



The GÉANT Twinning program – Piloting Campus Network as a Service (CNaaS) in Uganda

UbuntuNet Connect 2025

Harare, Zimbabwe

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GÉANT Twinning Program



GÉANT Twinning: Driving NREN Impact



What is it?

Facilitates NREN partnerships for mutual growth

Collaboration among equals



How it works?

Collaborative project planning with defined objectives and deliverables

6-month duration

Opportunities for **mutual visits** and knowledge exchange

Dissemination of **project outcomes** to the wider community

Limited funding supporting EU NRENs personal and Programme participant's travel.



Key Goals

Facilitating the **sharing of expertise** and best practices

Supporting the **development** of new services and infrastructure

Building **lasting relationships** between NRENs



Getting Involved

Next Submission: October 2025

More info:

twinning@geant.org

GÉANT Twinning Projects – 2024



 **Sikt**
Norway



 **RENU**
Uganda

Collaboration: CNaas



 **MAREN**
Malawi Research
And Education Network



 **Asnet AM**
Armenia

Collaboration: HPC, IPv6, CERT, Marketing



GÉANT Twinning Projects – 2025





kenet
Kenya Education Network
Kenya





Jisc
United Kingdom

Collaboration: eduroam for remote areas







SURF
Netherlands





LEARN
Sri Lanka

Collaboration: Service adoption



RENU-Sikt Partnership



“In Union, there is Strength”
The RENU-Sikt Partnership



RENU-Sikt Partnership



About RENU

- The Ugandan NREN
- Started in 2006
 - VCs of Universities
 - CEOs and EDs of Research Institutions
- Over 1000 Connected Sites
- 85 Staff
- Approx 25 services

About Sikt

- The Norwegian Agency for Shared Services in Education and Research (Sikt)
- Started in 1976, formerly Uninett
- Over 700 Customers
- 400 Staff
- Approx 80 services

Twinning Objectives

- Focusing on campus networks – Campus Network as a Service (CNaaS)
- Enhance expertise exchange
- Mutual learning



Our Twinning Experience

- Staff exchange visits
- Knowledge exchange
- CNaaS serving – Deep understanding and rollout
- Monitoring and alerting tools – NAV and Argus
- Long-term friendship
- Equipment donation



Campus Network as a Service (CNaaS)

- RENU and Sikt agreed to a technology transfer project – **CNaaS**
- A transformative solution for campus networks;
 - ❑ We design
 - ❑ We build
 - ❑ We operate
 - ❑ In collaboration with the members



Why CNaaS in Uganda?

- Problematic Campus networks
- Direct Engineering Assistance (DEAs)



- Under staffed IT Teams
- Absence of Network Management and Support
- Business Continuity
- Limited budgets for network equipment

Our 1st CNaaS Customer

The School

- International School
- 5000 students
- Located in Kampala
- Sits on 14 acres

Before CNaaS

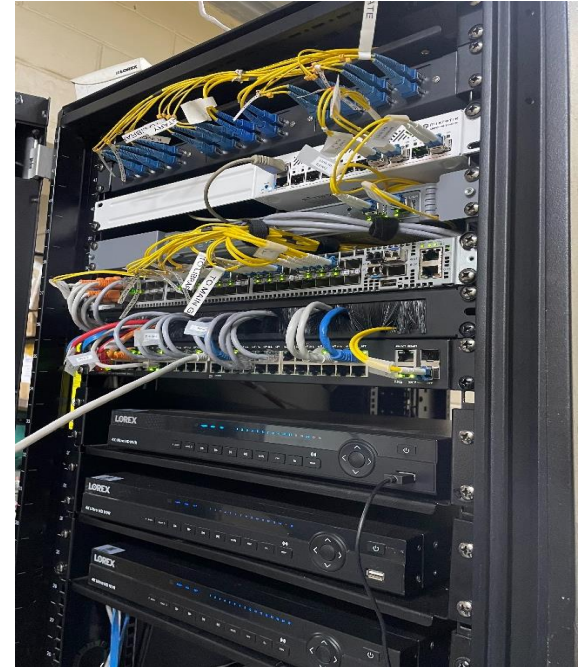
- Many LAN related complaints.
- No network monitoring
- Unmanaged switches
- New network admin

Our 1st CNaaS Customer

Before 



After 



1st Customer – Testimonial



“

I'd like to say that my experience with CNaaS has been really good. This is one of the best things that has happened to the school, in that when I joined the school, my transition was a little hard, given that the person who was in before me left abruptly, and I had no transition into the system. This is where RENU came in and solved most of my problems. Just to make sure this does not happen again, we were only glad to get CNaaS in conjunction with RENU to take over the backbone. Such a solution is always good for any organization.

”

Kenneth Baguma, System Administrator, CNaaS Customer

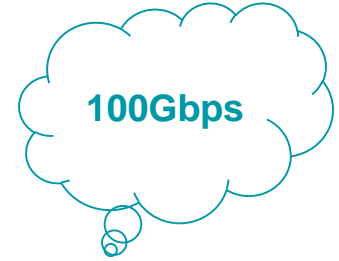
Recent Updates – CNaaS in Uganda

- 5 Campuses so far benefited
 - ❑ 2 University campuses
 - ❑ 1 Research institution
 - ❑ 1 Hospital
 - ❑ 1 School
- Marketing and Awareness
- Tailored packages for institutional needs



Beyond the Twinning Project

- Over 1000 sites connected
- High capacity demand
- Maximum backbone links – 10Gbps
- Sikt donated 3 Juniper MX960 routers
- RENU backbone to 100Gbps



Twinning Pictorial



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Thank You!

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

Q&A