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DIGITAL INFRASTRUCTURE
FOR DEVELOPMENT

Building Multi-institutional e-Infrastructure Platforms and Services for Somali Higher Education Institutions:

The Case for SomaliREN Services

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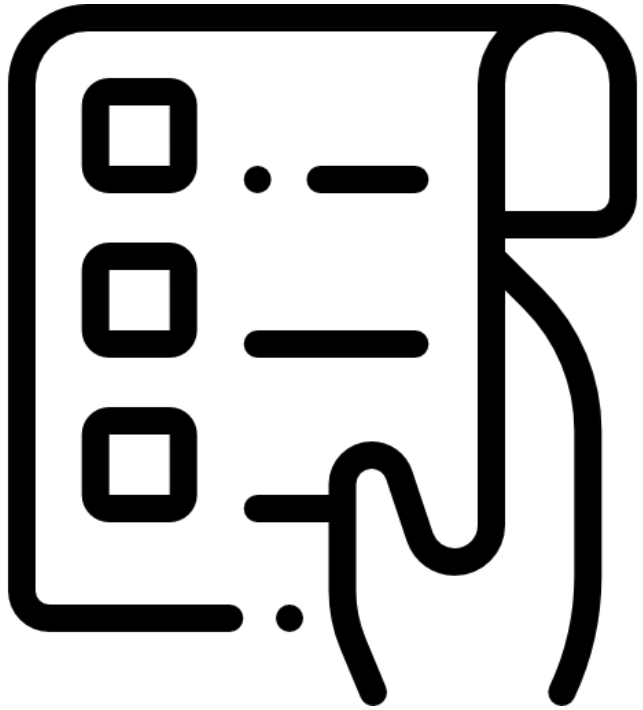
Services Portfolio Manager,
SomaliREN

Agenda

- What is an NREN?
- SomaliREN Services for the Research and Education Community
  - Connectivity
  - Network Management
  - Digital Repository
  - Trust, Identity & Security
  - Real-time Communications
  - Learning Management Systems
  - Tools for Research
  - Content



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What is NREN?

A National Research and Education Network is both;

1) a high performance communications network owned and operated for and by the education and research community of a country (e.g **SomaliREN**) and;
2) the organization that operates that network, constituted as a consortium of members

National research and education networks (NRENs) play a critical role in the development of communication network infrastructure and networked services for researchers and educators.

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A Bit About SomaliREN

- SomaliREN is a membership based organization started and owned by its member institutions which are 24 members strong.

- The core mission is to drive the digital transformation of the Somali higher education and research sector.

- SomaliREN is a member of two regional organizations:
  - UbuntuNet Alliance
  - ASREN

somali REN
Research & Education Network

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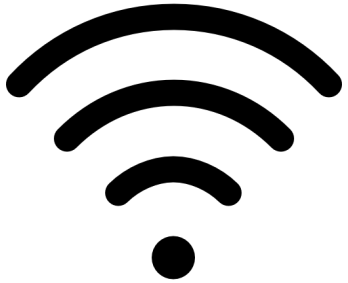
Higher Education Services

eduGAIN

eduroam

eduVPN



File Sender

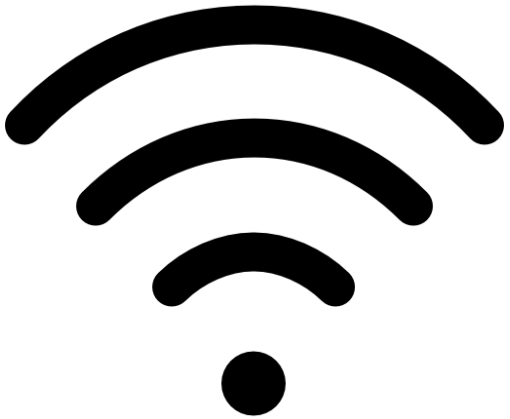
indico

LimeSurvey

SORER

SOMALI RESEARCH AND EDUCATION REPOSITORY

Higher Education Services: Connectivity



SomaliREN provides members with a secure, fast, reliable and dedicated internet connection that promotes research, education, innovation and collaboration among institutions and helps them accomplish their educational and research mandates.

Internet connectivity is the primary form of intervention to enable easy collaboration among education and research institutions.

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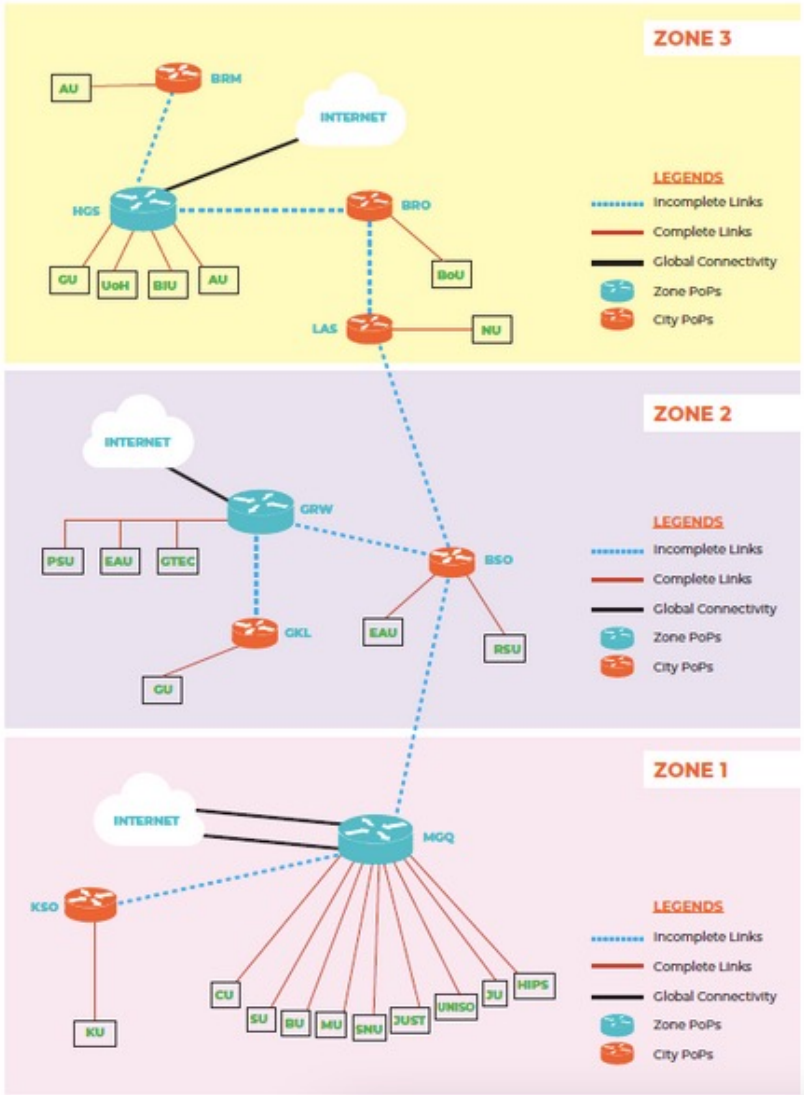
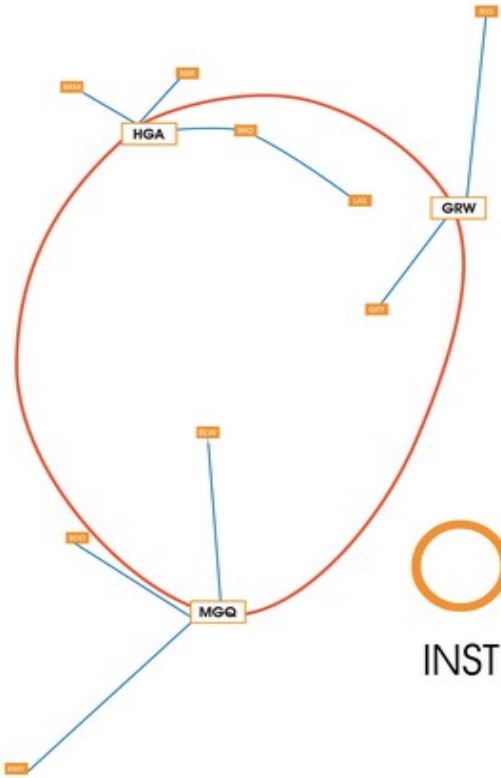
HIGH-LEVEL VIEW OF SOMALIREN NETWORK BACKBONE



SomaliREN Network Vision



Over 40

INSTITUTIONS CONNECTED

2Gbps + CAPACITY DELIVERED

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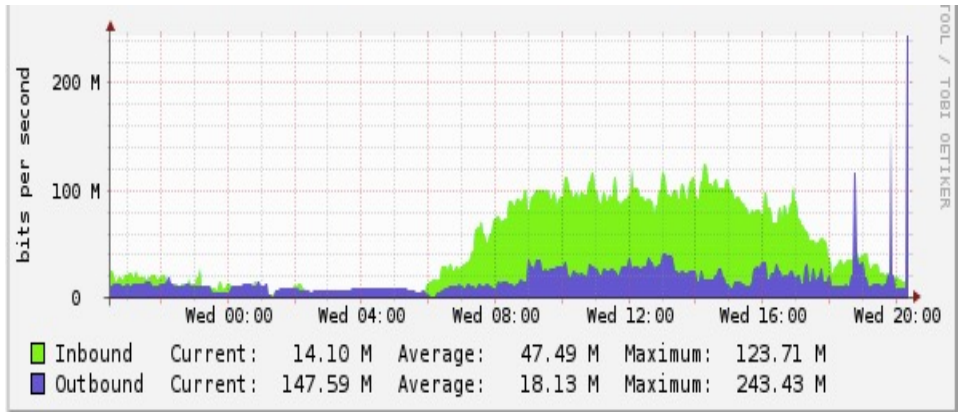
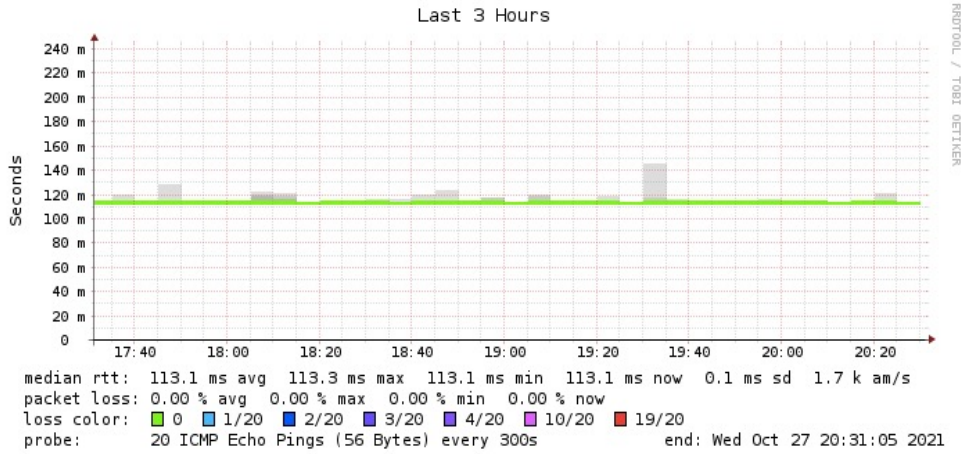
HE Services: Network Management & Monitoring

- Capacity
- Availability
- Reliability





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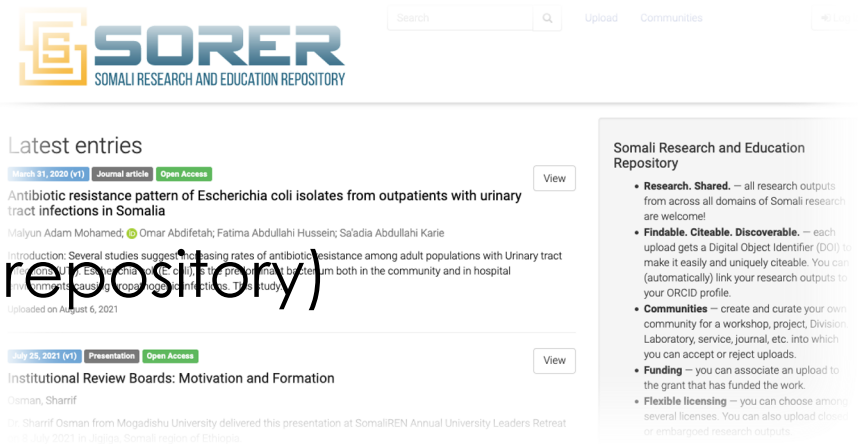
HE Services: Digital Repositories

Repositories are important for educational institutions in helping to manage and capture intellectual assets as a part of their information strategy. Digital repositories play a vital role in the duration of digital materials and offer a convenient way to store, manage, reuse and curate a variety of digital materials.

SORER features:

- (All) Research. Shared.
- Citeable. Discoverable.
- Integration with ORCID
- Communities (Create your own repository)
- Safe (More than drop box)
- Flexible Licensing



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HE Services: Trust, Identity & Security

SomaliREN Identity Federation (SIF)

Enables trustworthy exchange of information between federations without many bilateral agreements

Improves the security and end-user experience of services.

Enables identity providers to increase the number of services available to their users.

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HE Services: Trust, Identity & Security

eduroam

- Simple
- Easy
- Secure
- Worldwide WiFi
- Sign-in once and access everywhere you are
- Solution for all your mobile connectivity needs
- Available in over 100 countries.

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HE Services: Trust, Identity & Security

eduVPN

- The purpose of eduVPN is to provide a more secure access to public and private networks for the international research and education community.

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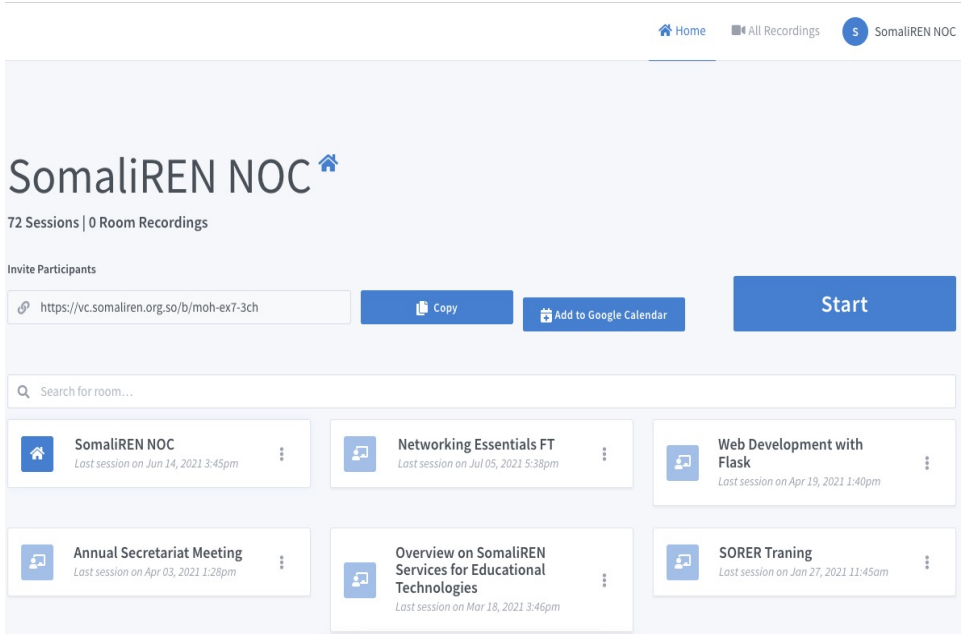
HE Services: Real-time Communications

SomaliREN Video-conferencing System

- Web conferencing system
- Online learning
- Real-time sharing of audio, video, screen
- public/private chat
- Upload of PDF and Microsoft office documents
- Interactive whiteboard
- Integration with eduGAIN/ LDAP



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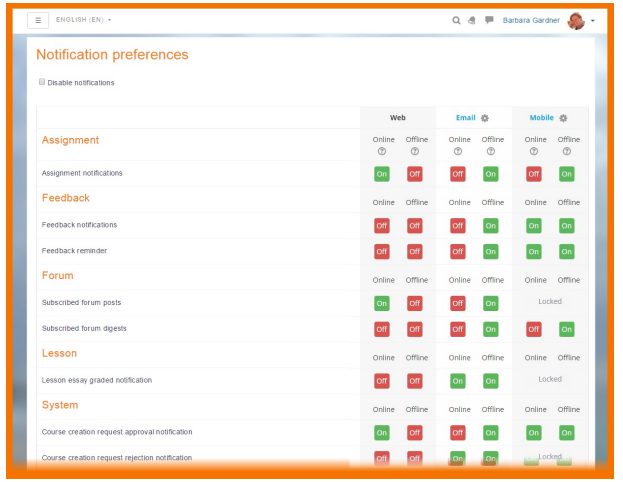
HE Services: Learning Management System

SomaliREN LMS (Moodle)

- Modern, easy to use interface
- Personalized Dashboard
- Collaborative tools and activities
- Convenient file management
- Simple and intuitive text editor
- All-in-one calendar
- Notifications
- Track progress



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HE Services: content

- **SomaliREN OCW Mirror site**
- Hosted locally for easy access
- Unlocking Knowledge
- Web-based publication of virtually all MIT course content.
- Empowering Minds
- Materials form over 2500 courses

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HE Services: File Sharing, Event& Survey Tools

File Sender

- Send large files securely and encrypted
- A fully transparent open source filesending web application
- Developed to the requirements of the higher education and research community
- Not intended as a permanent file publishing platform

Event Management

- Manage Events of different complexity
- Full conference lifecycle
- Hierarchical Protection Scheme
- Room Booking Module
- Integration with Collaborative Tools
- Open-source tool for event organization, archival and collaboration

Survey Tool

- Unlimited number of surveys at the same time
- Unlimited number of questions in a survey
- Unlimited number of participants to a survey
- Integration of pictures and movies into a survey
- Data Export Excel, CSV, SPSS, Word, PDF
- Conditions for questions depending on earlier answers (Skip Logic / Branching)

END

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