# Making It Possible: Shared Infrastructure for the R&E Community

**OWEN IYOHA** 

**EKO-KONNECT RESEARCH AND EDUCATION INITIATIVE** 

www.eko-konnect.org.ng

secretariat@eko-konnect.org.ng



**Twitter: @EkoKonnect** 

#### The Eko-Konnect Open Science Journey

#### **About Eko-Konnect**

- Community-driven Research & Education
   Network (REN) established in 2009.
- To deliver affordable connectivity, "above the net" services and research infrastructure
- To facilitate collaboration with WACREN & the global REN community.





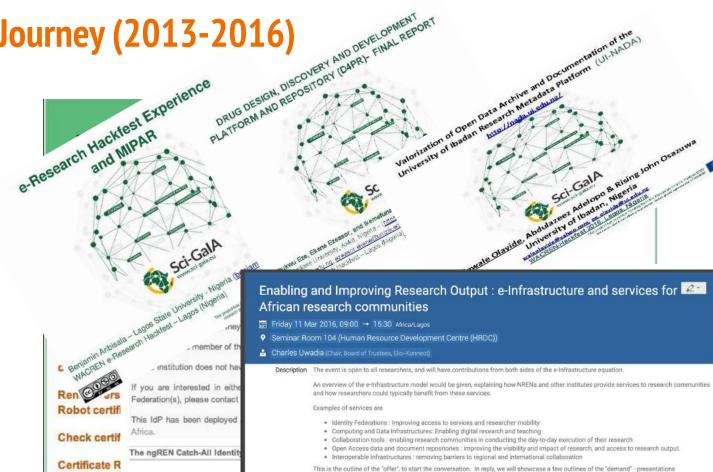
List











The seminar will end with a round-table discussion

Contact Secretariat@eko-konnect.org.ng ☎ 01-3428566

by researchers which have need of some or all of these services. They will outline their research agenda and explain the typical workflow.

#### **Open Science Journey (2017-)**

- Host of the WACREN Cloud Pilot-2017-2020
  - Hosted shared services for NRENs & Science Gateways for Researchers
  - Hosted library management systems and e-learning systems
  - Developed prototype Identity systems for R&E community
- Identity Providers IdPs and other services like DNS & eduroam

https://wacren.net/en/news/wacren-clo ud-pilot-open-call/





#### Latest News

13 Oct 2017 CALL FOR PAPERS – WACREN 2018 01 Oct 2017

#### WACREN Cloud Pilot - Open Call

WACREN is seeking collaborators from its NREN community for pilots of cloud and shared services hosted in the region. These Infrastructure as a Service (IaaS) pilots will be based on Synnefo, a complete open source cloud stack written in Python that provides Compute, Network, Image, Volume and Storage services, similar to the ones offered by AWS.

"Synnefo manages multiple Ganeti clusters at the backend for handling of low-level VM operations and uses Archipelago to unify cloud storage. To boost 3rd-party compatibility, Synnefo exposes the OpenStack APIs to users."

#### Partners

WACREN has signed a technical collaboration agreement with GRNET, the Greek National Research and Education Network and developers of the Synnefo software for its expertise in setting up and organizing a IaaS cloud computing service.

WACREN encourages participation of all stakeholders in the development of the NREN business model and envisages partners in the following categories.

#### **Hosting Partners**

RENs in West and Central Africa with reliable datacenters or in collaboration with local datacenter operators that can act as hosts. These partners will need to provide server hardware and connectivity for their clusters.

### **Open Science Journey (2017 - )**

- Strengthened REN collaboration with Library
  - Created framework for REN provided infrastructure and support for library and helped to refine service offerings to the R&E community
  - Open Science Cloud is guided by the principles in the LIBSENSE Open Science Africa Statement.
  - Contributing as Co-Chair of the LIBSENSE Infrastructure Working Group
- Provided toolkits and templates for open science policies and practice.
- Facilitated working relationships with regional and international open science stakeholders



# Library Support for Embedded NREN Services and E-infrastructure





#### **Open Science Journey (2017 - )**



ATI-6: Workshop on joining eduroam and eduid.africa

#### Eko-Konnect Repository Workshop and edul Policy meeting

- m Monday 27 Jan 2020, 09:00 → 19:30 Africa/Lagos
- Obafemi Awolowo Room (Radisson Blu Hotel)
- Charles Uwadia (Chair, Board of Trustees, Eko-Konnect), Owen Iyoha (Eko-Konnect)

This 1-day workshop which precedes the annual Eko-Konnect user conference will be held in collaboration with WACREN and the National Institute of Informatics, Japan (NII).









The morning session will focus on the WEKO3 multi-tenancy repository and a data management platform for open access to research, teaching

session will be dedicated to contemporary methods for providing the identity-based frameworks needed to access these research





26-28 February 2019 Covenant University Africa/Lagos timezone

Overview

Timetable Registration

Provid institu Accomodation

The El

Africa

Tracking research outputs

12-13 December 2017 Eko-Konnect Secretariat Africa/Lagos timesom

Overview Registration

Participant List

Eko-Konnect Secretariat

secretariat@eko-konned T +234 1 3428566

WACREN held Building on reg access to local follow-on activi

The 2-day work

in the delivery of

Held in collabor

addressing son

Enabling and Improving Research Output: e-Infrastructure and services for African research communities

- Friday 11 Mar 2016, 09:00 → 15:30 Africa/Lagos
- Seminar Room 104 (Human Resource Development Centre (HRDC))
- Charles Uwadia (Chair, Board of Trustees, Eko-Konnect)

Description The event is open to all researchers, and will have contributions from both sides of the e-Infrastructure equa-

An overview of the e-Infrastructure model would be given, explaining how NRENs and other institutes provide and how researchers could typically benefit from these services

eK: K©NNECT

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# Nigerian Community Open Science Cloud

### **Community Cloud Platform for Open Science**

- Identify infrastructure gaps and form collaborations with technology providers to deploy infrastructure in areas including:
  - Federated Identity & Access Management
  - Journal and Preprint Publishing
  - Publication and Data Repositories
  - Learning & Collaboration Platforms
  - Cybersecurity



### **Open Science Community Cloud**



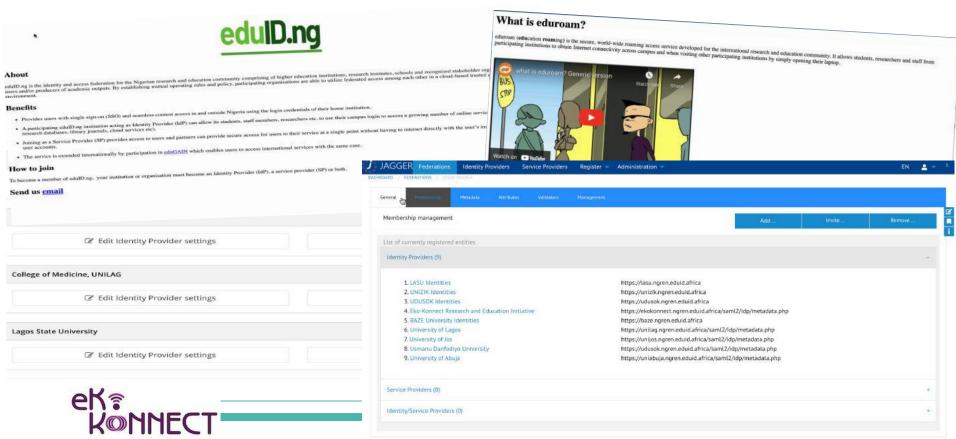




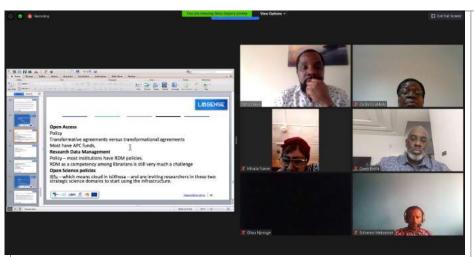




## Trust and Identity: Nigerian Identity Federation



#### **Communication and Collaboration**



- On-premise meeting connectors for VideoConf
  - Zoom (needs licenses)
  - Open Source alternative
  - IdP for user and access management
- Integrated into VLE and daily workflow
  - Chat and meetings
    - 1:1 or Group
- Lecture/Webinar/Conferences



#### **Scholarly Communication and Collaboration**

# Institutional repositories for digital assets and research data

- Shared Journal and Preprint Publishing Platform
- Shared Research Data Management Platform

#### Capacity building with LIBSENSE

- Early Career Researcher training
  - Training programme on open science and data science
  - Open Science Communities on Campus
- Curricula and Leadership programmes







We're delighted to announce that Kotahi has been selected as part of an exciting pilot scheme with Eko-Konnect, the Research and Education Network based in Lagos, Nigeria.

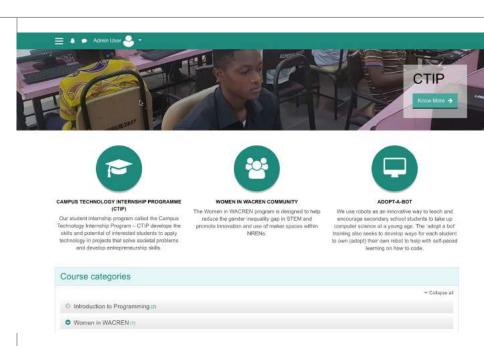


Kotahi is a community-built, state-of-the-art scholarly publishing system designed to improve how research is produced and shared. It's purpose-built to encourage innovation and inspire new ways of creating micropubs, publishing journals and preprints, writing reviews and pretty

much everything else you need from a publishing system.

### **E-learning - Virtual Learning Environments**

- Offering Moodle services to R&E since 2004
- Platform support + helpdesk for tutors/students for MPH (<u>https://peoples-uni.org</u>, 2006 -2021)
- Women-in WACREN
  - STEM skills for women
  - Online robots and electronics





### **Consultancy**

- International Partnerships for capacity building.
- Digital literacy skills development
- E-learning platform support & services



# **Training...**

- Onsite Training
- Remote Training
- Course development
- Administration
- Helpdesk Implementation & Support



### Role for RENs in supporting Open Science

- Provide cloud based shared infrastructure and services to expose different cadres within HEIs to their community of practice.
- Expose institutions and stakeholders to global standards and practices in Open Research
- Provide Trust and Identity Frameworks for secure sharing and visibility
- Provide reporting infrastructure for wider stakeholders e.g. Funders
- Facilitate the inclusion of all relevant stakeholders for a national open science engagement



#### **Contact Information**

www.eko-konnect.org.ng

https://ren.ng

E-mail: <a href="mailto:secretariat@eko-konnect.org.ng">secretariat@eko-konnect.org.ng</a>

Twitter: @ekokonnect Tel: +234 1 3428566

Eko-Konnect Research and Education Initiative 11B Taiye Olowu Street Lekki Phase 1 Lagos, Nigeria

