Terms of Reference for Temporary DevOps

1. Background

WACREN is the West and Central African Research and Education Network which supports interconnections and fosters collaboration between R&E institutions in the region and international peers by building and operating world-class network infrastructure, developing state of the art services, promoting collaboration among national, regional, and international R&E communities, and building the human capacity of the REN community.

WACREN was constituted in 2010 with its headquarters in Accra, Ghana. Membership to the organization is open to national research and education networks (NRENs) from all 22 countries of the region and to other organizations sharing the WACREN vision. WACREN currently has 16 members, including NRENs from 13 countries in West and Central Africa.

In line with its objectives to build and operate academic identity and Wi-Fi roaming infrastructure platforms, WACREN has deployed an eduroam confederation and eduID (federated Identity) systems.

The eduID.africa platform in its current state of development does not represent sufficient features for NREN management. Semi-manual processes are error-prone and present barriers to uptake by NREN administrators without the requisite experience and familiarity with Trust & Identity frameworks.

WACREN therefore seeks the expertise of a highly skilled, enthusiastic and motivated DevOps engineer on a short-term basis to further develop the eduID.africa platform and move it from its current pilot state to a production-grade system.

The following Terms of Reference are for the contract of DevOps engineer.

2. The specific responsibilities of the DevOps engineer will be to:

- Assess the status of the existing eduID platform
- Propose any immediate actions required to fix critical issues affecting the security, stability and usability of the existing system
- Provide both a development and rollout plan on a new platform with the relevant milestones and evaluation criteria which would include the following aspects:
  - API endpoints to automate integration processes between the hosted SimpleSAMLphp based identity provider platform and the Jagger-based federation management tool, providing a workflow for a Federation-as-a-Service product
  - API endpoints to automate integration processes between identity provider platforms and the Jagger-based federation management tool
  - Refactoring of the mass import feature of users into identity providers
  - Refactoring of the users' authentication with identity providers via SQL/LDAP/Active Directory/Gsuite/O365 directories or any other popular directory backends
  - Improvement of the error handling and messaging functionality and provide a customizable theme for identity provider instances

- Oversee the deployment and integration of the new platform within the WACREN infrastructure
- Test the integration of the new platform with prominent service providers including eduroam and video conferencing.

3. Main Stacks
    a. Identity Provider Platform - Docker, PHP, SimpleSAMLphp, Symfony
    b. Federation Tool - Docker (swarm), PHP, Jagger, Traefik

4. Type of Contract

This is a short-term contract of up to three months. It is expected that the successful applicant will be familiar with continuous integration and delivery pipelines and be able to start work as soon as possible.

5. Submission of Applications and Timeline
- Applications should be submitted via e-mail to devops-submission@wacren.net
- Deadline for submission of Applications: 10 September 2020 at 23:59 UTC
- Notification and Interviews of Short-listed Applicants: 17 – 18 September 2020
- Notification to selected Applicant: 21 September 2020
- Deadline for acceptance of the Position by Selected Applicant: 25 September 2020

WACREN is an equal opportunities organization and female applications are highly encouraged.

Please note only short-listed applicants will be contacted.