

DERRICK SSEMANDA

Senior Engineer - Systems

Kampala, Central Region, Uganda

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Nationality *Ugandan*

PROFILE

Derrick Ssemanda is a Senior Engineer with extensive experience in systems and software engineering, currently leading the Systems Section at RENU. He is proficient in managing IT infrastructure, automating systems, and implementing identity management and federation. He is passionate about open-source technologies and displays strong leadership, analytical, and decision-making skills through years of impactful work. He is a dedicated, self-motivated professional committed to continuous learning and delivering reliable, scalable IT solutions.

EMPLOYMENT HISTORY

❖ **Senior Engineer - Systems, The Research and Education Network for Uganda** Jan 2023 — Present
Kampala

❖ **Systems and Software Engineer II, The Research and Education Network for Uganda**
Kampala

❖ **Systems and Software Engineer I, The Research and Education Network for Uganda** Sep 2018 — Sep 2019
Kampala

❖ **Graduate Research Assistant, netLabs!Uganda** Jun 2018 — Sep 2018
Kampala

EDUCATION

❖ **Makerere University** Aug 2014 — Jan 2019
Bachelor's
BSc in Computer Engineering; College of Engineering, Design, Art and Technology

SKILLS

Systems Automation - 5 years	Linux Administration - 7 years
Bash Scripting - 5 years	Database Management (MySQL, MariaDB, PostgreSQL) - 4 years
Docker Containerisation - 4 years	Identity Management - 6 years
IT Networking - 7 years	System Analysis, Design and Integration - 6 years
Virtualisation - 7 years	Infrastructure Management - 7 years
Cloud Administration - 6 years	Windows Systems Administration - 4 years
System Troubleshooting - 7 years	Leadership and Human Capital Management - 2 years

CERTIFICATIONS

- ❖ **Certified OpenStack Administrator** Sep 2021 — Sep 2024
- ❖ **CompTIA Linux+** Mar 2021 — Mar 2024
- ❖ **Mikrotik Certified Wireless Engineer** Jun 2018 — Jun 2021
- ❖ **Mikrotik Certified Network Associate** May 2018 — May 2021

Focus on IAM

Summary

This section provides further insight into the identity and Access Management (IAM). For clarity, it is divided into three parts: User Database, eduroam, and Identity Federation. All IAM systems used by RENU are set up by the RENU Systems team, led by Derrick. It is important to note that all these systems are open source and hosted on the RENU cloud. This means Derrick and his team oversee the entire lifecycle of each system, from server installation and management to service deployment and maintenance.

User Database

Derrick has extensive experience setting up and managing backend user databases, including FreeIPA, Windows AD, OpenLDAP, Zimbra, and many others.

At RENU, Derrick and the team oversee the multi-master FreeIPA identity management system for RENU staff, as well as the Zimbra, which allows over 300 institutions unable to host their own IdM to manage their user directories with RENU, laying the groundwork for the RENU Managed IdP solution.

eduroam

Derrick, with his experience with freeRADIUS, has assisted various institutions in onboarding to eduroam. As of December 2025, RENU has more than 350 institutions on eduroam in Uganda, with approximately 300 of them using the RENU-managed IdP solution and the rest utilising their local freeRADIUS servers. Derrick and the systems team are active across all these institutions in their daily work to ensure seamless connectivity to eduroam.

Derrick and the systems section also oversee the RADIUS servers configured to support the various innovations RENU has introduced to eduroam. These include Metro eduroam, HomeLinks, eduroam OTG, solar-powered routers, and all other innovations the RENU team continues to develop.

Derrick also oversees the eduroam Federation Level RADIUS (FLR). These are servers that use radsecproxy to interconnect all Ugandan realms to eduroam. These FLR servers are also registered with the GEANT confederate-level RADIUS servers, further connecting Ugandan realms to the global eduroam community.

Identity Federation

RENU operates a globally recognised Identity Federation called RIF. As of December 2025, RIF has approximately 300 institutions with their Identity Providers (IdPs) registered with RIF, and around 10 Service Providers (SPs).

Approximately 280 IdPs are deployed through the RENU Managed IdP solution, which utilises a script to automatically deploy and manage multiple Shibboleth IdPs.

Derrick and the team also oversee the RIF Central Discovery Service (CDS). This system includes both Jagger and PyFF for registering and supplying current RIF metadata to institutions and eduGAIN.

Derrick is also the registered Deputy Delegate for the RIF on eduGAIN

- KRENA Identity Federation (Kyrgyzstan)
- LAIFE (Latvia)
- LEAF (Moldova)
- LITNET FEDI (Lithuania)
- LIAF (Sri Lanka)
- MAREN (Malawi)
- MINGA (Ecuador)
- ~~Oman-KID (Oman)~~ ⚠
- OMREN (Oman)
- PEANO (Ukraine)
- PIONIER.Id (Poland)
- PKIFED (Pakistan)
- Kenyan Identity Federation - RAFIKI (Kenya)
- RASH (Albania)
- RCTSaai (Portugal)
- RiċerkaNET Identity Federation (Malta)
- RIF (Uganda)
- RoEduNetID (Romania)
- Maeen Identity Federation (Saudi Arabia)

[SEE THE SCAN](#)

Federation page

<https://rif.renu.ac.ug/>

Contact email

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Security contact

mail: cert@renu.ac.ug

Delegate

Hellen Nakawungu

Deputy

Derrick Ssemanda

Policy

<https://rif.renu.ac.ug/docs/rifp.pdf>

Supplied English version of the Policy

yes

SAML specific info

Registration practice statement

<https://rif.renu.ac.ug/docs/mrps.pdf>