

Terms of Reference for Network and Systems Engineer – WACREN

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 a 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 14 members, including NRENs from 11 countries in West and Central Africa.

Taking advantage of the European Union funded AfricaConnect2 project, WACREN has started the process of rolling out its network, and thus needs more highly skilled, enthusiastic and motivated human resources to implement this process and put WACREN on a steady and sustainable growth path.

The following Terms of Reference are for the position of Network and Systems Engineer.

2. Scope of Work

- Assist the Chief Technology Officer (CTO) in the deployment, operations, monitoring and maintenance of the WACREN network;
- Install, configure, test and maintain operating systems, applications and system management tools at the WACREN Secretariat and cloud infrastructure;
- Configure and install various network devices and services (e.g. routers, switches, firewalls, load balancers, VPN, OOB, Network management, Flow Collectors and Security management);
- Perform network maintenance and system upgrades including service packs, patches, hot fixes and security configurations;
- Monitor system resource utilization, trending, and capacity planning;
- Provide Level-2/3 support and troubleshooting to resolve issues
- Proactively monitor performance and ensure highest levels of infrastructure and systems availability and reliability;
- Implement and maintain security, backup and redundancy strategies;
- Perform disaster recovery operations when required;
- Produce documentation for installation, network topology and troubleshooting of systems and infrastructure;
- Develop a system of processes and procedures with connected NRENs to operate and monitor the WACREN network;
- Liaise with vendors, datacenters, peers, partners and other IT personnel for problem resolution
- Provide technical training when and where required;
- Assist in the monitoring and participating in public forums, such as standards-setting bodies, and technical matters that have the potential of impacting the mission of WACREN;
- Carry out any other tasks as and when assigned by the CTO or the CEO.

3. Key Qualifications, Skills and Experience

Essential:

- A Master's degree or Bachelor's degree in IT/Computer Science with a network engineering focus;
- At least 3 years relevant continuous work experience in a network and systems engineer function;
- Good hands-on experience in routing and switching;
- Good hands-on experience in Linux/Unix, MacOS and Windows systems;
- Good understanding of network and internet-related concepts such as DNS, HTTP, DHCP, TCP/IP, etc.;
- Experience managing high performance web and data infrastructure;
- Good understanding of network and systems security;
- High integrity, drive for excellence and good interpersonal skills;
- Result orientation and ability to work autonomously;
- Ability to work in a team;
- Availability and ability to travel within and outside the WACREN region;
- Fluency in English or French with good working knowledge in the other language.

Desirable:

- Experience in installing, configuring and managing Juniper and/or Cisco routing and switching equipment.

4. Type of Contract, Reporting, Assumption and Place of Duty

If successful, the selected applicant, who reports to the CTO, will be proposed a **3-year contract**, with a **probationary period of one (1) year**. The contract is renewable, subject to a mutual agreement between WACREN and the position holder.

It is expected that the successful applicant assumes duty on **1 July 2018**.

Place of duty is Accra, Ghana, but Staff is expected to move to another location (any country in West and Central Africa), should the Secretariat moves from Ghana and/or opens other offices in the region.

There might be an interim period during which the successful applicant will work from home.

5. Submission of Applications and Timeline

- Applications can be submitted online at <http://wacren.net/surveys/index.php/568762/lang-en>
- Deadline for Submission of Applications: **15 March 2018 at 23:59 UTC**
- Notification to Short-listed Applicants: **9 April 2018**
- Interviews of Short-listed Applicants: **15 April – 27 April 2018**
- Notification to Selected Applicant: **4 May 2018**
- Deadline for Acceptance of the Position by Selected Applicant: **11 May 2018**

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

Please note: only short-listed applicants will be contacted.

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