community support

Community support is all about people coming together to help each other. This can include various forms of assistance, such as supporting projects, volunteering, sharing resources, and providing information

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sdnog Hosting project story

Who We Are?

From Day One, it has always been sdnog’s goal to improve the state of inter-networking for the Sudanese community, and to provide an example for other NOGS to build on. We’ve learnt from our engagement and friends across the world, and our most fervent wish is to “give back”. To achieve this, we conducted numerous workshops, engaged in weekly activities, hosted forums, organised annual conferences, and actively participated in national IT events in Sudan, such as SDv6TF. Additionally, we took strides in developing the Sudan Internet Exchange (IX), among other initiatives. Above all, our commitment to document all plans, ideas, and reports pertaining to each activity has been paramount. By sharing our experiences in written form, we aim to enable other communities to benefit from our experience and insights.
For a comprehensive overview of all sdnog activities, please refer to our wiki page at sdnog workshops

What is Happening in Sudan?

Unfortunately, due to the prevailing conflict in Sudan, engaging in traditional NOG activities has become impractical. Workshops, events, and even online sessions are challenging for many people, as a significant portion of the population resides in areas where internet access is scarce. Additionally, a substantial number of Sudanese citizens and sdnog collaborators have fled the country and are now residing abroad.

It is a terrible thing to leave your established life behind, and I'm fortunate to work for an international organisation that allows me to work remotely from any location. This meant that when I had to flee my home, I still had income. But for many Sudanese, it has been a challenge to (a) find safety, and (b) find employment to sustain their families and loved ones. For many, this means repositioning themselves completely to find new employment and starting afresh in unfamiliar places.



How to support

Starting anew, one of the foundational building blocks of a new life is the ability to find employment. And if you've unfortunately, misplaced academic documents during your flight, it's doubly difficult. Recognising this need, we at sdnog brainstormed ways to support local universities to bring their services back online, so that displaced individuals can retrieve their academic transcripts.

Working with several friends, we have established an affordable cloud infrastructure tailored for universities and other community-serving institutions facing challenges in bringing their services online. Our aim is to provide Virtual Servers to each institution for hosting websites, running







Special Thank you!

This initiative wouldn't have been possible without the invaluable support of friends in our extended community; notably INX-ZA (https://inx.net.za), who generously agreed to assist with the setup, procurement and hosting of our infrastructure at thze Johannesburg Internet Exchange (JINX) facilities.

We would also like to extend our gratitude to the .SD registry team for their support in providing a portion of their public address space (v4 and v6) to be used in this project. This generosity ensures that our beneficiaries can access their resources remotely.

We sincerely hope that this project will positively impact many individuals and make a real difference during this challenging time that we are all currently facing. Like everything that we do, we'll provide documentation on our wiki, and, when feasible, make a detailed presentation to the community.

This project has been funded from contributions saved over the years from previous sdnog events, and donations from individuals who prefer to remain unnamed. Given the current circumstances where onsite engagements are not feasible, we have redirected this budget towards initiatives aimed to also supporting the community during these challenging times.

Let's get in touch

If you wish to contact us, please feel free to reach out via: info@sdnog.sd
and if you need any help and would like us to host some services for you; please mail us at support@sdnog.sd

Extending a Hand to Global Internet Communities - ISOC Lebanon

sdnog continues to be committed to supporting communities in need, particularly those facing challenges with internet infrastructure and domain management. Our mission is to collaborate with and provide assistance to various regional and national organizations to ensure they have the technical support and resources necessary to maintain their internet services. Recently, we were excited to begin a partnership with the Lebanon Chapter of the Internet Society (ISOC), who oversees the country code top-level domain (ccTLD) for Lebanon, .lb. This work aligns closely with our relationship with the Sudan Chapter of ISOC, which is responsible for managing the .sd domain for Sudan.

Background: The Story of .LB

The .lb ccTLD has a rich history dating back to the early days of Lebanon's internet presence. Its management by the Lebanon ISOC chapter reflects the community-driven approach that both Lebanon and Sudan have championed for their respective ccTLDs. Despite its importance to the country’s digital landscape, .lb has faced unique challenges, especially amid Lebanon’s current difficult circumstances. The Internet Society Lebanon Chapter provides a comprehensive account of the .lb domain's journey on their website, detailing its origins, growth, and the ongoing efforts to ensure its stability. You can read more about the story of .lb here.

First Steps in Collaboration

On Thursday, October 24, 2024, our team, represented by Sara Alamin and Mohamed Alfafz, held an introductory meeting with the .lb team, represented by Jack Bakaev. This initial meeting was organized by Hana Sabbagh from ISOC Lebanon. The objective was to explore how sdnog, with its expertise in domain and network management, could assist Lebanon’s ISOC chapter in addressing the current challenges.

During the meeting, Jack Bakaev shared insights into .lb’s operational history, as well as the pressing issues they are currently facing. From technical hurdles to the impact of Lebanon's economic and political climate, the team outlined various obstacles to managing the ccTLD effectively.

Moving Forward: A Plan of Action

The meeting concluded with a commitment to follow up with another call on Thursday 31 Oct 2024. that will involve additional volunteers from .lb. Our aim is to develop a concrete action plan detailing how sdnog, in partnership with the ISOC chapters, can assist in strengthening the resilience and reliability of Lebanon’s internet infrastructure. From knowledge exchange to technical assistance, sdnog stands ready to help in whatever way it can.

As we move forward, we look forward to not only supporting .lb but also reinforcing our role as a community-oriented organization dedicated to improving the internet ecosystem in the MENA region and beyond.

sdnog hosting project: infrastructure updates

Here, we share regular updates on the development, upgrades, and operational status of the infrastructure that supports the sdnog community . This includes deployments of core services, network enhancements, performance improvements, and collaborative efforts with local and international partners.

> 12 May 2025 : RAM Upgrade and Faulty DIMM Replacement on Server

The suspect DIMM in slot A2 has been removed and replaced with a 32GB module from INX. The server has now been upgraded to 32GB of RAM. Slots A2 and B2 are populated identically to maintain dual-channel memory support.

> 19 May 2025: New backup system

INX has implemented a new backup system - we're now using proxmox backup server instead of a remote NFS mount from a NAS. so yesterday i cut the sdnog hosting infrastructure over to this. i also took this chance to upgrade the backup infrastructure to 10gb/s as this was limited to 1gb/s previously.

backups are now much faster - because they are incremental (and more backend speed) - the proxmox server has 32x gold cores at 3.6ghz, caching disks, more spindles, etc. you can login to any of the server and hit "Run now" for any of the servers and you'll see this for yourself - the backup results are still being emailed to sysadmin@sdnog (attached one here)

i changed the backups storage from "keep 4 copies" to keep 14 copies because the disk space used is lower.

later this week, i'll deploy another server in a different location so that there is off-site backups; my plan is to set backups to run at 12h intervals, and create alternate backups so that morning backups (7am) stay onsite, but evening backups (7pm) go offsite. if you have better ideas, let me know.

> 28 May 2025: VM1 Stability Issue Due to Faulty DIMM

An issue has been identified with one of the two 32GB DIMMs installed in the VM1 server a few weeks ago. The server has experienced two crashes since the installation, with system logs consistently indicating a fault in DIMM B1. A replacement DIMM is being sourced to resolve the issue.

> 22 June 2025: Backup Sync Issue with Xneelo (SMR) – Fixed

There was some confusion with the backup to the Xneelo site (SMR). I recently upgraded the server and changed the Let's Encrypt key for management on the backup server. As a result, the backups to SMR failed because the SSL fingerprint no longer matched. This issue has now been fixed, and I've re-initiated the backups. Just a reminder — we run two backup setups:

- Morning (SMR)
- Evening (PKL)

Both go to different locations, so backups from yesterday are still available. Backup notifications are sent to **sysadmin@sdnog.sd**

> 30 June 2025: VM1 Stability Issue Due to Faulty DIMM

VM01 is currently offline due to issue B7 (previous incident was B1). The team is investigating. No estimated time of restoration yet; updates will follow once confirmed.

> 12 July 2025: Network and Backup Setup Updates

- The management network uplink (hosting vpn.sdnog, the hypervisor iDRAC, and vmbr0 interface) has been upgraded to 10 Gb/s.
- The connection to the backup server is now a dedicated 20 Gb/s LACP bundle (previously 10 Gb/s). Backups now run in parallel instead of serially.
- Backup verification has been enabled, improving data integrity with additional compute resources on the backup server side.
- The backup architecture has been restructured. All backups now target pbs1.pkl only; remote servers synchronize with this main backup server. This new setup offers better efficiency under PBS. Daily logs should be monitored for any failures in case pbs1.pkl becomes unavailable.
- For any related concerns and updates : sysadmin(at)sdnog(dot)sd

Project Report: Weekly Online Workshops and Sessions

To download a PDF version of this report, please click here.

31 December 2025

Introduction

As part of its commitment to supporting and building technical capacity within the community, Sudan Network Operators Group (SdNOG) implemented a comprehensive training initiative spanning six (6) months. The project goal was to deliver weekly online workshops and sessions covering a wide range of technical and career-focused topics. This initiative was launched primarily in response to the exceptional circumstances facing Sudan, and, is an extension of SdNOG's dedication to community support and capacity building.

The background to this project

The ongoing conflict in Sudan, has resulted in a fractured, and geographically dispersed, Sudanese technical community being. Meeting in person is no longer possible, yet the need to stay connected, share knowledge, and support each another has never been greater. At a time when many community members felt isolated and disconnected, SdNOG recognised that bringing people together was not only necessary for technical engagement, but also primarily important for like-minded human contact. The weekly workshops became a way to recreate a sense of community, continuity, and mutual support, ensuring that learning and collaboration, as well as simply socialising, could continue despite the challenging circumstances.

A key realisation upfront, was that building and sustaining Internet infrastructure requires a wide range of skills and perspectives. There is no single path or uniform skill level that fits everyone. We expected to host participants from different backgrounds, work environments, and stages in their careers with varying schedules and availability, but yet all eager to participate. Inclusivity, the principle that "No one should be left behind" is fundamental to our ethos.

We initially thought we would follow the traditional mentality, and arrange workshops by subject matter, and/or increasing orders of difficulty. This approach was quickly and intentionally rejected.

We believed that such structuring could unintentionally exclude parts of the community, or cause participants to disengage if a particular track did not align with their interests or availability. Instead, SdNOG made a deliberate decision to offer a broad and diverse mix of workshops across different topics and skill levels, in what might seem like an almost random schedule. This ensured that:

- Every session could appeal to someone in the community;
- Participants could join at any point without feeling left behind;
- No group felt excluded based on experience level or background;
- By avoiding firm sequencing, the program encouraged continuous engagement and reduced the risk of participants disconnecting for extended periods.

Project overview

- Project Duration: 6 months
- Frequency: Weekly online workshops and sessions, every Saturday
- Delivery Platform: Zoom (Sponsored by Global NOG Alliance)
- Target Audience: Students, recent graduates, technical professionals, and technology enthusiasts
- All the sessions were open, free and anyone could join, or watch the archived recordings later.

Workshop structure and content

The program was delivered through an approach that integrated theoretical foundations, practical sessions, and career guidance. The large majority of sessions included hands-on practical exercises, best-practice recommendations, and invaluable career roadmap sessions.

Delivery methodology

- Interactive presentations
- Live hands-on demonstrations and exercises
- Open discussions and Q&A.
- Sharing learning resources and references
- Open mic: It was common practice after every presentation to hold an “open mic” session, where participants could connect, socialise, share experiences, provide feedback, or simply say “hello” to each other. Rather than being a formal presentation, it was a chance for other participants in the session to share their insights, ideas, and provide inspiration for the group. These sessions were intentionally not recorded; whilst we wanted to build an archive of technical material for later re-use, we were also aware that many members of our community are less comfortable speaking freely, when they know they are being recorded. Accordingly, once we stopped recording, we fully expected participants to be more vocal. It is notable that many of these “open mic” sessions lasted for many hours after the formal presentation. We view this as especially meaningful, as fostering connections is one of the key goals of the SdNOG community.

Statistics

- Total number of sessions: 27 sessions
- Total training hours delivered: ~80 hours
- Total attendees: ~700 participants
- Average attendance per session: 22-30 participants
- Hands-on practical sessions: 23 sessions
- Career roadmap sessions: 3 sessions
- Targeted sessions for students and new graduates: 1 session
- Sessions duration time: 2h-4h
- Local (Sudanese) trainers/Arabic sessions: 25
- Foreign trainers/English sessions: 6

Source: https://docs.sdnog.sd/books/activities-calendar/page/workshops-schedule

Community impact

We believe that this initiative contributed to increased technical awareness, strengthened practical skills, and clearer career direction for participants. It also ensured continuity of learning despite connectivity challenges and ongoing instability. In additional, the program played an important role in developing locally produced technical content delivered by local trainers. Creating domestic technical capacity has always been a long-term goal of SdNOG, and we are proud that the figures above, show that there is a wealth of Sudanese technical talent that is ready and willing to support the growth of our community. We are especially encouraged to see many first-time trainers; often graduates of earlier SdNOG technical training programmes, step forward to contribute.From the onset, the workshops were designed to be open and accessible. SdNOG actively invited speakers and participants from both Arabic-speaking, and non-Arabic-speaking communities, reflecting the belief that the topics discussed are not specific to Sudan alone, but are relevant to the global Internet community. All sessions were delivered online and shared widely, allowing not only the Sudanese community but also participants from other NOGs and regions to benefit. This openness strengthened collaboration, knowledge exchange, and cross-community learning. This increased engagement reflects growing trust in SdNOG as a reliable platform for learning, collaboration, and professional development, and we are always eager to welcome new members to our community!

We believe that this project represents a global first, as SdNOG is the first Network Operators Group (NOG) worldwide to deliver a sustained, weekly online training program of this scale and duration under such challenging circumstances.

Community Feedback and Future Recommendations

As part of the project evaluation, feedback was collected from participants throughout the program. The feedback highlighted strong appreciation for the initiative and provided valuable recommendations for future development. The key points are summarised below:

1. Program Continuation and Expansion

Participants strongly expressed the desire for SdNOG to continue this program, with more sessions over a longer period and an increased focus on advanced-level topics.

2. Focus on Emerging and High-Demand Topics

There was significant interest in additional sessions covering current and in-demand areas, particularly:

- DevOps and Cloud Technologies;
- Network Security;
- Artificial Intelligence (AI).

3. Certified Training Opportunities

Many participants recommended that SdNOG explore opportunities to collaborate with external organisations or training providers to deliver certified courses. Access to structured training programs with recognised certifications would greatly enhance participants' career development.

4. Certification Exam Support and Vouchers

Participants also highlighted the need for support in accessing certification exams. Providing exam vouchers or discounts would be highly beneficial, as many community members are actively working to obtain certifications, build their careers, and access learning materials.

Access to Learning Materials and Recordings

All workshop materials, presentation slides, and session recordings are publicly available on the SdNOG Wiki at https://docs.sdnog.sd/books/activities-calendar/page/workshops-schedule.
This ensures long-term access to the content, supports self-paced learning, and allows a wider audience to benefit from the knowledge shared during the program beyond the live sessions.

Acknowledgements

SdNOG extends its sincere appreciation to all trainers, volunteers, organisers, partners, and participants who contributed to the success of this initiative. Their commitment and collaboration were essential to the continuity and impact of the project.

Special thanks are extended to the Global NOG Alliance, which generously provided access to its Zoom platform, enabling SdNOG to host, record, and stream all sessions delivered as part of this program. This support played a critical role in ensuring the accessibility, continuity, and quality of the weekly workshops

Conclusion

This project demonstrates SdNOG’s commitment to sustainable capacity building and community empowerment. It highlights the importance of consistent, high-quality technical education and establishes a replicable model for other NOG communities worldwide.

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