (1/4)



According to the 2010 Law relating to cyber security and the fight against cybercrime, in its *“article 20. - (1) An electronic certificate issued outside the national territory produces the same legal effects as a qualified certificate issued in Cameroon if there is an act of recognition of the issuing authority signed by the Minister of Posts and telecommunications*

The image shows the front cover of a book titled 'CAMEROON CYBERSECURITY AND CYBERCRIMINALITY LAW'. The cover is a solid red color with the title written in white, bold, uppercase letters. The text is centered and framed by two horizontal white lines, one above and one below the title.

VI. INTEROPERABILITY AND MUTUAL RECOGNITION (2/4)



ANTIC has joined the AAECA-Net (Arab & African e-Certification Authorities Network) since 2021, a network of 12 Members, which general objective is to create a secure environment for interregional e-transactions, through mutual recognition between different Members.



AAECA-Net

Regional Digital Trust Network

الشبكة الإقليمية للثقة الرقمية

VI. INTEROPERABILITY AND MUTUAL RECOGNITION (3/4)



The main missions of this organization are as follows:

- ✓ Unifying and harmonizing the interregional laws related to e-transactions and e-trust services based on international experiences;
- ✓ Working on the interoperability and mutual recognition between the Arab and African e-certification authorities as a first step, and between the countries of the two regions and the rest of the world in further steps;
- ✓ Establishing multilateral conventions that ensure the interoperability and mutual recognition of e-trust services between the countries of the two regions and other foreign countries.



VI. INTEROPERABILITY AND MUTUAL RECOGNITION (4/4)



During November 2022 AGM of the organization, a Working Group was established for the development of a Strategy for mutual recognition.

The Working Group is consisted of Certification Authorities from Tunisia, Cameroon, Benin, India, Sudan, Saudi Arabia, and Qatar.

The objective of this Working Group is to develop a strategy that enables mutual recognition between the Certification Authorities of the represented countries.



AAECA-Net

Regional Digital Trust Network

الشبكة الإقليمية للثقة الرقمية

V. ACHIEVEMENTS (1/8)



Securing Electronic Platforms with cryptographic API



Nos services

Procédures électroniques

Le e-GUCE permet aux acteurs du commerce extérieur de réaliser différentes opérations à partir de postes de travail de type PC.

Les documents obligatoires sont transmis sous forme d'images informatiques et les informations transitent d'ordinateur à ordinateur sans recopie, éliminant les risques d'erreur de saisie, et de façon confidentielle.

L'accès Internet à travers le système du GUCE met en contact les partenaires avec les réseaux internationaux mondiaux d'échanges de données du transport et de la finance.

L'accès au e-Guce ce fait en cliquant sur le bouton suivant :



V. ACHIEVEMENTS (2/8)



Securing Electronic Platforms with cryptographic API

Afriland First Bank
The Fact with Success

CRÉDIT EN LIGNE
LOAN ONLINE

First
CONNEXION

Aide à la connexion

ACCUEIL | NOUS CONNAÎTRE | ORGANISATION | RÉSEAU | OFFRES | PLACEMENTS | FINANCE ISLAMIQUE | CARRIÈRES | CONTACT

N'attendez plus !
votre crédit scolaire et universitaire
est déjà disponible **24h**

**L'AVENIR APPARTIENT
À CEUX QUI SE LÈVENT TÔT !**

Dès maintenant, demandez votre crédit ...

En agence
Crédit scolaire et universitaire
disponible à un taux exceptionnel
dans toutes les agences Afriland
First Bank

En ligne
Demandez votre crédit en ligne au
www.afrilandfirstbank.com
(Identifiant - Mot de passe - Demande de crédit)

Crédits scolaire et universitaire 2021/24h
En savoir plus

Actualités »

- 09 JUN POLITIQUE QUALITE AFRILAND FIRST BANK
- 08 AUG MODALITE D'UTILISATION A L'EXTERIEUR DES INSTRUMENTS DE PAIEMENT ELECTRONIQUE...
- 09 JUN CONDITIONS DE BANQUE 2022

Toutes les annonces »

Vous cherchez.....

- Agence locale
- Guichet Automatique de Banque (GAB)
- Terminal de Paiement (TPE)

Point de transfert d'argent

- Flash Transfer
- MoneyGram
- Small World
- Mobile Money

TROUVER

f t in @

ENGLISH FRANÇAIS

ANOR
AGENCE NATIONALE DE NORMALISATION ET DE LA QUALITE

Agence des Normes et de la Qualité
La qualité, une distinction

ANOR • Normalisation • Certification • PECAE • Contact • Services en ligne • AG ARSO

Rechercher...

ACTUALITÉS
LANCEMENT DU PROGRAMME DE FORMATION ET D'INSERTION PROFESSIONNELLE DES FEMMES ET DE...

NORMALISATION
JOURNÉE MONDIALE DE LA NORMALISATION 2022 : LES PME ET LES TPE CAMEROUNAISES FACE AU DÉFI D...

NORMALISATION
PROJET DE DÉVELOPPEMENT DES CHAINES DE VALEUR DE L'ÉLEVAGE ET DE LA PISCICULTURE (PDCVPE) ...

ACTUALITÉS
ANOR - CAMWATER : LA DÉMARCHE QUALITÉ AU CŒUR DES PRÉOCCUPATIONS

NORMALISATION
JOURNÉE MONDIALE DE LA NORMALISATION 2022, UNE VISION COMMUNE POUR UN MONDE MEILLEUR

NORMALISATION
LA NORMALISATION ET LA QUALITÉ AU MENU DE LA 13ÈME ÉDITION DU SALON INTERNATIONAL DE L'ENTREPRENARI...

V. ACHIEVEMENTS (3/8)



Securing Web mails with Qualified certificate

mail.minesup.gov.cm



AGENCE DE
RÉGULATION DES
TÉLÉCOMMUNICATIONS

Réguler c'est faciliter



Username:

Password:

Stay signed in

Sign In

Version:

Default



What's This?

Utilisateur:

Mot de passe:

Mémoriser mes valeurs d'accès Connexion

Version :

Par défaut



En savoir plus

V. ACHIEVEMENTS (4/8)



Securing Web Sites with TLS Certificate

V. ACHIEVEMENTS (5/8)



Securing Documents



RÉPUBLIQUE DU CAMEROUN
Paix-Travail-Patrie

MINISTÈRE DE L'ÉLEVAGE, DES PÊCHES
ET DES INDUSTRIES ANIMALES

SECRETARIAT GÉNÉRAL



REPUBLIC OF CAMEROON
Peace-Work-Fatherland

MINISTRY OF LIVESTOCK, FISHERIES
AND ANIMAL INDUSTRIES

SECRETARIAT GENERAL

REPUBLIC OF CAMEROON
PEACE - WORK - FATHERLAND

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

SECRETARIAT GENERAL

AGRICULTURAL, COOPERATIVE AND COMMUNITY EDUCATION
AND TRAINING DIVISION

CENTRE NATIONAL DE FORMATION ZOOTECHNIQUE ET VÉTÉRINAIRE
NATIONAL CENTRE FOR ZOOTECHNICAL AND VETERINARY TRAINING

ATTESTATION DE RÉUSSITE
TESTIMONIAL OF SUCCESS

N° 046JIV22

Vu le décret n° 96/010 du 15 janvier 1996 portant statut des Centres Nationaux de Formation Zootechnique et Vétérinaire.
Mindaful of decree N° 96/010 of January 15th 1996 bearing the status of National Centres for Zootechnical and Veterinary Training.

Vu le procès-verbal de délibération du jury.
Mindaful of the official report of deliberation of the jury.

Nous soussignés, attestons que **NDZENZI PROSPAR NJENKWI**
We, the undersigned, attest that

Né (e) le : **11 Février 2000** à **BALI**
Born on : at

A satisfait aux différentes étapes de son évaluation pour l'obtention du **BREVET DE TECHNICIEN VÉTÉRINAIRE**
Has fulfilled the requirements for the award of

En foi de quoi la présente attestation lui est délivrée pour servir et valoir ce que de droit.
In witness whereof, this testimonial has been issued to serve the purpose for which it is established.

Mention **ASSEZ-BIEN**
Grade

Fait à **Yaoundé** le **14 Juillet 2022**
Done at on

Le Directeur du CNEFZV
The Director of the CNEFZV



Dr. Jean-Marie Njankwi
DOCTEUR VÉTÉRINAIRE

Le Ministre de l'Élevage, des Pêches et des Industries Animales
The Minister of Livestock, Fisheries and Animal Industries

P.O. Le Secrétaire Général



Fiji Manu Gidada

Cette attestation sera retirée au moment de la délivrance du diplôme. Sous aucun prétexte il ne peut être délivré un duplicata de la présente attestation.
This testimonial shall be withdrawn or considered null and void upon the award of the diploma. Under no circumstances will the duplicate of this attestation be issued.

REPUBLIC OF CAMEROON
PAIX - TRAVAIL - PATRIE

MINISTÈRE DE L'AGRICULTURE ET DU DÉVELOPPEMENT RURAL

SECRETARIAT GENERAL

DIVISION DE L'ENSEIGNEMENT ET DE LA FORMATION
AGRICOLE, COOPÉRATIFS ET COMMUNAUTAIRES



REPUBLIC OF CAMEROON
PEACE - WORK - FATHERLAND

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

SECRETARIAT GENERAL

AGRICULTURAL, COOPERATIVE AND COMMUNITY EDUCATION
AND TRAINING DIVISION

REPUBLIC OF CAMEROON
PEACE - WORK - FATHERLAND

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

SECRETARIAT GENERAL

AGRICULTURAL, COOPERATIVE AND COMMUNITY EDUCATION
AND TRAINING DIVISION

ECOLE TECHNIQUE D'AGRICULTURE DE SANGMELIMA

ATTESTATION DE DIPLOME
DIPLOMA TESTIMONIAL

N° **0840** /23/AD/MINADER/SG/DEFACC

Le Chef de la Division de l'Enseignement et de la Formation Agricoles, Coopératifs et Communautaires atteste que :
The Head of Agricultural, Cooperative and Community Education and Training Division certifies that:

Monsieur/Madame : **BELDO HINSALA**
Mr/Ms :

Né(e) le : **08-03-1999** A : **FREING-HEING** Matricule N° : **21 ATA140-B**
Born on: At: Registration N°:

A obtenu le Diplôme d'AGENT TECHNIQUE D'AGRICULTURE
Has been awarded the Diploma of Assistant Agricultural Technician

Année Académique : **2022/2023** Session : **Juillet 2023**
Academic Year: 2022/2023 Session: July 2023

En foi de quoi la présente attestation est délivrée pour servir et valoir ce que de droit.
This testimonial is therefore issued to serve the purposes for which it is intended.

Le Directeur de l'Ecole
The School Director



Yvonne Odeng Joseph
Directrice Principale des Travaux de l'Agriculture H.E.
DES Travaux de l'Agriculture
Diplôme des Hautes Etudes

Le Chef de la Division
The Head of Division



Vessah Daouda
Ingénieur d'Agriculture
Hors Echelle

NB: Il n'est délivré qu'une seule attestation de diplôme. Il appartient au titulaire de faire établir des copies certifiées conformes à l'original pour ses besoins.
Only one copy of this testimonial is issued. It is on the interest of the owner to make as many certify true copies as he/she desire.

V. ACHIEVEMENTS (6/8)



Securing Documents

REPUBLIQUE DU CAMEROUN
Pays-Travail-Patrie

Région: EXTREME-NORD
Département: MAYO-TSANANGA
Arrondissement: MOKOLO

REPUBLIQUE OF CAMEROON
Peace-Work-Fatherland

Region: FAR NORTH
Division: MAYO-TSANANGA
Subdivision: MOKOLO

CENTRE D'ETAT CIVIL / CIVIL STATUS REGISTRATION CENTRE

De / of: **MAIRIE DE MOKOLO**

ACTE DE MARIAGE / MARRIAGE CERTIFICATE
N°: 2022/EN4201/M/0006

Mariage de / Marriage of: **SEKI JEAN**

Et de / And of: **NSALUDAN SYLVIE**

Le / On: **Trois août deux mille vingt-deux**

Devant nous en séance publique / Before us, appeared public

Marié(e) / Spouse: **SEKI JEAN** Né le / Born On the: **28 octobre 2002**

A / At: **Mokolo** Profession / Occupation: **Chef**

Nationalité / Nationality: **Nololo**

Kis de / Son of: **Kouadamel**

Document de référence / Reference document: **Passport** NPU: **Kine pan/ On the one hand**

Marié(e) / Spouse: **NSALUDAN SYLVIE** Né le / Born On the: **22 mars 2004**

A / At: **Mokolo** Profession / Occupation: **Managere**

Nationalité / Nationality: **Nololo**

Née de / daughter of: **Nathias Iregulme** Et de / And of: **Nigria barvat benadette epse mathias**

Document de référence / Reference document: **Passport** NPU: **Kine pan/ On the other hand**

Régime des biens / matrimonial regime: **Sans commune** System matrimonial / Type of marriage: **Monogamie**

Il n'a été constaté aucune opposition / No opposition to the marriage have been recorded

Marié(e) / Spouse: **SEKI JEAN**

Marié(e) / Spouse: **NSALUDAN SYLVIE**

En présence de / In the presence of: **Sadamal Justin** Chef de famille de l'époux ou de son représentant et de / Head of the family of the husband or his representative and of: **Nathias Iregulme**

Chief de famille de l'épouse ou de son représentant / the family of the wife or his representative
Témoin de l'époux, witness of the husband: **Kotemay baldogay**

Et / And: **Nigria barvat benadette epse mathias Iregulme** témoin de l'épouse, witness of wife

Fait par Nous / By Us: **MARA KODA** Officier d'état civil / Civil Status Registrar

Assisté par / By Us: **MOUSSA Jean SAKONE** Secrétaire / Secretary le **20 août 2022**

Epoux / Husband: **SEKI JEAN** Témoin de l'époux / Husband's witness: **Sadamal Justin** Secrétaire / Secretary: **MOUSSA Jean SAKONE**

Epouse / Wife: **NSALUDAN SYLVIE** Témoin de l'épouse / Wife's witness: **Nathias Iregulme** Officier / Officer: **MARA KODA**

REPUBLIQUE DU CAMEROUN
Pays-Travail-Patrie

Région: EXTREME-NORD
Département: MAYO-TSANANGA
Arrondissement: MOKOLO

REPUBLIC OF CAMEROON
Peace-Work-Fatherland

Region: FAR NORTH
Division: MAYO-TSANANGA
Subdivision: MOKOLO

CENTRE D'ETAT CIVIL / CIVIL STATUS REGISTRATION CENTRE

De / of: **MAIRIE DE MOKOLO**

ACTE DE NAISSANCE / BIRTH CERTIFICATE
N°: 2022/EN4201/N/0004

Nom de l'enfant / Surname of the Child: **WOUFDIYE**

Prénoms de l'enfant / Given name of the Child: **VICTORINE**

Né(e) le / Born on the: **Quinze juillet deux mille vingt-deux**

A / At: **Mokolo** Sexe / Sex: **Féminin**

De / Of: **NGUEZANA MARTIN**

Né à / Born at: **Beo tassai** le / the: **30 août 1996**

Domicilié à / Resident at: **Beo tassai** Nationalité / Nationality: **Camérounaise**

Profession / Occupation: **Elève**

Document de référence / Reference Document: **CNI NUMERO 115070642 DU 18/02/2014 A EN03**

Et de / And Of: **ADINA ISABEL**

Née à / Born at: **Cité de tassai** le / the: **06 juin 1995**

Domiciliée à / Resident at: **Beo tassai** Nationalité / Nationality: **Camérounaise**

Profession / Occupation: **Elève-maitre**

Document de référence / Reference Document: **CNI NUMERO 101455844 DU 25/01/2021 A EN03**

Déclaré le / Declared on: **09 août 2022** Par / By: **HOUREY**

the **AGENT MEDICO-SANITAIRE AU CSR DE MOKOLO** Enregistré le / Registered on the: **09 août 2022**

lesquels ont certifié la sincérité de la présente déclaration / Who attested to the truth of this declaration

Par nous / By Us: **MARA KODA** Officier d'état Civil - Civil Status registrar

Assisté de - In the presence of: **MOUSSA Jean SAKONE** Secrétaire d'état Civil - Secretary

Le Secrétaire / Secretary **L'Officier / Registrar**

MOUSSA Jean SAKONE **MARA KODA**

NPU: 20220715003001161



V. ACHIEVEMENTS (7/8)

Securing Documents

CNI12 - caution test - r2s

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RECAPITULATIF DE LA SIGNATURES DE CAUTIONS

TITRE : CNI12 - caution test
 MARCHE : marche test01
 PRESTATAIRE : prestataire 01
 GUARANT : garant test1
 TYPE : CAD
 MONTANT : 12000000.0

Signataire(s)	Poste(s)	Status	DateSignature
seprs_schmidt	poste cauti01	AU	2023-07-20 12-13-00.968373+00:00



SE mat APIs

Created with an evaluation copy of Aspose.Words. To discover the full versions of our APIs please visit: <https://products.aspose.com/words/>

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Road fund deposits documents

REPUBLICHE DU CAMEROUN
 Paix-Travail-Patrie
 MINISTERE DES FINANCES
 SECRETARIAT GENERAL
 DIRECTION GENERALE DU BUDGET
 DIVISION DU CONTROLE BUDGETAIRE, DE L'AUDIT ET DE LA QUALITE DE LA DEPENSE
 BRIGADE DU CONTROLE DE LA SOLDE ET DES PENSIONS

REPUBLIC OF CAMEROON
 Peace-Work-Fatherland
 MINISTRY OF FINANCE
 SECRETARIAT GENERAL
 GENERAL DIRECTORATE OF THE BUDGET
 DIVISION OF BUDGETARY CONTROL, AUDIT AND EXPENDITURE QUALITY
 SALARIES AND PENSIONS CONTROL BRIGADE

N°...../MINFI/SG/DGB/DCOB/BCSP

**ATTESTATION DE VIREMENT IRREVOCABLE
 (ATTESTATION OF IRREVOCABLE TRANSFER OF SALARY)**


Le Directeur Général du Budget soussigné, atteste que les soldes et accessoires de M^{me}/M^e. [REDACTED]
 M^{me} [REDACTED] Ministère [REDACTED]
 Sont sur la demande de l'intéressé(e), irrévocablement virés à son compte
 N° [REDACTED] Ouvert [REDACTED]
 Agence .. [REDACTED]

Cette domiciliation ne peut être modifiée qu'avec l'accord écrit et préalable De (**) Monsieur le Directeur Général de ... [REDACTED]
 En foi de quoi la présente attestation de virement irrévocable lui est délivrée pour servir et valoir ce que de droit.


(*) Nom de la banque
 (**) Directeur Général (Vobre Banque)

Fait à Yaoundé, le [REDACTED]

POUR LE DIRECTEUR GENERAL DU BUDGET



NDENG ALBERT JEREMIE



Irrevocable transfer salary attestation from MINFI



V. ACHIEVEMENTS (8/8)

Overview of secured transactions from 2022 to 2023

2022

Companies/ Institutions	Transactions	Quantities
ANOR	Securing documents issued by ANOR with advanced electronic signature	21 398
MINEPIA	Securing Students diploma with advanced electronic signature delivered by this Institution	914
MINMAP	Users operating with electronic certificate on COLEPS	985
BUNEC	Digitalization of Civil Status in Cameroon with Visible Electronic Stamp	7 053
Total		30 350

2023 (ongoing)

Companies/ Institutions	Transactions	Quantities
ANOR	Securing documents issued by ANOR with advanced electronic signature	18 444
BUNEC	Digitalization of Civil Status in Cameroon with Visible Electronic Stamp	6 435
CAMRAIL	Securing Rail tickets with advanced electronic signature	31 4505
MINFI	Securing Ministry of Finance documents (AVI)	30 000
MINADER	Securing Students diploma with advanced electronic signature delivered by this Institution	2 565
MINEPIA	Securing Students diploma with advanced electronic signature delivered by this Institution	1 928
MINMAP	Users operating with electronic certificate on COLEPS	1 207
FONDS ROUTIER	Securing documents related to road fund deposits	20
Total		276 104

VI. DIFFICULTIES AND PERSPECTIVES (1/2)



Difficulties

- Lack of regulations requiring Institutions to use electronic certification to secure their electronic applications;
- Weak adherence to the security audit recommendations by the administrations;
- Inadequacy of the legal framework to technological developments;
- Ignorance of regulatory texts relating to the approval of cryptographic means by the users who are subject to them.

VI. DIFFICULTIES AND CHALLENGES (2/2)



Challenges

- Capacity building to overcome security challenges;
- Requesting financial means from funders to reinforce hard and soft infrastructure;
- Strengthening the legal and regulatory framework;
- Carry out an approval homologation framework for cryptography means.

